## WORLDWIDE LOCATIONS


### Sumitomo Machinery Corporation of America
**Headquarters & Manufacturing**

4200 Holland Boulevard
Chesapeake, VA 23323
**Tel: +1-757-485-3355 • 1-800-SMCYCLO**
**Fax: +1-757-485-7490**

www.sumitomodrive.com
E-mail: customercare@suminet.com

### U.S. Sales and Support

Chicago (Midwest)
Sumitomo Machinery Corporation of America
175 West Lake Drive
Glendale Heights, IL 60139
Tel: +1-630-752-0200 • 1-800-SMCYCLO
Fax: +1-630-752-0208

Los Angeles (West)
Sumitomo Machinery Corporation of America
2375 Railroad Street
Corona, CA 92880-5411
Tel: +1-951-340-4100 • 1-800-SMCYCLO
Fax: +1-951-340-4108

### Canada

Toronto (East)
SM-Cyclo of Canada, Ltd.
1045 South Service Road, West
Oakville, Ontario, Canada L6L 6K3
Tel: +1-905-469-1050 • Fax: +1-905-469-1055

Vancouver (West)
SM-Cyclo of Canada, Ltd.
740 Chester Road, Annacis Island, Delta
B.C., Canada V3M 6J1
Tel: +1-604-525-5403 • Fax: +1-604-525-0879

Montreal
SM-Cyclo of Canada, Ltd.
2862 Blvd. Daniel-Johnson
Laval, Quebec, Canada H7P 5Z7
Tel: +1-450-686-8808 • Fax: +1-450-686-8000

### Mexico

Monterrey
SM-Cyclo de Mexico, S.A. de C.V.
Av. Desarrollo No. 541
Parque Industrial Finsa
Guadalupe, N.L., Mexico CP 67114
Tel: +52-81-8144-5130 • Fax: +52-81-8369-3699

Mexico City
SM-Cyclo de Mexico, S.A. de C.V.
Privada Ceylan No. 59-B Bis
Colonia Industrial Vallejo
Delegacion Azcapotzalco, DF Mexico 02300
Tel: +52-55-5368-7172 • Fax: +52-55-5368-6699

Guadalajara
SM-Cyclo de Mexico S.A. de C.V.
Calle Broca No. 2605, Bodega 4
Parque Alamo Industrial
Tlaqepaque, JAL, Mexico 44490
Tel: +52-33-3675-43-69 • Fax: +52-33-3675-4418

### Brazil

São Paulo
Sumitomo Indústrias Pesadas do Brasil Ltda.
Rod. Archimedes Lammoglia (SP-075) - Km 26
Jardim Oliveira - Itú, SP, 13312-500
São Paulo, Brazil
Tel: +55-11-4403-9292 • Fax: +55-11-4403-9292

### Chile

Santiago
SM Cyclo de Chile Ltda.
San Pablo 3507
Comuna de Quinta Normal - Santiago, Chile
Tel: +56-2892-7000 • Fax: +56-2892-7001

Antofagasta
SM Cyclo de Chile Ltda.
Calle 8, Manzana N2, Sitio 1
Sector La Negra, Antofagasta, Chile
Tel: +56-5556-1611 • Fax: +56-5556-1616

Concepción
SM Cyclo de Chile Ltda.
Camino a Coronel Km 10, #5580, Modulo 3-A
Comuna: San Pedro de la Paz – Concepción, Chile
Tel: +41-246-98-06/07 • Fax: +41-246-98-08

### Argentina

Buenos Aires
SM-Cyclo de Argentina SA
Ing. Delpini #2236
Area de Promocion el Triangulo, Partido Malvinas Argentinas
Grand Bourg, Buenos Aires, Argentina B1615KGB
Tel: +54-11-4765-5332 • Fax: +54-11-4765-5517

### Europe

Austria
Belgium
France
Germany
Italy
Spain
Sweden
United Kingdom

### Asia

China
Hong Kong
Indonesia
Korea
Malaysia
Philippines
Singapore
Taiwan
Thailand
Vietnam

### Other Locations

Australia
India
New Zealand

### World Headquarters

Japan
Sumitomo Heavy Industries, Ltd.
Power Transmission & Controls Group
ThinkPark Tower, 1-1, Osaki 2-chome,
Shinagawa-ku, Tokyo 141-6025 Japan
Tel: +81-367-37-2511 • Fax: +81-368-66-5160



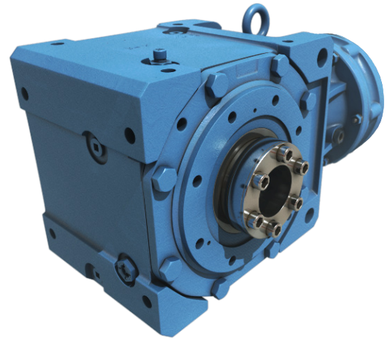
Catalog 03.604.50.001


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Sumitomo Drive Technologies

Cyclo® BBB4 BEVEL BUDDYBOX® Reducers

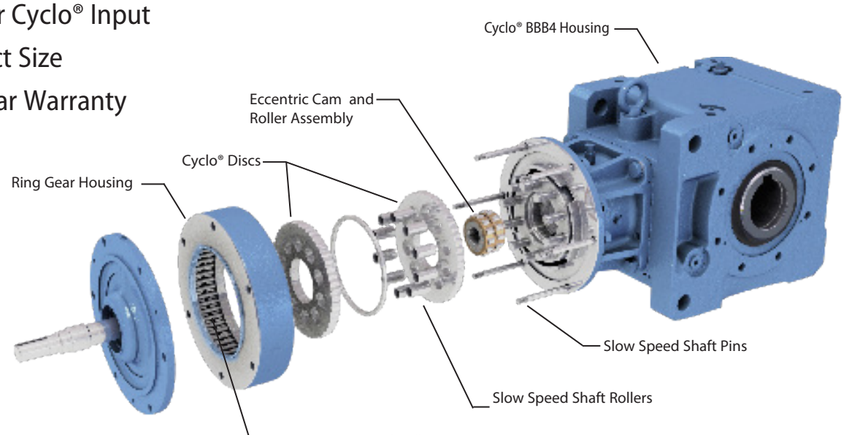
Sumitomo Drive Technologies



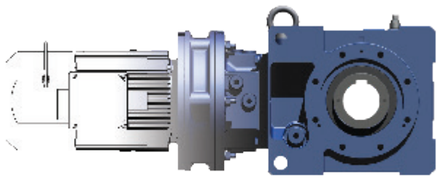
# Cyclo® BBB4
# BEVEL BUDDYBOX®
## Speed Reducers

# Cyclo® BBB4 Bevel Buddybox®

- Rugged Spiral Bevel Output
- Modular Cyclo® Input
- Compact Size
- Two-Year Warranty




Use our online product configurator to build a Cyclo® BBB4 to fit your application. See inside back cover for further details. Configure your Cyclo® BBB4 today at **www.sumitomodrive.com/configurator**



To request a catalog, or for more information on any of our high quality products, please visit our website:

**www.sumitomodrive.com**



**Cyclo®**
Highly reliable, Torque Dense Cycloidal Speed Reducers and Gearmotors in 23 standard sizes.



**Cyclo® BBB5**
Right Angle, Spiral Bevel Gearbox with Cyclo® Reducer Input.



**Hyponic®**
Features all-steel hypoid gear design, maintenance-free grease lubrication and high efficiency operation.



**Cyclo® HBB**
Parallel Shaft, Helical Gearbox with Cyclo® Reducer Input; features keyless, steel Taper-Grip® Bushing for easy mounting.



**HSM**
Helical Shaft Mounted Speed Reducer available with CEMA Screw Conveyor Drive Option.



**Paramax® 9000**
Right Angle and Offset Parallel Industrial Gearboxes in Universal Housing.

## Trying to select a drive? Need more technical specifications? Need pricing?

Configurator

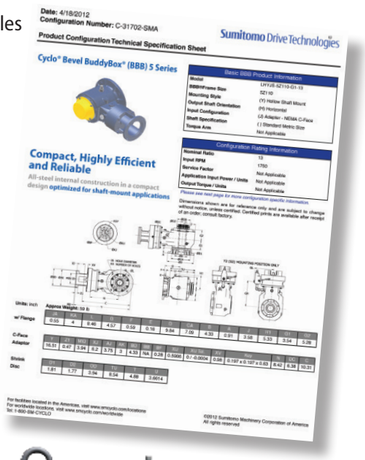
Sumitomo Drive Technologies' online product Configurator streamlines the selection process, enabling you to build our power transmission products for your specific application*.

Available 24 hours a day, 7 days a week, registered users quickly receive results that include:

- Downloadable 2D and 3D CAD files
- Product literature
- Technical specification sheet
- Product ratings
- Request for quote**
- Quotations**

This unique interactive tool is one more reason Sumitomo Drive Technologies is the world's premier power transmission and control solutions provider.

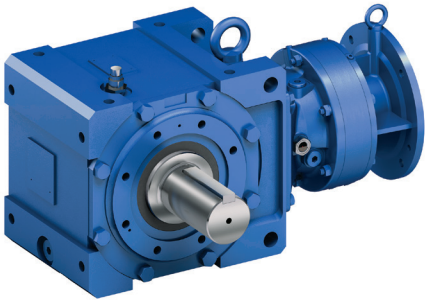
** Not all products are available for configuration*
*** Not available for all regions.*

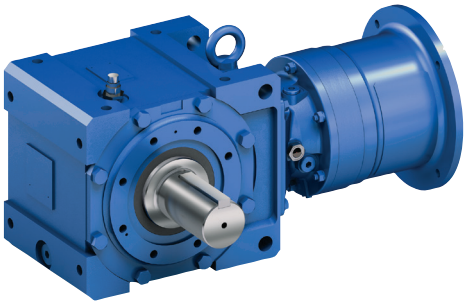


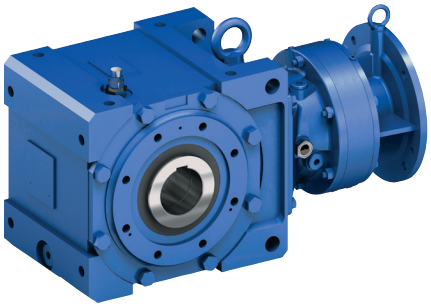



Configure your Cyclo® BBB4 today at www.sumitomodrive.com/Configurator

Explore the rest of the Sumitomo product line on www.sumitomodrive.com







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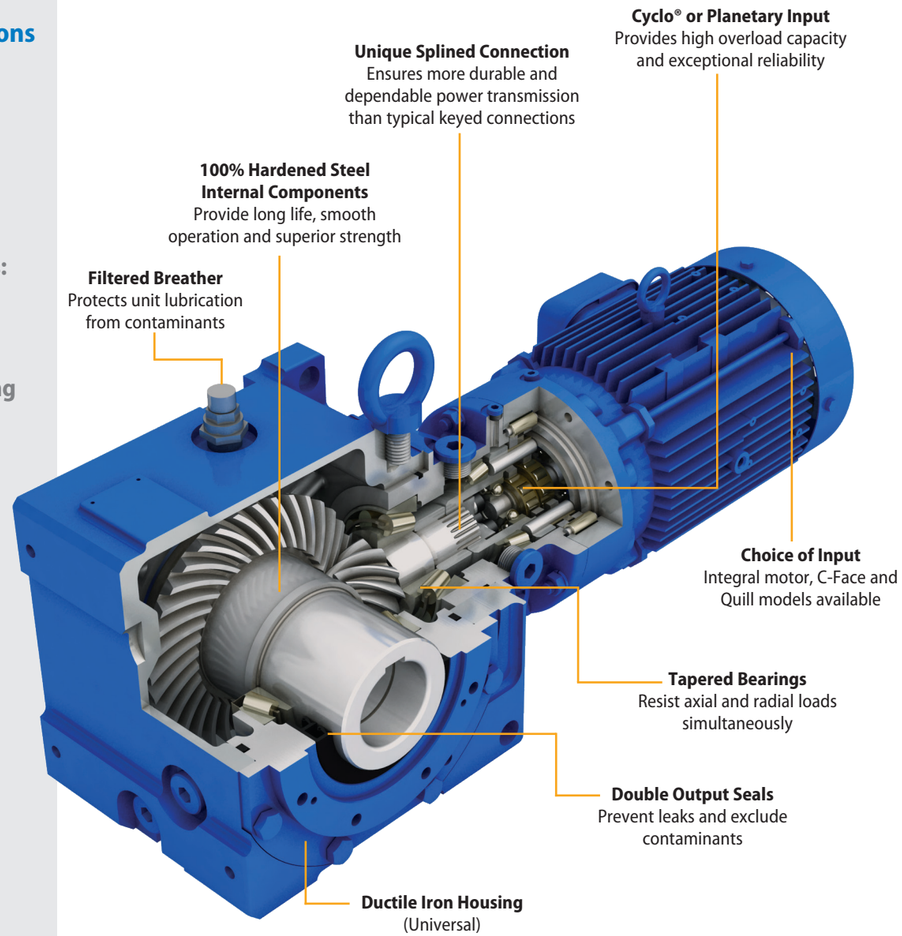



# Cyclo® BBB4 Bevel Buddybox

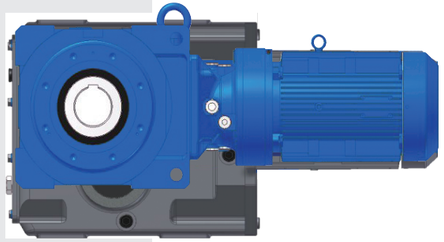
Right Angle Spiral Bevel Gearbox
with Cyclo® Reducer Input

## Flexible configurations

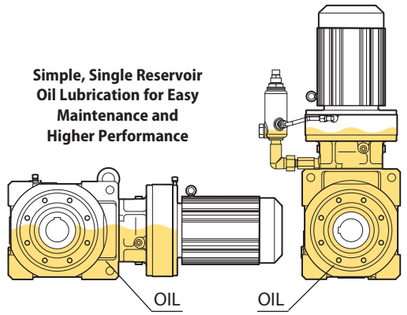
- Shaft Options:
  - Keyed Hollow
  - Shrink Disc
  - Solid Shaft
  - (Keyless) Taper-Grip® Bushing
- Mounting Options:
  - Flange
  - Foot
  - Shaft
  - Universal Housing




**More Compact, Space-Saving Design Than Typical Right-Angle Gearboxes**



**Simple, Single Reservoir Oil Lubrication for Easy Maintenance and Higher Performance**




## Product Description

**The Cyclo® Bevel Buddy Box 4** (Cyclo® BBB4) built by Sumitomo is a robust, state of the art mid-sized all steel family of speed reducers and gearmotors. Building on more than 75 years of successful Cyclo® experience in virtually every application and industry, The result is an extremely compact, efficient and reliable unit in a very power-dense package. The Cyclo® BBB4 is a unique combination of features that results in a highly reliable, efficient and durable gearbox. The all-steel internal construction, in conjunction with the Cyclo® or planetary gear inputs, and ductile iron housing provide unmatched ruggedness.

In addition, the full array of input accessories and output mounting styles provides an amazing ability to customize the product to fit nearly any requirement. These options include solid shaft, hollow bore, shrink disc, free input shaft, integral motor, and C-Face adapter.

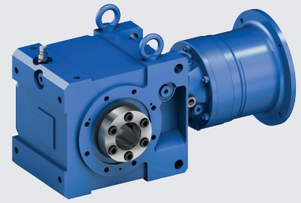
## Features & Benefits

- **100% Hardened Steel Rotating Components**
  - ~ Provide high efficiency, long life and exceptional reliability
- **Cycloidal or Planetary Input**
  - ~Unmatched capability to handle overloads
- **Double Output Seals**
  - ~Four seal lips on every unit virtually eliminates the possibility of leaks
- **Dimensionally Interchangeable with BBB3**
  - ~ Simple, economical retrofits
- **Patented Taper-Grip® Bushing**
  - ~ Simple, keyless shaft mounting
- **Two year warranty**
  - ~ Not limited by hours of operation or duty cycles

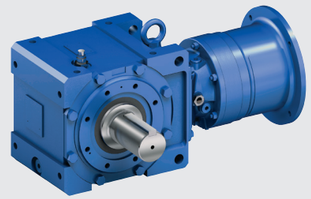
## Specifications Summary

| | |
|---|---|
| **Ratios:** | 11:1 to 26,000:1 and greater |
| **Torque Capacity:** | 159,983 in. lbs. *(17,400N•m)* |
| **HP:** | 1/8 to 100 *(0.10 to 75 kW)* |
| **Mounting:** | Hollow Shaft, Foot, Flange, Face |
| **Options:** | Integral Motor, C-Face, Quill, Shrink Disc and Shovel Base |
| **Motor Standards:** | NEMA, IEC, JIS, UL, CSA, CE |

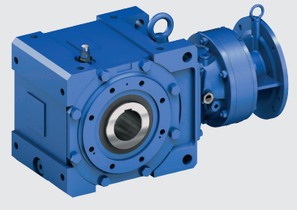
## Popular Input and Output Options



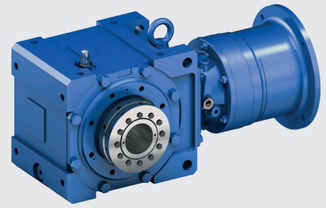
Taper-Grip® Bushing
Inch and Metric Sizes



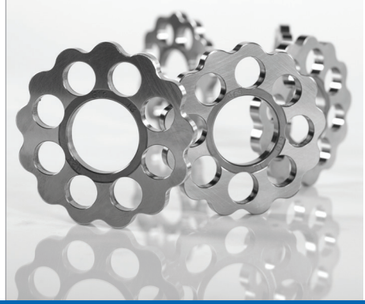
Solid Output Shaft
Inch and Metric Sizes



Keyed Hollow Bore
Inch and Metric Sizes



Shrink Disk
Inch and Metric Sizes



## Cyclo® Quality and Reliability, Right Angle Design

- High performance steel input components deliver **up to 94% efficiency**
- Cycloidal technology offers **reliable operation, long life and high shock load capacity**



# Product Range (Standard Motor and Reducer Combinations)

## Reduction Ratios 11 - 417

**Combinations with 1450 and 1750 RPM motor**

| Input Type | Planetary | | | | | Cyclo | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 |
| Actual Ratio | * | * | * | * | * | 21 | 22.4 | 24.5 | 28 | 35.2 | 38.5 | 45.5 | 52.5 | 59.5 | 67.2 | 73.5 | 80 | 87.5 | 101.5 | 112 | 122.5 | 150.5 | 178.5 | 206.5 | 248.5 | 304.5 | 416.5 |
| Actual Output RPM 50 Hz | 138 | 113 | 104 | 90.6 | 82.9 | 69.0 | 64.7 | 59.2 | 51.8 | 41.2 | 37.7 | 31.9 | 27.6 | 24.4 | 21.6 | 19.7 | 18.1 | 16.6 | 14.3 | 12.9 | 11.8 | 9.63 | 8.12 | 7.02 | 5.84 | 4.76 | 3.48 |
| Actual Output RPM 60 Hz | 167 | 137 | 125 | 109 | 100 | 83.3 | 78.1 | 71.4 | 62.5 | 49.7 | 45.5 | 38.5 | 33.3 | 29.4 | 26.0 | 23.8 | 21.9 | 20.0 | 17.2 | 15.6 | 14.3 | 11.6 | 9.80 | 8.47 | 7.04 | 5.75 | 4.20 |
| Motor Power HP (kW) 1/8 (0.1) | | | | | | | | | | | | | | | | | | | | | | | ● | | | | ● |
| 1/4 (0.2) | | | | | | | | | | | | | | | | | | | | | | | ● | ● | ● | ● | ● |
| 1/3 (0.25) | | | | | | | | | | | | | | | | | | | | | | | ● | ● | ● | ● | ● |
| 1/2 (0.4) | | | | | | | | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | |
| 3/4 (0.55) | | | | | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| 1 (0.75) | | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| 1.5 (1.1) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| 2 (1.5) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| 3 (2.2) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| 5 (3.7) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| 7.5 (5.5) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| 10 (7.5) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| 15 (11) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| 20 (15) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| 25 (18.5) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | |
| 30 (22) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| 40 (30) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | |
| 50 (37) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | | |
| 60 (45) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | |
| 75 (55) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | | | |

* Refer to the table shown at the bottom of this page

## Reduction Rations 364 - 10658

**Combinations with 1450 and 1750 RPM motor**

| Input Type | Cyclo | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 |
| Actual Ratio | 364 | 423.5 | 500.5 | 577.5 | 682.5 | 808.5 | 955.5 | 1116.5 | 1319.5 | 1655.5 | 1956.5 | 2271.5 | 2558.5 | 2943.5 | 3510.5 | 4364.5 | 5176.5 | 6471.5 | 7227.5 | 8879.5 | 10657.5 |
| Actual Output RPM 50 Hz | 3.98 | 3.42 | 2.90 | 2.51 | 2.12 | 1.79 | 1.52 | 1.30 | 1.10 | 0.876 | 0.741 | 0.638 | 0.567 | 0.493 | 0.413 | 0.332 | 0.280 | 0.224 | 0.201 | 0.163 | 0.136 |
| Actual Output RPM 60 Hz | 4.81 | 4.13 | 3.50 | 3.03 | 2.56 | 2.16 | 1.83 | 1.57 | 1.33 | 1.06 | 0.894 | 0.770 | 0.684 | 0.595 | 0.499 | 0.401 | 0.338 | 0.270 | 0.242 | 0.197 | 0.164 |
| Motor Power HP (kW) 1/8 (0.1) | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 1/4 (0.2) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 1/3 (0.25) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 1/2 (0.4) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| 3/4 (0.55) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | |
| 1 (0.75) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| 1.5 (1.1) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | |
| 2 (1.5) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | | |
| 3 (2.2) | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | |
| 5 (3.7) | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | | | |
| 7.5 (5.5) | ● | ● | ● | | | | | | | | | | | | | | | | | | |
| 10.5 (7.5) | ● | | | | | | | | | | | | | | | | | | | | |

○ Standard efficiency motor
● Premium efficiency or IE3 motor

* Planetary Actual Ratio

| Nominal Ratio | BBB Frame Size | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4A10 | 4A12 | 4A14 | 4B14 | 4B16 | 4C16 | 4D16 | 4D17 | 4E17 | 4E18 | 4F18 | 4E19 | 4F19 |
| 11 | 10.50 | | 10.89 | | 10.85 | | | | | 10.50 | | 10.82 | |
| 13 | 12.99 | 12.80 | 12.95 | | 12.80 | | | 13.09 | | | | 13.01 | |
| 14 | 14.21 | 14.00 | 14.16 | | 14.00 | | | 14.32 | | | | 14.23 | |
| 16 | 15.36 | 15.65 | 16.00 | | 16.26 | | | 16.17 | | 15.63 | | 15.47 | |
| 18 | 16.80 | 17.12 | 17.50 | | 17.78 | | | 17.68 | | 17.10 | | 16.92 | |





# FAQs

**How do I select a Cyclo® BBB4 speed reducer or gearmotor?**
Selection is based on the actual horsepower and/or torque requirements at the output shaft. The Cyclo® BBB4 speed reducer has particularly high efficiencies over a wide range of reduction ratios, which frequently permits the use of reduced input power requirements (smaller HP or *kW* motor) without sacrificing output shaft torque. The selection procedures in this catalog will guide you in choosing the most efficient reducer for your application.

**What information do I need to get started in the selection process?**
To select the proper reducer for your application, you will need to know:

- Application: type of driven machine
- Hours of operation per day
- Motor power (HP or *kW*) and speed (RPM)
- Mounting position
- Environmental conditions
- Ambient temperature range

If there are any special environmental factors or operation requirements, they must also be noted. This information will be important in determining the Service Factor of your application.

**What is the difference between BBB4 and BBB5?**
The BBB4 is more rugged by virtue of its stronger ductile iron housing, which has multiple mounting surfaces and is offered in numerous variants, including foot mount and solid shaft. The BBB5 is optimized for a minimal space envelope and shaft mounted applications.

**What are Service Factors and how are they used?**
In general, reducers and gearmotors are rated for the specific conditions and operating requirements of the application by the use of AGMA-defined Service Factors. There are three AGMA load classifications for reducers: uniform (U), moderate shock (M) and heavy shock (H) (page 2.6) and three AGMA load classifications for gearmotors: I, II and III (pages 3.6–3.7). The Service Factors are used in the product selection process to adjust for the specific conditions and operating requirements of your application.

**What do I do if my application has particularly severe operating conditions?**
The standard ratings for Cyclo® BBB4 are based on 10-hour daily service under conditions of uniform loads (equivalent to AGMA service factor 1.0). By following the product selection process, you will determine and apply the Service Factors to compensate for the severe operating conditions.

**How can I be sure that the reducer can withstand periodic excessive overloads?**
Cyclo® BBB4 Speed Reducers can provide solutions with extraordinary shock load capabilities. For applications with high shock loads, consult a Sumitomo Applications Engineer.

**What are the standard input speeds?**
In general terms, the speeds are 1750 and 1450 RPM. The selection tables in this catalog are based on 1750 RPM incrementally down to 50 RPM. When non-standard input speeds are used, the horsepower and torque ratings also vary.

**What thermal capacity limitations does the Cyclo® BBB4 have?**
The Cyclo® speed reducer, by virtue of its smooth, almost frictionless operation (unlike traditional helical gears), has a thermal rating that far exceeds its mechanical capacity and all but eliminates the conventional limitations due to heat.

**What are the advantages of the Taper-Grip® bushing?**
The Taper-Grip® bushing is integral to the Cyclo® BBB4 and provides for easy mounting and removal to and from the shaft of the driven machine. Because it requires no keyway, the shaft isn't weakened and maximum torque is transmitted.

**What are the advantages of a shrink disc?**
The shrink disc provides for easy mounting and removal to and from the shaft of the driven machine. Because it requires no keyway, the shaft isn't weakened and maximum torque is transmitted.

**What kind of torque arm do I specify? At what position should I mount it?**
The standard torque arm assembly supplied is a Turnbuckle type as shown on page 3.6. The torque arm should be mounted at 90 degrees to a line from the point of attachment to the reducer and the center of the output bore with up to 30 degrees plus or minus variance. A bracket type torque arm is also offered as a non-stock option.

# Standard Specifications

## Reducer

| | |
|---|---|
| Reduction: | Combination of Cyclo® input and right angle spiral bevel gear output. |
| Lubrication: | In all mounting configurations except Y4, the Cyclo and Bevel portions are oil lubricated. For the Y4 mounting configuration, the Cyclo portion is grease lubricated and the bevel portion is oil lubricated. |
| Seals: | Nitrile material, dual lipped. |
| Material: | Rugged ductile cast iron housings in all sizes. |
| Paint Color: | Blue, Munsell color number 6.5PB 3.6/8.2 |
| Bearings: | Tapered roller bearings on geared output of all sizes.<br>Ball bearings on Cyclo® input. |

## Ambient Conditions

| | |
|---|---|
| Installation Location: | Indoors (Minimal dust and humidity) |
| Ambient Temperature: | 14°~104° F *(-10° ~ 40° C)* |
| Ambient Humidity: | Under 85% |
| Elevation: | Under 3,281 ft. *(1000 meters)* |
| Atmosphere: | Well ventilated location, free of corrosive gases, explosive gases, vapors and dust. |

## Shaft Rotation

On single reduction Cyclo® BBB4 speed reducers, ratios 11 through 417, the slow speed shaft rotates in a reverse direction to that of the high speed shaft.

On double reduction units, ratios 364 through 26,492, both the high speed and the slow speed shaft rotate in the same direction.

## Input Speeds

In general terms, the standard input speeds of single reduction units are 1750 and 1450 RPM. When non-standard input speeds are used, the power and torque ratings will also vary.

## Thermal Capacity

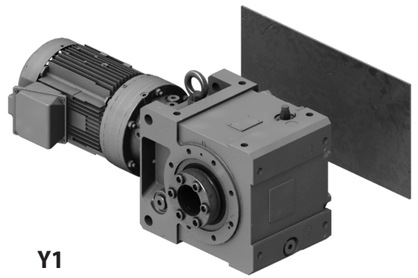
The Cyclo® BBB4 speed reducer's smooth, almost frictionless operation all but eliminates the conventional limitations due to heat. In all sizes, Cyclo® BBB4 speed reducers have thermal ratings that exceed their mechanical capacity.



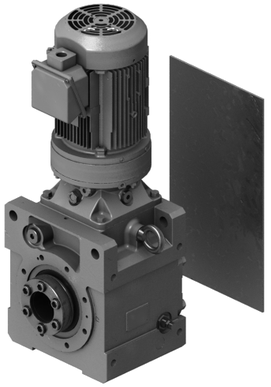


# Mounting Positions

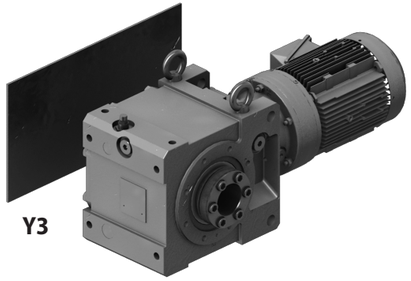
Note: 1. Mounting positions are shown with standard (Taper Grip Bushing) output option.
2. The plane of reference represents the location of customer's equipment.



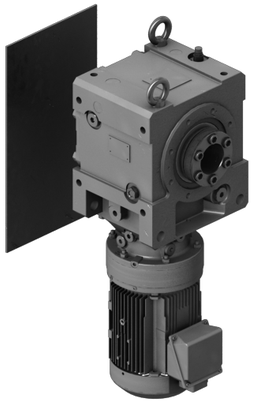
Y1



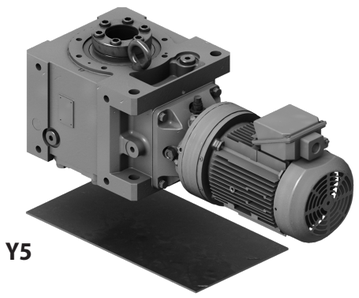
Y2



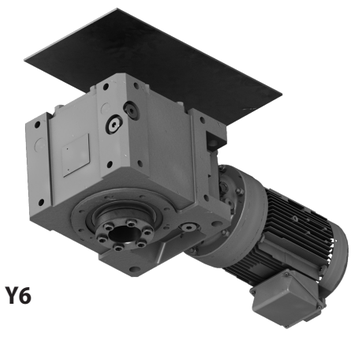
Y3



Y4



Y5



Y6

# Optional Nominal and Exact Ratios

| Single Reduction | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Ratio | Overall | 19 | 26 | 42 | 48 | 54 | 93 | 138 | 163 | 189 | 227 | 278 |
| | Input | 6 | 8 | 13 | 15 | 17 | 29 | 43 | 51 | 59 | 71 | 87 |
| Exact Ratio | Overall | 19.2 | 25.6 | 41.6 | 48 | 54.4 | 92.8 | 137.6 | 163.2 | 188.8 | 227.2 | 278.4 |
| | Output | 3.2 | | | | | | | | | | |
| | Input | 6 | 8 | 13 | 15 | 17 | 29 | 43 | 51 | 59 | 71 | 87 |

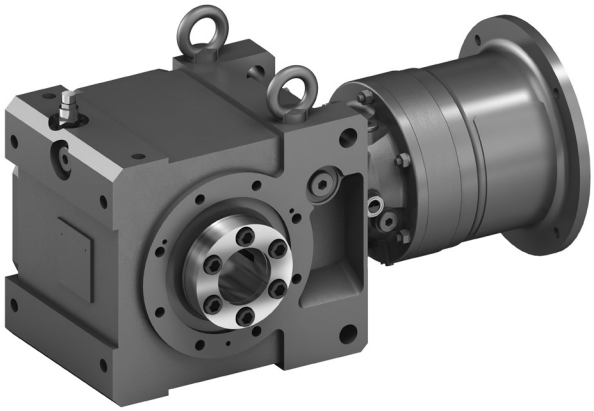
| Double Reduction | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Ratio | Overall | 387 | 403 | 420 | 435 | 441 | 458 | 476 | 525 | 528 | 538 | 541 | 557 | 588 | 598 |
| | Input | 121 | 126 | 120 | 136 | 126 | 143 | 136 | 150 | 165 | 168 | 169 | 174 | 168 | 187 |
| Exact Ratio | Overall | 387.2 | 403.2 | 420.0 | 435.2 | 441.0 | 457.6 | 476.0 | 525.0 | 528.0 | 537.6 | 540.8 | 556.8 | 588.0 | 598.4 |
| | Output | 3.2 | 3.2 | 3.5 | 3.2 | 3.5 | 3.2 | 3.5 | 3.5 | 3.2 | 3.2 | 3.2 | 3.2 | 3.5 | 3.2 |
| | Input | (11 x 11) | (21 x 6) | (15 x 8) | (17 x 8) | (21 x 6) | (13 x 11) | (17 x 8) | (25 x 6) | (15 x 11) | (21 x 8) | (13 x 13) | (29 x 6) | (21 x 8) | (17 x 11) |
| Nominal Ratio | Overall | 609 | 624 | 640 | 655 | 672 | 707 | 720 | 739 | 774 | 788 | 812 | 816 | 826 | 874 |
| | Input | 174 | 195 | 200 | 187 | 210 | 221 | 225 | 231 | 221 | 225 | 232 | 255 | 258 | 273 |
| Exact Ratio | Overall | 609.0 | 624.0 | 640.0 | 654.5 | 672.0 | 707.2 | 720.0 | 739.2 | 773.5 | 787.5 | 812.0 | 816.0 | 825.6 | 873.6 |
| | Output | 3.5 | 3.2 | 3.2 | 3.5 | 3.2 | 3.2 | 3.2 | 3.2 | 3.5 | 3.5 | 3.5 | 3.2 | 3.2 | 3.2 |
| | Input | (29 x 6) | (15 x 13) | (25 x 8) | (17 x 11) | (35 x 6) | (17 x 13) | (15 x 15) | (21 x 11) | (17 x 13) | (15 x 15) | (29 x 8) | (17 x 15) | (43 x 6) | (21 x 13) |
| Nominal Ratio | Overall | 893 | 896 | 903 | 925 | 963 | 980 | 1008 | 1012 | 1021 | 1040 | 1071 | 1103 | 1138 | 1142 |
| | Input | 255 | 280 | 258 | 289 | 275 | 280 | 315 | 289 | 319 | 325 | 306 | 315 | 325 | 357 |
| Exact Ratio | Overall | 892.5 | 896.0 | 903.0 | 924.8 | 962.5 | 980.0 | 1008.0 | 1011.5 | 1020.8 | 1040.0 | 1071.0 | 1102.5 | 1137.5 | 1142.4 |
| | Output | 3.5 | 3.2 | 3.5 | 3.2 | 3.5 | 3.5 | 3.2 | 3.5 | 3.2 | 3.2 | 3.5 | 3.5 | 3.5 | 3.2 |
| | Input | (17 x 15) | (35 x 8) | (43 x 6) | (17 x 17) | (25 x 11) | (35 x 8) | (21 x 15) | (17 x 17) | (29 x 11) | (25 x 13) | (51 x 6) | (21 x 15) | (25 x 13) | (21 x 17) |
| Nominal Ratio | Overall | 1200 | 1204 | 1206 | 1232 | 1239 | 1250 | 1306 | 1313 | 1348 | 1360 | 1392 | 1411 | 1428 | 1456 |
| | Input | 375 | 344 | 377 | 385 | 354 | 357 | 408 | 375 | 385 | 425 | 435 | 441 | 408 | 455 |
| Exact Ratio | Overall | 1200.0 | 1204.0 | 1206.4 | 1232.0 | 1239.0 | 1249.5 | 1305.6 | 1312.5 | 1347.5 | 1360.0 | 1392.0 | 1411.2 | 1428.0 | 1456.0 |
| | Output | 3.2 | 3.5 | 3.2 | 3.2 | 3.5 | 3.5 | 3.2 | 3.5 | 3.5 | 3.2 | 3.2 | 3.2 | 3.5 | 3.2 |
| | Input | (25 x 15) | (43 x 8) | (29 x 13) | (35 x 11) | (59 x 6) | (21 x 17) | (51 x 8) | (25 x 15) | (35 x 11) | (25 x 17) | (29 x 15) | (21 x 21) | (51 x 8) | (35 x 13) |
| Nominal Ratio | Overall | 1488 | 1510 | 1514 | 1523 | 1544 | 1578 | 1593 | 1652 | 1670 | 1680 | 1726 | 1789 | 1795 | 1818 |
| | Input | 425 | 472 | 473 | 435 | 441 | 493 | 455 | 472 | 522 | 525 | 493 | 559 | 561 | 568 |
| Exact Ratio | Overall | 1487.5 | 1510.4 | 1513.6 | 1522.5 | 1543.5 | 1577.6 | 1592.5 | 1652.0 | 1670.4 | 1680.0 | 1725.5 | 1788.8 | 1795.2 | 1817.6 |
| | Output | 3.5 | 3.2 | 3.2 | 3.5 | 3.5 | 3.2 | 3.5 | 3.5 | 3.2 | 3.2 | 3.5 | 3.2 | 3.2 | 3.2 |
| | Input | (25 x 17) | (59 x 8) | (43 x 11) | (29 x 15) | (21 x 21) | (29 x 17) | (35 x 13) | (59 x 8) | (87 x 6) | (35 x 15) | (29 x 17) | (43 x 13) | (51 x 11) | (71 x 8) |
| Nominal Ratio | Overall | 1827 | 1838 | 1904 | 1949 | 1964 | 1988 | 2000 | 2064 | 2077 | 2083 | 2132 | 2188 | 2227 | 2258 |
| | Input | 522 | 525 | 595 | 609 | 561 | 568 | 625 | 645 | 649 | 595 | 609 | 625 | 696 | 645 |
| Exact Ratio | Overall | 1827.0 | 1837.5 | 1904.0 | 1948.8 | 1963.5 | 1988.0 | 2000.0 | 2064.0 | 2076.8 | 2082.5 | 2131.5 | 2187.5 | 2227.2 | 2257.5 |
| | Output | 3.5 | 3.5 | 3.2 | 3.2 | 3.5 | 3.5 | 3.2 | 3.2 | 3.2 | 3.5 | 3.5 | 3.5 | 3.2 | 3.5 |
| | Input | (87 x 6) | (35 x 15) | (35 x 17) | (29 x 21) | (51 x 11) | (71 x 8) | (25 x 25) | (43 x 15) | (59 x 11) | (35 x 17) | (29 x 21) | (25 x 25) | (87 x 8) | (43 x 15) |
| Nominal Ratio | Overall | 2320 | 2339 | 2352 | 2436 | 2448 | 2454 | 2499 | 2538 | 2573 | 2678 | 2685 | 2691 | 2734 | 2774 |
| | Input | 725 | 731 | 735 | 696 | 765 | 767 | 781 | 725 | 735 | 765 | 767 | 841 | 781 | 867 |
| Exact Ratio | Overall | 2320.0 | 2339.2 | 2352.0 | 2436.0 | 2448.0 | 2454.4 | 2499.2 | 2537.5 | 2572.5 | 2677.5 | 2684.5 | 2691.2 | 2733.5 | 2774.4 |
| | Output | 3.2 | 3.2 | 3.2 | 3.5 | 3.2 | 3.2 | 3.2 | 3.5 | 3.5 | 3.5 | 3.5 | 3.2 | 3.5 | 3.2 |
| | Input | (29 x 25) | (43 x 17) | (35 x 21) | (87 x 8) | (51 x 15) | (59 x 13) | (71 x 11) | (29 x 25) | (35 x 21) | (51 x 15) | (59 x 13) | (29 x 29) | (71 x 11) | (51 x 17) |
| Nominal Ratio | Overall | 2800 | 2832 | 2890 | 2954 | 3035 | 3062 | 3063 | 3098 | 3161 | 3210 | 3231 | 3248 | 3350 | 3408 |
| | Input | 875 | 885 | 903 | 923 | 867 | 957 | 875 | 885 | 903 | 1003 | 923 | 1015 | 957 | 1065 |
| Exact Ratio | Overall | 2800.0 | 2832.0 | 2889.6 | 2953.6 | 3034.5 | 3062.4 | 3062.5 | 3097.5 | 3160.5 | 3209.6 | 3230.5 | 3248.0 | 3349.5 | 3408.0 |
| | Output | 3.2 | 3.2 | 3.2 | 3.2 | 3.5 | 3.2 | 3.5 | 3.5 | 3.5 | 3.2 | 3.5 | 3.2 | 3.5 | 3.2 |
| | Input | (35 x 25) | (59 x 15) | (43 x 21) | (71 x 13) | (51 x 17) | (87 x 11) | (35 x 25) | (59 x 15) | (43 x 21) | (59 x 17) | (71 x 13) | (35 x 29) | (87 x 11) | (71 x 15) |
| Nominal Ratio | Overall | 3427 | 3440 | 3553 | 3619 | 3728 | 3749 | 3763 | 3862 | 3920 | 3965 | 3990 | 4080 | 4176 | 4225 |
| | Input | 1071 | 1075 | 1015 | 1131 | 1065 | 1071 | 1075 | 1207 | 1225 | 1239 | 1247 | 1275 | 1305 | 1207 |
| Exact Ratio | Overall | 3427.2 | 3440.0 | 3552.5 | 3619.2 | 3727.5 | 3748.5 | 3762.5 | 3862.4 | 3920.0 | 3964.8 | 3990.4 | 4080.0 | 4176.0 | 4224.5 |
| | Output | 3.2 | 3.2 | 3.5 | 3.2 | 3.5 | 3.5 | 3.5 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.5 |
| | Input | (51 x 21) | (43 x 25) | (35 x 29) | (87 x 13) | (71 x 15) | (51 x 21) | (43 x 25) | (71 x 17) | (35 x 35) | (59 x 21) | (43 x 29) | (51 x 25) | (87 x 15) | (71 x 17) |
| Nominal Ratio | Overall | 4288 | 4337 | 4463 | 4568 | 4720 | 4771 | 4816 | 5163 | 5219 | 5268 | 5475 | 5680 | 5712 | 5846 |
| | Input | 1225 | 1239 | 1275 | 1305 | 1475 | 1491 | 1505 | 1475 | 1491 | 1505 | 1711 | 1775 | 1785 | 1827 |
| Exact Ratio | Overall | 4287.5 | 4336.5 | 4462.5 | 4567.5 | 4720.0 | 4771.2 | 4816.0 | 5162.5 | 5218.5 | 5267.5 | 5475.2 | 5680.0 | 5712.0 | 5846.4 |
| | Output | 3.5 | 3.5 | 3.5 | 3.5 | 3.2 | 3.2 | 3.2 | 3.5 | 3.5 | 3.5 | 3.2 | 3.2 | 3.2 | 3.2 |
| | Input | (35 x 35) | (59 x 21) | (51 x 25) | (87 x 15) | (59 x 25) | (71 x 21) | (43 x 35) | (59 x 25) | (71 x 21) | (43 x 35) | (59 x 29) | (71 x 25) | (51 x 35) | (87 x 21) |
| Nominal Ratio | Overall | 5917 | 5989 | 6213 | 6248 | 6395 | 6589 | 6608 | 6960 | 7018 | 7207 | 7613 | 7676 | 7952 | 8074 |
| | Input | 1849 | 1711 | 1775 | 1785 | 1827 | 2059 | 2065 | 2175 | 2193 | 2059 | 2175 | 2193 | 2485 | 2523 |
| Exact Ratio | Overall | 5916.8 | 5988.5 | 6212.5 | 6247.5 | 6394.5 | 6588.8 | 6608.0 | 6960.0 | 7017.6 | 7206.5 | 7612.5 | 7675.5 | 7952.0 | 8073.6 |
| | Output | 3.2 | 3.5 | 3.5 | 3.5 | 3.5 | 3.2 | 3.2 | 3.2 | 3.2 | 3.5 | 3.5 | 3.5 | 3.2 | 3.2 |
| | Input | (43 x 43) | (59 x 29) | (71 x 25) | (51 x 35) | (87 x 21) | (71 x 29) | (59 x 35) | (87 x 25) | (51 x 43) | (71 x 29) | (87 x 25) | (51 x 43) | (71 x 35) | (87 x 29) |
| Nominal Ratio | Overall | 8118 | 8323 | 8698 | 8831 | 9104 | 9629 | 9744 | 9770 | 10532 | 10686 | 11139 | 11587 | 11971 | |
| | Input | 2537 | 2601 | 2485 | 2523 | 2601 | 3009 | 3045 | 3053 | 3009 | 3053 | 3481 | 3621 | 3741 | |
| Exact Ratio | Overall | 8118.4 | 8323.2 | 8697.5 | 8830.5 | 9103.5 | 9628.8 | 9744.0 | 9769.6 | 10531.5 | 10685.5 | 11139.2 | 11587.2 | 11971.2 | |
| | Output | 3.2 | 3.2 | 3.5 | 3.5 | 3.5 | 3.2 | 3.2 | 3.2 | 3.5 | 3.5 | 3.2 | 3.2 | 3.2 | |
| | Input | (59 x 43) | (51 x 51) | (71 x 35) | (87 x 29) | (51 x 51) | (59 x 51) | (87 x 35) | (71 x 43) | (59 x 51) | (71 x 43) | (59 x 59) | (71 x 51) | (87 x 43) | |
| Nominal Ratio | Overall | 12674 | 13094 | 13405 | 14198 | 14662 | 16131 | 16426 | 17644 | 19766 | 24221 | | | | |
| | Input | 3621 | 3741 | 4189 | 4437 | 4189 | 5041 | 5133 | 5041 | 6177 | 7569 | | | | |
| Exact Ratio | Overall | 12673.5 | 13093.5 | 13404.8 | 14198.4 | 14661.5 | 16131.2 | 16425.6 | 17643.5 | 19766.4 | 24220.8 | | | | |
| | Output | 3.5 | 3.5 | 3.2 | 3.2 | 3.5 | 3.2 | 3.2 | 3.5 | 3.2 | 3.2 | | | | |
| | Input | (71 x 51) | (87 x 43) | (71 x 59) | (87 x 51) | (71 x 59) | (71 x 71) | (87 x 59) | (71 x 71) | (87 x 71) | (87 x 87) | | | | |

All ratios listed include double reduction Cyclo® inputs. Consult factory for available frame sizes and ratings.

# 2

# Speed Reducers





Speed Reducers

# How to select a Speed Reducer





## Step 1: Collect data about your application

Before starting you need to know the:

- **Application (e.g. Conveyor, Mixer, etc.)**
- **Hours of Operation per day**
- **Motor Power (HP or kW) and Speed (RPM)**
- **Desired Output Speed**
- **Mounting Position and Style**
- **Overhung or Thrust Loads**
- **Bore Dimensions (inch or metric )**

## Step 2: Choose a Mounting Position

Find the correct Mounting Position from the *Mounting Positions Table* on the right.

## Step 3: Select a Frame Size

**3A:** Find the **Load Classification** of your application in the *AGMA Load Classification Table* on page 2.6.

**3B:** Find the recommended Service Factor using the *Recommended Reducer Service Factor Table* on the right.

**3C:** Determine the **Selection Power** (HP or kW) by multiplying the Motor Power (HP or kW) by the Service Factor.

**3D:** Select a **Frame size** from the Reducer Selection Tables on pages 2.8–2.115 by matching both the Selection Power (HP or kW) and Desired Output Speed (RPMs) to a frame size model number.
**Note:** For Mounting Positions Y1, Y2, Y3, Y5, and Y6 see pages 2.8–2.103.
For Mounting Positions Y4 see pages 2.104–2.127.
For all Double Reduction Mounting Positions see pages 2.128–2.155.

## Step 4: Verify Dimensions

Use the Dimensions information on pages 2.156–2.177 to verify that the selected Frame Size is appropriate.

## Step 5: Choose an Output Connection Method

Select solid shaft, keyed hollow bore, shrink disc or Taper-Grip® Bushing, and the associated bore size. For Taper-Grip® Bushing select a Bore Size from the *Stock Bushing Bore Size Table.*

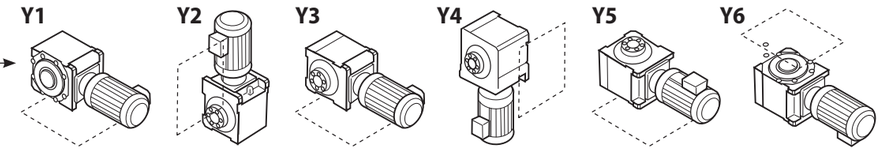
## Step 6: Choose Options

The following options may apply:
**Washdown Modification**
**Breather**
*Please refer to our online Product Configurator at www. sumitomodrive.com/configurator for available modifications.*

## Step 7: Configure a Model Number

Go to page 2.4 to configure a model number.
**Note:** You will use the information you gather from the procedure on this page to Configure a Model Number.

### Mounting Positions




### Primary Reducer Service Factors Classifications:

| | | AGMA Load Classifications | | |
|---|---|---|---|---|
| | | **Uniform (U)** | **Moderate Shock (M)** | **Heavy Shock (H)** |
| **Duration of Service** [1] | **1/2 hr. per day** (Occasional) | 0.50[2] | 0.80[2] | 1.25 |
| | **3 hrs. per day** (Intermittent) | 0.80[2] | 1.00 | 1.50 |
| | **Up to 10 hrs. per day** | 1.00 | 1.25 | 1.75 |
| | **24 hrs. per day** | 1.20 | 1.50 | 2.00 |

**Note: [1]** For applications involving greater than 10 starts/stop per hour, consider Modifications for Frequent Starts (Special Specification Code YB51)
**Note: [2]** Maximum momentary or starting load must not exceed 200% of gear reducer rating (rating meaning service factor of 1.0). Time specified for occasional and intermittent service refers to total operating time per day.

**Alternative Method for Selecting Reducer Service Factors - Based on Application Inertia:**
If the application does not match an existing AGMA Load Classification, and application inertia is known, this alternative method may be used to select the recommended service factor. For starts greater than 10x per hour, check the appropriate motor Thermal Capacity for frequent starts.

**Calculate the Ratio of Moment of Inertia**

$$\text{Ratio of Moment of Inertia } (WR^2) = \frac{\text{Total Application + Reducer Moment of Inertia } (WR^2) \text{ as seen from motor shaft}}{\text{Moment of Inertia } (WR^2) \text{ of motor}}$$

**I** = Ratio of Moment of Inertia $(WR^2) \leq 0.3$
**II** = Ratio of Moment of Inertia $(WR^2)$ $0.3 < WR^2 \leq 3.0$
**III** = Ratio of Moment of Inertia $(WR^2)$ $3.0 < WR^2 \leq 10$

| Number of starts (Times/hour) | ~10 hours/day | | | ~24 hours/day | | |
|---|---|---|---|---|---|---|
| | **I** | **II** | **III** | **I** | **II** | **III** |
| ~10 | 1.00 | 1.15 | 1.50 | 1.20 | 1.30 | 1.65 |
| ~200 | 1.10 | 1.35 | 1.65 | 1.30 | 1.50 | 1.85 |
| ~500 | 1.15 | 1.50 | 1.80 | 1.40 | 1.65 | 2.00 |

### Determine Selection Power (HP or kW)

**Motor Power (HP or kW) X Service Factor = Selection Power (HP or kW)**

**Example:** **10 Motor HP X 1.25 Service Factor = 12.5 Selection HP**
**11 kW X 1.25 Service Factor = 13.75 Selection kW**

### Select a Frame Size

**1** Match your OUTPUT RPM (or RATIO)...

| Output RPM | 159.1 | 134.6 | 125.0 | 109.4 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | | | | | | 28 | 35 | 39 | 46 | 53 | |
| Input Power HP *(kW)* | 3.15 *(2.35)* | 3.15 *(2.35)* | 3.15 *(2.35)* | 3.15 *(2.35)* | | | | | 3.15 *(2.35)* | 3.15 *(2.35)* | 3.15 *(2.35)* | 3.15 *(2.35)* | 3.15 *(2.35)* | |
| Output Torque in•lbs *(N•m)* | 1095 *(124)* | 1335 *(151)* | 1460 *(165)* | 1670 *(189)* | *(207)* | *(248)* | — | — | 2925 *(331)* | 3680 *(416)* | 4025 *(455)* | 4750 *(537)* | 5485 *(620)* | 4A100 |
| Hollow Shaft OHL lbs *(N)* | 3705 *(16500)* | 3930 *(17500)* | 4020 *(17900)* | 4155 *(18500)* | 4270 *(19000)* | 4470 *(19900)* | — — | — — | 4785 *(21300)* | 5055 *(22500)* | 5170 *(23000)* | 5350 *(23800)* | 5530 *(24600)* | |
| Solid Shaft OHL lbs *(N)* | 3350 *(14900)* | 3350 *(14900)* | 3350 *(14900)* | 3350 *(14900)* | 3350 *(14900)* | 3480 *(15470)* | — — | — — | 3980 *(17700)* | 4350 *(19340)* | 4510 *(20060)* | 4550 *(20230)* | 4580 *(20370)* | |

**2** ...to your **SELECTION HP *(kW)***

**3** ...to find your **FRAME SIZE**

**If Overhung Load (OHL) is present, it must be checked against the capacity of the selection.**

For special circumstances in selecting a **Frame Size** such as:

- Overhung Load (OHL)
- Thrust Loads
- Radial Loads
- Shock Loading

Consult Appendix, pages 4.2–4.18.

### STOCK BUSHING BORE SIZE

| Size | Stock Bushing Bores Inch | *(mm)* | Minimum Bores Inch | *(mm)* |
|---|---|---|---|---|
| 4A | $1\frac{15}{16}$, $2\frac{3}{16}$ | *(50, 55)* | $1\frac{11}{16}$ | *(35)* |
| 4B | $2\frac{3}{16}$, $2\frac{7}{16}$ | *(60, 65)* | $1\frac{15}{16}$ | *(45)* |
| 4C | $2\frac{7}{16}$, $2\frac{15}{16}$ | *(65, 75)* | $2\frac{3}{16}$ | *(50)* |
| 4D | $2\frac{15}{16}$, $3\frac{7}{16}$ | *(75, 85)* | $2\frac{7}{16}$ | *(60)* |
| 4E | $3\frac{7}{16}$, $3\frac{15}{16}$ | *(90, 100)* | $2\frac{15}{16}$ | *(75)* |
| 4F | $3\frac{15}{16}$, $4\frac{7}{16}$, $4\frac{15}{16}$ | *(110, 120)* | $3\frac{1}{2}$ | *(90)* |

# Configure a Model Number



**When ordering, the following information should be included:**

- NEMA frame size for C-face adapter
- Motor Specification if supplied and/or mounted by Sumitomo (230/460 VAC 60 Hz is supplied in the United States, unless otherwise specified)
- Bushing Bore size must be supplied

Optional conduit box positions must be specified, otherwise Y1 is supplied.

## Output Shaft Orientation

| Type | Prefix |
|---|---|
| Horizontal | H |
| Vertical | V |

## Mounting Style

| Type | Prefix |
|---|---|
| Shaft Mount (Hollow Shaft) | Y |
| Housing Mount (Solid Shaft) | U |
| Flange (Solid Shaft) | F |
| Foot (Solid Shaft) | H |

## Input Connection

| Input Connection | Prefix | |
|---|---|---|
| | Reducer | Motor |
| Free Input Shaft | | |
| Input Motor Adapter | J | JM |
| W/Input Motor Flange & Hollow Bore | X | XM |

## Modification

| | Prefix |
|---|---|
| Unit build with special modifications | S |
| Shrink Disc | S |
| No special modifications applied | |

## Motor Power (HP or kW)

(if supplied and/or mounted by Sumitomo; applies only to 1750 RPM)

| HP | (kW) | Prefix |
|---|---|---|
| 1/8 | (0.1) | 01 |
| 1/4 | (0.2) | 02 |
| 1/3 | (0.25) | 03 |
| 1/2 | (0.4) | 05 |
| 3/4 | (0.55) | 08 |
| 1 | (0.75) | 1 |
| 1 1/2 | (1.1) | 1H |
| 2 | (1.5) | 2 |
| 3 | (2.2) | 3 |
| 5 | (3.7) | 5 |
| 7 1/2 | (5.5) | 8 |
| 10 | (7.5) | 10 |
| 15 | (11) | 15 |
| 20 | (15) | 20 |
| 25 | (18.5) | 25 |
| 30 | (22) | 30 |
| 40 | (30) | 40 |
| 50 | (37) | 50 |
| 60 | (45) | 60 |
| 75 | (55) | 75 |

## Frame Size

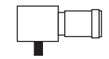
| Single Reduction | | | |
|---|---|---|---|
| 4A100 | 4B125 | 4C170 | 4E175 |
| 4A105 | 4B140 | 4C175 | 4E180 |
| 4A110 | 4B145 | 4D160 | 4E185 |
| 4A115 | 4B160 | 4D165 | 4E190 |
| 4A120 | 4B165 | 4D170 | 4E195 |
| 4A125 | 4C140 | 4D175 | 4F180 |
| 4A140 | 4C145 | 4D180 | 4F185 |
| 4A145 | 4C160 | 4D185 | 4F190 |
| 4B120 | 4C165 | 4E170 | 4F195 |
| **Double Reduction** | | | |
| 4A10DA | 4B16DA | 4C17DC | 4E17DC |
| 4A12DA | 4B16DB | 4D16DA | 4E18DA |
| 4A12DB | 4B16DC | 4D16DB | 4E18DB |
| 4A14DA | 4C14DA | 4D16DC | 4E19DA |
| 4A14DB | 4C14DB | 4D17DA | 4E19DB |
| 4A14DC | 4C14DC | 4D17DB | 4F18DA |
| 4B12DA | 4C16DA | 4D17DC | 4F18DB |
| 4B12DB | 4C16DB | 4D18DA | 4F19DA |
| 4B14DA | 4C16DC | 4D18DB | 4F19DB |
| 4B14DB | 4C17DA | 4E17DA | |
| 4B14DC | 4C17DB | 4E17DB | |

## Reducer Specifications

| Specification | Suffix |
|---|---|
| Standard | |
| Shovel Base | SB |
| Torque Limiter | TL |

## Driven Shaft Direction (Shafted Model Only)

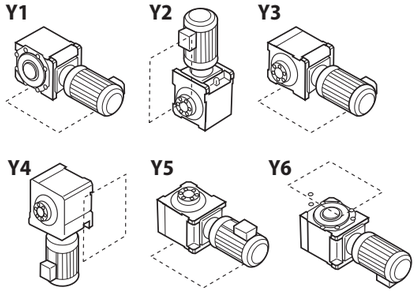
| | |
|---|---|
| Projects to Left Side | L |
| Projects to Right Side | R |
| Projects to Both Left/Right Sides | T |



## Shaft Specifications

| Input Shaft | OUTPUT SHAFT Hollow | Solid | Suffix |
|---|---|---|---|
| mm | Key (mm) | mm | |
| Inch | Key (Inch) | Inch | K |
| mm | Taper-Grip® | | M |
| Inch | Taper-Grip® | | Y |

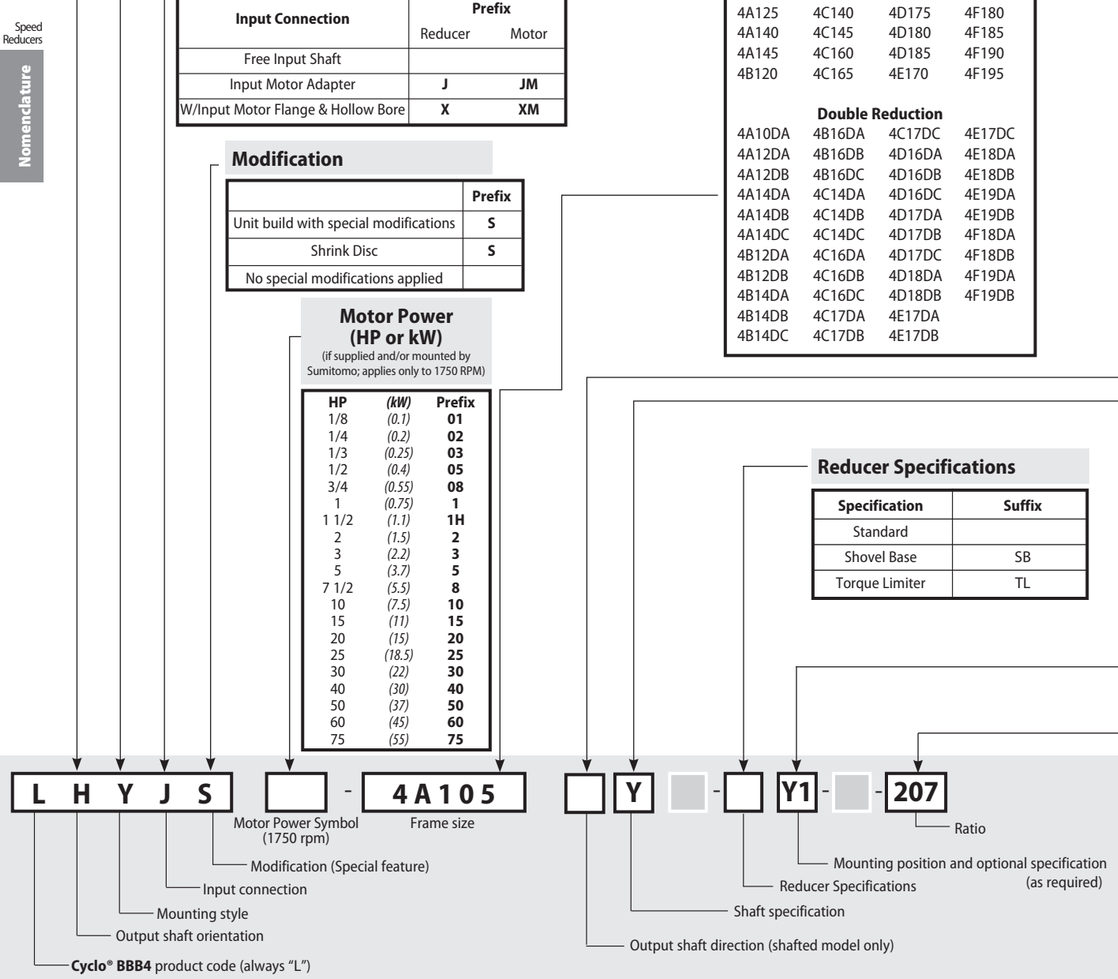
## Mounting Positions




## Nominal Ratio

| BBB4 with Planetary Input |
|---|
| Overall Nominal Ratio |
| 11 |
| 13 |
| 14 |
| 16 |
| 18 |

| BBB4 with Cyclo Input | |
|---|---|
| Single Reduction Input | Double Reduction Input |
| Overall Nominal Ratio | Overall Nominal Ratio |
| 21 | 364 |
| 22 | 424 |
| 25 | 501 |
| 28 | 578 |
| 35 | 683 |
| 39 | 809 |
| 46 | 956 |
| 53 | 1117 |
| 60 | 1320 |
| 67 | 1656 |
| 74 | 1957 |
| 80 | 2272 |
| 88 | 2559 |
| 102 | 2944 |
| 112 | 3511 |
| 123 | 4365 |
| 151 | 5177 |
| 179 | 6472 |
| 207 | 7228 |
| 249 | 8880 |
| 305 | 10658 |
| 417 | 12184 |




**Nomenclature Example:**

**LHYJS – 4A105Y – Y1 – 207**

**L** – Cyclo® Bevel Buddybox
**H** – Horizontal Output Shaft
**Y** – Shaft Mount (Hollow Shaft)
**J** – C-Face Input
**S** – Modification (Special feature)
**4A105** – Frame Size
**Y** – Taper-Grip®Bushing output, inch shaft input
**Y1** – Installation Position
**207** – Ratio

# AGMA Load Classifications

| TYPE OF APPLICATION | TYPE OF LOAD |
|---|---|
| Agitators | |
| Pure liquids | U |
| Liquids and solids | M |
| Variable-density liquids | M |
| Blowers | |
| Centrifugal | U |
| Lobe | M |
| Vane | U |
| Brewing and Distilling | |
| Bottling machinery | U |
| Brew kettles, cont. duty | U |
| Cookers, cont. duty | U |
| Mash tubs, cont. duty | U |
| Scale hopper, frequent starts | M |
| Can Filling Machines | U |
| Cane Knives | M |
| Car Dumpers | H |
| Car Pullers | M |
| Clarifiers U | |
| Classifiers | M |
| Clay Working Machinery | |
| Brick press | H |
| Briquette machine | H |
| Clay working machinery | M |
| Pug mill | M |
| Compressors | |
| Centrifugal | U |
| Lobe | M |
| Reciprocating, multi-cylinder | M |
| Reciprocating, single-cylinder | H |
| Conveyors — Uniformly Loaded or Fed | |
| Apron | U |
| Assembly | U |
| Belt U | |
| Bucket | U |
| Chain | U |
| Flight | U |
| Oven | U |
| Screw | U |
| Conveyors — Heavy Duty, Not Uniformly Fed | |
| Apron | M |
| Assembly | M |
| Belt M | |
| Bucket | M |
| Chain | M |
| Flight | M |
| Live roll oven | M |
| Reciprocating | H |
| Screw | M |
| Shaker | H |
| Cranes (Except for Dry Dock Cranes) | |
| Main hoists | U |
| Bridge travel | S |
| Trolley travel | S |
| Crusher | |
| Ore | H |
| Stone | H |
| Sugar | M |
| Dredges | |
| Cable reels | M |
| Conveyors | M |
| Cutter head drives | H |
| Jig drives | H |
| Maneuvering winches | M |
| Pumps | M |
| Screen drive | H |
| Stackers | M |
| Utility winches | M |
| Dry Dock Cranes | S |
| Elevators | |
| Bucket, uniform load | U |
| Bucket, heavy load | M |
| Bucket, cont. | U |
| Centrifugal discharge | U |
| Escalators | U |
| Freight | M |
| Gravity discharge | U |
| Man lifts | S |
| Passenger | S |
| Extruders (Plastics) | |
| Blow molders | M |
| Coating | U |
| Film | U |
| Pipe | U |
| Pre-plasticizers | M |
| Rods | U |
| Sheet | U |
| Tubing | U |
| Fans | |
| Centrifugal | U |
| Cooling towers | S |
| Forced draft | S |
| Induced draft | M |
| Large (mine, etc.) | M |
| Large (industrial) | M |
| Light (small diameter) | U |
| Feeders | |
| Apron | M |
| Belt M | |
| Disc | U |
| Reciprocating | H |
| Screw | M |
| Food Industry | |
| Beet slicer | M |
| Cereal cooker | U |
| Dough mixer | M |
| Meat grinders | M |
| Generators (Not Welding) | U |
| Hammer Mills | H |
| Hoists | |
| Heavy duty | H |
| Medium duty | M |
| Skip | M |
| Laundry Washers — Reversing | M |
| Laundry Tumblers | M |
| Line Shaft | |
| Drive processing equipment | M |
| Light | U |
| Other line shafts | U |
| Lumber Industry | |
| Barkers — hydraulic and mechanical | S |
| Burner conveyor | M |
| Chain Saw and Drag Saw | H |
| Chain transfer | H |
| Craneway transfer | H |
| De-barking drum | S |
| Edger feed | H |
| Gang feed | M |
| Geen chain | M |
| Live rolls | H |
| Log haul-lockline | H |
| Log turning device | H |
| Main log conveyor | H |
| Off bearing rolls | M |
| Planer feed chains | M |
| Planer floor chains | M |
| Planer tilting hoist | M |
| Re-saw merry-go-round conveyor | M |
| Roll cases | H |
| Slab conveyor | H |
| Small waste-conveyor-belt | U |
| Small waste-conveyor-chain | M |
| Sorting table | M |
| Tipple hoist conveyor | M |
| Tipple hoist drive | M |
| Transfer conveyors | M |
| Transfer rolls | M |
| Tray drive | M |
| Trimmer feed | M |
| Waste conveyor | M |
| Machine Tools | |
| Bending roll | M |
| Notching press, belt driven | S |
| Plate planer | H |
| Punch press, gear driven | H |
| Tapping machine | H |
| Other machine tools | |
| Main drives | M |
| Auxiliary drives | U |
| Metal Mills | |
| Draw bench carriage and main drive | M |
| Forming machines | H |
| Pinch, dryer and scrubber rolls, reversing | S |
| Slitters | M |
| Table conveyors, nonreversing | |
| Group drives | M |
| Individual drives | H |
| Table conveyors, reversing | S |
| Wire drawing and flattening machine | M |
| Wire winding machine | M |
| Mills, Rotary Type | |
| Ball | M |
| Cement kilns | M |
| Dryers and coolers | M |
| Kilns | M |
| Pebble | M |
| Rod, plain and wedge bar | M |
| Tumbling barrels | H |
| Mixers | |
| Concrete mixers, cont. | M |
| Concrete mixers, intermittent | M |
| Constant density | U |
| Variable density | M |
| Oil Industry | |
| Chillers | M |
| Oil well pumps | S |
| Paraffin filter press | M |
| Rotary kilns | M |
| Paper Mills | |
| Agitators (mixers) | M |
| Barker, hydraulic | S |
| Barker, mechanical | S |
| Barking drum | S |
| Beater and pulper | M |
| Bleacher | U |
| Calenders | M |
| Calenders, super | H |
| Converting machine (except cutters, platers) | M |
| Conveyors | U |
| Couch | M |
| Cutters, platers | H |
| Cylinders | M |
| Dryers | M |
| Felt stretcher | M |
| Felt whipper | H |
| Jordans | H |
| Log haul | H |
| Presses | U |
| Pulp machine reel | M |
| Stock chest | M |
| Suction roll | U |
| Washers and thickeners | M |
| Winders | U |
| Printing Presses | S |
| Pullers, Barge Haul | H |
| Pumps | |
| Centrifugal | U |
| Proportioning | M |
| Reciprocating | |
| Single acting, 3 or more cylinders | M |
| Double acting, 2 or more cylinders | M |
| Rotary-gear type | U |
| Rubber and Plastics Industries | |
| Crackers | H |
| Laboratory equipment | M |
| Mixing mills | H |
| Refiners | M |
| Rubber calenders | M |
| Rubber mill (2 on line) | M |
| Rubber mill (3 on line) | U |
| Sheeter | M |
| Tire building machines | S |
| Tire and tube press openers | S |
| Tubers and strainers | M |
| Warming mills | M |
| Sand Muller | M |
| Screens | |
| Air washing | U |
| Rotary, stone or gravel | M |
| Traveling water intake | U |
| Sewage Disposal Equipment | |
| Bar screens | U |
| Chemical fenders | U |
| Collectors, circuline or straightline | U |
| Dewatering screens | M |
| Grit collectors | U |
| Scum breakers | M |
| Slow or rapid mixers | M |
| Sludge collectors | U |
| Thickeners | M |
| Vacuum filters | M |
| Slab Pushers | M |
| Steering Gear | S |
| Stokers | U |
| Sugar Industry | |
| Cane knives | M |
| Crushers | M |
| Mills | H |
| Textile Industry | |
| Batchers | M |
| Calenders | M |
| Cards | M |
| Dry cans | M |
| Dryers | M |
| Dyeing machinery | M |
| Knitting machines | S |
| Looms | M |
| Mangles | M |
| Nappers | M |
| Pads | M |
| Range drives | S |
| Slashers | M |
| Soapers | M |
| Spinners | M |
| Tenter frames | M |
| Washers | M |
| Winders | M |
| Windlass | S |

U = Uniform Load
M = Moderate Shock
H = Heavy Shock
S = Contact Sumitomo

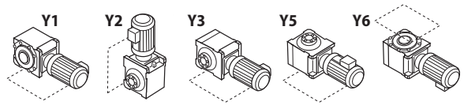




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# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

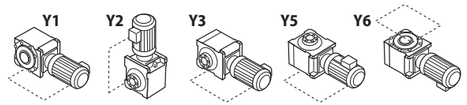



Dimensions on pages 2.156 - 2.166

| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | — | — | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | |
| ***(kW)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | — | — | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | |
| Output Torque in•lbs | 1095 | 1335 | 1460 | 1670 | 1830 | 2190 | — | — | 2925 | 3680 | 4025 | 4750 | 5485 | |
| *(N•m)* | *(124)* | *(151)* | *(165)* | *(189)* | *(207)* | *(248)* | — | — | *(331)* | *(416)* | *(455)* | *(537)* | *(620)* | **4A100** |
| Hollow Shaft OHL lbs | 3705 | 3930 | 4020 | 4155 | 4270 | 4470 | — | — | 4785 | 5055 | 5170 | 5350 | 5530 | |
| *(N)* | *(16500)* | *(17500)* | *(17900)* | *(18500)* | *(19000)* | *(19900)* | — | — | *(21300)* | *(22500)* | *(23000)* | *(23800)* | *(24600)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3350 | 3480 | — | — | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |
| **Input Power HP** | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | **—** | **—** | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | |
| ***(kW)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | **—** | **—** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | |
| Output Torque in•lbs | 1485 | 1810 | 1980 | 2265 | 2475 | 2970 | — | — | 3960 | 4980 | 5450 | 6440 | 7430 | |
| *(N•m)* | *(168)* | *(205)* | *(224)* | *(256)* | *(280)* | *(336)* | — | — | *(448)* | *(563)* | *(616)* | *(728)* | *(840)* | **4A105** |
| Hollow Shaft OHL lbs | 3660 | 3865 | 3955 | 4065 | 4180 | 4360 | — | — | 4650 | 4875 | 4965 | 5125 | 5100 | |
| *(N)* | *(16300)* | *(17200)* | *(17600)* | *(18100)* | *(18600)* | *(19400)* | — | — | *(20700)* | *(21700)* | *(22100)* | *(22800)* | *(22700)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3350 | 3480 | — | — | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **4.76** | **—** | **—** | **4.76** | **4.76** | **4.76** | **4.76** | **4.76** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(3.55)*** | **—** | **—** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | |
| Output Torque in•lbs | — | — | — | — | — | 3315 | — | — | 4420 | 5565 | 6085 | 7190 | 8300 | |
| *(N•m)* | — | — | — | — | — | *(375)* | — | — | *(500)* | *(629)* | *(688)* | *(813)* | *(938)* | **4A110** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4315 | — | — | 4585 | 4785 | 4875 | 5010 | 4785 | |
| *(N)* | — | — | — | — | — | *(19200)* | — | — | *(20400)* | *(21300)* | *(21700)* | *(22300)* | *(21300)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3480 | — | — | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | — | — | — | — | — | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **5.26** | **—** | **—** | **5.26** | **5.26** | **5.26** | **5.23** | **5.23** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(3.92)*** | **—** | **—** | ***(3.92)*** | ***(3.92)*** | ***(3.92)*** | ***(3.9)*** | ***(3.9)*** | |
| Output Torque in•lbs | — | — | — | — | — | 3660 | — | — | 4880 | 6140 | 6715 | 7900 | 9115 | |
| *(N•m)* | — | — | — | — | — | *(414)* | — | — | *(552)* | *(694)* | *(759)* | *(893)* | *(1030)* | **4A115** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4270 | — | — | 4515 | 4720 | 4785 | 4920 | 4470 | |
| *(N)* | — | — | — | — | — | *(19000)* | — | — | *(20100)* | *(21000)* | *(21300)* | *(21900)* | *(19900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3480 | — | — | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | — | — | — | — | — | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |
| **Input Power HP** | **12.9** | **12.9** | **12.9** | **12.9** | **12.87** | **8.77** | **8.77** | **8.77** | **8.77** | **6.80** | **6.80** | **6.26** | **5.43** | |
| ***(kW)*** | ***(9.6)*** | ***(9.6)*** | ***(9.6)*** | ***(9.6)*** | ***(9.6)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(5.07)*** | ***(5.07)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | 4485 | 5465 | 5980 | 6840 | 7475 | 6115 | 6520 | 7130 | 8150 | 7945 | 8690 | 9465 | 9465 | |
| *(N•m)* | *(507)* | *(618)* | *(676)* | *(773)* | *(845)* | *(691)* | *(737)* | *(806)* | *(921)* | *(898)* | *(982)* | *(1070)* | *(1070)* | **4A120** |
| Hollow Shaft OHL lbs | 3255 | 3345 | 3390 | 3435 | 3480 | 3930 | 3955 | 4000 | 4065 | 4470 | 4515 | 4315 | 4315 | |
| *(N)* | *(14500)* | *(14900)* | *(15100)* | *(15300)* | *(15500)* | *(17500)* | *(17600)* | *(17800)* | *(18100)* | *(19900)* | *(20100)* | *(19200)* | *(19200)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3350 | 3480 | 3550 | 3780 | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15470)* | *(15790)* | *(16810)* | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |
| **Input Power HP** | **14.8** | **14.8** | **14.8** | **14.8** | **14.75** | **10.07** | **10.07** | **10.07** | **10.07** | **7.94** | **7.40** | **6.26** | **5.43** | |
| ***(kW)*** | ***(11)*** | ***(11)*** | ***(11)*** | ***(11)*** | ***(11)*** | ***(7.51)*** | ***(7.51)*** | ***(7.51)*** | ***(7.51)*** | ***(5.92)*** | ***(5.52)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | 5140 | 6265 | 6855 | 7840 | 8575 | 7015 | 7485 | 8185 | 9380 | 9290 | 9465 | 9465 | 9465 | |
| *(N•m)* | *(581)* | *(708)* | *(775)* | *(886)* | *(969)* | *(793)* | *(846)* | *(925)* | *(1060)* | *(1050)* | *(1070)* | *(1070)* | *(1070)* | **4A125** |
| Hollow Shaft OHL lbs | 3165 | 3235 | 3280 | 3300 | 3325 | 3795 | 3820 | 3865 | 3910 | 4270 | 4315 | 4315 | 4315 | |
| *(N)* | *(14100)* | *(14400)* | *(14600)* | *(14700)* | *(14800)* | *(16900)* | *(17000)* | *(17200)* | *(17400)* | *(19000)* | *(19200)* | *(19200)* | *(19200)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3350 | 3480 | 3550 | 3780 | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15470)* | *(15790)* | *(16810)* | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |



# Frame Size Selection Tables 60 Hz, 1750 RPM



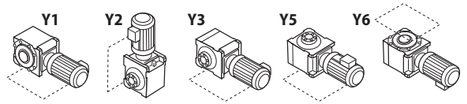

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **2.67** | **2.59** | **2.59** | **1.70** | **1.70** | **1.62** | **1.31** | **1.31** | **1.05** | **0.751** | **0.692** | **0.585** | **0.581** | **0.282** | |
| ***(kW)*** | ***(1.99)*** | ***(1.93)*** | ***(1.93)*** | ***(1.27)*** | ***(1.27)*** | ***(1.21)*** | ***(0.975)*** | ***(0.975)*** | ***(0.780)*** | ***(0.560)*** | ***(0.516)*** | ***(0.436)*** | ***(0.433)*** | ***(0.21)*** | |
| Output Torque in•lbs | 5255 | 5760 | 6300 | 4520 | 4945 | 5465 | 4855 | 5315 | 5230 | 4450 | 4740 | 4820 | 5875 | 3890 | |
| *(N•m)* | *(594)* | *(651)* | *(712)* | *(511)* | *(559)* | *(618)* | *(549)* | *(601)* | *(591)* | *(503)* | *(536)* | *(545)* | *(664)* | *(440)* | **4A100** |
| Hollow Shaft OHL lbs | 5640 | 5530 | 5415 | 5775 | 5710 | 5595 | 5730 | 5640 | 5640 | 5800 | 5755 | 5730 | 5505 | 5890 | |
| *(N)* | *(25100)* | *(24600)* | *(24100)* | *(25700)* | *(25400)* | *(24900)* | *(25500)* | *(25100)* | *(25100)* | *(25800)* | *(25600)* | *(25500)* | *(24500)* | *(26200)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **3.30** | **3.14** | **3.14** | **2.24** | **2.24** | **2.13** | **1.61** | **1.61** | **1.45** | **1.04** | **0.949** | **0.752** | **0.758** | **0.384** | |
| ***(kW)*** | ***(2.46)*** | ***(2.34)*** | ***(2.34)*** | ***(1.67)*** | ***(1.67)*** | ***(1.59)*** | ***(1.20)*** | ***(1.20)*** | ***(1.08)*** | ***(0.776)*** | ***(0.708)*** | ***(0.561)*** | ***(0.565)*** | ***(0.286)*** | |
| Output Torque in•lbs | 6500 | 6990 | 7645 | 5955 | 6510 | 7185 | 5970 | 6530 | 7270 | 6165 | 6510 | 6210 | 7660 | 5305 | |
| *(N•m)* | *(735)* | *(790)* | *(864)* | *(673)* | *(736)* | *(812)* | *(675)* | *(738)* | *(822)* | *(697)* | *(736)* | *(702)* | *(866)* | *(600)* | **4A105** |
| Hollow Shaft OHL lbs | 5350 | 5235 | 5035 | 5485 | 5350 | 5170 | 5485 | 5350 | 5145 | 5440 | 5350 | 5440 | 5010 | 5640 | |
| *(N)* | *(23800)* | *(23300)* | *(22400)* | *(24400)* | *(23800)* | *(23000)* | *(24400)* | *(23800)* | *(22900)* | *(24200)* | *(23800)* | *(24200)* | *(22300)* | *(25100)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **4.26** | **3.65** | **3.65** | **2.56** | **2.56** | **2.55** | **2.01** | **2.01** | **1.74** | **1.27** | **1.15** | **0.897** | **0.886** | **—** | |
| ***(kW)*** | ***(3.18)*** | ***(2.72)*** | ***(2.72)*** | ***(1.91)*** | ***(1.91)*** | ***(1.90)*** | ***(1.50)*** | ***(1.50)*** | ***(1.30)*** | ***(0.944)*** | ***(0.859)*** | ***(0.669)*** | ***(0.661)*** | **—** | |
| Output Torque in•lbs | 8415 | 8150 | 8935 | 6810 | 7450 | 8600 | 7495 | 8190 | 8705 | 7495 | 7900 | 7395 | 8935 | — | |
| *(N•m)* | *(951)* | *(921)* | *(1010)* | *(770)* | *(842)* | *(972)* | *(847)* | *(926)* | *(984)* | *(847)* | *(893)* | *(836)* | *(1010)* | — | **4A110** |
| Hollow Shaft OHL lbs | 4740 | 4855 | 4560 | 5280 | 5080 | 4675 | 5080 | 4830 | 4630 | 5080 | 4945 | 5100 | 4540 | — | |
| *(N)* | *(21100)* | *(21600)* | *(20300)* | *(23500)* | *(22600)* | *(20800)* | *(22600)* | *(21500)* | *(20600)* | *(22600)* | *(22000)* | *(22700)* | *(20200)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | — | |
| **Input Power HP** | **4.79** | **4.17** | **3.88** | **2.98** | **2.98** | **2.80** | **2.43** | **2.32** | **1.89** | **1.49** | **1.35** | **1.02** | **0.936** | **—** | |
| ***(kW)*** | ***(3.57)*** | ***(3.11)*** | ***(2.89)*** | ***(2.22)*** | ***(2.22)*** | ***(2.09)*** | ***(1.81)*** | ***(1.73)*** | ***(1.41)*** | ***(1.11)*** | ***(1.01)*** | ***(0.758)*** | ***(0.698)*** | **—** | |
| Output Torque in•lbs | 9465 | 9290 | 9465 | 7910 | 8650 | 9465 | 9025 | 9465 | 9465 | 8830 | 9290 | 8380 | 9465 | — | |
| *(N•m)* | *(1070)* | *(1050)* | *(1070)* | *(894)* | *(978)* | *(1070)* | *(1020)* | *(1070)* | *(1070)* | *(998)* | *(1050)* | *(947)* | *(1070)* | — | **4A115** |
| Hollow Shaft OHL lbs | 4315 | 4380 | 4315 | 4945 | 4650 | 4315 | 4515 | 4315 | 4315 | 4585 | 4380 | 4765 | 4315 | — | |
| *(N)* | *(19200)* | *(19500)* | *(19200)* | *(22000)* | *(20700)* | *(19200)* | *(20100)* | *(19200)* | *(19200)* | *(20400)* | *(19500)* | *(21200)* | *(19200)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | — | |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.57** | **3.26** | **2.80** | **2.55** | **2.32** | **1.89** | **1.60** | **1.38** | **1.15** | **0.936** | **—** | |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.09)*** | ***(1.90)*** | ***(1.73)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.855)*** | ***(0.698)*** | **—** | |
| Output Torque in•lbs | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | — | |
| *(N•m)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | — | **4A120** |
| Hollow Shaft OHL lbs | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | — | |
| *(N)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | — | |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.57** | **3.26** | **2.80** | **2.55** | **2.32** | **1.89** | **1.60** | **1.38** | **1.15** | **0.936** | **—** | |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.09)*** | ***(1.90)*** | ***(1.73)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.855)*** | ***(0.698)*** | **—** | |
| Output Torque in•lbs | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | — | |
| *(N•m)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | — | **4A125** |
| Hollow Shaft OHL lbs | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | — | |
| *(N)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | — | |

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

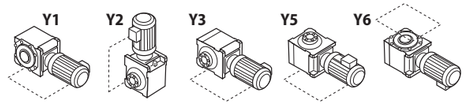



Dimensions on pages 2.156 - 2.166

| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **25.5** | **22.3** | **20.4** | **17.8** | **16.2** | **13.5** | **12.7** | **11.6** | **10.2** | **8.10** | **7.40** | **6.26** | **5.43** | |
| ***(kW)*** | ***(19.0)*** | ***(16.6)*** | ***(15.2)*** | ***(13.3)*** | ***(12.1)*** | ***(10.1)*** | ***(9.48)*** | ***(8.67)*** | ***(7.59)*** | ***(6.04)*** | ***(5.52)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | 8845 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | |
| *(N•m)* | *(1000)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | |
| Hollow Shaft OHL lbs | 2650 | 2810 | 2920 | 3075 | 3210 | 3460 | 3550 | 3685 | 3885 | 4245 | 4315 | 4315 | 4315 | |
| *(N)* | *(11800)* | *(12500)* | *(13000)* | *(13700)* | *(14300)* | *(15400)* | *(15800)* | *(16400)* | *(17300)* | *(18900)* | *(19200)* | *(19200)* | *(19200)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3350 | 3480 | 3550 | 3780 | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15470)* | *(15790)* | *(16810)* | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | **4A140** |
| **Input Power HP** | **27.1** | **22.3** | **20.4** | **17.8** | **16.2** | **13.5** | **12.7** | **11.6** | **10.2** | **8.10** | **7.40** | **6.26** | **5.43** | |
| ***(kW)*** | ***(20.2)*** | ***(16.6)*** | ***(15.2)*** | ***(13.3)*** | ***(12.1)*** | ***(10.1)*** | ***(9.48)*** | ***(8.67)*** | ***(7.59)*** | ***(6.04)*** | ***(5.52)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | |
| *(N•m)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | |
| Hollow Shaft OHL lbs | 2560 | 2810 | 2920 | 3075 | 3210 | 3460 | 3550 | 3685 | 3885 | 4245 | 4315 | 4315 | 4315 | |
| *(N)* | *(11400)* | *(12500)* | *(13000)* | *(13700)* | *(14300)* | *(15400)* | *(15800)* | *(16400)* | *(17300)* | *(18900)* | *(19200)* | *(19200)* | *(19200)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3350 | 3480 | 3550 | 3780 | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15470)* | *(15790)* | *(16810)* | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | **4A145** |
| **Input Power HP** | **12.9** | **12.9** | **12.9** | **12.9** | **12.9** | **8.77** | **8.77** | **8.77** | **8.77** | **6.80** | **6.80** | **6.80** | **6.80** | |
| ***(kW)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | |
| Output Torque in•lbs | 4485 | 5465 | 5980 | 6840 | 7475 | 6115 | 6520 | 7130 | 8150 | 7945 | 8690 | 10265 | 11855 | |
| *(N•m)* | *(507)* | *(618)* | *(676)* | *(773)* | *(845)* | *(691)* | *(737)* | *(806)* | *(921)* | *(898)* | *(982)* | *(1160)* | *(1340)* | |
| Hollow Shaft OHL lbs | 4740 | 4945 | 5035 | 5170 | 5280 | 5775 | 5845 | 5955 | 6135 | 6630 | 6765 | 6990 | 7170 | |
| *(N)* | *(21100)* | *(22000)* | *(22400)* | *(23000)* | *(23500)* | *(25700)* | *(26000)* | *(26500)* | *(27300)* | *(29500)* | *(30100)* | *(31100)* | *(31900)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3490 | 3670 | 3770 | 4070 | 4320 | 4860 | 5120 | 5590 | 5970 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16320)* | *(16760)* | *(18100)* | *(19210)* | *(21610)* | *(22770)* | *(24860)* | *(26550)* | **4B120** |
| **Input Power HP** | **14.8** | **14.8** | **14.8** | **14.8** | **14.8** | **10.1** | **10.1** | **10.1** | **10.1** | **7.94** | **7.94** | **7.94** | **7.94** | |
| ***(kW)*** | ***(11.0)*** | ***(11.0)*** | ***(11.0)*** | ***(11.0)*** | ***(11.0)*** | ***(7.51)*** | ***(7.51)*** | ***(7.51)*** | ***(7.51)*** | ***(5.92)*** | ***(5.92)*** | ***(5.92)*** | ***(5.92)*** | |
| Output Torque in•lbs | 5140 | 6265 | 6855 | 7840 | 8575 | 7015 | 7485 | 8185 | 9380 | 9290 | 10175 | 12035 | 13805 | |
| *(N•m)* | *(581)* | *(708)* | *(775)* | *(886)* | *(969)* | *(793)* | *(846)* | *(925)* | *(1060)* | *(1050)* | *(1150)* | *(1360)* | *(1560)* | |
| Hollow Shaft OHL lbs | 4675 | 4855 | 4945 | 5080 | 5170 | 5665 | 5730 | 5845 | 6000 | 6495 | 6605 | 6810 | 6965 | |
| *(N)* | *(20800)* | *(21600)* | *(22000)* | *(22600)* | *(23000)* | *(25200)* | *(25500)* | *(26000)* | *(26700)* | *(28900)* | *(29400)* | *(30300)* | *(31000)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3490 | 3670 | 3770 | 4070 | 4320 | 4860 | 5120 | 5590 | 5970 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16320)* | *(16760)* | *(18100)* | *(19210)* | *(21610)* | *(22770)* | *(24860)* | *(26550)* | **4B125** |
| **Input Power HP** | **25.5** | **25.5** | **25.5** | **25.5** | **25.5** | **17.4** | **17.4** | **17.4** | **17.4** | **16.1** | **14.8** | **12.5** | **10.8** | |
| ***(kW)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(12.0)*** | ***(11.0)*** | ***(9.30)*** | ***(8.06)*** | |
| Output Torque in•lbs | 8845 | 10795 | 11855 | 13535 | 14775 | 12210 | 13005 | 14245 | 16190 | 18845 | 18845 | 18845 | 18845 | |
| *(N•m)* | *(1000)* | *(1220)* | *(1340)* | *(1530)* | *(1670)* | *(1380)* | *(1470)* | *(1610)* | *(1830)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | |
| Hollow Shaft OHL lbs | 4270 | 4360 | 4405 | 4450 | 4495 | 5100 | 5145 | 5190 | 5260 | 5460 | 5665 | 6065 | 6425 | |
| *(N)* | *(19000)* | *(19400)* | *(19600)* | *(19800)* | *(20000)* | *(22700)* | *(22900)* | *(23100)* | *(23400)* | *(24300)* | *(25200)* | *(27000)* | *(28600)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3490 | 3670 | 3770 | 4070 | 4320 | 4860 | 5120 | 5590 | 5970 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16320)* | *(16760)* | *(18100)* | *(19210)* | *(21610)* | *(22770)* | *(24860)* | *(26550)* | **4B140** |
| **Input Power HP** | **29.5** | **29.5** | **29.5** | **29.5** | **29.5** | **20.2** | **20.2** | **20.2** | **20.2** | **16.1** | **14.8** | **12.5** | **10.8** | |
| ***(kW)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(12.0)*** | ***(11.0)*** | ***(9.30)*** | ***(8.06)*** | |
| Output Torque in•lbs | 10265 | 12565 | 13715 | 15660 | 17165 | 14155 | 15130 | 16545 | 18845 | 18845 | 18845 | 18845 | 18845 | |
| *(N•m)* | *(1160)* | *(1420)* | *(1550)* | *(1770)* | *(1940)* | *(1600)* | *(1710)* | *(1870)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | |
| Hollow Shaft OHL lbs | 4110 | 4180 | 4200 | 4225 | 4225 | 4900 | 4900 | 4945 | 4965 | 5460 | 5665 | 6065 | 6425 | |
| *(N)* | *(18300)* | *(18600)* | *(18700)* | *(18800)* | *(18800)* | *(21800)* | *(21800)* | *(22000)* | *(22100)* | *(24300)* | *(25200)* | *(27000)* | *(28600)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3490 | 3670 | 3770 | 4070 | 4320 | 4860 | 5120 | 5590 | 5970 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16320)* | *(16760)* | *(18100)* | *(19210)* | *(21610)* | *(22770)* | *(24860)* | *(26550)* | **4B145** |



Frame Size Selection Tables 60 Hz, 1750 RPM



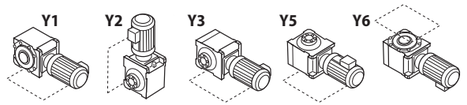

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.57** | **3.26** | **2.80** | **2.55** | **2.32** | **1.89** | **1.60** | **1.38** | **1.15** | **0.936** | **—** | |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.09)*** | ***(1.9)*** | ***(1.73)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.855)*** | ***(0.698)*** | **—** | |
| Output Torque in•lbs | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | — | |
| *(N•m)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | — | |
| Hollow Shaft OHL lbs | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | — | |
| *(N)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | | **4A140** |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.57** | **3.26** | **2.80** | **2.55** | **2.32** | **1.89** | **1.60** | **1.38** | **1.15** | **0.936** | **—** | |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.09)*** | ***(1.9)*** | ***(1.73)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.855)*** | ***(0.698)*** | **—** | |
| Output Torque in•lbs | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | 9465 | — | |
| *(N•m)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | *(1070)* | — | |
| Hollow Shaft OHL lbs | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | — | |
| *(N)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | — | **4A145** |
| **Input Power HP** | **6.80** | **5.31** | **5.31** | **4.14** | **4.14** | **4.01** | **3.34** | **3.34** | **2.56** | **2.31** | **1.74** | **1.283** | **1.266** | **—** | |
| ***(kW)*** | ***(5.07)*** | ***(3.96)*** | ***(3.96)*** | ***(3.09)*** | ***(3.09)*** | ***(2.99)*** | ***(2.49)*** | ***(2.49)*** | ***(1.91)*** | ***(1.72)*** | ***(1.30)*** | ***(0.957)*** | ***(0.944)*** | **—** | |
| Output Torque in•lbs | 13450 | 11855 | 12920 | 10970 | 12035 | 13535 | 12475 | 13625 | 12830 | 13625 | 12035 | 10615 | 12830 | — | |
| *(N•m)* | *(1520)* | *(1340)* | *(1460)* | *(1240)* | *(1360)* | *(1530)* | *(1410)* | *(1540)* | *(1450)* | *(1540)* | *(1360)* | *(1200)* | *(1450)* | — | |
| Hollow Shaft OHL lbs | 7325 | 7820 | 7955 | 8405 | 8565 | 8765 | 8965 | 8745 | 8900 | 8745 | 9055 | 9280 | 8900 | — | |
| *(N)* | *(32600)* | *(34800)* | *(35400)* | *(37400)* | *(38100)* | *(39000)* | *(39900)* | *(38900)* | *(39600)* | *(38900)* | *(40300)* | *(41300)* | *(39600)* | — | |
| Solid Shaft OHL lbs | 6330 | 6650 | 6920 | 7110 | 7320 | 7400 | 7450 | 7490 | 7580 | 7600 | 7470 | 7320 | 7190 | — | |
| *(N)* | *(28150)* | *(29570)* | *(30780)* | *(31620)* | *(32550)* | *(32910)* | *(33130)* | *(33310)* | *(33710)* | *(33800)* | *(33220)* | *(32550)* | *(31980)* | — | **4B120** |
| **Input Power HP** | **7.59** | **6.54** | **6.54** | **5.31** | **5.31** | **5.06** | **4.26** | **4.26** | **3.19** | **3.06** | **2.17** | **1.61** | **1.515** | **—** | |
| ***(kW)*** | ***(5.66)*** | ***(4.88)*** | ***(4.88)*** | ***(3.96)*** | ***(3.96)*** | ***(3.77)*** | ***(3.18)*** | ***(3.18)*** | ***(2.38)*** | ***(2.28)*** | ***(1.62)*** | ***(1.20)*** | ***(1.13)*** | **—** | |
| Output Torque in•lbs | 14955 | 14600 | 16015 | 14070 | 15395 | 16990 | 15840 | 17345 | 15925 | 18140 | 14865 | 13270 | 15305 | — | |
| *(N•m)* | *(1690)* | *(1650)* | *(1810)* | *(1590)* | *(1740)* | *(1920)* | *(1790)* | *(1960)* | *(1800)* | *(2050)* | *(1680)* | *(1500)* | *(1730)* | — | |
| Hollow Shaft OHL lbs | 7170 | 7530 | 7640 | 8070 | 8205 | 7910 | 8225 | 7820 | 8205 | 7595 | 8475 | 8810 | 8360 | — | |
| *(N)* | *(31900)* | *(33500)* | *(34000)* | *(35900)* | *(36500)* | *(35200)* | *(36600)* | *(34800)* | *(36500)* | *(33800)* | *(37700)* | *(39200)* | *(37200)* | — | |
| Solid Shaft OHL lbs | 6330 | 6650 | 6920 | 7110 | 7320 | 7400 | 7450 | 7490 | 7580 | 7600 | 7470 | 7320 | 7190 | — | |
| *(N)* | *(28150)* | *(29570)* | *(30780)* | *(31620)* | *(32550)* | *(32910)* | *(33130)* | *(33310)* | *(33710)* | *(33800)* | *(33220)* | *(32550)* | *(31980)* | — | **4B125** |
| **Input Power HP** | **9.53** | **8.45** | **7.72** | **7.09** | **6.49** | **5.59** | **5.07** | **4.63** | **3.77** | **3.18** | **2.75** | **2.28** | **1.86** | **—** | |
| ***(kW)*** | ***(7.11)*** | ***(6.30)*** | ***(5.76)*** | ***(5.29)*** | ***(4.84)*** | ***(4.17)*** | ***(3.78)*** | ***(3.45)*** | ***(2.81)*** | ***(2.37)*** | ***(2.05)*** | ***(1.70)*** | ***(1.39)*** | **—** | |
| Output Torque in•lbs | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | — | |
| *(N•m)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | — | |
| Hollow Shaft OHL lbs | 6740 | 7055 | 7325 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | — | |
| *(N)* | *(30000)* | *(31400)* | *(32600)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | — | |
| Solid Shaft OHL lbs | 6330 | 6650 | 6920 | 7110 | 7320 | 7400 | 7450 | 7490 | 7580 | 7600 | 7470 | 7320 | 7190 | — | |
| *(N)* | *(28150)* | *(29570)* | *(30780)* | *(31620)* | *(32550)* | *(32910)* | *(33130)* | *(33310)* | *(33710)* | *(33800)* | *(33220)* | *(32550)* | *(31980)* | — | **4B140** |
| **Input Power HP** | **9.53** | **8.45** | **7.72** | **7.09** | **6.49** | **5.59** | **5.07** | **4.63** | **3.77** | **3.18** | **2.75** | **2.28** | **1.86** | **—** | |
| ***(kW)*** | ***(7.11)*** | ***(6.30)*** | ***(5.76)*** | ***(5.29)*** | ***(4.84)*** | ***(4.17)*** | ***(3.78)*** | ***(3.45)*** | ***(2.81)*** | ***(2.37)*** | ***(2.05)*** | ***(1.70)*** | ***(1.39)*** | **—** | |
| Output Torque in•lbs | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | — | |
| *(N•m)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | — | |
| Hollow Shaft OHL lbs | 6740 | 7055 | 7325 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | — | |
| *(N)* | *(30000)* | *(31400)* | *(32600)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | — | |
| Solid Shaft OHL lbs | 6330 | 6650 | 6920 | 7110 | 7320 | 7400 | 7450 | 7490 | 7580 | 7600 | 7470 | 7320 | 7190 | — | |
| *(N)* | *(28150)* | *(29570)* | *(30780)* | *(31620)* | *(32550)* | *(32910)* | *(33130)* | *(33310)* | *(33710)* | *(33800)* | *(33220)* | *(32550)* | *(31980)* | — | **4B145** |

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

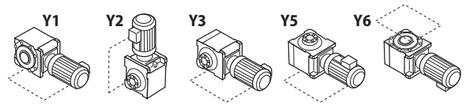



Dimensions on pages 2.156 - 2.166

| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **33.9** | **33.9** | **33.9** | **33.9** | **32.5** | **27.1** | **25.3** | **23.2** | **20.2** | **16.1** | **14.8** | **12.5** | **10.81** | |
| ***(kW)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(24.2)*** | ***(20.2)*** | ***(18.9)*** | ***(17.3)*** | ***(15.1)*** | ***(12.0)*** | ***(11.0)*** | ***(9.30)*** | ***(8.06)*** | |
| Output Torque in•lbs | 11855 | 14420 | 15750 | 18050 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | |
| *(N•m)* | *(1340)* | *(1630)* | *(1780)* | *(2040)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | **4B160** |
| Hollow Shaft OHL lbs | 3930 | 3975 | 3975 | 3955 | 4045 | 4380 | 4495 | 4695 | 4965 | 5460 | 5665 | 6065 | 6425 | |
| *(N)* | *(17500)* | *(17700)* | *(17700)* | *(17600)* | *(18000)* | *(19500)* | *(20000)* | *(20900)* | *(22100)* | *(24300)* | *(25200)* | *(27000)* | *(28600)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3490 | 3670 | 3770 | 4070 | 4320 | 4860 | 5120 | 5590 | 5970 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16320)* | *(16760)* | *(18100)* | *(19210)* | *(21610)* | *(22770)* | *(24860)* | *(26550)* | |
| **Input Power HP** | **38.9** | **38.9** | **38.9** | **35.5** | **32.5** | **27.1** | **25.3** | **23.2** | **20.2** | **16.1** | **14.8** | **12.5** | **10.81** | |
| ***(kW)*** | ***(29)*** | ***(29)*** | ***(29)*** | ***(26.5)*** | ***(24.2)*** | ***(20.2)*** | ***(18.9)*** | ***(17.3)*** | ***(15.1)*** | ***(12.0)*** | ***(11.0)*** | ***(9.30)*** | ***(8.06)*** | |
| Output Torque in•lbs | 13535 | 16545 | 18050 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | |
| *(N•m)* | *(1530)* | *(1870)* | *(2040)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | **4B165** |
| Hollow Shaft OHL lbs | 3750 | 3750 | 3730 | 3865 | 4045 | 4380 | 4495 | 4695 | 4965 | 5460 | 5665 | 6065 | 6425 | |
| *(N)* | *(16700)* | *(16700)* | *(16600)* | *(17200)* | *(18000)* | *(19500)* | *(20000)* | *(20900)* | *(22100)* | *(24300)* | *(25200)* | *(27000)* | *(28600)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3490 | 3670 | 3770 | 4070 | 4320 | 4860 | 5120 | 5590 | 5970 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16320)* | *(16760)* | *(18100)* | *(19210)* | *(21610)* | *(22770)* | *(24860)* | *(26550)* | |
| **Input Power HP** | **25.5** | **25.5** | **25.5** | **25.5** | **25.5** | **17.4** | **17.4** | **17.4** | **17.4** | **17.4** | **17.4** | **17.4** | **16.1** | |
| ***(kW)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(12.0)*** | |
| Output Torque in•lbs | 8845 | 10795 | 11855 | 13535 | 14775 | 12210 | 13005 | 14245 | 16190 | 20440 | 22300 | 26370 | 28050 | |
| *(N•m)* | *(1000)* | *(1220)* | *(1340)* | *(1530)* | *(1670)* | *(1380)* | *(1470)* | *(1610)* | *(1830)* | *(2310)* | *(2520)* | *(2980)* | *(3170)* | **4C140** |
| Hollow Shaft OHL lbs | 6335 | 6585 | 6695 | 6855 | 6965 | 7685 | 7755 | 7910 | 8090 | 8360 | 8475 | 8630 | 8965 | |
| *(N)* | *(28200)* | *(29300)* | *(29800)* | *(30500)* | *(31000)* | *(34200)* | *(34500)* | *(35200)* | *(36000)* | *(37200)* | *(37700)* | *(38400)* | *(39900)* | |
| Solid Shaft OHL lbs | 4590 | 4590 | 4590 | 4590 | 4590 | 4820 | 4950 | 5350 | 5720 | 6460 | 6850 | 7500 | 8030 | |
| *(N)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(21430)* | *(22010)* | *(23790)* | *(25440)* | *(28730)* | *(30460)* | *(33360)* | *(35710)* | |
| **Input Power HP** | **29.5** | **29.5** | **29.5** | **29.5** | **29.5** | **20.2** | **20.2** | **20.2** | **20.2** | **20.2** | **20.2** | **20.2** | **19.6** | |
| ***(kW)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(14.6)*** | |
| Output Torque in•lbs | 10265 | 12565 | 13715 | 15660 | 17165 | 14155 | 15130 | 16545 | 18845 | 23715 | 25925 | 30530 | 34070 | |
| *(N•m)* | *(1160)* | *(1420)* | *(1550)* | *(1770)* | *(1940)* | *(1600)* | *(1710)* | *(1870)* | *(2130)* | *(2680)* | *(2930)* | *(3450)* | *(3850)* | **4C145** |
| Hollow Shaft OHL lbs | 6200 | 6405 | 6515 | 6650 | 6740 | 7485 | 7550 | 7685 | 7845 | 8045 | 8135 | 8250 | 8405 | |
| *(N)* | *(27600)* | *(28500)* | *(29000)* | *(29600)* | *(30000)* | *(33300)* | *(33600)* | *(34200)* | *(34900)* | *(35800)* | *(36200)* | *(36700)* | *(37400)* | |
| Solid Shaft OHL lbs | 4590 | 4590 | 4590 | 4590 | 4590 | 4820 | 4950 | 5350 | 5720 | 6460 | 6850 | 7500 | 8030 | |
| *(N)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(21430)* | *(22010)* | *(23790)* | *(25440)* | *(28730)* | *(30460)* | *(33360)* | *(35710)* | |
| **Input Power HP** | **33.9** | **33.9** | **33.9** | **33.9** | **33.9** | **33.9** | **27.2** | **27.2** | **26.4** | **26.4** | **26.4** | **24.9** | **21.6** | |
| ***(kW)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(20.3)*** | ***(20.3)*** | ***(19.7)*** | ***(19.7)*** | ***(19.7)*** | ***(18.6)*** | ***(16.1)*** | |
| Output Torque in•lbs | 11855 | 14420 | 15750 | 18050 | 19730 | 23625 | 20265 | 22120 | 24510 | 30885 | 33805 | 37695 | 37695 | |
| *(N•m)* | *(1340)* | *(1630)* | *(1780)* | *(2040)* | *(2230)* | *(2670)* | *(2290)* | *(2500)* | *(2770)* | *(3490)* | *(3820)* | *(4260)* | *(4260)* | **4C160** |
| Hollow Shaft OHL lbs | 6045 | 6225 | 6315 | 6425 | 6495 | 6585 | 7080 | 7145 | 7305 | 7370 | 7395 | 7575 | 8045 | |
| *(N)* | *(26900)* | *(27700)* | *(28100)* | *(28600)* | *(28900)* | *(29300)* | *(31500)* | *(31800)* | *(32500)* | *(32800)* | *(32900)* | *(33700)* | *(35800)* | |
| Solid Shaft OHL lbs | 4590 | 4590 | 4590 | 4590 | 4590 | 4820 | 4950 | 5350 | 5720 | 6460 | 6850 | 7500 | 8030 | |
| *(N)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(21430)* | *(22010)* | *(23790)* | *(25440)* | *(28730)* | *(30460)* | *(33360)* | *(35710)* | |
| **Input Power HP** | **40.2** | **40.2** | **40.2** | **40.2** | **40.2** | **40.2** | **32.3** | **32.3** | **32.3** | **32.2** | **29.5** | **24.9** | **21.6** | |
| ***(kW)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(24.0)*** | ***(22.0)*** | ***(18.6)*** | ***(16.1)*** | |
| Output Torque in•lbs | 13980 | 17075 | 18670 | 21415 | 23360 | 28050 | 23980 | 26190 | 30000 | 37695 | 37695 | 37695 | 37695 | |
| *(N•m)* | *(1580)* | *(1930)* | *(2110)* | *(2420)* | *(2640)* | *(3170)* | *(2710)* | *(2960)* | *(3390)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | **4C165** |
| Hollow Shaft OHL lbs | 5845 | 5975 | 6045 | 6090 | 6135 | 6180 | 6720 | 6765 | 6785 | 6720 | 7010 | 7575 | 8045 | |
| *(N)* | *(26000)* | *(26600)* | *(26900)* | *(27100)* | *(27300)* | *(27500)* | *(29900)* | *(30100)* | *(30200)* | *(29900)* | *(31200)* | *(33700)* | *(35800)* | |
| Solid Shaft OHL lbs | 4590 | 4590 | 4590 | 4590 | 4590 | 4820 | 4950 | 5350 | 5720 | 6460 | 6850 | 7500 | 8030 | |
| *(N)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(21430)* | *(22010)* | *(23790)* | *(25440)* | *(28730)* | *(30460)* | *(33360)* | *(35710)* | |



# Frame Size Selection Tables 60 Hz, 1750 RPM



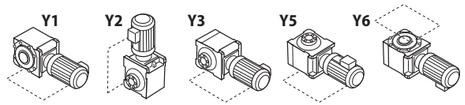

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **9.53** | **8.45** | **7.72** | **7.09** | **6.49** | **5.59** | **5.07** | **4.63** | **3.77** | **3.18** | **2.75** | **2.28** | **1.86** | **—** | |
| ***(kW)*** | ***(7.11)*** | ***(6.30)*** | ***(5.76)*** | ***(5.29)*** | ***(4.84)*** | ***(4.17)*** | ***(3.78)*** | ***(3.45)*** | ***(2.81)*** | ***(2.37)*** | ***(2.05)*** | ***(1.70)*** | ***(1.39)*** | **—** | |
| Output Torque in•lbs | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | — | |
| *(N•m)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | — | **4B160** |
| Hollow Shaft OHL lbs | 6740 | 7055 | 7325 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | — | |
| *(N)* | *(30000)* | *(31400)* | *(32600)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | — | |
| Solid Shaft OHL lbs | 6330 | 6650 | 6920 | 7110 | 7320 | 7400 | 7450 | 7490 | 7580 | 7600 | 7470 | 7320 | 7190 | — | |
| *(N)* | *(28150)* | *(29570)* | *(30780)* | *(31620)* | *(32550)* | *(32910)* | *(33130)* | *(33310)* | *(33710)* | *(33800)* | *(33220)* | *(32550)* | *(31980)* | — | |
| **Input Power HP** | **9.53** | **8.45** | **7.72** | **7.09** | **6.49** | **5.59** | **5.07** | **4.63** | **3.77** | **3.18** | **2.75** | **2.28** | **1.86** | **—** | |
| ***(kW)*** | ***(7.11)*** | ***(6.30)*** | ***(5.76)*** | ***(5.29)*** | ***(4.84)*** | ***(4.17)*** | ***(3.78)*** | ***(3.45)*** | ***(2.81)*** | ***(2.37)*** | ***(2.05)*** | ***(1.70)*** | ***(1.39)*** | **—** | |
| Output Torque in•lbs | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | 18845 | — | |
| *(N•m)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | *(2130)* | — | **4B165** |
| Hollow Shaft OHL lbs | 6740 | 7055 | 7325 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | — | |
| *(N)* | *(30000)* | *(31400)* | *(32600)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | — | |
| Solid Shaft OHL lbs | 6330 | 6650 | 6920 | 7110 | 7320 | 7400 | 7450 | 7490 | 7580 | 7600 | 7470 | 7320 | 7190 | — | |
| *(N)* | *(28150)* | *(29570)* | *(30780)* | *(31620)* | *(32550)* | *(32910)* | *(33130)* | *(33310)* | *(33710)* | *(33800)* | *(33220)* | *(32550)* | *(31980)* | — | |
| **Input Power HP** | **13.5** | **11.6** | **11.6** | **9.24** | **9.24** | **7.98** | **6.99** | **6.99** | **5.28** | **4.60** | **3.97** | **3.26** | **2.66** | **—** | |
| ***(kW)*** | ***(10.1)*** | ***(8.66)*** | ***(8.66)*** | ***(6.89)*** | ***(6.89)*** | ***(5.95)*** | ***(5.21)*** | ***(5.21)*** | ***(3.94)*** | ***(3.43)*** | ***(2.96)*** | ***(2.43)*** | ***(1.98)*** | **—** | |
| Output Torque in•lbs | 26635 | 25925 | 28315 | 24510 | 26810 | 26900 | 25925 | 28405 | 26460 | 27255 | 27255 | 26900 | 26810 | — | |
| *(N•m)* | *(3010)* | *(2930)* | *(3200)* | *(2770)* | *(3030)* | *(3040)* | *(2930)* | *(3210)* | *(2990)* | *(3080)* | *(3080)* | *(3040)* | *(3030)* | — | **4C140** |
| Hollow Shaft OHL lbs | 9550 | 10045 | 10180 | 10855 | 11015 | 11620 | 12115 | 12295 | 13440 | 14095 | 14115 | 14160 | 14160 | — | |
| *(N)* | *(42500)* | *(44700)* | *(45300)* | *(48300)* | *(49000)* | *(51700)* | *(53900)* | *(54700)* | *(59800)* | *(62700)* | *(62800)* | *(63000)* | *(63000)* | — | |
| Solid Shaft OHL lbs | 8540 | 9080 | 9510 | 9830 | 10190 | 10920 | 11330 | 11700 | 12410 | 12820 | 12750 | 12660 | 12590 | — | |
| *(N)* | *(37980)* | *(40380)* | *(42300)* | *(43720)* | *(45320)* | *(48570)* | *(50390)* | *(52040)* | *(55190)* | *(57020)* | *(56710)* | *(56310)* | *(56000)* | — | |
| **Input Power HP** | **16.1** | **14.75** | **14.75** | **10.6** | **10.6** | **10.1** | **10.1** | **9.27** | **7.23** | **5.66** | **4.89** | **4.06** | **3.33** | **—** | |
| ***(kW)*** | ***(12.0)*** | ***(11.0)*** | ***(11.0)*** | ***(7.91)*** | ***(7.91)*** | ***(7.53)*** | ***(7.53)*** | ***(6.91)*** | ***(5.39)*** | ***(4.22)*** | ***(3.65)*** | ***(3.03)*** | ***(2.48)*** | **—** | |
| Output Torque in•lbs | 31770 | 32740 | 35840 | 28140 | 30795 | 34070 | 37610 | 37695 | 36105 | 33535 | 33625 | 33535 | 33625 | — | |
| *(N•m)* | *(3590)* | *(3700)* | *(4050)* | *(3180)* | *(3480)* | *(3850)* | *(4250)* | *(4260)* | *(4080)* | *(3790)* | *(3800)* | *(3790)* | *(3800)* | — | **4C145** |
| Hollow Shaft OHL lbs | 9055 | 9395 | 9460 | 10495 | 10630 | 10945 | 11015 | 11420 | 12340 | 12925 | 12925 | 12945 | 12925 | — | |
| *(N)* | *(40300)* | *(41800)* | *(42100)* | *(46700)* | *(47300)* | *(48700)* | *(49000)* | *(50800)* | *(54900)* | *(57500)* | *(57500)* | *(57600)* | *(57500)* | — | |
| Solid Shaft OHL lbs | 8540 | 9080 | 9510 | 9830 | 10190 | 10920 | 11330 | 11700 | 12410 | 12820 | 12750 | 12660 | 12590 | — | |
| *(N)* | *(37980)* | *(40380)* | *(42300)* | *(43720)* | *(45320)* | *(48570)* | *(50390)* | *(52040)* | *(55190)* | *(57020)* | *(56710)* | *(56310)* | *(56000)* | — | |
| **Input Power HP** | **17.6** | **16.9** | **15.4** | **13.2** | **13.0** | **11.2** | **10.1** | **9.27** | **7.54** | **6.36** | **5.50** | **4.57** | **3.73** | **—** | |
| ***(kW)*** | ***(13.1)*** | ***(12.6)*** | ***(11.5)*** | ***(9.86)*** | ***(9.67)*** | ***(8.34)*** | ***(7.56)*** | ***(6.91)*** | ***(5.62)*** | ***(4.74)*** | ***(4.10)*** | ***(3.41)*** | ***(2.78)*** | **—** | |
| Output Torque in•lbs | 34600 | 37695 | 37695 | 35130 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | — | |
| *(N•m)* | *(3910)* | *(4260)* | *(4260)* | *(3970)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | — | **4C160** |
| Hollow Shaft OHL lbs | 8790 | 8920 | 9280 | 9845 | 9980 | 10585 | 10990 | 11420 | 11935 | 11935 | 11935 | 11935 | 11935 | — | |
| *(N)* | *(39100)* | *(39700)* | *(41300)* | *(43800)* | *(44400)* | *(47100)* | *(48900)* | *(50800)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | — | |
| Solid Shaft OHL lbs | 8540 | 9080 | 9510 | 9830 | 10190 | 10920 | 11330 | 11700 | 12410 | 12820 | 12750 | 12660 | 12590 | — | |
| *(N)* | *(37980)* | *(40380)* | *(42300)* | *(43720)* | *(45320)* | *(48570)* | *(50390)* | *(52040)* | *(55190)* | *(57020)* | *(56710)* | *(56310)* | *(56000)* | — | |
| **Input Power HP** | **19.0** | **16.9** | **15.4** | **14.2** | **13.0** | **11.2** | **10.1** | **9.27** | **7.54** | **6.36** | **5.50** | **4.57** | **3.73** | **—** | |
| ***(kW)*** | ***(14.2)*** | ***(12.6)*** | ***(11.5)*** | ***(10.6)*** | ***(9.67)*** | ***(8.34)*** | ***(7.56)*** | ***(6.91)*** | ***(5.62)*** | ***(4.74)*** | ***(4.10)*** | ***(3.41)*** | ***(2.78)*** | **—** | |
| Output Torque in•lbs | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | — | |
| *(N•m)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | — | **4C165** |
| Hollow Shaft OHL lbs | 8495 | 8920 | 9280 | 9595 | 9980 | 10585 | 10990 | 11420 | 11935 | 11935 | 11935 | 11935 | 11935 | — | |
| *(N)* | *(37800)* | *(39700)* | *(41300)* | *(42700)* | *(44400)* | *(47100)* | *(48900)* | *(50800)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | — | |
| Solid Shaft OHL lbs | 8540 | 9080 | 9510 | 9830 | 10190 | 10920 | 11330 | 11700 | 12410 | 12820 | 12750 | 12660 | 12590 | — | |
| *(N)* | *(37980)* | *(40380)* | *(42300)* | *(43720)* | *(45320)* | *(48570)* | *(50390)* | *(52040)* | *(55190)* | *(57020)* | *(56710)* | *(56310)* | *(56000)* | — | |

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions [1]




Dimensions on pages 2.156 - 2.166

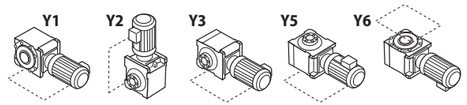
| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **11** | **13** | **14** | **16** | **18** | **21** | **22** | **25** | **28** | **35** | **39** | **46** | **53** | |
| **Input Power HP** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **45.5** | **45.5** | **45.5** | **40.5** | **32.2** | **29.5** | **24.9** | **21.6** | |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(30.2)*** | ***(24.0)*** | ***(22.0)*** | ***(18.6)*** | ***(16.1)*** | |
| Output Torque in•lbs | 19380 | 23630 | 25840 | 29560 | 32305 | 31680 | 33805 | 36990 | 37695 | 37695 | 37695 | 37695 | 37695 | |
| *(N•m)* | *(2190)* | *(2670)* | *(2920)* | *(3340)* | *(3650)* | *(3580)* | *(3820)* | *(4180)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | **4C170** |
| Hollow Shaft OHL lbs | 5325 | 5370 | 5370 | 5325 | 5305 | 5820 | 5775 | 5755 | 6045 | 6720 | 7010 | 7575 | 8045 | |
| *(N)* | *(23700)* | *(23900)* | *(23900)* | *(23700)* | *(23600)* | *(25900)* | *(25700)* | *(25600)* | *(26900)* | *(29900)* | *(31200)* | *(33700)* | *(35800)* | |
| Solid Shaft OHL lbs | 4405 | 4445 | 4445 | 4405 | 4390 | 4820 | 4950 | 5350 | 5720 | 6460 | 6850 | 7500 | 8030 | |
| *(N)* | *(19605)* | *(19770)* | *(19770)* | *(19605)* | *(19525)* | *(21430)* | *(22010)* | *(23790)* | *(25440)* | *(28730)* | *(30460)* | *(33360)* | *(35710)* | |
| **Input Power HP** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **48.3** | **48.3** | **46.3** | **40.5** | **32.2** | **29.5** | **24.9** | **21.6** | |
| ***(kW)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(36.0)*** | ***(36.0)*** | ***(34.5)*** | ***(30.2)*** | ***(24.0)*** | ***(22.0)*** | ***(18.6)*** | ***(16.1)*** | |
| Output Torque in•lbs | 21060 | 25665 | 28055 | 32035 | 35045 | 33630 | 35930 | 37700 | 37695 | 37695 | 37695 | 37695 | 37695 | |
| *(N•m)* | *(2380)* | *(2900)* | *(3170)* | *(3620)* | *(3960)* | *(3800)* | *(4060)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | **4C175** |
| Hollow Shaft OHL lbs | 5170 | 5170 | 5170 | 5100 | 5035 | 5640 | 5595 | 5685 | 6045 | 6720 | 7010 | 7575 | 8045 | |
| *(N)* | *(23000)* | *(23000)* | *(23000)* | *(22700)* | *(22400)* | *(25100)* | *(24900)* | *(25300)* | *(26900)* | *(29900)* | *(31200)* | *(33700)* | *(35800)* | |
| Solid Shaft OHL lbs | 4410 | 4410 | 4410 | 4355 | 4300 | 4815 | 4945 | 5345 | 5720 | 6460 | 6850 | 7500 | 8030 | |
| *(N)* | *(19635)* | *(19635)* | *(19635)* | *(19380)* | *(19125)* | *(21430)* | *(22010)* | *(23790)* | *(25440)* | *(28730)* | *(30460)* | *(33360)* | *(35710)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **33.9** | **27.2** | **27.2** | **26.4** | **26.4** | **26.4** | **26.4** | **25.1** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(25.3)*** | ***(20.3)*** | ***(20.3)*** | ***(19.7)*** | ***(19.7)*** | ***(19.7)*** | ***(19.7)*** | ***(18.7)*** | |
| Output Torque in•lbs | — | — | — | — | — | 23625 | 20265 | 22120 | 24510 | 30885 | 33805 | 39910 | 43805 | |
| *(N•m)* | — | — | — | — | — | *(2670)* | *(2290)* | *(2500)* | *(2770)* | *(3490)* | *(3820)* | *(4510)* | *(4950)* | **4D160** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 10835 | 11350 | 11575 | 11910 | 12385 | 12565 | 12855 | 13260 | |
| *(N)* | — | — | — | — | — | *(48200)* | *(50500)* | *(51500)* | *(53000)* | *(55100)* | *(55900)* | *(57200)* | *(59000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 6830 | 7030 | 7620 | 8140 | 9230 | 9770 | 10710 | 11480 | |
| *(N)* | — | — | — | — | — | *(30370)* | *(31260)* | *(33890)* | *(36200)* | *(41050)* | *(43450)* | *(47630)* | *(51060)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **40.2** | **32.3** | **32.3** | **32.3** | **32.3** | **32.3** | **30.3** | **30.3** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(30.0)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(22.6)*** | ***(22.6)*** | |
| Output Torque in•lbs | — | — | — | — | — | 28050 | 23980 | 26190 | 30000 | 37695 | 41235 | 45750 | 52830 | |
| *(N•m)* | — | — | — | — | — | *(3170)* | *(2710)* | *(2960)* | *(3390)* | *(4260)* | *(4660)* | *(5170)* | *(5970)* | **4D165** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 10495 | 11060 | 11240 | 11485 | 11825 | 11980 | 12385 | 12520 | |
| *(N)* | — | — | — | — | — | *(46700)* | *(49200)* | *(50000)* | *(51100)* | *(52600)* | *(53300)* | *(55100)* | *(55700)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 6830 | 7030 | 7620 | 8140 | 9230 | 9770 | 10710 | 11480 | |
| *(N)* | — | — | — | — | — | *(30370)* | *(31260)* | *(33890)* | *(36200)* | *(41050)* | *(43450)* | *(47630)* | *(51060)* | |
| **Input Power HP** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **45.5** | **45.5** | **45.5** | **45.5** | **37.0** | **37.0** | **36.6** | **34.2** | |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(27.6)*** | ***(27.6)*** | ***(27.3)*** | ***(25.5)*** | |
| Output Torque in•lbs | 19380 | 23625 | 25840 | 29555 | 32300 | 31680 | 33805 | 36990 | 42300 | 43270 | 47345 | 55310 | 59645 | |
| *(N•m)* | *(2190)* | *(2670)* | *(2920)* | *(3340)* | *(3650)* | *(3580)* | *(3820)* | *(4180)* | *(4780)* | *(4890)* | *(5350)* | *(6250)* | *(6740)* | **4D170** |
| Hollow Shaft OHL lbs | 8790 | 9080 | 9215 | 9375 | 9460 | 10205 | 10250 | 10385 | 10495 | 11375 | 11485 | 11620 | 11980 | |
| *(N)* | *(39100)* | *(40400)* | *(41000)* | *(41700)* | *(42100)* | *(45400)* | *(45600)* | *(46200)* | *(46700)* | *(50600)* | *(51100)* | *(51700)* | *(53300)* | |
| Solid Shaft OHL lbs | 6480 | 6480 | 6480 | 6480 | 6480 | 6830 | 7030 | 7620 | 8140 | 9230 | 9770 | 10710 | 11480 | |
| *(N)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(30370)* | *(31260)* | *(33890)* | *(36200)* | *(41050)* | *(43450)* | *(47630)* | *(51060)* | |
| **Input Power HP** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **49.6** | **49.6** | **49.6** | **49.6** | **40.4** | **40.4** | **40.4** | **36.7** | |
| ***(kW)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(30.1)*** | ***(30.1)*** | ***(30.1)*** | ***(27.4)*** | |
| Output Torque in•lbs | 21060 | 25660 | 28050 | 32035 | 35040 | 34600 | 36900 | 40350 | 46105 | 47165 | 51590 | 60970 | 63980 | |
| *(N•m)* | *(2380)* | *(2900)* | *(3170)* | *(3620)* | *(3960)* | *(3910)* | *(4170)* | *(4560)* | *(5210)* | *(5330)* | *(5830)* | *(6890)* | *(7230)* | **4D175** |
| Hollow Shaft OHL lbs | 8655 | 8925 | 9035 | 9170 | 9240 | 9955 | 10000 | 10090 | 10180 | 11060 | 11125 | 11170 | 11645 | |
| *(N)* | *(38500)* | *(39700)* | *(40200)* | *(40800)* | *(41100)* | *(44300)* | *(44500)* | *(44900)* | *(45300)* | *(49200)* | *(49500)* | *(49700)* | *(51800)* | |
| Solid Shaft OHL lbs | 6480 | 6480 | 6480 | 6480 | 6480 | 6830 | 7030 | 7620 | 8140 | 9230 | 9770 | 10710 | 11480 | |
| *(N)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(30370)* | *(31260)* | *(33890)* | *(36200)* | *(41050)* | *(43450)* | *(47630)* | *(51060)* | |

**Notes: [1]** For selections noted with *, the duty cycle for units mounted in the Y2 configuration is limited to 75% Equivalent Duty (10 minute cycle time).





# Frame Size Selection Tables 60 Hz, 1750 RPM



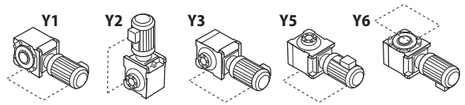

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **60** | **67** | **74** | **80** | **88** | **102** | **112** | **123** | **151** | **179** | **207** | **249** | **305** | **417** | |
| **Input Power HP** | **19.0** | **16.9** | **15.4** | **14.2** | **13.0** | **11.2** | **10.1** | **9.27** | **7.54** | **6.36** | **5.50** | **4.57** | **3.73** | **—** | |
| ***(kW)*** | ***(14.2)*** | ***(12.6)*** | ***(11.5)*** | ***(10.6)*** | ***(9.67)*** | ***(8.34)*** | ***(7.56)*** | ***(6.91)*** | ***(5.62)*** | ***(4.74)*** | ***(4.1)*** | ***(3.41)*** | ***(2.78)*** | **—** | |
| Output Torque in•lbs | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | — | |
| *(N•m)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | — | **4C170** |
| Hollow Shaft OHL lbs | 8495 | 8920 | 9280 | 9595 | 9980 | 10585 | 10990 | 11420 | 11935 | 11935 | 11935 | 11935 | 11935 | — | |
| *(N)* | *(37800)* | *(39700)* | *(41300)* | *(42700)* | *(44400)* | *(47100)* | *(48900)* | *(50800)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | — | |
| Solid Shaft OHL lbs | 8540 | 9080 | 9510 | 9830 | 10190 | 10920 | 11330 | 11700 | 12410 | 12820 | 12750 | 12660 | 12590 | — | |
| *(N)* | *(37980)* | *(40380)* | *(42300)* | *(43720)* | *(45320)* | *(48570)* | *(50390)* | *(52040)* | *(55190)* | *(57020)* | *(56710)* | *(56310)* | *(56000)* | — | |
| **Input Power HP** | **19.0** | **16.9** | **15.4** | **14.2** | **13.0** | **11.2** | **10.1** | **9.27** | **7.54** | **6.36** | **5.50** | **4.57** | **3.73** | **—** | |
| ***(kW)*** | ***(14.2)*** | ***(12.6)*** | ***(11.5)*** | ***(10.6)*** | ***(9.67)*** | ***(8.34)*** | ***(7.56)*** | ***(6.91)*** | ***(5.62)*** | ***(4.74)*** | ***(4.1)*** | ***(3.41)*** | ***(2.78)*** | **—** | |
| Output Torque in•lbs | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | 37695 | — | |
| *(N•m)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | *(4260)* | — | **4C175** |
| Hollow Shaft OHL lbs | 8495 | 8920 | 9280 | 9595 | 9980 | 10585 | 10990 | 11420 | 11935 | 11935 | 11935 | 11935 | 11935 | — | |
| *(N)* | *(37800)* | *(39700)* | *(41300)* | *(42700)* | *(44400)* | *(47100)* | *(48900)* | *(50800)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | — | |
| Solid Shaft OHL lbs | 8540 | 9080 | 9510 | 9830 | 10190 | 10920 | 11330 | 11700 | 12410 | 12820 | 12750 | 12660 | 12590 | — | |
| *(N)* | *(37980)* | *(40380)* | *(42300)* | *(43720)* | *(45320)* | *(48570)* | *(50390)* | *(52040)* | *(55190)* | *(57020)* | *(56710)* | *(56310)* | *(56000)* | — | |
| **Input Power HP** | **17.6** | **17.3** | **17.3** | **13.2** | **13.2** | **14.1** | **13.0** | **13.0** | **9.99** | **7.71** | **5.93** | **4.65** | **4.65** | **—** | |
| ***(kW)*** | ***(13.1)*** | ***(12.9)*** | ***(12.9)*** | ***(9.86)*** | ***(9.86)*** | ***(10.5)*** | ***(9.67)*** | ***(9.67)*** | ***(7.45)*** | ***(5.75)*** | ***(4.42)*** | ***(3.47)*** | ***(3.47)*** | **—** | |
| Output Torque in•lbs | 34600 | 38580 | 42210 | 35130 | 38405 | 47430 | 48230 | 52740 | 49910 | 45750 | 40615 | 38405 | 47075 | — | |
| *(N•m)* | *(3910)* | *(4360)* | *(4770)* | *(3970)* | *(4340)* | *(5360)* | *(5450)* | *(5960)* | *(5640)* | *(5170)* | *(4590)* | *(4340)* | *(5320)* | — | **4D160** |
| Hollow Shaft OHL lbs | 14635 | 14945 | 15170 | 16205 | 16475 | 16635 | 17150 | 17400 | 18410 | 19040 | 19735 | 20005 | 18860 | — | |
| *(N)* | *(65100)* | *(66500)* | *(67500)* | *(72100)* | *(73300)* | *(74000)* | *(76300)* | *(77400)* | *(81900)* | *(84700)* | *(87800)* | *(89000)* | *(83900)* | — | |
| Solid Shaft OHL lbs | 12230 | 13000 | 13630 | 14090 | 14590 | 15170 | 15500 | 15790 | 16360 | 16690 | 16660 | 16620 | 16590 | — | |
| *(N)* | *(54390)* | *(57820)* | *(60620)* | *(62670)* | *(64890)* | *(67470)* | *(68940)* | *(70230)* | *(72760)* | *(74230)* | *(74100)* | *(73920)* | *(73790)* | — | |
| **Input Power HP** | **25.2** | **21.6** | **21.6** | **20.2** | **20.2** | **15.3** | **15.3** | **15.3** | **10.6** | **10.1** | **7.71** | **7.58** | **5.23** | **—** | |
| ***(kW)*** | ***(18.8)*** | ***(16.1)*** | ***(16.1)*** | ***(15.1)*** | ***(15.1)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(7.91)*** | ***(7.53)*** | ***(5.75)*** | ***(5.65)*** | ***(3.9)*** | **—** | |
| Output Torque in•lbs | 49910 | 48050 | 52565 | 53715 | 58670 | 51590 | 56900 | 62210 | 53005 | 59910 | 52830 | 62565 | 52830 | — | |
| *(N•m)* | *(5640)* | *(5430)* | *(5940)* | *(6070)* | *(6630)* | *(5830)* | *(6430)* | *(7030)* | *(5990)* | *(6770)* | *(5970)* | *(7070)* | *(5970)* | — | **4D165** |
| Hollow Shaft OHL lbs | 13395 | 14185 | 14340 | 14700 | 14835 | 16295 | 16455 | 15960 | 17870 | 16500 | 17890 | 15915 | 17915 | — | |
| *(N)* | *(59600)* | *(63100)* | *(63800)* | *(65400)* | *(66000)* | *(72500)* | *(73200)* | *(71000)* | *(79500)* | *(73400)* | *(79600)* | *(70800)* | *(79700)* | — | |
| Solid Shaft OHL lbs | 12230 | 13000 | 13630 | 14090 | 14590 | 15170 | 15500 | 15790 | 16360 | 16690 | 16660 | 16620 | 16590 | — | |
| *(N)* | *(54390)* | *(57820)* | *(60620)* | *(62670)* | *(64890)* | *(67470)* | *(68940)* | *(70230)* | *(72760)* | *(74230)* | *(74100)* | *(73920)* | *(73790)* | — | |
| **Input Power HP** | **26.4** | **26.1** | **26.1** | **21.2** | **21.2** | **18.9** | **16.1** | **15.7** | **12.8** | **10.8** | **9.32** | **7.75** | **6.33** | **—** | |
| ***(kW)*** | ***(19.7)*** | ***(19.5)*** | ***(19.5)*** | ***(15.8)*** | ***(15.8)*** | ***(14.1)*** | ***(12)*** | ***(11.7)*** | ***(9.54)*** | ***(8.04)*** | ***(6.95)*** | ***(5.78)*** | ***(4.72)*** | **—** | |
| Output Torque in•lbs | 52035 | 58315 | 63805 | 56280 | 61590 | 63980 | 59820 | 63980 | 63980 | 63980 | 63980 | 63980 | 63980 | — | |
| *(N•m)* | *(5880)* | *(6590)* | *(7210)* | *(6360)* | *(6960)* | *(7230)* | *(6760)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | — | **4D170** |
| Hollow Shaft OHL lbs | 13240 | 13350 | 13420 | 14475 | 14610 | 15305 | 16205 | 15555 | 15555 | 15555 | 15555 | 15555 | 15555 | — | |
| *(N)* | *(58900)* | *(59400)* | *(59700)* | *(64400)* | *(65000)* | *(68100)* | *(72100)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | — | |
| Solid Shaft OHL lbs | 12230 | 13000 | 13630 | 14090 | 14590 | 15170 | 15500 | 15790 | 16360 | 16690 | 16660 | 16620 | 16590 | — | |
| *(N)* | *(54390)* | *(57820)* | *(60620)* | *(62670)* | *(64890)* | *(67470)* | *(68940)* | *(70230)* | *(72760)* | *(74230)* | *(74100)* | *(73920)* | *(73790)* | — | |
| **Input Power HP** | **32.3** | **28.7** | **26.1** | **24.0** | **22.0** | **18.9** | **17.2** | **15.7** | **12.8** | **10.8** | **9.32** | **7.75** | **6.33** | **—** | |
| ***(kW)*** | ***(24.1)*** | ***(21.4)*** | ***(19.5)*** | ***(17.9)*** | ***(16.4)*** | ***(14.1)*** | ***(12.8)*** | ***(11.7)*** | ***(9.54)*** | ***(8.04)*** | ***(6.95)*** | ***(5.78)*** | ***(4.72)*** | **—** | |
| Output Torque in•lbs | 63715 | 63980 | 63980 | 63980 | 63980 | 63980 | 63980 | 63980 | 63980 | 63980 | 63980 | 63980 | 63980 | — | |
| *(N•m)* | *(7200)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | *(7230)* | — | **4D175** |
| Hollow Shaft OHL lbs | 12295 | 12900 | 13420 | 13870 | 14410 | 15305 | 15555 | 15555 | 15555 | 15555 | 15555 | 15555 | 15555 | — | |
| *(N)* | *(54700)* | *(57400)* | *(59700)* | *(61700)* | *(64100)* | *(68100)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | — | |
| Solid Shaft OHL lbs | 12230 | 13000 | 13630 | 14090 | 14590 | 15170 | 15500 | 15790 | 16360 | 16690 | 16660 | 16620 | 16590 | — | |
| *(N)* | *(54390)* | *(57820)* | *(60620)* | *(62670)* | *(64890)* | *(67470)* | *(68940)* | *(70230)* | *(72760)* | *(74230)* | *(74100)* | *(73920)* | *(73790)* | — | |

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions [1]




Dimensions on pages 2.156 - 2.166

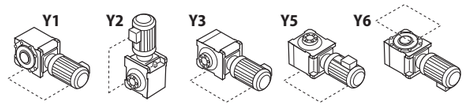
| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **11** | **13** | **14** | **16** | **18** | **21** | **22** | **25** | **28** | **35** | **39** | **46** | **53** | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **49.9** | **43.4** | |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(37.2)*** | ***(32.4)*** | |
| Output Torque in•lbs | 24955 | 30440 | 33270 | 38050 | 41590 | 38760 | 41415 | 45305 | 51770 | 65050 | 71160 | 75405 | 75760 | **4D180** |
| *(N•m)* | *(2820)* | *(3440)* | *(3760)* | *(4300)* | *(4700)* | *(4380)* | *(4680)* | *(5120)* | *(5850)* | *(7350)* | *(8040)* | *(8520)* | *(8560)* | |
| Hollow Shaft OHL lbs | 8340 | 8540 | 8610 | 8675 | 8720 | 9620 | 9665 | 9710 | 9730 | 9640 | 9575 | 10000 | 10700 | |
| *(N)* | *(37100)* | *(38000)* | *(38300)* | *(38600)* | *(38800)* | *(42800)* | *(43000)* | *(43200)* | *(43300)* | *(42900)* | *(42600)* | *(44500)* | *(47600)* | |
| Solid Shaft OHL lbs | 6480 | 6480 | 6480 | 6480 | 6480 | 6830 | 7030 | 7620 | 8140 | 9230 | 9770 | 10710 | 11480 | |
| *(N)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(30370)* | *(31260)* | *(33890)* | *(36200)* | *(41050)* | *(43450)* | *(47630)* | *(51060)* | |
| **Input Power HP** | **80.5** | **80.5** | **80.5** | **80.5** | **80.5** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **56.1** | **49.9** | **44.3** | |
| ***(kW)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(41.8)*** | ***(37.2)*** | ***(33.0)*** | |
| Output Torque in•lbs | 28050 | 34155 | 37430 | 42740 | 46725 | 42035 | 44865 | 49115 | 56105 | 70540 | 71690 | 75405 | 77175 | **4D185** |
| *(N•m)* | *(3170)* | *(3860)* | *(4230)* | *(4830)* | *(5280)* | *(4750)* | *(5070)* | *(5550)* | *(6340)* | *(7970)* | *(8100)* | *(8520)* | *(8720)* | |
| Hollow Shaft OHL lbs | 8090 | 8225 | 8270 | 8315 | 8315 | 9350 | 9375 | 9395 | 9375 | 9195 | 9530 | 10000 | 10565 | |
| *(N)* | *(36000)* | *(36600)* | *(36800)* | *(37000)* | *(37000)* | *(37000)* | *(41700)* | *(41800)* | *(41700)* | *(40900)* | *(42400)* | *(44500)* | *(47000)* | |
| Solid Shaft OHL lbs | 6480 | 6480 | 6480 | 6480 | 6480 | 6830 | 7030 | 7620 | 8140 | 9230 | 9770 | 10710 | 11480 | |
| *(N)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(30370)* | *(31260)* | *(33890)* | *(36200)* | *(41050)* | *(43450)* | *(47630)* | *(51060)* | |
| **Input Power HP** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **45.5** | **45.5** | **45.5** | **45.5** | **37.0** | **37.0** | **36.6** | **34.2** | |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(27.6)*** | ***(27.6)*** | ***(27.3)*** | ***(25.5)*** | |
| Output Torque in•lbs | 19380 | 23625 | 25840 | 29555 | 32300 | 31680 | 33805 | 36990 | 42300 | 43270 | 47345 | 55310 | 59645 | **4E170** |
| *(N•m)* | *(2190)* | *(2670)* | *(2920)* | *(3340)* | *(3650)* | *(3580)* | *(3820)* | *(4180)* | *(4780)* | *(4890)* | *(5350)* | *(6250)* | *(6740)* | |
| Hollow Shaft OHL lbs | 11870 | 12360 | 12585 | 12900 | 13125 | 14025 | 14185 | 14430 | 14745 | 15915 | 16160 | 16590 | 17175 | |
| *(N)* | *(52800)* | *(55000)* | *(56000)* | *(57400)* | *(58400)* | *(62400)* | *(63100)* | *(64200)* | *(65600)* | *(70800)* | *(71900)* | *(73800)* | *(76400)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 9770 | 10220 | 10480 | 11230 | 11890 | 13300 | 14030 | 15220 | 16200 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(45450)* | *(46610)* | *(49950)* | *(52880)* | *(59150)* | *(62400)* | *(67690)* | *(72050)* | |
| **Input Power HP** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **49.6** | **49.6** | **49.6** | **49.6** | **40.4** | **40.4** | **40.4** | **40.4** | |
| ***(kW)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(30.1)*** | ***(30.1)*** | ***(30.1)*** | ***(30.1)*** | |
| Output Torque in•lbs | 21060 | 25660 | 28050 | 32035 | 35040 | 34600 | 36900 | 40350 | 46105 | 47165 | 51590 | 60970 | 70440 | **4E175** |
| *(N•m)* | *(2380)* | *(2900)* | *(3170)* | *(3620)* | *(3960)* | *(3910)* | *(4170)* | *(4560)* | *(5210)* | *(5330)* | *(5830)* | *(6890)* | *(7960)* | |
| Hollow Shaft OHL lbs | 11755 | 12230 | 12430 | 12720 | 12925 | 13825 | 13960 | 14185 | 14455 | 15620 | 15845 | 16160 | 16365 | |
| *(N)* | *(52300)* | *(54400)* | *(55300)* | *(56600)* | *(57500)* | *(61500)* | *(62100)* | *(63100)* | *(64300)* | *(69500)* | *(70500)* | *(71900)* | *(72800)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 9770 | 10220 | 10480 | 11230 | 11890 | 13300 | 14030 | 15220 | 16200 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(45450)* | *(46610)* | *(49950)* | *(52880)* | *(59150)* | *(62400)* | *(67690)* | *(72050)* | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **43.4** | |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(32.4)*** | |
| Output Torque in•lbs | 24955 | 30440 | 33270 | 38050 | 41590 | 38760 | 41415 | 45305 | 51770 | 65040 | 71150 | 84070 | 75750 | **4E180** |
| *(N•m)* | *(2820)* | *(3440)* | *(3760)* | *(4300)* | *(4700)* | *(4380)* | *(4680)* | *(5120)* | *(5850)* | *(7350)* | *(8040)* | *(9500)* | *(8560)* | |
| Hollow Shaft OHL lbs | 11465 | 11870 | 12050 | 12295 | 12430 | 13510 | 13645 | 13825 | 14050 | 14320 | 14410 | 14475 | 15980 | |
| *(N)* | *(51000)* | *(52800)* | *(53600)* | *(54700)* | *(55300)* | *(60100)* | *(60700)* | *(61500)* | *(62500)* | *(63700)* | *(64100)* | *(64400)* | *(71100)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 9770 | 10220 | 10480 | 11230 | 11890 | 13300 | 14030 | 15220 | 16200 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(45450)* | *(46610)* | *(49950)* | *(52880)* | *(59150)* | *(62400)* | *(67690)* | *(72050)* | |
| **Input Power HP** | **80.5** | **80.5** | **80.5** | **80.5** | **80.5** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **52.3** | |
| ***(kW)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(39.0)*** | |
| Output Torque in•lbs | 28050 | 34155 | 37430 | 42740 | 46725 | 42035 | 44865 | 49115 | 56105 | 70530 | 77165 | 91160 | 91160 | **4E185** |
| *(N•m)* | *(3170)* | *(3860)* | *(4230)* | *(4830)* | *(5280)* | *(4750)* | *(5070)* | *(5550)* | *(6340)* | *(7970)* | *(8720)* | *(10300)* | *(10300)* | |
| Hollow Shaft OHL lbs | 11240 | 11600 | 11755 | 11935 | 12070 | 13285 | 13400 | 13530 | 13710 | 13935 | 13960 | 13935 | 14860 | |
| *(N)* | *(50000)* | *(51600)* | *(52300)* | *(53100)* | *(53700)* | *(59100)* | *(59600)* | *(60200)* | *(61000)* | *(62000)* | *(62100)* | *(62000)* | *(66100)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 9770 | 10220 | 10480 | 11230 | 11890 | 13300 | 14030 | 15220 | 16200 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(45450)* | *(46610)* | *(49950)* | *(52880)* | *(59150)* | *(62400)* | *(67690)* | *(72050)* | |

**Notes: [1]** For selections noted with *, the duty cycle for units mounted in the Y2 configuration is limited to 75% Equivalent Duty (10 minute cycle time).





# Frame Size Selection Tables 60 Hz, 1750 RPM



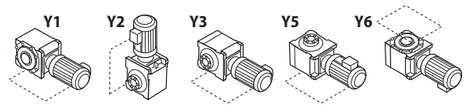

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **60** | **67** | **74** | **80** | **88** | **102** | **112** | **123** | **151** | **179** | **207** | **249** | **305** | **417** | |
| **Input Power HP** | **39.0** | **34.6** | **31.6** | **29.1** | **26.6** | **22.9** | **20.8** | **18.9** | **15.4** | **13.0** | **11.3** | **9.35** | **7.63** | **—** | |
| ***(kW)*** | ***(29.1)*** | ***(25.8)*** | ***(23.6)*** | ***(21.7)*** | ***(19.8)*** | ***(17.1)*** | ***(15.5)*** | ***(14.1)*** | ***(11.5)*** | ***(9.71)*** | ***(8.39)*** | ***(6.97)*** | ***(5.69)*** | **—** | |
| Output Torque in•lbs | 77175 | 77175 | 77175 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | **4D180** |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11215 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(49900)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 12230 | 13000 | 13630 | 14090 | 14590 | 15170 | 15500 | 15790 | 16360 | 16690 | 16660 | 16620 | 16590 | — | |
| *(N)* | *(54390)* | *(57820)* | *(60620)* | *(62670)* | *(64890)* | *(67470)* | *(68940)* | *(70230)* | *(72760)* | *(74230)* | *(74100)* | *(73920)* | *(73790)* | — | |
| **Input Power HP** | **39.0** | **34.6** | **31.6** | **29.1** | **26.6** | **22.9** | **20.8** | **18.9** | **15.4** | **13.0** | **11.3** | **9.35** | **7.63** | **—** | |
| ***(kW)*** | ***(29.1)*** | ***(25.8)*** | ***(23.6)*** | ***(21.7)*** | ***(19.8)*** | ***(17.1)*** | ***(15.5)*** | ***(14.1)*** | ***(11.5)*** | ***(9.71)*** | ***(8.39)*** | ***(6.97)*** | ***(5.69)*** | **—** | |
| Output Torque in•lbs | 77175 | 77175 | 77175 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | **4D185** |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11215 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(49900)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 12230 | 13000 | 13630 | 14090 | 14590 | 15170 | 15500 | 15790 | 16360 | 16690 | 16660 | 16620 | 16590 | — | |
| *(N)* | *(54390)* | *(57820)* | *(60620)* | *(62670)* | *(64890)* | *(67470)* | *(68940)* | *(70230)* | *(72760)* | *(74230)* | *(74100)* | *(73920)* | *(73790)* | — | |
| **Input Power HP** | **26.4** | **26.1** | **26.1** | **21.2** | **21.2** | **19.2** | **16.1** | **16.1** | **13.1** | **11.3** | **9.59** | **7.94** | **6.45** | **—** | |
| ***(kW)*** | ***(19.7)*** | ***(19.5)*** | ***(19.5)*** | ***(15.8)*** | ***(15.8)*** | ***(14.3)*** | ***(12)*** | ***(12)*** | ***(9.75)*** | ***(8.39)*** | ***(7.15)*** | ***(5.92)*** | ***(4.81)*** | **—** | |
| Output Torque in•lbs | 52035 | 58315 | 63805 | 56280 | 61590 | 64600 | 59820 | 65485 | 65310 | 66725 | 65750 | 65485 | 65220 | — | **4E170** |
| *(N•m)* | *(5880)* | *(6590)* | *(7210)* | *(6360)* | *(6960)* | *(7300)* | *(6760)* | *(7400)* | *(7380)* | *(7540)* | *(7430)* | *(7400)* | *(7370)* | — | |
| Hollow Shaft OHL lbs | 18545 | 18880 | 19150 | 20275 | 20590 | 20525 | 20770 | 20480 | 20500 | 20435 | 20480 | 20480 | 20500 | — | |
| *(N)* | *(82500)* | *(84000)* | *(85200)* | *(90200)* | *(91600)* | *(91300)* | *(92400)* | *(91100)* | *(91200)* | *(90900)* | *(91100)* | *(91100)* | *(91200)* | — | |
| Solid Shaft OHL lbs | 17180 | 18190 | 19010 | 19590 | 20230 | 20610 | 20820 | 21020 | 21380 | 21620 | 21700 | 21790 | 21870 | — | |
| *(N)* | *(76410)* | *(80900)* | *(84550)* | *(87130)* | *(89980)* | *(91670)* | *(92600)* | *(93490)* | *(95090)* | *(96160)* | *(96520)* | *(96920)* | *(97270)* | — | |
| **Input Power HP** | **32.3** | **32.3** | **29.5** | **26.1** | **24.8** | **21.3** | **20.2** | **20.2** | **15.2** | **14.4** | **11.1** | **9.59** | **7.54** | **—** | |
| ***(kW)*** | ***(24.1)*** | ***(24.1)*** | ***(22)*** | ***(19.5)*** | ***(18.5)*** | ***(15.9)*** | ***(15.1)*** | ***(15.1)*** | ***(11.3)*** | ***(10.7)*** | ***(8.29)*** | ***(7.15)*** | ***(5.62)*** | **—** | |
| Output Torque in•lbs | 63715 | 71945 | 72035 | 69465 | 72035 | 72035 | 75130 | 82210 | 75750 | 85040 | 76195 | 79115 | 76195 | — | **4E175** |
| *(N•m)* | *(7200)* | *(8130)* | *(8140)* | *(7850)* | *(8140)* | *(8140)* | *(8490)* | *(9290)* | *(8560)* | *(9610)* | *(8610)* | *(8940)* | *(8610)* | — | |
| Hollow Shaft OHL lbs | 17690 | 17890 | 18545 | 19310 | 19825 | 20140 | 19985 | 19625 | 19960 | 19490 | 19940 | 19805 | 19940 | — | |
| *(N)* | *(78700)* | *(79600)* | *(82500)* | *(85900)* | *(88200)* | *(89600)* | *(88900)* | *(87300)* | *(88800)* | *(86700)* | *(88700)* | *(88100)* | *(88700)* | — | |
| Solid Shaft OHL lbs | 17180 | 18190 | 19010 | 19590 | 20230 | 20610 | 20820 | 21020 | 21380 | 21620 | 21700 | 21790 | 21870 | — | |
| *(N)* | *(76410)* | *(80900)* | *(84550)* | *(87130)* | *(89980)* | *(91670)* | *(92600)* | *(93490)* | *(95090)* | *(96160)* | *(96520)* | *(96920)* | *(97270)* | — | |
| **Input Power HP** | **41.0** | **40.2** | **40.2** | **32.3** | **32.3** | **26.1** | **25.2** | **25.2** | **20.2** | **16.1** | **13.1** | **11.8** | **9.59** | **—** | |
| ***(kW)*** | ***(30.6)*** | ***(30.0)*** | ***(30.0)*** | ***(24.1)*** | ***(24.1)*** | ***(19.5)*** | ***(18.8)*** | ***(18.8)*** | ***(15.1)*** | ***(12)*** | ***(9.75)*** | ***(8.8)*** | ***(7.15)*** | **—** | |
| Output Torque in•lbs | 81060 | 89390 | 98240 | 85840 | 93815 | 88150 | 93805 | 102665 | 100885 | 95575 | 89380 | 97345 | 97345 | — | **4E180** |
| *(N•m)* | *(9160)* | *(10100)* | *(11100)* | *(9700)* | *(10600)* | *(9960)* | *(10600)* | *(11600)* | *(11400)* | *(10800)* | *(10100)* | *(11000)* | *(11000)* | — | |
| Hollow Shaft OHL lbs | 16430 | 16610 | 16635 | 18165 | 18230 | 19330 | 19060 | 18455 | 18680 | 18970 | 19265 | 18860 | 18880 | — | |
| *(N)* | *(73100)* | *(73900)* | *(74000)* | *(80800)* | *(81100)* | *(86000)* | *(84800)* | *(82100)* | *(83100)* | *(84400)* | *(85700)* | *(83900)* | *(84000)* | — | |
| Solid Shaft OHL lbs | 17180 | 18190 | 19010 | 19590 | 20230 | 20610 | 20820 | 21020 | 21380 | 21620 | 21700 | 21790 | 21870 | — | |
| *(N)* | *(76410)* | *(80900)* | *(84550)* | *(87130)* | *(89980)* | *(91670)* | *(92600)* | *(93490)* | *(95090)* | *(96160)* | *(96520)* | *(96920)* | *(97270)* | — | |
| **Input Power HP** | **51.9** | **46.0** | **42.1** | **38.6** | **35.3** | **30.4** | **27.6** | **25.2** | **20.5** | **17.3** | **15.0** | **12.4** | **10.2** | **—** | |
| ***(kW)*** | ***(38.7)*** | ***(34.3)*** | ***(31.4)*** | ***(28.8)*** | ***(26.3)*** | ***(22.7)*** | ***(20.6)*** | ***(18.8)*** | ***(15.3)*** | ***(12.9)*** | ***(11.2)*** | ***(9.28)*** | ***(7.57)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | **4E185** |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 14835 | 15665 | 16905 | 16905 | 17580 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(66000)* | *(69700)* | *(72500)* | *(75200)* | *(78200)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 17180 | 18190 | 19010 | 19590 | 20230 | 20610 | 20820 | 21020 | 21380 | 21620 | 21700 | 21790 | 21870 | — | |
| *(N)* | *(76410)* | *(80900)* | *(84550)* | *(87130)* | *(89980)* | *(91670)* | *(92600)* | *(93490)* | *(95090)* | *(96160)* | *(96520)* | *(96920)* | *(97270)* | — | |

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions [1]




Dimensions on pages 2.156 - 2.166

| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **91.7** | **91.7** | **91.7** | **91.7** | **91.7** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | **65.6** | **58.9** | |
| ***(kW)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(48.9)*** | ***(43.9)*** | |
| Output Torque in•lbs | 31945 | 39025 | 42655 | 48760 | 53270 | 47345 | 50440 | 55220 | 63095 | 79300 | 86735 | 99125 | 102665 | |
| *(N•m)* | *(3610)* | *(4410)* | *(4820)* | *(5510)* | *(6020)* | *(5350)* | *(5700)* | *(6240)* | *(7130)* | *(8960)* | *(9800)* | *(11200)* | *(11600)* | 4E190 |
| Hollow Shaft OHL lbs | 10945 | 11240 | 11350 | 11510 | 11575 | 12900 | 12970 | 13080 | 13215 | 13285 | 13260 | 13375 | 14005 | |
| *(N)* | *(48700)* | *(50000)* | *(50500)* | *(51200)* | *(51500)* | *(57400)* | *(57700)* | *(58200)* | *(58800)* | *(59100)* | *(59000)* | *(59500)* | *(62300)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 9770 | 10220 | 10480 | 11230 | 11890 | 13300 | 14030 | 15220 | 16200 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(45450)* | *(46610)* | *(49950)* | *(52880)* | *(59150)* | *(62400)* | *(67690)* | *(72050)* | |
| **Input Power HP** | **101** | **101** | **101** | **101** | **101** | **73.8** | **73.8** | **73.8** | **73.8** | **73.8** | **73.6** | **65.6** | **58.9** | |
| ***(kW)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(54.9)*** | ***(48.9)*** | ***(43.9)*** | |
| Output Torque in•lbs | 35040 | 42740 | 46725 | 53450 | 58405 | 51415 | 54865 | 60000 | 68580 | 86205 | 93815 | 99125 | 102665 | |
| *(N•m)* | *(3960)* | *(4830)* | *(5280)* | *(6040)* | *(6600)* | *(5810)* | *(6200)* | *(6780)* | *(7750)* | *(9740)* | *(10600)* | *(11200)* | *(11600)* | 4E195 |
| Hollow Shaft OHL lbs | 10720 | 10970 | 11060 | 11150 | 11215 | 12585 | 12655 | 12745 | 12810 | 12765 | 12720 | 13375 | 14005 | |
| *(N)* | *(47700)* | *(48800)* | *(49200)* | *(49600)* | *(49900)* | *(56000)* | *(56300)* | *(56700)* | *(57000)* | *(56800)* | *(56600)* | *(59500)* | *(62300)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 9770 | 10220 | 10480 | 11230 | 11890 | 13300 | 14030 | 15220 | 16200 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(45450)* | *(46610)* | *(49950)* | *(52880)* | *(59150)* | *(62400)* | *(67690)* | *(72050)* | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **43.4** | |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(32.4)*** | |
| Output Torque in•lbs | 24955 | 30440 | 33270 | 38050 | 41590 | 38760 | 41415 | 45305 | 51770 | 65040 | 71160 | 84080 | 75760 | |
| *(N•m)* | *(2820)* | *(3440)* | *(3760)* | *(4300)* | *(4700)* | *(4380)* | *(4680)* | *(5120)* | *(5850)* | *(7350)* | *(8040)* | *(9500)* | *(8560)* | 4F180 |
| Hollow Shaft OHL lbs | 20345 | 21310 | 21780 | 22410 | 22930 | 24500 | 24950 | 25400 | 26075 | 27200 | 27875 | 28550 | 29000 | |
| *(N)* | *(90500)* | *(94800)* | *(96900)* | *(99700)* | *(102000)* | *(109000)* | *(111000)* | *(113000)* | *(116000)* | *(121000)* | *(124000)* | *(127000)* | *(129000)* | |
| Solid Shaft OHL lbs | 17510 | 17510 | 17510 | 17510 | 17510 | 18260 | 18680 | 19930 | 21040 | 23340 | 24520 | 26590 | 28060 | |
| *(N)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(81220)* | *(83080)* | *(88640)* | *(93580)* | *(103810)* | *(109060)* | *(118270)* | *(124810)* | |
| **Input Power HP** | **80.5** | **80.5** | **80.5** | **80.5** | **80.5** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **52.3** | |
| ***(kW)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(39.0)*** | |
| Output Torque in•lbs | 28050 | 34155 | 37430 | 42740 | 46725 | 42035 | 44865 | 49115 | 56105 | 70530 | 77165 | 91150 | 91150 | |
| *(N•m)* | *(3170)* | *(3860)* | *(4230)* | *(4830)* | *(5280)* | *(4750)* | *(5070)* | *(5550)* | *(6340)* | *(7970)* | *(8720)* | *(10300)* | *(10300)* | 4F185 |
| Hollow Shaft OHL lbs | 20140 | 21060 | 21510 | 22095 | 22480 | 24275 | 24500 | 25175 | 25850 | 26975 | 27425 | 28100 | 28325 | |
| *(N)* | *(89600)* | *(93700)* | *(95700)* | *(98300)* | *(100000)* | *(108000)* | *(109000)* | *(112000)* | *(115000)* | *(120000)* | *(122000)* | *(125000)* | *(126000)* | |
| Solid Shaft OHL lbs | 17510 | 17510 | 17510 | 17510 | 17510 | 18260 | 18680 | 19930 | 21040 | 23340 | 24520 | 26590 | 28060 | |
| *(N)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(81220)* | *(83080)* | *(88640)* | *(93580)* | *(103810)* | *(109060)* | *(118270)* | *(124810)* | |
| **Input Power HP** | **91.7** | **91.7** | **91.7** | **91.7** | **91.7** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | |
| ***(kW)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | |
| Output Torque in•lbs | 31945 | 39025 | 42655 | 48760 | 53270 | 47345 | 50440 | 55220 | 63095 | 79290 | 86725 | 102665 | 118580 | |
| *(N•m)* | *(3610)* | *(4410)* | *(4820)* | *(5510)* | *(6020)* | *(5350)* | *(5700)* | *(6240)* | *(7130)* | *(8960)* | *(9800)* | *(11600)* | *(13400)* | 4F190 |
| Hollow Shaft OHL lbs | 19870 | 20745 | 21150 | 21715 | 22120 | 24050 | 24275 | 24725 | 25400 | 26300 | 26750 | 27425 | 26975 | |
| *(N)* | *(88400)* | *(92300)* | *(94100)* | *(96600)* | *(98400)* | *(107000)* | *(108000)* | *(110000)* | *(113000)* | *(117000)* | *(119000)* | *(122000)* | *(120000)* | |
| Solid Shaft OHL lbs | 17510 | 17510 | 17510 | 17510 | 17510 | 18260 | 18680 | 19930 | 21040 | 23340 | 24520 | 26590 | 28060 | |
| *(N)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(81220)* | *(83080)* | *(88640)* | *(93580)* | *(103810)* | *(109060)* | *(118270)* | *(124810)* | |
| **Input Power HP** | **101** | **101** | **101** | **101** | **101** | **73.8** | **73.8** | **73.8** | **73.8** | **73.8** | **73.8** | **73.8** | **73.8** | |
| ***(kW)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | |
| Output Torque in•lbs | 35040 | 42740 | 46725 | 53450 | 58405 | 51415 | 54865 | 60000 | 68580 | 86195 | 94690 | 111500 | 128315 | |
| *(N•m)* | *(3960)* | *(4830)* | *(5280)* | *(6040)* | *(6600)* | *(5810)* | *(6200)* | *(6780)* | *(7750)* | *(9740)* | *(10700)* | *(12600)* | *(14500)* | 4F195 |
| Hollow Shaft OHL lbs | 19670 | 20500 | 20880 | 21400 | 21780 | 23605 | 24050 | 24500 | 24950 | 25850 | 26300 | 26750 | 26525 | |
| *(N)* | *(87500)* | *(91200)* | *(92900)* | *(95200)* | *(96900)* | *(105000)* | *(107000)* | *(109000)* | *(111000)* | *(115000)* | *(117000)* | *(119000)* | *(118000)* | |
| Solid Shaft OHL lbs | 17510 | 17510 | 17510 | 17510 | 17510 | 18260 | 18680 | 19930 | 21040 | 23340 | 24520 | 26590 | 28060 | |
| *(N)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(81220)* | *(83080)* | *(88640)* | *(93580)* | *(103810)* | *(109060)* | *(118270)* | *(124810)* | |

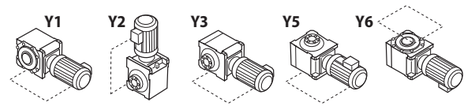
**Notes: [1]** For selections noted with *, the duty cycle for units mounted in the Y2 configuration is limited to 75% Equivalent Duty (10 minute cycle time).





Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

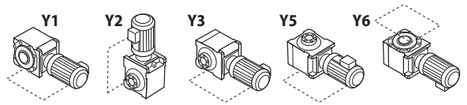



Dimensions on pages 2.156 - 2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **51.9** | **46.0** | **42.1** | **38.6** | **35.3** | **30.4** | **27.6** | **25.2** | **20.5** | **17.3** | **15.0** | **12.4** | **10.2** | **—** | |
| ***(kW)*** | ***(38.7)*** | ***(34.3)*** | ***(31.4)*** | ***(28.8)*** | ***(26.3)*** | ***(22.7)*** | ***(20.6)*** | ***(18.8)*** | ***(15.3)*** | ***(12.9)*** | ***(11.2)*** | ***(9.28)*** | ***(7.57)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | 4E190 |
| Hollow Shaft OHL lbs | 15665 | 15665 | 16300 | 16905 | 17580 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(66000)* | *(69700)* | *(72500)* | *(75200)* | *(78200)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 17180 | 18190 | 19010 | 19590 | 20230 | 20610 | 20820 | 21020 | 21380 | 21620 | 21700 | 21790 | 21870 | — | |
| *(N)* | *(76410)* | *(80900)* | *(84550)* | *(87130)* | *(89980)* | *(91670)* | *(92600)* | *(93490)* | *(95090)* | *(96160)* | *(96520)* | *(96920)* | *(97270)* | — | |
| **Input Power HP** | **51.9** | **46.0** | **42.1** | **38.6** | **35.3** | **30.4** | **27.6** | **25.2** | **20.5** | **17.3** | **15.0** | **12.4** | **10.2** | **—** | |
| ***(kW)*** | ***(38.7)*** | ***(34.3)*** | ***(31.4)*** | ***(28.8)*** | ***(26.3)*** | ***(22.7)*** | ***(20.6)*** | ***(18.8)*** | ***(15.3)*** | ***(12.9)*** | ***(11.2)*** | ***(9.28)*** | ***(7.57)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | 4E195 |
| Hollow Shaft OHL lbs | 14835 | 15665 | 16300 | 16905 | 17580 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(66000)* | *(69700)* | *(72500)* | *(75200)* | *(78200)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 17180 | 18190 | 19010 | 19590 | 20230 | 20610 | 20820 | 21020 | 21380 | 21620 | 21700 | 21790 | 21870 | — | |
| *(N)* | *(76410)* | *(80900)* | *(84550)* | *(87130)* | *(89980)* | *(91670)* | *(92600)* | *(93490)* | *(95090)* | *(96160)* | *(96520)* | *(96920)* | *(97270)* | — | |
| **Input Power HP** | **41.0** | **40.2** | **40.2** | **32.3** | **32.3** | **26.1** | **25.2** | **25.2** | **20.2** | **16.1** | **13.1** | **11.8** | **9.59** | **—** | |
| ***(kW)*** | ***(30.6)*** | ***(30.0)*** | ***(30.0)*** | ***(24.1)*** | ***(24.1)*** | ***(19.5)*** | ***(18.8)*** | ***(18.8)*** | ***(15.1)*** | ***(12)*** | ***(9.75)*** | ***(8.8)*** | ***(7.15)*** | **—** | |
| Output Torque in•lbs | 81070 | 89390 | 98240 | 85850 | 93815 | 88150 | 93805 | 102665 | 100885 | 95575 | 89380 | 97345 | 97345 | — | |
| *(N•m)* | *(9160)* | *(10100)* | *(11100)* | *(9700)* | *(10600)* | *(9960)* | *(10600)* | *(11600)* | *(11400)* | *(10800)* | *(10100)* | *(11000)* | *(11000)* | — | 4F180 |
| Hollow Shaft OHL lbs | 28775 | 28325 | 27875 | 28550 | 28100 | 28325 | 28100 | 27650 | 27875 | 28100 | 28325 | 27875 | 27875 | — | |
| *(N)* | *(128000)* | *(126000)* | *(124000)* | *(127000)* | *(125000)* | *(126000)* | *(125000)* | *(123000)* | *(124000)* | *(125000)* | *(126000)* | *(124000)* | *(124000)* | — | |
| Solid Shaft OHL lbs | 28900 | 28920 | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28990 | 29140 | 29300 | 29440 | — | |
| *(N)* | *(128540)* | *(128630)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128940)* | *(129610)* | *(130320)* | *(130940)* | — | |
| **Input Power HP** | **52.3** | **52.3** | **52.3** | **40.4** | **40.4** | **32.3** | **30.3** | **30.3** | **25.2** | **20.2** | **16.1** | **13.1** | **11.5** | **—** | |
| ***(kW)*** | ***(39)*** | ***(39)*** | ***(39)*** | ***(30.1)*** | ***(30.1)*** | ***(24.1)*** | ***(22.6)*** | ***(22.6)*** | ***(18.8)*** | ***(15.1)*** | ***(12)*** | ***(9.79)*** | ***(8.59)*** | **—** | |
| Output Torque in•lbs | 103540 | 116810 | 127430 | 107080 | 117695 | 108850 | 112385 | 123005 | 125660 | 120350 | 110620 | 107965 | 116810 | — | |
| *(N•m)* | *(11700)* | *(13200)* | *(14400)* | *(12100)* | *(13300)* | *(12300)* | *(12700)* | *(13900)* | *(14200)* | *(13600)* | *(12500)* | *(12200)* | *(13200)* | — | 4F185 |
| Hollow Shaft OHL lbs | 27650 | 27200 | 26750 | 27425 | 27200 | 27425 | 27200 | 26750 | 26750 | 26975 | 27425 | 27425 | 27200 | — | |
| *(N)* | *(123000)* | *(121000)* | *(119000)* | *(122000)* | *(121000)* | *(122000)* | *(121000)* | *(119000)* | *(119000)* | *(120000)* | *(122000)* | *(122000)* | *(121000)* | — | |
| Solid Shaft OHL lbs | 28900 | 28920 | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28990 | 29140 | 29300 | 29440 | — | |
| *(N)* | *(128540)* | *(128630)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128940)* | *(129610)* | *(130320)* | *(130940)* | — | |
| **Input Power HP** | **67.9** | **55.0** | **55.0** | **47.2** | **47.2** | **41.2** | **32.6** | **32.6** | **28.0** | **24.4** | **20.5** | **18.1** | **15.7** | **—** | |
| ***(kW)*** | ***(50.6)*** | ***(41)*** | ***(41)*** | ***(35.2)*** | ***(35.2)*** | ***(30.7)*** | ***(24.3)*** | ***(24.3)*** | ***(20.9)*** | ***(18.2)*** | ***(15.3)*** | ***(13.5)*** | ***(11.7)*** | **—** | |
| Output Torque in•lbs | 133625 | 123005 | 134510 | 125660 | 137165 | 138935 | 121235 | 132740 | 139820 | 144245 | 140705 | 149555 | 159310 | — | |
| *(N•m)* | *(15100)* | *(13900)* | *(15200)* | *(14200)* | *(15500)* | *(15700)* | *(13700)* | *(15000)* | *(15800)* | *(16300)* | *(15900)* | *(16900)* | *(18000)* | — | 4F190 |
| Hollow Shaft OHL lbs | 26300 | 26750 | 26300 | 26750 | 26300 | 26075 | 26975 | 26525 | 26075 | 25850 | 26075 | 25625 | 25175 | — | |
| *(N)* | *(117000)* | *(119000)* | *(117000)* | *(119000)* | *(117000)* | *(116000)* | *(120000)* | *(118000)* | *(116000)* | *(115000)* | *(116000)* | *(114000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28900 | 28920 | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28990 | 29140 | 29300 | 29440 | — | |
| *(N)* | *(128540)* | *(128630)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128940)* | *(129610)* | *(130320)* | *(130940)* | — | |
| **Input Power HP** | **73.8** | **64.5** | **64.5** | **54.3** | **54.3** | **47.2** | **40.4** | **39.2** | **31.9** | **26.8** | **23.2** | **19.3** | **15.7** | **—** | |
| ***(kW)*** | ***(55)*** | ***(48.1)*** | ***(48.1)*** | ***(40.5)*** | ***(40.5)*** | ***(35.2)*** | ***(30.1)*** | ***(29.2)*** | ***(23.8)*** | ***(20.0)*** | ***(17.3)*** | ***(14.4)*** | ***(11.7)*** | **—** | |
| Output Torque in•lbs | 146015 | 144245 | 157540 | 144245 | 157540 | 159310 | 150440 | 159310 | 159310 | 159310 | 159310 | 159310 | 159310 | — | |
| *(N•m)* | *(16500)* | *(16300)* | *(17800)* | *(16300)* | *(17800)* | *(18000)* | *(17000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | 4F195 |
| Hollow Shaft OHL lbs | 25850 | 25850 | 25400 | 25850 | 25400 | 25175 | 25625 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(115000)* | *(115000)* | *(113000)* | *(115000)* | *(113000)* | *(112000)* | *(114000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28900 | 28920 | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28990 | 29140 | 29300 | 29440 | — | |
| *(N)* | *(128540)* | *(128630)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128940)* | *(129610)* | *(130320)* | *(130940)* | — | |

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

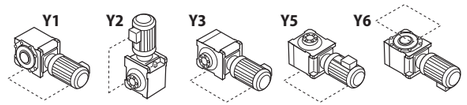



Dimensions on pages 2.156 - 2.166

| Output RPM | 132 | 112 | 104 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | — | — | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | |
| ***(kW)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | — | — | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | |
| Output Torque in•lbs | 1325 | 1610 | 1765 | 2015 | 2200 | 2645 | — | — | 3530 | 4440 | 4855 | 5740 | 6615 | |
| *(N•m)* | *(150)* | *(182)* | *(200)* | *(228)* | *(249)* | *(299)* | — | — | *(399)* | *(502)* | *(549)* | *(649)* | *(748)* | |
| Hollow Shaft OHL lbs | 3910 | 4110 | 4225 | 4360 | 4470 | 4675 | — | — | 5010 | 5280 | 5370 | 5550 | 5325 | |
| *(N)* | *(17400)* | *(18300)* | *(18800)* | *(19400)* | *(19900)* | *(20800)* | — | — | *(22300)* | *(23500)* | *(23900)* | *(24700)* | *(23700)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3530 | 3800 | — | — | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15700)* | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | **4A100** |
| **Input Power HP** | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | **—** | **—** | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | |
| ***(kW)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | **—** | **—** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | |
| Output Torque in•lbs | 1795 | 2185 | 2385 | 2730 | 2990 | 3580 | — | — | 4785 | 6015 | 6575 | 7775 | 8935 | |
| *(N•m)* | *(203)* | *(247)* | *(270)* | *(309)* | *(338)* | *(405)* | — | — | *(541)* | *(680)* | *(743)* | *(879)* | *(1010)* | |
| Hollow Shaft OHL lbs | 3840 | 4045 | 4135 | 4270 | 4360 | 4540 | — | — | 4830 | 5055 | 5145 | 4990 | 4515 | |
| *(N)* | *(17100)* | *(18000)* | *(18400)* | *(19000)* | *(19400)* | *(20200)* | — | — | *(21500)* | *(22500)* | *(22900)* | *(22200)* | *(20100)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3530 | 3800 | — | — | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15700)* | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | **4A105** |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **4.76** | **—** | **—** | **4.76** | **4.76** | **4.76** | **4.76** | **4.76** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(3.55)*** | **—** | **—** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | |
| Output Torque in•lbs | — | — | — | — | — | 4005 | — | — | 5335 | 6715 | 7345 | 8680 | 10000 | |
| *(N•m)* | — | — | — | — | — | *(453)* | — | — | *(603)* | *(759)* | *(830)* | *(981)* | *(1130)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4495 | — | — | 4765 | 4965 | 5035 | 4650 | 4020 | |
| *(N)* | — | — | — | — | — | *(20000)* | — | — | *(21200)* | *(22100)* | *(22400)* | *(20700)* | *(17900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3800 | — | — | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | **4A110** |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **5.26** | **—** | **—** | **5.26** | **5.26** | **5.26** | **5.23** | **5.23** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(3.92)*** | **—** | **—** | ***(3.92)*** | ***(3.92)*** | ***(3.92)*** | ***(3.90)*** | ***(3.90)*** | |
| Output Torque in•lbs | — | — | — | — | — | 4420 | — | — | 5890 | 7415 | 8105 | 9555 | 10970 | |
| *(N•m)* | — | — | — | — | — | *(500)* | — | — | *(666)* | *(838)* | *(916)* | *(1080)* | *(1240)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4425 | — | — | 4695 | 4855 | 4855 | 4270 | 3435 | |
| *(N)* | — | — | — | — | — | *(19700)* | — | — | *(20900)* | *(21600)* | *(21600)* | *(19000)* | *(15300)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3800 | — | — | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | **4A115** |
| **Input Power HP** | **12.9** | **12.9** | **12.9** | **12.9** | **12.9** | **8.77** | **8.77** | **8.77** | **8.77** | **6.80** | **6.80** | **6.26** | **5.43** | |
| ***(kW)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(5.07)*** | ***(5.07)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | 5415 | 6600 | 7220 | 8255 | 9025 | 7380 | 7875 | 8610 | 9820 | 9555 | 10530 | 11415 | 11415 | |
| *(N•m)* | *(612)* | *(746)* | *(816)* | *(933)* | *(1020)* | *(834)* | *(890)* | *(973)* | *(1110)* | *(1080)* | *(1190)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3345 | 3435 | 3480 | 3505 | 3525 | 4020 | 4045 | 4090 | 4110 | 4245 | 3750 | 3120 | 3120 | |
| *(N)* | *(14900)* | *(15300)* | *(15500)* | *(15600)* | *(15700)* | *(17900)* | *(18000)* | *(18200)* | *(18300)* | *(18900)* | *(16700)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3530 | 3800 | 3890 | 4110 | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15700)* | *(16900)* | *(17300)* | *(18280)* | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | **4A120** |
| **Input Power HP** | **14.8** | **14.8** | **14.8** | **14.8** | **14.8** | **10.1** | **10.1** | **10.1** | **10.1** | **7.94** | **7.40** | **6.26** | **5.43** | |
| ***(kW)*** | ***(11.0)*** | ***(11.0)*** | ***(11.0)*** | ***(11.0)*** | ***(11.0)*** | ***(7.51)*** | ***(7.51)*** | ***(7.51)*** | ***(7.51)*** | ***(5.92)*** | ***(5.52)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | 6200 | 7565 | 8270 | 9465 | 10350 | 8465 | 9025 | 9910 | 11325 | 11235 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(701)* | *(855)* | *(935)* | *(1070)* | *(1170)* | *(957)* | *(1020)* | *(1120)* | *(1280)* | *(1270)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3235 | 3300 | 3325 | 3345 | 3345 | 3885 | 3885 | 3930 | 3210 | 3280 | 3120 | 3120 | 3120 | |
| *(N)* | *(14400)* | *(14700)* | *(14800)* | *(14900)* | *(14900)* | *(17300)* | *(17300)* | *(17500)* | *(14300)* | *(14600)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3530 | 3800 | 3890 | 4110 | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15700)* | *(16900)* | *(17300)* | *(18280)* | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | **4A125** |



Frame Size Selection Tables 50 Hz, 1450 RPM



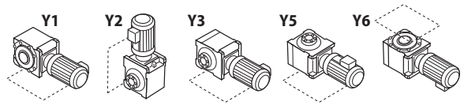

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.5 | 14.2 | 13.0 | 11.8 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **2.67** | **2.55** | **2.55** | **1.70** | **1.70** | **1.62** | **1.31** | **1.31** | **1.05** | **0.751** | **0.692** | **0.585** | **0.581** | **0.282** | |
| ***(kW)*** | ***(1.99)*** | ***(1.90)*** | ***(1.90)*** | ***(1.27)*** | ***(1.27)*** | ***(1.21)*** | ***(0.975)*** | ***(0.975)*** | ***(0.780)*** | ***(0.560)*** | ***(0.516)*** | ***(0.436)*** | ***(0.433)*** | ***(0.210)*** | |
| Output Torque in•lbs | 6345 | 6865 | 7510 | 5460 | 5970 | 6600 | 5865 | 6415 | 6305 | 5370 | 5725 | 5820 | 7085 | 4695 | |
| *(N•m)* | *(717)* | *(776)* | *(849)* | *(617)* | *(675)* | *(746)* | *(663)* | *(725)* | *(713)* | *(607)* | *(647)* | *(658)* | *(801)* | *(531)* | |
| Hollow Shaft OHL lbs | 5395 | 5260 | 5055 | 5595 | 5485 | 5325 | 5505 | 5370 | 5415 | 5620 | 5550 | 5530 | 5190 | 5755 | |
| *(N)* | *(24000)* | *(23400)* | *(22500)* | *(24900)* | *(24400)* | *(23700)* | *(24500)* | *(23900)* | *(24100)* | *(25000)* | *(24700)* | *(24600)* | *(23100)* | *(25600)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | **4A100** |
| **Input Power HP** | **3.30** | **3.06** | **3.06** | **2.24** | **2.24** | **2.13** | **1.61** | **1.61** | **1.45** | **1.04** | **0.913** | **0.679** | **0.675** | **0.384** | |
| ***(kW)*** | ***(2.46)*** | ***(2.28)*** | ***(2.28)*** | ***(1.67)*** | ***(1.67)*** | ***(1.59)*** | ***(1.20)*** | ***(1.20)*** | ***(1.08)*** | ***(0.776)*** | ***(0.681)*** | ***(0.506)*** | ***(0.503)*** | ***(0.286)*** | |
| Output Torque in•lbs | 7845 | 8245 | 9025 | 7190 | 7865 | 8670 | 7210 | 7880 | 8775 | 7440 | 7555 | 6750 | 8230 | 6405 | |
| *(N•m)* | *(887)* | *(932)* | *(1020)* | *(813)* | *(889)* | *(980)* | *(815)* | *(891)* | *(992)* | *(841)* | *(854)* | *(763)* | *(930)* | *(724)* | |
| Hollow Shaft OHL lbs | 4945 | 4810 | 4515 | 5170 | 4945 | 4650 | 5170 | 4945 | 4605 | 5080 | 5055 | 5305 | 4830 | 5395 | |
| *(N)* | *(22000)* | *(21400)* | *(20100)* | *(23000)* | *(22000)* | *(20700)* | *(23000)* | *(22000)* | *(20500)* | *(22600)* | *(22500)* | *(23600)* | *(21500)* | *(24000)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | **4A105** |
| **Input Power HP** | **4.26** | **3.65** | **3.65** | **2.56** | **2.56** | **2.55** | **2.01** | **2.01** | **1.74** | **1.27** | **1.15** | **0.897** | **0.886** | **—** | |
| ***(kW)*** | ***(3.18)*** | ***(2.72)*** | ***(2.72)*** | ***(1.91)*** | ***(1.91)*** | ***(1.90)*** | ***(1.50)*** | ***(1.50)*** | ***(1.30)*** | ***(0.944)*** | ***(0.859)*** | ***(0.669)*** | ***(0.661)*** | **—** | |
| Output Torque in•lbs | 10175 | 9820 | 10795 | 8230 | 9025 | 10350 | 9025 | 9910 | 10530 | 9025 | 9555 | 8935 | 10795 | — | |
| *(N•m)* | *(1150)* | *(1110)* | *(1220)* | *(930)* | *(1020)* | *(1170)* | *(1020)* | *(1120)* | *(1190)* | *(1020)* | *(1080)* | *(1010)* | *(1220)* | — | |
| Hollow Shaft OHL lbs | 3955 | 4110 | 3595 | 4830 | 4515 | 3820 | 4495 | 4090 | 3750 | 4495 | 4270 | 4540 | 3550 | — | |
| *(N)* | *(17600)* | *(18300)* | *(16000)* | *(21500)* | *(20100)* | *(17000)* | *(20000)* | *(18200)* | *(16700)* | *(20000)* | *(19000)* | *(20200)* | *(15800)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | | **4A110** |
| **Input Power HP** | **4.79** | **4.17** | **3.88** | **2.98** | **2.98** | **2.80** | **2.43** | **2.32** | **1.89** | **1.49** | **1.35** | **1.02** | **0.936** | **—** | |
| ***(kW)*** | ***(3.57)*** | ***(3.11)*** | ***(2.89)*** | ***(2.22)*** | ***(2.22)*** | ***(2.09)*** | ***(1.81)*** | ***(1.73)*** | ***(1.41)*** | ***(1.11)*** | ***(1.01)*** | ***(0.758)*** | ***(0.698)*** | **—** | |
| Output Torque in•lbs | 11415 | 11235 | 11415 | 9555 | 10440 | 11415 | 10885 | 11415 | 11415 | 10615 | 11235 | 10085 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1270)* | *(1290)* | *(1080)* | *(1180)* | *(1290)* | *(1230)* | *(1290)* | *(1290)* | *(1200)* | *(1270)* | *(1140)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3255 | 3120 | 4270 | 3775 | 3120 | 3505 | 3120 | 3120 | 3660 | 3280 | 3975 | 3120 | — | |
| *(N)* | *(13900)* | *(14500)* | *(13900)* | *(19000)* | *(16800)* | *(13900)* | *(15600)* | *(13900)* | *(13900)* | *(16300)* | *(14600)* | *(17700)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | — | **4A115** |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.57** | **3.26** | **2.80** | **2.55** | **2.32** | **1.89** | **1.60** | **1.38** | **1.15** | **0.936** | **—** | |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.09)*** | ***(1.90)*** | ***(1.73)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.855)*** | ***(0.698)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | — | **4A120** |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.57** | **3.26** | **2.80** | **2.55** | **2.32** | **1.89** | **1.60** | **1.38** | **1.15** | **0.936** | **—** | |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.09)*** | ***(1.90)*** | ***(1.73)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.855)*** | ***(0.698)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | — | **4A125** |

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



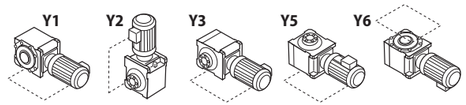

Dimensions on pages 2.156 - 2.166

| Output RPM | 132 | 112 | 104 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **24.5** | **22.1** | **20.4** | **17.8** | **16.2** | **13.5** | **12.7** | **11.6** | **10.2** | **8.10** | **7.40** | **6.26** | **5.43** | |
| ***(kW)*** | ***(18.3)*** | ***(16.5)*** | ***(15.2)*** | ***(13.3)*** | ***(12.1)*** | ***(10.1)*** | ***(9.48)*** | ***(8.67)*** | ***(7.59)*** | ***(6.04)*** | ***(5.52)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | 10350 | 11325 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1170)* | *(1280)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 2675 | 2785 | 2900 | 3075 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(11900)* | *(12400)* | *(12900)* | *(13700)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3530 | 3800 | 3890 | 4110 | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15700)* | *(16900)* | *(17300)* | *(18280)* | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **24.5** | **22.1** | **20.4** | **17.8** | **16.2** | **13.5** | **12.7** | **11.6** | **10.2** | **8.10** | **7.40** | **6.26** | **5.43** | |
| ***(kW)*** | ***(18.3)*** | ***(16.5)*** | ***(15.2)*** | ***(13.3)*** | ***(12.1)*** | ***(10.1)*** | ***(9.48)*** | ***(8.67)*** | ***(7.59)*** | ***(6.04)*** | ***(5.52)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | 10350 | 11325 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1170)* | *(1280)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 2675 | 2785 | 2900 | 3075 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(11900)* | *(12400)* | *(12900)* | *(13700)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3350 | 3350 | 3530 | 3800 | 3890 | 4110 | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(14900)* | *(14900)* | *(15700)* | *(16900)* | *(17300)* | *(18280)* | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **12.9** | **12.9** | **12.9** | **12.9** | **12.9** | **8.77** | **8.77** | **8.77** | **8.77** | **6.80** | **6.80** | **6.80** | **6.80** | |
| ***(kW)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | |
| Output Torque in•lbs | 5415 | 6600 | 7220 | 8255 | 9025 | 7380 | 7875 | 8610 | 9820 | 9555 | 10530 | 12385 | 14335 | |
| *(N•m)* | *(612)* | *(746)* | *(816)* | *(933)* | *(1020)* | *(834)* | *(890)* | *(973)* | *(1110)* | *(1080)* | *(1190)* | *(1400)* | *(1620)* | |
| Hollow Shaft OHL lbs | 4945 | 5145 | 5235 | 5370 | 5460 | 6000 | 6065 | 6180 | 6335 | 6900 | 7010 | 7235 | 7415 | |
| *(N)* | *(22000)* | *(22900)* | *(23300)* | *(23900)* | *(24300)* | *(26700)* | *(27000)* | *(27500)* | *(28200)* | *(30700)* | *(31200)* | *(32200)* | *(33000)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3740 | 4100 | 4200 | 4500 | 4780 | 5360 | 5650 | 6100 | 6520 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16630)* | *(18230)* | *(18680)* | *(20010)* | *(21260)* | *(23840)* | *(25130)* | *(27130)* | *(29000)* | |
| **Input Power HP** | **14.8** | **14.8** | **14.8** | **14.8** | **14.8** | **10.1** | **10.1** | **10.1** | **10.1** | **7.94** | **7.94** | **7.94** | **7.94** | |
| ***(kW)*** | ***(11.0)*** | ***(11.0)*** | ***(11.0)*** | ***(11.0)*** | ***(11.0)*** | ***(7.51)*** | ***(7.51)*** | ***(7.51)*** | ***(7.51)*** | ***(5.92)*** | ***(5.92)*** | ***(5.92)*** | ***(5.92)*** | |
| Output Torque in•lbs | 6200 | 7565 | 8270 | 9465 | 10350 | 8465 | 9025 | 9910 | 11325 | 11235 | 12210 | 14510 | 16725 | |
| *(N•m)* | *(701)* | *(855)* | *(935)* | *(1070)* | *(1170)* | *(957)* | *(1020)* | *(1120)* | *(1280)* | *(1270)* | *(1380)* | *(1640)* | *(1890)* | |
| Hollow Shaft OHL lbs | 4855 | 5035 | 5125 | 5235 | 5325 | 5890 | 5955 | 6045 | 6180 | 6720 | 6830 | 7010 | 7145 | |
| *(N)* | *(21600)* | *(22400)* | *(22800)* | *(23300)* | *(23700)* | *(26200)* | *(26500)* | *(26900)* | *(27500)* | *(29900)* | *(30400)* | *(31200)* | *(31800)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3740 | 4100 | 4200 | 4500 | 4780 | 5360 | 5650 | 6100 | 6520 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16630)* | *(18230)* | *(18680)* | *(20010)* | *(21260)* | *(23840)* | *(25130)* | *(27130)* | *(29000)* | |
| **Input Power HP** | **25.5** | **25.5** | **25.5** | **25.5** | **25.5** | **17.4** | **17.4** | **17.4** | **17.4** | **16.1** | **14.8** | **12.5** | **10.8** | |
| ***(kW)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(12.0)*** | ***(11.0)*** | ***(9.30)*** | ***(8.06)*** | |
| Output Torque in•lbs | 10705 | 13095 | 14335 | 16370 | 17875 | 14690 | 15660 | 17080 | 19555 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1210)* | *(1480)* | *(1620)* | *(1850)* | *(2020)* | *(1660)* | *(1770)* | *(1930)* | *(2210)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4360 | 4450 | 4470 | 4495 | 4515 | 5215 | 5235 | 5260 | 5305 | 5460 | 5710 | 5710 | 5710 | |
| *(N)* | *(19400)* | *(19800)* | *(19900)* | *(20000)* | *(20100)* | *(23200)* | *(23300)* | *(23400)* | *(23600)* | *(24300)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3740 | 4100 | 4200 | 4500 | 4780 | 5360 | 5650 | 6100 | 6520 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16630)* | *(18230)* | *(18680)* | *(20010)* | *(21260)* | *(23840)* | *(25130)* | *(27130)* | *(29000)* | |
| **Input Power HP** | **29.5** | **29.5** | **29.5** | **29.5** | **29.5** | **20.2** | **20.2** | **20.2** | **20.2** | **16.1** | **14.8** | **12.5** | **10.8** | |
| ***(kW)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(12.0)*** | ***(11.0)*** | ***(9.30)*** | ***(8.06)*** | |
| Output Torque in•lbs | 12385 | 15130 | 16545 | 18935 | 20705 | 17075 | 18230 | 19910 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1400)* | *(1710)* | *(1870)* | *(2140)* | *(2340)* | *(1930)* | *(2060)* | *(2250)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4180 | 4225 | 4225 | 4200 | 4200 | 4945 | 4945 | 4965 | 4965 | 5460 | 5710 | 5710 | 5710 | |
| *(N)* | *(18600)* | *(18800)* | *(18800)* | *(18700)* | *(18700)* | *(22000)* | *(22000)* | *(22100)* | *(22100)* | *(24300)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3740 | 4100 | 4200 | 4500 | 4780 | 5360 | 5650 | 6100 | 6520 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16630)* | *(18230)* | *(18680)* | *(20010)* | *(21260)* | *(23840)* | *(25130)* | *(27130)* | *(29000)* | |



Speed Reducers

# Frame Size Selection Tables 50 Hz, 1450 RPM




## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

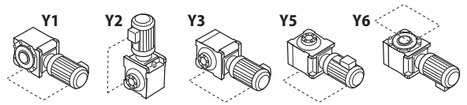
| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.5 | 14.2 | 13.0 | 11.8 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.57** | **3.26** | **2.80** | **2.55** | **2.32** | **1.89** | **1.60** | **1.38** | **1.15** | **0.936** | **—** | |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.09)*** | ***(1.90)*** | ***(1.73)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.855)*** | ***(0.698)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.57** | **3.26** | **2.80** | **2.55** | **2.32** | **1.89** | **1.60** | **1.38** | **1.15** | **0.936** | **—** | |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.09)*** | ***(1.90)*** | ***(1.73)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.855)*** | ***(0.698)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **6.56** | **5.31** | **5.31** | **4.14** | **4.14** | **3.85** | **3.18** | **3.18** | **2.56** | **2.19** | **1.74** | **1.28** | **1.27** | **—** | |
| ***(kW)*** | ***(4.89)*** | ***(3.96)*** | ***(3.96)*** | ***(3.09)*** | ***(3.09)*** | ***(2.87)*** | ***(2.37)*** | ***(2.37)*** | ***(1.91)*** | ***(1.63)*** | ***(1.30)*** | ***(0.957)*** | ***(0.944)*** | **—** | |
| Output Torque in•lbs | 15660 | 14245 | 15660 | 13270 | 14510 | 15660 | 14245 | 15660 | 15485 | 15660 | 14510 | 12740 | 15485 | — | |
| *(N•m)* | *(1770)* | *(1610)* | *(1770)* | *(1500)* | *(1640)* | *(1770)* | *(1610)* | *(1770)* | *(1750)* | *(1770)* | *(1640)* | *(1440)* | *(1750)* | — | |
| Hollow Shaft OHL lbs | 7595 | 8090 | 8205 | 8720 | 8540 | 8295 | 8610 | 8295 | 8315 | 8295 | 8565 | 8900 | 8340 | — | |
| *(N)* | *(33800)* | *(36000)* | *(36500)* | *(38800)* | *(38000)* | *(36900)* | *(38300)* | *(36900)* | *(37000)* | *(36900)* | *(38100)* | *(39600)* | *(37100)* | — | |
| Solid Shaft OHL lbs | 6870 | 7140 | 7330 | 7370 | 7420 | 7490 | 7530 | 7570 | 7580 | 7430 | 7320 | 7200 | 7120 | — | |
| *(N)* | *(30550)* | *(31750)* | *(32600)* | *(32780)* | *(33000)* | *(33310)* | *(33490)* | *(33670)* | *(33710)* | *(33040)* | *(32550)* | *(32020)* | *(31660)* | — | |
| **Input Power HP** | **7.59** | **6.42** | **6.42** | **5.31** | **5.31** | **4.65** | **3.86** | **3.86** | **3.14** | **2.64** | **2.17** | **1.53** | **1.38** | **—** | |
| ***(kW)*** | ***(5.66)*** | ***(4.79)*** | ***(4.79)*** | ***(3.96)*** | ***(3.96)*** | ***(3.47)*** | ***(2.88)*** | ***(2.88)*** | ***(2.34)*** | ***(1.97)*** | ***(1.62)*** | ***(1.14)*** | ***(1.03)*** | **—** | |
| Output Torque in•lbs | 18050 | 17345 | 18935 | 16990 | 18580 | 18935 | 17345 | 18935 | 18935 | 18935 | 17960 | 15220 | 16810 | — | |
| *(N•m)* | *(2040)* | *(1960)* | *(2140)* | *(1920)* | *(2100)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(2140)* | *(2030)* | *(1720)* | *(1900)* | — | |
| Hollow Shaft OHL lbs | 7350 | 7755 | 7325 | 7935 | 7440 | 7325 | 7845 | 7325 | 7325 | 7325 | 7640 | 8385 | 7980 | — | |
| *(N)* | *(32700)* | *(34500)* | *(32600)* | *(35300)* | *(33100)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(32600)* | *(34000)* | *(37300)* | *(35500)* | — | |
| Solid Shaft OHL lbs | 6870 | 7140 | 7330 | 7370 | 7420 | 7490 | 7530 | 7570 | 7580 | 7430 | 7320 | 7200 | 7120 | — | |
| *(N)* | *(30550)* | *(31750)* | *(32600)* | *(32780)* | *(33000)* | *(33310)* | *(33490)* | *(33670)* | *(33710)* | *(33040)* | *(32550)* | *(32020)* | *(31660)* | — | |
| **Input Power HP** | **9.53** | **8.45** | **7.72** | **7.09** | **6.49** | **5.59** | **5.07** | **4.63** | **3.77** | **3.18** | **2.75** | **2.28** | **1.86** | **—** | |
| ***(kW)*** | ***(7.11)*** | ***(6.30)*** | ***(5.76)*** | ***(5.29)*** | ***(4.84)*** | ***(4.17)*** | ***(3.78)*** | ***(3.45)*** | ***(2.81)*** | ***(2.37)*** | ***(2.05)*** | ***(1.70)*** | ***(1.39)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 6870 | 7140 | 7330 | 7370 | 7420 | 7490 | 7530 | 7570 | 7580 | 7430 | 7320 | 7200 | 7120 | — | |
| *(N)* | *(30550)* | *(31750)* | *(32600)* | *(32780)* | *(33000)* | *(33310)* | *(33490)* | *(33670)* | *(33710)* | *(33040)* | *(32550)* | *(32020)* | *(31660)* | — | |
| **Input Power HP** | **9.53** | **8.45** | **7.72** | **7.09** | **6.49** | **5.59** | **5.07** | **4.63** | **3.77** | **3.18** | **2.75** | **2.28** | **1.86** | **—** | |
| ***(kW)*** | ***(7.11)*** | ***(6.30)*** | ***(5.76)*** | ***(5.29)*** | ***(4.84)*** | ***(4.17)*** | ***(3.78)*** | ***(3.45)*** | ***(2.81)*** | ***(2.37)*** | ***(2.05)*** | ***(1.70)*** | ***(1.39)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 6870 | 7140 | 7330 | 7370 | 7420 | 7490 | 7530 | 7570 | 7580 | 7430 | 7320 | 7200 | 7120 | — | |
| *(N)* | *(30550)* | *(31750)* | *(32600)* | *(32780)* | *(33000)* | *(33310)* | *(33490)* | *(33670)* | *(33710)* | *(33040)* | *(32550)* | *(32020)* | *(31660)* | — | |



Selection Tables

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

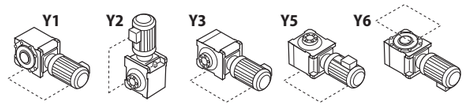



Dimensions on pages 2.156 - 2.166

| Output RPM | 132 | 112 | 104 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **33.9** | **33.9** | **33.9** | **33.3** | **31.6** | **27.1** | **25.3** | **23.2** | **20.2** | **16.1** | **14.8** | **12.5** | **10.8** | |
| ***(kW)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(24.8)*** | ***(23.6)*** | ***(20.2)*** | ***(18.9)*** | ***(17.3)*** | ***(15.1)*** | ***(12.0)*** | ***(11.0)*** | ***(9.30)*** | ***(8.06)*** | |
| Output Torque in•lbs | 14245 | 17430 | 19025 | 21325 | 22210 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1610)* | *(1970)* | *(2150)* | *(2410)* | *(2510)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | **4B160** |
| Hollow Shaft OHL lbs | 3975 | 3975 | 3955 | 3955 | 4045 | 4335 | 4450 | 4675 | 4965 | 5460 | 5710 | 5710 | 5710 | |
| *(N)* | *(17700)* | *(17700)* | *(17600)* | *(17600)* | *(18000)* | *(19300)* | *(19800)* | *(20800)* | *(22100)* | *(24300)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3740 | 4100 | 4200 | 4500 | 4780 | 5360 | 5650 | 6100 | 6520 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16630)* | *(18230)* | *(18680)* | *(20010)* | *(21260)* | *(23840)* | *(25130)* | *(27130)* | *(29000)* | |
| **Input Power HP** | **38.9** | **38.9** | **37.4** | **33.3** | **31.6** | **27.1** | **25.3** | **23.2** | **20.2** | **16.1** | **14.8** | **12.5** | **10.8** | |
| ***(kW)*** | ***(29.0)*** | ***(29.0)*** | ***(27.9)*** | ***(24.8)*** | ***(23.6)*** | ***(20.2)*** | ***(18.9)*** | ***(17.3)*** | ***(15.1)*** | ***(12.0)*** | ***(11.0)*** | ***(9.30)*** | ***(8.06)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21060 | 21325 | 22210 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2380)* | *(2410)* | *(2510)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | **4B165** |
| Hollow Shaft OHL lbs | 3750 | 3685 | 3750 | 3955 | 4045 | 4335 | 4450 | 4675 | 4965 | 5460 | 5710 | 5710 | 5710 | |
| *(N)* | *(16700)* | *(16400)* | *(16700)* | *(17600)* | *(18000)* | *(19300)* | *(19800)* | *(20800)* | *(22100)* | *(24300)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3490 | 3490 | 3490 | 3490 | 3740 | 4100 | 4200 | 4500 | 4780 | 5360 | 5650 | 6100 | 6520 | |
| *(N)* | *(15520)* | *(15520)* | *(15520)* | *(15520)* | *(16630)* | *(18230)* | *(18680)* | *(20010)* | *(21260)* | *(23840)* | *(25130)* | *(27130)* | *(29000)* | |
| **Input Power HP** | **25.5** | **25.5** | **25.5** | **25.5** | **25.5** | **17.4** | **17.4** | **17.4** | **17.4** | **17.4** | **17.4** | **17.4** | **16.1** | |
| ***(kW)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(19.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(12.0)*** | |
| Output Torque in•lbs | 10705 | 13095 | 14335 | 16370 | 17875 | 14690 | 15660 | 17165 | 19555 | 24600 | 26900 | 31855 | 33890 | |
| *(N•m)* | *(1210)* | *(1480)* | *(1620)* | *(1850)* | *(2020)* | *(1660)* | *(1770)* | *(1940)* | *(2210)* | *(2780)* | *(3040)* | *(3600)* | *(3830)* | **4C140** |
| Hollow Shaft OHL lbs | 6560 | 6810 | 6920 | 7055 | 7145 | 7955 | 8025 | 8160 | 8340 | 8565 | 8655 | 8765 | 9100 | |
| *(N)* | *(29200)* | *(30300)* | *(30800)* | *(31400)* | *(31800)* | *(35400)* | *(35700)* | *(36300)* | *(37100)* | *(38100)* | *(38500)* | *(39000)* | *(40500)* | |
| Solid Shaft OHL lbs | 4590 | 4590 | 4590 | 4590 | 4910 | 5400 | 5550 | 5940 | 6250 | 7170 | 7580 | 8210 | 8860 | |
| *(N)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(21830)* | *(24010)* | *(24680)* | *(26420)* | *(27800)* | *(31890)* | *(33710)* | *(36510)* | *(39400)* | |
| **Input Power HP** | **29.5** | **29.5** | **29.5** | **29.5** | **29.5** | **20.2** | **20.2** | **20.2** | **20.2** | **20.2** | **20.2** | **20.2** | **19.4** | |
| ***(kW)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(22.0)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(15.1)*** | ***(14.5)*** | |
| Output Torque in•lbs | 12385 | 15130 | 16545 | 18935 | 20705 | 17075 | 18230 | 19910 | 22830 | 28670 | 31325 | 36810 | 40795 | |
| *(N•m)* | *(1400)* | *(1710)* | *(1870)* | *(2140)* | *(2340)* | *(1930)* | *(2060)* | *(2250)* | *(2580)* | *(3240)* | *(3540)* | *(4160)* | *(4610)* | **4C145** |
| Hollow Shaft OHL lbs | 6405 | 6605 | 6695 | 6810 | 6875 | 7730 | 7775 | 7890 | 8025 | 8180 | 8250 | 8295 | 8430 | |
| *(N)* | *(28500)* | *(29400)* | *(29800)* | *(30300)* | *(30600)* | *(34400)* | *(34600)* | *(35100)* | *(35700)* | *(36400)* | *(36700)* | *(36900)* | *(37500)* | |
| Solid Shaft OHL lbs | 4590 | 4590 | 4590 | 4590 | 4910 | 5400 | 5550 | 5940 | 6250 | 7170 | 7580 | 8210 | 8860 | |
| *(N)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(21830)* | *(24010)* | *(24680)* | *(26420)* | *(27800)* | *(31890)* | *(33710)* | *(36510)* | *(39400)* | |
| **Input Power HP** | **33.9** | **33.9** | **33.9** | **33.9** | **33.9** | **33.9** | **27.2** | **27.2** | **26.4** | **26.4** | **26.4** | **24.9** | **21.6** | |
| ***(kW)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(20.3)*** | ***(20.3)*** | ***(19.7)*** | ***(19.7)*** | ***(19.7)*** | ***(18.6)*** | ***(16.1)*** | |
| Output Torque in•lbs | 14245 | 17430 | 19025 | 21770 | 23805 | 28580 | 24420 | 26725 | 29645 | 37255 | 40705 | 45485 | 45485 | |
| *(N•m)* | *(1610)* | *(1970)* | *(2150)* | *(2460)* | *(2690)* | *(3230)* | *(2760)* | *(3020)* | *(3350)* | *(4210)* | *(4600)* | *(5140)* | *(5140)* | **4C160** |
| Hollow Shaft OHL lbs | 6245 | 6380 | 6470 | 6540 | 6585 | 6630 | 7190 | 7260 | 7370 | 7350 | 7350 | 7485 | 8000 | |
| *(N)* | *(27800)* | *(28400)* | *(28800)* | *(29100)* | *(29300)* | *(29500)* | *(32000)* | *(32300)* | *(32800)* | *(32700)* | *(32700)* | *(33300)* | *(35600)* | |
| Solid Shaft OHL lbs | 4590 | 4590 | 4590 | 4590 | 4910 | 5400 | 5550 | 5940 | 6250 | 7170 | 7580 | 8210 | 8860 | |
| *(N)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(21830)* | *(24010)* | *(24680)* | *(26420)* | *(27800)* | *(31890)* | *(33710)* | *(36510)* | *(39400)* | |
| **Input Power HP** | **40.2** | **40.2** | **40.2** | **40.2** | **40.2** | **40.2** | **32.3** | **32.3** | **32.3** | **32.2** | **29.5** | **24.9** | **21.6** | |
| ***(kW)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(24.0)*** | ***(22.0)*** | ***(18.6)*** | ***(16.1)*** | |
| Output Torque in•lbs | 16900 | 20615 | 22565 | 25750 | 28230 | 33890 | 28935 | 31680 | 36190 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(1910)* | *(2330)* | *(2550)* | *(2910)* | *(3190)* | *(3830)* | *(3270)* | *(3580)* | *(4090)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | **4C165** |
| Hollow Shaft OHL lbs | 5975 | 6090 | 6135 | 6155 | 6180 | 6135 | 6765 | 6785 | 6765 | 6560 | 6900 | 7485 | 8000 | |
| *(N)* | *(26600)* | *(27100)* | *(27300)* | *(27400)* | *(27500)* | *(27300)* | *(30100)* | *(30200)* | *(30100)* | *(29200)* | *(30700)* | *(33300)* | *(35600)* | |
| Solid Shaft OHL lbs | 4590 | 4590 | 4590 | 4590 | 4910 | 5400 | 5550 | 5940 | 6250 | 7170 | 7580 | 8210 | 8860 | |
| *(N)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(21830)* | *(24010)* | *(24680)* | *(26420)* | *(27800)* | *(31890)* | *(33710)* | *(36510)* | *(39400)* | |



# Frame Size Selection Tables 50 Hz, 1450 RPM



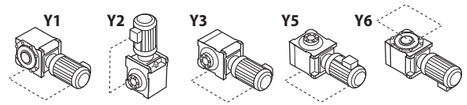

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.5 | 14.2 | 13.0 | 11.8 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **9.53** | **8.45** | **7.72** | **7.09** | **6.49** | **5.59** | **5.07** | **4.63** | **3.77** | **3.18** | **2.75** | **2.28** | **1.86** | **—** | |
| ***(kW)*** | ***(7.11)*** | ***(6.30)*** | ***(5.76)*** | ***(5.29)*** | ***(4.84)*** | ***(4.17)*** | ***(3.78)*** | ***(3.45)*** | ***(2.81)*** | ***(2.37)*** | ***(2.05)*** | ***(1.70)*** | ***(1.39)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | **4B160** |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 6870 | 7140 | 7330 | 7370 | 7420 | 7490 | 7530 | 7570 | 7580 | 7430 | 7320 | 7200 | 7120 | — | |
| *(N)* | *(30550)* | *(31750)* | *(32600)* | *(32780)* | *(33000)* | *(33310)* | *(33490)* | *(33670)* | *(33710)* | *(33040)* | *(32550)* | *(32020)* | *(31660)* | — | |
| **Input Power HP** | **9.53** | **8.45** | **7.72** | **7.09** | **6.49** | **5.59** | **5.07** | **4.63** | **3.77** | **3.18** | **2.75** | **2.28** | **1.86** | **—** | |
| ***(kW)*** | ***(7.11)*** | ***(6.30)*** | ***(5.76)*** | ***(5.29)*** | ***(4.84)*** | ***(4.17)*** | ***(3.78)*** | ***(3.45)*** | ***(2.81)*** | ***(2.37)*** | ***(2.05)*** | ***(1.70)*** | ***(1.39)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | **4B165** |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 6870 | 7140 | 7330 | 7370 | 7420 | 7490 | 7530 | 7570 | 7580 | 7430 | 7320 | 7200 | 7120 | — | |
| *(N)* | *(30550)* | *(31750)* | *(32600)* | *(32780)* | *(33000)* | *(33310)* | *(33490)* | *(33670)* | *(33710)* | *(33040)* | *(32550)* | *(32020)* | *(31660)* | — | |
| **Input Power HP** | **13.5** | **11.6** | **11.6** | **9.24** | **9.24** | **7.98** | **6.99** | **6.99** | **5.28** | **4.60** | **3.97** | **3.26** | **2.66** | **—** | |
| ***(kW)*** | ***(10.1)*** | ***(8.66)*** | ***(8.66)*** | ***(6.89)*** | ***(6.89)*** | ***(5.95)*** | ***(5.21)*** | ***(5.21)*** | ***(3.94)*** | ***(3.43)*** | ***(2.96)*** | ***(2.43)*** | ***(1.98)*** | **—** | |
| Output Torque in•lbs | 32210 | 31325 | 34245 | 29645 | 32385 | 32475 | 31325 | 34245 | 31855 | 32920 | 32830 | 32475 | 32385 | — | |
| *(N•m)* | *(3640)* | *(3540)* | *(3870)* | *(3350)* | *(3660)* | *(3670)* | *(3540)* | *(3870)* | *(3600)* | *(3720)* | *(3710)* | *(3670)* | *(3660)* | — | **4C140** |
| Hollow Shaft OHL lbs | 9710 | 10250 | 10360 | 11125 | 11260 | 11910 | 12450 | 12610 | 13260 | 13060 | 13080 | 13150 | 13170 | — | |
| *(N)* | *(43200)* | *(45600)* | *(46100)* | *(49500)* | *(50100)* | *(53000)* | *(55400)* | *(56100)* | *(59000)* | *(58100)* | *(58200)* | *(58500)* | *(58600)* | — | |
| Solid Shaft OHL lbs | 9420 | 9870 | 10260 | 10660 | 11100 | 11710 | 12050 | 12360 | 12810 | 12720 | 12660 | 12590 | 12550 | — | |
| *(N)* | *(41900)* | *(43900)* | *(45630)* | *(47410)* | *(49370)* | *(52080)* | *(53590)* | *(54970)* | *(56970)* | *(56570)* | *(56310)* | *(56000)* | *(55820)* | — | |
| **Input Power HP** | **16.1** | **12.7** | **12.7** | **10.6** | **10.6** | **10.1** | **8.39** | **8.39** | **6.26** | **4.96** | **4.26** | **3.51** | **2.90** | **—** | |
| ***(kW)*** | ***(12.0)*** | ***(9.49)*** | ***(9.49)*** | ***(7.91)*** | ***(7.91)*** | ***(7.53)*** | ***(6.26)*** | ***(6.26)*** | ***(4.67)*** | ***(3.70)*** | ***(3.18)*** | ***(2.62)*** | ***(2.16)*** | **—** | |
| Output Torque in•lbs | 38405 | 34245 | 37430 | 33980 | 37165 | 41060 | 37610 | 41150 | 37785 | 35485 | 35305 | 35040 | 35305 | — | |
| *(N•m)* | *(4340)* | *(3870)* | *(4230)* | *(3840)* | *(4200)* | *(4640)* | *(4250)* | *(4650)* | *(4270)* | *(4010)* | *(3990)* | *(3960)* | *(3990)* | — | **4C145** |
| Hollow Shaft OHL lbs | 9125 | 9980 | 10045 | 10720 | 10810 | 10970 | 11845 | 10945 | 11910 | 12495 | 12540 | 12610 | 12540 | — | |
| *(N)* | *(40600)* | *(44400)* | *(44700)* | *(47700)* | *(48100)* | *(48800)* | *(52700)* | *(48700)* | *(53000)* | *(55600)* | *(55800)* | *(56100)* | *(55800)* | — | |
| Solid Shaft OHL lbs | 9420 | 9870 | 10260 | 10660 | 11100 | 11710 | 12050 | 12360 | 12810 | 12720 | 12660 | 12590 | 12550 | — | |
| *(N)* | *(41900)* | *(43900)* | *(45630)* | *(47410)* | *(49370)* | *(52080)* | *(53590)* | *(54970)* | *(56970)* | *(56570)* | *(56310)* | *(56000)* | *(55820)* | — | |
| **Input Power HP** | **17.6** | **16.9** | **15.4** | **13.2** | **13.0** | **11.2** | **10.1** | **9.27** | **7.54** | **6.36** | **5.50** | **4.57** | **3.73** | **—** | |
| ***(kW)*** | ***(13.1)*** | ***(12.6)*** | ***(11.5)*** | ***(9.86)*** | ***(9.67)*** | ***(8.34)*** | ***(7.56)*** | ***(6.91)*** | ***(5.62)*** | ***(4.74)*** | ***(4.10)*** | ***(3.41)*** | ***(2.78)*** | **—** | |
| Output Torque in•lbs | 41770 | 45485 | 45485 | 42385 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(4720)* | *(5140)* | *(5140)* | *(4790)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | **4C160** |
| Hollow Shaft OHL lbs | 8810 | 8900 | 9305 | 9910 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(39200)* | *(39600)* | *(41400)* | *(44100)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 9420 | 9870 | 10260 | 10660 | 11100 | 11710 | 12050 | 12360 | 12810 | 12720 | 12660 | 12590 | 12550 | — | |
| *(N)* | *(41900)* | *(43900)* | *(45630)* | *(47410)* | *(49370)* | *(52080)* | *(53590)* | *(54970)* | *(56970)* | *(56570)* | *(56310)* | *(56000)* | *(55820)* | — | |
| **Input Power HP** | **19.0** | **16.9** | **15.4** | **14.2** | **13.0** | **11.2** | **10.1** | **9.27** | **7.54** | **6.36** | **5.50** | **4.57** | **3.73** | **—** | |
| ***(kW)*** | ***(14.2)*** | ***(12.6)*** | ***(11.5)*** | ***(10.6)*** | ***(9.67)*** | ***(8.34)*** | ***(7.56)*** | ***(6.91)*** | ***(5.62)*** | ***(4.74)*** | ***(4.10)*** | ***(3.41)*** | ***(2.78)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | **4C165** |
| Hollow Shaft OHL lbs | 8450 | 8900 | 9305 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(37600)* | *(39600)* | *(41400)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 9420 | 9870 | 10260 | 10660 | 11100 | 11710 | 12050 | 12360 | 12810 | 12720 | 12660 | 12590 | 12550 | — | |
| *(N)* | *(41900)* | *(43900)* | *(45630)* | *(47410)* | *(49370)* | *(52080)* | *(53590)* | *(54970)* | *(56970)* | *(56570)* | *(56310)* | *(56000)* | *(55820)* | — | |

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions [1]




Dimensions on pages 2.156 - 2.166

| Output RPM | 132 | 112 | 104 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **11** | **13** | **14** | **16** | **18** | **21** | **22** | **25** | **28** | **35** | **39** | **46** | **53** | |
| **Input Power HP** | **55.7** | **55.7** | **55.7** | **55.7** | **55.5** | **45.5** | **45.5** | **43.3** | **39.4** | **32.2** | **29.5** | **24.9** | **21.6** | |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.4)*** | ***(33.9)*** | ***(33.9)*** | ***(32.3)*** | ***(29.4)*** | ***(24.0)*** | ***(22.0)*** | ***(18.6)*** | ***(16.1)*** | |
| Output Torque in•lbs | 23450 | 28585 | 31240 | 35665 | 38940 | 38230 | 40795 | 42565 | 44245 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(2650)* | *(3230)* | *(3530)* | *(4030)* | *(4400)* | *(4320)* | *(4610)* | *(4810)* | *(5000)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | **4C170** |
| Hollow Shaft OHL lbs | 5370 | 5350 | 5305 | 5235 | 5145 | 5710 | 5640 | 5755 | 6000 | 6560 | 6900 | 7485 | 8000 | |
| *(N)* | *(23900)* | *(23800)* | *(23600)* | *(23300)* | *(22900)* | *(25400)* | *(25100)* | *(25600)* | *(26700)* | *(29200)* | *(30700)* | *(33300)* | *(35600)* | |
| Solid Shaft OHL lbs | 4590 | 4590 | 4590 | 4590 | 4910 | 5400 | 5550 | 5940 | 6250 | 7170 | 7580 | 8210 | 8860 | |
| *(N)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(21830)* | *(24010)* | *(24680)* | *(26420)* | *(27800)* | *(31890)* | *(33710)* | *(36510)* | *(39400)* | |
| **Input Power HP** | **60.3** | **60.3** | **60.3** | **59.3** | **55.5** | **48.3** | **46.8** | **43.3** | **39.4** | **32.2** | **29.5** | **24.9** | **21.6** | |
| ***(kW)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(44.2)*** | ***(41.4)*** | ***(36.0)*** | ***(34.9)*** | ***(32.3)*** | ***(29.4)*** | ***(24.0)*** | ***(22.0)*** | ***(18.6)*** | ***(16.1)*** | |
| Output Torque in•lbs | 25400 | 30975 | 33895 | 37970 | 38940 | 40625 | 41950 | 42565 | 44245 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(2870)* | *(3500)* | *(3830)* | *(4290)* | *(4400)* | *(4590)* | *(4740)* | *(4810)* | *(5000)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | **4C175** |
| Hollow Shaft OHL lbs | 5190 | 5125 | 5055 | 5010 | 5145 | 5505 | 5530 | 5755 | 6000 | 6560 | 6900 | 7485 | 8000 | |
| *(N)* | *(23100)* | *(22800)* | *(22500)* | *(22300)* | *(22900)* | *(24500)* | *(24600)* | *(25600)* | *(26700)* | *(29200)* | *(30700)* | *(33300)* | *(35600)* | |
| Solid Shaft OHL lbs | 4590 | 4590 | 4590 | 4590 | 4910 | 5400 | 5550 | 5940 | 6250 | 7170 | 7580 | 8210 | 8860 | |
| *(N)* | *(20410)* | *(20410)* | *(20410)* | *(20410)* | *(21830)* | *(24010)* | *(24680)* | *(26420)* | *(27800)* | *(31890)* | *(33710)* | *(36510)* | *(39400)* | |
| **Input Power HP** | — | — | — | — | — | **33.9** | **27.2** | **27.2** | **26.4** | **26.4** | **26.4** | **26.4** | **25.1** | |
| ***(kW)*** | — | — | — | — | — | ***(25.3)*** | ***(20.3)*** | ***(20.3)*** | ***(19.7)*** | ***(19.7)*** | ***(19.7)*** | ***(19.7)*** | ***(18.7)*** | |
| Output Torque in•lbs | — | — | — | — | — | 28580 | 24420 | 26725 | 29645 | 37255 | 40705 | 48140 | 52740 | |
| *(N•m)* | — | — | — | — | — | *(3230)* | *(2760)* | *(3020)* | *(3350)* | *(4210)* | *(4600)* | *(5440)* | *(5960)* | **4D160** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 11195 | 11780 | 11980 | 12315 | 12720 | 12900 | 13125 | 13510 | |
| *(N)* | — | — | — | — | — | *(49800)* | *(52400)* | *(53300)* | *(54800)* | *(56600)* | *(57400)* | *(58400)* | *(60100)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 7690 | 7910 | 8500 | 9060 | 10240 | 10830 | 11740 | 12690 | |
| *(N)* | — | — | — | — | — | *(34200)* | *(35180)* | *(37800)* | *(40290)* | *(45540)* | *(48170)* | *(52210)* | *(56440)* | |
| **Input Power HP** | — | — | — | — | — | **40.2** | **32.3** | **32.3** | **32.3** | **32.3** | **32.3** | **30.3** | **30.0** | |
| ***(kW)*** | — | — | — | — | — | ***(30.0)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(22.6)*** | ***(22.4)*** | |
| Output Torque in•lbs | — | — | — | — | — | 33890 | 28935 | 31680 | 36190 | 45485 | 49730 | 55310 | 63095 | |
| *(N•m)* | — | — | — | — | — | *(3830)* | *(3270)* | *(3580)* | *(4090)* | *(5140)* | *(5620)* | *(6250)* | *(7130)* | **4D165** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 10765 | 11395 | 11575 | 11800 | 12070 | 12180 | 12565 | 12675 | |
| *(N)* | — | — | — | — | — | *(47900)* | *(50700)* | *(51500)* | *(52500)* | *(53700)* | *(54200)* | *(55900)* | *(56400)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 7690 | 7910 | 8500 | 9060 | 10240 | 10830 | 11740 | 12690 | |
| *(N)* | — | — | — | — | — | *(34200)* | *(35180)* | *(37800)* | *(40290)* | *(45540)* | *(48170)* | *(52210)* | *(56440)* | |
| **Input Power HP** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **45.5** | **45.5** | **45.5** | **45.5** | **37.0** | **37.0** | **36.6** | **34.2** | |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(27.6)*** | ***(27.6)*** | ***(27.3)*** | ***(25.5)*** | |
| Output Torque in•lbs | 23450 | 28580 | 31235 | 35660 | 39025 | 38230 | 40795 | 44600 | 50970 | 52210 | 57075 | 66725 | 71945 | |
| *(N•m)* | *(2650)* | *(3230)* | *(3530)* | *(4030)* | *(4410)* | *(4320)* | *(4610)* | *(5040)* | *(5760)* | *(5900)* | *(6450)* | *(7540)* | *(8130)* | **4D170** |
| Hollow Shaft OHL lbs | 9080 | 9330 | 9440 | 9550 | 9620 | 10405 | 10450 | 10540 | 10610 | 11530 | 11575 | 11645 | 11955 | |
| *(N)* | *(40400)* | *(41500)* | *(42000)* | *(42500)* | *(42800)* | *(46300)* | *(46500)* | *(46900)* | *(47200)* | *(51300)* | *(51500)* | *(51800)* | *(53200)* | |
| Solid Shaft OHL lbs | 6480 | 6480 | 6480 | 6480 | 6980 | 7690 | 7910 | 8500 | 9060 | 10240 | 10830 | 11740 | 12690 | |
| *(N)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(31040)* | *(34200)* | *(35180)* | *(37800)* | *(40290)* | *(45540)* | *(48170)* | *(52210)* | *(56440)* | |
| **Input Power HP** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **49.6** | **49.6** | **49.6** | **49.6** | **40.4** | **40.4** | **40.4** | **36.7** | |
| ***(kW)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(30.1)*** | ***(30.1)*** | ***(30.1)*** | ***(27.4)*** | |
| Output Torque in•lbs | 25395 | 30970 | 33890 | 38670 | 42300 | 41770 | 44510 | 48670 | 55660 | 56900 | 62300 | 73625 | 77165 | |
| *(N•m)* | *(2870)* | *(3500)* | *(3830)* | *(4370)* | *(4780)* | *(4720)* | *(5030)* | *(5500)* | *(6290)* | *(6430)* | *(7040)* | *(8320)* | *(8720)* | **4D175** |
| Hollow Shaft OHL lbs | 8925 | 9125 | 9215 | 9305 | 9375 | 10135 | 10135 | 10205 | 10225 | 11125 | 11170 | 11080 | 11375 | |
| *(N)* | *(39700)* | *(40600)* | *(41000)* | *(41400)* | *(41700)* | *(45100)* | *(45100)* | *(45400)* | *(45500)* | *(49500)* | *(49700)* | *(49300)* | *(50600)* | |
| Solid Shaft OHL lbs | 6480 | 6480 | 6480 | 6480 | 6980 | 7690 | 7910 | 8500 | 9060 | 10240 | 10830 | 11740 | 12690 | |
| *(N)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(31040)* | *(34200)* | *(35180)* | *(37800)* | *(40290)* | *(45540)* | *(48170)* | *(52210)* | *(56440)* | |

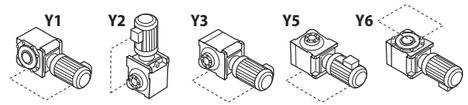
**Notes: [1]** For selections noted with *, the duty cycle for units mounted in the Y2 configuration is limited to 75% Equivalent Duty (10 minute cycle time).





# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

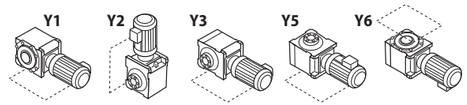



Dimensions on pages 2.156 - 2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.5 | 14.2 | 13.0 | 11.8 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **60** | **67** | **74** | **80** | **88** | **102** | **112** | **123** | **151** | **179** | **207** | **249** | **305** | **417** | |
| **Input Power HP** | **19.0** | **16.9** | **15.4** | **14.2** | **13.0** | **11.2** | **10.1** | **9.27** | **7.54** | **6.36** | **5.50** | **4.57** | **3.73** | — | |
| ***(kW)*** | ***(14.2)*** | ***(12.6)*** | ***(11.5)*** | ***(10.6)*** | ***(9.67)*** | ***(8.34)*** | ***(7.56)*** | ***(6.91)*** | ***(5.62)*** | ***(4.74)*** | ***(4.10)*** | ***(3.41)*** | ***(2.78)*** | — | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | **4C170** |
| Hollow Shaft OHL lbs | 8450 | 8900 | 9305 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(37600)* | *(39600)* | *(41400)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 9420 | 9870 | 10260 | 10660 | 11100 | 11710 | 12050 | 12360 | 12810 | 12720 | 12660 | 12590 | 12550 | — | |
| *(N)* | *(41900)* | *(43900)* | *(45630)* | *(47410)* | *(49370)* | *(52080)* | *(53590)* | *(54970)* | *(56970)* | *(56570)* | *(56310)* | *(56000)* | *(55820)* | — | |
| **Input Power HP** | **19.0** | **16.9** | **15.4** | **14.2** | **13.0** | **11.2** | **10.1** | **9.27** | **7.54** | **6.36** | **5.50** | **4.57** | **3.73** | — | |
| ***(kW)*** | ***(14.2)*** | ***(12.6)*** | ***(11.5)*** | ***(10.6)*** | ***(9.67)*** | ***(8.34)*** | ***(7.56)*** | ***(6.91)*** | ***(5.62)*** | ***(4.74)*** | ***(4.10)*** | ***(3.41)*** | ***(2.78)*** | — | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | **4C175** |
| Hollow Shaft OHL lbs | 8450 | 8900 | 9305 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(37600)* | *(39600)* | *(41400)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 9420 | 9870 | 10260 | 10660 | 11100 | 11710 | 12050 | 12360 | 12810 | 12720 | 12660 | 12590 | 12550 | — | |
| *(N)* | *(41900)* | *(43900)* | *(45630)* | *(47410)* | *(49370)* | *(52080)* | *(53590)* | *(54970)* | *(56970)* | *(56570)* | *(56310)* | *(56000)* | *(55820)* | — | |
| **Input Power HP** | **17.6** | **17.3** | **17.3** | **13.2** | **13.2** | **12.8** | **10.7** | **10.7** | **8.65** | **7.38** | **5.93** | **4.65** | **4.32** | — | |
| ***(kW)*** | ***(13.1)*** | ***(12.9)*** | ***(12.9)*** | ***(9.86)*** | ***(9.86)*** | ***(9.56)*** | ***(8.01)*** | ***(8.01)*** | ***(6.45)*** | ***(5.50)*** | ***(4.42)*** | ***(3.47)*** | ***(3.22)*** | — | |
| Output Torque in•lbs | 41770 | 46545 | 50970 | 42385 | 46370 | 52120 | 48230 | 52740 | 52120 | 52740 | 49025 | 46370 | 52740 | — | |
| *(N•m)* | *(4720)* | *(5260)* | *(5760)* | *(4790)* | *(5240)* | *(5890)* | *(5450)* | *(5960)* | *(5890)* | *(5960)* | *(5540)* | *(5240)* | *(5960)* | — | **4D160** |
| Hollow Shaft OHL lbs | 15080 | 15350 | 15530 | 16700 | 16970 | 17445 | 18385 | 17915 | 18025 | 17915 | 18545 | 18950 | 17915 | — | |
| *(N)* | *(67100)* | *(68300)* | *(69100)* | *(74300)* | *(75500)* | *(77600)* | *(81800)* | *(79700)* | *(80200)* | *(79700)* | *(82500)* | *(84300)* | *(79700)* | — | |
| Solid Shaft OHL lbs | 13500 | 14150 | 14650 | 14960 | 15320 | 15800 | 16070 | 16310 | 16690 | 16650 | 16620 | 16590 | 16580 | — | |
| *(N)* | *(60040)* | *(62930)* | *(65160)* | *(66540)* | *(68140)* | *(70270)* | *(71470)* | *(72540)* | *(74230)* | *(74050)* | *(73920)* | *(73790)* | *(73740)* | — | |
| **Input Power HP** | **25.2** | **21.5** | **21.5** | **18.0** | **18.0** | **15.3** | **12.9** | **12.9** | **10.5** | **8.82** | **7.63** | **6.34** | **5.06** | — | |
| ***(kW)*** | ***(18.8)*** | ***(16.0)*** | ***(16.0)*** | ***(13.4)*** | ***(13.4)*** | ***(11.4)*** | ***(9.59)*** | ***(9.59)*** | ***(7.81)*** | ***(6.58)*** | ***(5.69)*** | ***(4.73)*** | ***(3.77)*** | — | |
| Output Torque in•lbs | 60265 | 57695 | 63095 | 57695 | 63095 | 62210 | 57695 | 63095 | 63095 | 63095 | 63095 | 63095 | 61680 | — | |
| *(N•m)* | *(6810)* | *(6520)* | *(7130)* | *(6520)* | *(7130)* | *(7030)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(6970)* | — | **4D165** |
| Hollow Shaft OHL lbs | 13600 | 14455 | 14565 | 15465 | 15620 | 15960 | 16970 | 15755 | 15755 | 15755 | 15755 | 15755 | 16115 | — | |
| *(N)* | *(60500)* | *(64300)* | *(64800)* | *(68800)* | *(69500)* | *(71000)* | *(75500)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(71700)* | — | |
| Solid Shaft OHL lbs | 13500 | 14150 | 14650 | 14960 | 15320 | 15800 | 16070 | 16310 | 16690 | 16650 | 16620 | 16590 | 16580 | — | |
| *(N)* | *(60040)* | *(62930)* | *(65160)* | *(66540)* | *(68140)* | *(70270)* | *(71470)* | *(72540)* | *(74230)* | *(74050)* | *(73920)* | *(73790)* | *(73740)* | — | |
| **Input Power HP** | **26.4** | **24.9** | **24.9** | **20.9** | **20.9** | **18.1** | **15.0** | **15.0** | **12.2** | **10.3** | **8.88** | **7.38** | **6.13** | — | |
| ***(kW)*** | ***(19.7)*** | ***(18.6)*** | ***(18.6)*** | ***(15.6)*** | ***(15.6)*** | ***(13.5)*** | ***(11.2)*** | ***(11.2)*** | ***(9.08)*** | ***(7.66)*** | ***(6.62)*** | ***(5.50)*** | ***(4.57)*** | — | |
| Output Torque in•lbs | 62830 | 67075 | 73360 | 66990 | 73270 | 73360 | 67165 | 73450 | 73450 | 73450 | 73450 | 73540 | 74775 | — | |
| *(N•m)* | *(7100)* | *(7580)* | *(8290)* | *(7570)* | *(8280)* | *(8290)* | *(7590)* | *(8300)* | *(8300)* | *(8300)* | *(8300)* | *(8310)* | *(8450)* | — | **4D170** |
| Hollow Shaft OHL lbs | 13375 | 13690 | 12790 | 14725 | 12855 | 12790 | 14725 | 12790 | 12790 | 12765 | 12790 | 12765 | 12315 | — | |
| *(N)* | *(59500)* | *(60900)* | *(56900)* | *(65500)* | *(57200)* | *(56900)* | *(65500)* | *(56900)* | *(56900)* | *(56800)* | *(56900)* | *(56800)* | *(54800)* | — | |
| Solid Shaft OHL lbs | 13500 | 14150 | 14650 | 14960 | 15320 | 15800 | 16070 | 16310 | 16690 | 16650 | 16620 | 16590 | 16580 | — | |
| *(N)* | *(60040)* | *(62930)* | *(65160)* | *(66540)* | *(68140)* | *(70270)* | *(71470)* | *(72540)* | *(74230)* | *(74050)* | *(73920)* | *(73790)* | *(73740)* | — | |
| **Input Power HP** | **32.3** | **28.7** | **26.1** | **24.0** | **22.0** | **18.9** | **17.2** | **15.7** | **12.8** | **10.8** | **9.32** | **7.75** | **6.33** | — | |
| ***(kW)*** | ***(24.1)*** | ***(21.4)*** | ***(19.5)*** | ***(17.9)*** | ***(16.4)*** | ***(14.1)*** | ***(12.8)*** | ***(11.7)*** | ***(9.54)*** | ***(8.04)*** | ***(6.95)*** | ***(5.78)*** | ***(4.72)*** | — | |
| Output Torque in•lbs | 76900 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8690)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | **4D175** |
| Hollow Shaft OHL lbs | 11485 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(51100)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 13500 | 14150 | 14650 | 14960 | 15320 | 15800 | 16070 | 16310 | 16690 | 16650 | 16620 | 16590 | 16580 | — | |
| *(N)* | *(60040)* | *(62930)* | *(65160)* | *(66540)* | *(68140)* | *(70270)* | *(71470)* | *(72540)* | *(74230)* | *(74050)* | *(73920)* | *(73790)* | *(73740)* | — | |

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions [1]




Dimensions on pages 2.156 - 2.166

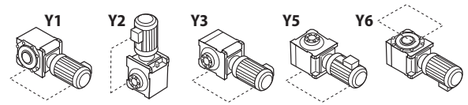
| Output RPM | 132 | 112 | 104 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **55.7** | **55.7** | **55.7** | **53.4** | **49.2** | **42.4** | **36.7** | 4D180 |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(39.8)*** | ***(36.7)*** | ***(31.6)*** | ***(27.4)*** | |
| Output Torque in•lbs | 30085 | 36725 | 40175 | 45925 | 50175 | 46810 | 49910 | 54600 | 62485 | 75320 | 75850 | 77175 | 77175 | |
| *(N•m)* | *(3400)* | *(4150)* | *(4540)* | *(5190)* | *(5670)* | *(5290)* | *(5640)* | *(6170)* | *(7060)* | *(8510)* | *(8570)* | *(8720)* | *(8270)* | |
| Hollow Shaft OHL lbs | 8540 | 8675 | 8720 | 8745 | 8720 | 9710 | 9730 | 9730 | 9685 | 9685 | 10070 | 10810 | 11375 | |
| *(N)* | *(38000)* | *(38600)* | *(38800)* | *(38900)* | *(38800)* | *(43200)* | *(43300)* | *(43300)* | *(43100)* | *(43100)* | *(44800)* | *(48100)* | *(50600)* | |
| Solid Shaft OHL lbs | 6480 | 6480 | 6480 | 6480 | 6980 | 7690 | 7910 | 8500 | 9060 | 10240 | 10830 | 11740 | 12690 | |
| *(N)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(31040)* | *(34200)* | *(35180)* | *(37800)* | *(40290)* | *(45540)* | *(48170)* | *(52210)* | *(56440)* | |
| **Input Power HP** | **80.5** | **80.5** | **80.5** | **80.5** | **80.5** | **60.3** | **60.3** | **60.3** | **60.3** | **53.4** | **49.2** | **42.4** | **36.7** | 4D185 |
| ***(kW)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(39.8)*** | ***(36.7)*** | ***(31.6)*** | ***(27.4)*** | |
| Output Torque in•lbs | 33890 | 41235 | 45130 | 51590 | 56465 | 50795 | 54155 | 59210 | 67705 | 75320 | 75850 | 77175 | 77175 | |
| *(N•m)* | *(3830)* | *(4660)* | *(5100)* | *(5830)* | *(6380)* | *(5740)* | *(6120)* | *(6690)* | *(7650)* | *(8510)* | *(8570)* | *(8720)* | *(8270)* | |
| Hollow Shaft OHL lbs | 8225 | 8295 | 8315 | 8270 | 8225 | 9395 | 9395 | 9350 | 9260 | 9685 | 10070 | 10810 | 11375 | |
| *(N)* | *(36600)* | *(36900)* | *(37000)* | *(36800)* | *(36600)* | *(41800)* | *(41800)* | *(41600)* | *(41200)* | *(43100)* | *(44800)* | *(48100)* | *(50600)* | |
| Solid Shaft OHL lbs | 6480 | 6480 | 6480 | 6480 | 6980 | 7690 | 7910 | 8500 | 9060 | 10240 | 10830 | 11740 | 12690 | |
| *(N)* | *(28820)* | *(28820)* | *(28820)* | *(28820)* | *(31040)* | *(34200)* | *(35180)* | *(37800)* | *(40290)* | *(45540)* | *(48170)* | *(52210)* | *(56440)* | |
| **Input Power HP** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **45.5** | **45.5** | **45.5** | **45.5** | **37.0** | **37.0** | **36.6** | **34.2** | 4E170 |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(27.6)*** | ***(27.6)*** | ***(27.3)*** | ***(25.5)*** | |
| Output Torque in•lbs | 23450 | 28580 | 31235 | 35660 | 39025 | 38230 | 40795 | 44600 | 50970 | 52210 | 57075 | 66725 | 71945 | |
| *(N•m)* | *(2650)* | *(3230)* | *(3530)* | *(4030)* | *(4410)* | *(4320)* | *(4610)* | *(5040)* | *(5760)* | *(5900)* | *(6450)* | *(7540)* | *(8130)* | |
| Hollow Shaft OHL lbs | 12340 | 12835 | 13035 | 13330 | 13530 | 14500 | 14635 | 14855 | 15125 | 16365 | 16565 | 16950 | 17510 | |
| *(N)* | *(54900)* | *(57100)* | *(58000)* | *(59300)* | *(60200)* | *(64500)* | *(65100)* | *(66100)* | *(67300)* | *(72800)* | *(73700)* | *(75400)* | *(77900)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 10410 | 11310 | 11590 | 12350 | 13080 | 14630 | 15370 | 16550 | 17780 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(46300)* | *(50300)* | *(51550)* | *(54930)* | *(58170)* | *(65070)* | *(68360)* | *(73610)* | *(79080)* | |
| **Input Power HP** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **49.6** | **49.6** | **49.6** | **49.6** | **40.4** | **40.4** | **40.4** | **40.4** | 4E175 |
| ***(kW)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(30.1)*** | ***(30.1)*** | ***(30.1)*** | ***(30.1)*** | |
| Output Torque in•lbs | 25395 | 30970 | 33890 | 38670 | 42300 | 41770 | 44510 | 48670 | 55660 | 56900 | 62300 | 73625 | 84865 | |
| *(N•m)* | *(2870)* | *(3500)* | *(3830)* | *(4370)* | *(4780)* | *(4720)* | *(5030)* | *(5500)* | *(6290)* | *(6430)* | *(7040)* | *(8320)* | *(9590)* | |
| Hollow Shaft OHL lbs | 21625 | 12655 | 12835 | 13105 | 13285 | 14250 | 14365 | 14565 | 14790 | 16005 | 16185 | 16430 | 16565 | |
| *(N)* | *(96200)* | *(56300)* | *(57100)* | *(58300)* | *(59100)* | *(63400)* | *(63900)* | *(64800)* | *(65800)* | *(71200)* | *(72000)* | *(73100)* | *(73700)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 10410 | 11310 | 11590 | 12350 | 13080 | 14630 | 15370 | 16550 | 17780 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(46300)* | *(50300)* | *(51550)* | *(54930)* | *(58170)* | *(65070)* | *(68360)* | *(73610)* | *(79080)* | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **43.4** | 4E180 |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(32.4)*** | |
| Output Torque in•lbs | 30085 | 36725 | 40175 | 45925 | 50175 | 46810 | 49910 | 54600 | 62475 | 78495 | 85850 | 101780 | 91160 | |
| *(N•m)* | *(3400)* | *(4150)* | *(4540)* | *(5190)* | *(5670)* | *(5290)* | *(5640)* | *(6170)* | *(7060)* | *(8870)* | *(9700)* | *(11500)* | *(10300)* | |
| Hollow Shaft OHL lbs | 11845 | 12230 | 12385 | 12585 | 12700 | 13870 | 13980 | 14115 | 14295 | 14455 | 14475 | 14385 | 16095 | |
| *(N)* | *(52700)* | *(54400)* | *(55100)* | *(56000)* | *(56500)* | *(61700)* | *(62200)* | *(62800)* | *(63600)* | *(64300)* | *(64400)* | *(64000)* | *(71600)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 10410 | 11310 | 11590 | 12350 | 13080 | 14630 | 15370 | 16550 | 17780 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(46300)* | *(50300)* | *(51550)* | *(54930)* | *(58170)* | *(65070)* | *(68360)* | *(73610)* | *(79080)* | |
| **Input Power HP** | **80.5** | **80.5** | **80.5** | **80.5** | **80.5** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **56.1** | **48.8** | 4E185 |
| ***(kW)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(41.8)*** | ***(36.4)*** | |
| Output Torque in•lbs | 33890 | 41235 | 45130 | 51590 | 56460 | 50795 | 54155 | 59200 | 67695 | 85140 | 92930 | 101780 | 102665 | |
| *(N•m)* | *(3830)* | *(4660)* | *(5100)* | *(5830)* | *(6380)* | *(5740)* | *(6120)* | *(6690)* | *(7650)* | *(9620)* | *(10500)* | *(11500)* | *(11600)* | |
| Hollow Shaft OHL lbs | 11575 | 11890 | 12025 | 12160 | 12250 | 13575 | 13665 | 13780 | 13915 | 13960 | 13935 | 14340 | 15265 | |
| *(N)* | *(51500)* | *(52900)* | *(53500)* | *(54100)* | *(54500)* | *(60400)* | *(60800)* | *(61300)* | *(61900)* | *(62100)* | *(62000)* | *(63800)* | *(67900)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 10410 | 11310 | 11590 | 12350 | 13080 | 14630 | 15370 | 16550 | 17780 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(46300)* | *(50300)* | *(51550)* | *(54930)* | *(58170)* | *(65070)* | *(68360)* | *(73610)* | *(79080)* | |

**Notes: [1]** For selections noted with *, the duty cycle for units mounted in the Y2 configuration is limited to 75% Equivalent Duty (10 minute cycle time).





# Frame Size Selection Tables 50 Hz, 1450 RPM



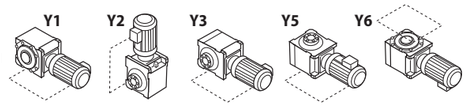

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.5 | 14.2 | 13.0 | 11.8 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **32.3** | **28.7** | **26.1** | **24.0** | **22.0** | **18.9** | **17.2** | **15.7** | **12.8** | **10.8** | **9.32** | **7.75** | **6.33** | **—** | 4D180 |
| ***(kW)*** | ***(24.1)*** | ***(21.4)*** | ***(19.5)*** | ***(17.9)*** | ***(16.4)*** | ***(14.1)*** | ***(12.8)*** | ***(11.7)*** | ***(9.54)*** | ***(8.04)*** | ***(6.95)*** | ***(5.78)*** | ***(4.72)*** | **—** | |
| Output Torque in•lbs | 77175 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 13500 | 14150 | 14650 | 14960 | 15320 | 15800 | 16070 | 16310 | 16690 | 16650 | 16620 | 16590 | 16580 | — | |
| *(N)* | *(60040)* | *(62930)* | *(65160)* | *(66540)* | *(68140)* | *(70270)* | *(71470)* | *(72540)* | *(74230)* | *(74050)* | *(73920)* | *(73790)* | *(73740)* | — | |
| **Input Power HP** | **32.3** | **28.7** | **26.1** | **24.0** | **22.0** | **18.9** | **17.2** | **15.7** | **12.8** | **10.8** | **9.32** | **7.75** | **6.33** | **—** | 4D185 |
| ***(kW)*** | ***(24.1)*** | ***(21.4)*** | ***(19.5)*** | ***(17.9)*** | ***(16.4)*** | ***(14.1)*** | ***(12.8)*** | ***(11.7)*** | ***(9.54)*** | ***(8.04)*** | ***(6.95)*** | ***(5.78)*** | ***(4.72)*** | **—** | |
| Output Torque in•lbs | 77175 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 13500 | 14150 | 14650 | 14960 | 15320 | 15800 | 16070 | 16310 | 16690 | 16650 | 16620 | 16590 | 16580 | — | |
| *(N)* | *(60040)* | *(62930)* | *(65160)* | *(66540)* | *(68140)* | *(70270)* | *(71470)* | *(72540)* | *(74230)* | *(74050)* | *(73920)* | *(73790)* | *(73740)* | — | |
| **Input Power HP** | **26.4** | **24.9** | **24.9** | **20.9** | **20.9** | **18.1** | **15.0** | **15.0** | **12.2** | **10.3** | **8.88** | **7.38** | **6.13** | **—** | 4E170 |
| ***(kW)*** | ***(19.7)*** | ***(18.6)*** | ***(18.6)*** | ***(15.6)*** | ***(15.6)*** | ***(13.5)*** | ***(11.2)*** | ***(11.2)*** | ***(9.08)*** | ***(7.66)*** | ***(6.62)*** | ***(5.50)*** | ***(4.57)*** | **—** | |
| Output Torque in•lbs | 62830 | 67075 | 73360 | 66990 | 73270 | 73360 | 67165 | 73450 | 73450 | 73450 | 73450 | 73540 | 74775 | — | |
| *(N•m)* | *(7100)* | *(7580)* | *(8290)* | *(7570)* | *(8280)* | *(8290)* | *(7590)* | *(8300)* | *(8300)* | *(8300)* | *(8300)* | *(8310)* | *(8450)* | — | |
| Hollow Shaft OHL lbs | 19060 | 19580 | 19825 | 20410 | 20095 | 20075 | 20410 | 20075 | 20075 | 20075 | 20075 | 20075 | 20005 | — | |
| *(N)* | *(84800)* | *(87100)* | *(88200)* | *(90800)* | *(89400)* | *(89300)* | *(90800)* | *(89300)* | *(89300)* | *(89300)* | *(89300)* | *(89300)* | *(89000)* | — | |
| Solid Shaft OHL lbs | 18840 | 19670 | 20270 | 20480 | 20700 | 21020 | 21200 | 21360 | 21630 | 21720 | 21790 | 21860 | 21920 | — | |
| *(N)* | *(83800)* | *(87490)* | *(90160)* | *(91090)* | *(92070)* | *(93490)* | *(94290)* | *(95000)* | *(96210)* | *(96610)* | *(96920)* | *(97230)* | *(97500)* | — | |
| **Input Power HP** | **32.3** | **31.6** | **29.5** | **26.1** | **24.8** | **21.3** | **19.3** | **19.3** | **15.2** | **13.2** | **11.1** | **9.36** | **7.54** | **—** | 4E175 |
| ***(kW)*** | ***(24.1)*** | ***(23.6)*** | ***(22.0)*** | ***(19.5)*** | ***(18.5)*** | ***(15.9)*** | ***(14.4)*** | ***(14.4)*** | ***(11.3)*** | ***(9.87)*** | ***(8.29)*** | ***(6.98)*** | ***(5.62)*** | **—** | |
| Output Torque in•lbs | 76900 | 85130 | 86990 | 83805 | 86990 | 86990 | 86545 | 94690 | 91150 | 94690 | 92035 | 92920 | 92035 | — | |
| *(N•m)* | *(8690)* | *(9620)* | *(9830)* | *(9470)* | *(9830)* | *(9830)* | *(9780)* | *(10700)* | *(10300)* | *(10700)* | *(10400)* | *(10500)* | *(10400)* | — | |
| Hollow Shaft OHL lbs | 18025 | 18250 | 18835 | 19555 | 19400 | 19400 | 19420 | 18995 | 19175 | 18995 | 19150 | 19085 | 19150 | — | |
| *(N)* | *(80200)* | *(81200)* | *(83800)* | *(87000)* | *(86300)* | *(86300)* | *(86400)* | *(84500)* | *(85300)* | *(84500)* | *(85200)* | *(84900)* | *(85200)* | — | |
| Solid Shaft OHL lbs | 18840 | 19670 | 20270 | 20480 | 20700 | 21020 | 21200 | 21360 | 21630 | 21720 | 21790 | 21860 | 21920 | — | |
| *(N)* | *(83800)* | *(87490)* | *(90160)* | *(91090)* | *(92070)* | *(93490)* | *(94290)* | *(95000)* | *(96210)* | *(96610)* | *(96920)* | *(97230)* | *(97500)* | — | |
| **Input Power HP** | **41.0** | **38.1** | **34.9** | **32.0** | **29.2** | **25.5** | **22.9** | **20.9** | **17.0** | **14.4** | **12.4** | **10.3** | **8.41** | **—** | 4E180 |
| ***(kW)*** | ***(30.6)*** | ***(28.4)*** | ***(26.0)*** | ***(23.9)*** | ***(21.8)*** | ***(18.8)*** | ***(17.1)*** | ***(15.6)*** | ***(12.7)*** | ***(10.7)*** | ***(9.25)*** | ***(7.69)*** | ***(6.27)*** | **—** | |
| Output Torque in•lbs | 98240 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11100)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 16500 | 17015 | 17690 | 18320 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(73400)* | *(75700)* | *(78700)* | *(81500)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 18840 | 19670 | 20270 | 20480 | 20700 | 21020 | 21200 | 21360 | 21630 | 21720 | 21790 | 21860 | 21920 | — | |
| *(N)* | *(83800)* | *(87490)* | *(90160)* | *(91090)* | *(92070)* | *(93490)* | *(94290)* | *(95000)* | *(96210)* | *(96610)* | *(96920)* | *(97230)* | *(97500)* | — | |
| **Input Power HP** | **43.0** | **38.1** | **34.9** | **32.0** | **29.2** | **25.2** | **22.9** | **20.9** | **17.0** | **14.4** | **12.4** | **10.3** | **8.41** | **—** | 4E185 |
| ***(kW)*** | ***(32.1)*** | ***(28.4)*** | ***(26.0)*** | ***(23.9)*** | ***(21.8)*** | ***(18.8)*** | ***(17.1)*** | ***(15.6)*** | ***(12.7)*** | ***(10.7)*** | ***(9.25)*** | ***(7.69)*** | ***(6.27)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 16140 | 17015 | 17690 | 18300 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(71800)* | *(75700)* | *(78700)* | *(81500)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 18840 | 19670 | 20270 | 20480 | 20700 | 21020 | 21200 | 21360 | 21630 | 21720 | 21790 | 21860 | 21920 | — | |
| *(N)* | *(83800)* | *(87490)* | *(90160)* | *(91090)* | *(92070)* | *(93490)* | *(94290)* | *(95000)* | *(96210)* | *(96610)* | *(96920)* | *(97230)* | *(97500)* | — | |

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions [1]




Dimensions on pages 2.156 - 2.166

| Output RPM | 132 | 112 | 104 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **91.7** | **91.7** | **91.7** | **91.7** | **91.7** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | **64.6** | **56.3** | **48.8** | |
| ***(kW)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(48.2)*** | ***(42.0)*** | ***(36.4)*** | |
| Output Torque in•lbs | 38580 | 47075 | 51500 | 58845 | 64335 | 57075 | 60885 | 66635 | 76105 | 95585 | 100010 | 102665 | 102665 | |
| *(N•m)* | *(4360)* | *(5320)* | *(5820)* | *(6650)* | *(7270)* | *(6450)* | *(6880)* | *(7530)* | *(8600)* | *(10800)* | *(11300)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 11240 | 11465 | 11555 | 11645 | 11665 | 13125 | 13170 | 13240 | 13285 | 13195 | 13465 | 14295 | 15265 | |
| *(N)* | *(50000)* | *(51000)* | *(51400)* | *(51800)* | *(51900)* | *(58400)* | *(58600)* | *(58900)* | *(59100)* | *(58700)* | *(59900)* | *(63600)* | *(67900)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 10410 | 11310 | 11590 | 12350 | 13080 | 14630 | 15370 | 16550 | 17780 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(46300)* | *(50300)* | *(51550)* | *(54930)* | *(58170)* | *(65070)* | *(68360)* | *(73610)* | *(79080)* | |
| **Input Power HP** | **101** | **101** | **101** | **101** | **101** | **73.8** | **73.8** | **73.8** | **73.84** | **70.0** | **64.6** | **56.3** | **48.8** | |
| ***(kW)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(52.2)*** | ***(48.2)*** | ***(42.0)*** | ***(36.4)*** | |
| Output Torque in•lbs | 42300 | 51590 | 56460 | 64510 | 70540 | 62035 | 66195 | 72385 | 82750 | 99125 | 100015 | 102665 | 102665 | |
| *(N•m)* | *(4780)* | *(5830)* | *(6380)* | *(7290)* | *(7970)* | *(7010)* | *(7480)* | *(8180)* | *(9350)* | *(11200)* | *(11300)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 10945 | 11125 | 11195 | 11215 | 11215 | 12765 | 12790 | 12810 | 12790 | 12970 | 13465 | 14295 | 15265 | |
| *(N)* | *(48700)* | *(49500)* | *(49800)* | *(49900)* | *(49900)* | *(56800)* | *(56900)* | *(57000)* | *(56900)* | *(57700)* | *(59900)* | *(63600)* | *(67900)* | |
| Solid Shaft OHL lbs | 9770 | 9770 | 9770 | 9770 | 10410 | 11310 | 11590 | 12350 | 13080 | 14630 | 15370 | 16550 | 17780 | |
| *(N)* | *(43450)* | *(43450)* | *(43450)* | *(43450)* | *(46300)* | *(50300)* | *(51550)* | *(54930)* | *(58170)* | *(65070)* | *(68360)* | *(73610)* | *(79080)* | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **43.4** | |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(32.4)*** | |
| Output Torque in•lbs | 30085 | 36725 | 40175 | 45925 | 50175 | 46810 | 49910 | 54600 | 62475 | 78495 | 85840 | 101770 | 91150 | |
| *(N•m)* | *(3400)* | *(4150)* | *(4540)* | *(5190)* | *(5670)* | *(5290)* | *(5640)* | *(6170)* | *(7060)* | *(8870)* | *(9700)* | *(11500)* | *(10300)* | |
| Hollow Shaft OHL lbs | 21285 | 22255 | 22705 | 23380 | 23825 | 25625 | 25850 | 26300 | 27200 | 28325 | 28550 | 27875 | 28325 | |
| *(N)* | *(94700)* | *(99000)* | *(101000)* | *(104000)* | *(106000)* | *(114000)* | *(115000)* | *(117000)* | *(121000)* | *(126000)* | *(127000)* | *(124000)* | *(126000)* | |
| Solid Shaft OHL lbs | 17510 | 17510 | 17510 | 17510 | 18570 | 20070 | 20530 | 21790 | 22990 | 25560 | 26850 | 28470 | 28910 | |
| *(N)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(82590)* | *(89270)* | *(91310)* | *(96920)* | *(102250)* | *(113690)* | *(119420)* | *(126630)* | *(128590)* | |
| **Input Power HP** | **80.5** | **80.5** | **80.5** | **80.5** | **80.5** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **52.3** | |
| ***(kW)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(39.0)*** | |
| Output Torque in•lbs | 33890 | 41235 | 45130 | 51590 | 56460 | 50795 | 54155 | 59200 | 67695 | 85130 | 92920 | 109735 | 109735 | |
| *(N•m)* | *(3830)* | *(4660)* | *(5100)* | *(5830)* | *(6380)* | *(5740)* | *(6120)* | *(6690)* | *(7650)* | *(9620)* | *(10500)* | *(12400)* | *(12400)* | |
| Hollow Shaft OHL lbs | 21040 | 21940 | 22390 | 22930 | 23380 | 25400 | 25625 | 26075 | 26750 | 27875 | 28100 | 27425 | 27425 | |
| *(N)* | *(93600)* | *(97600)* | *(99600)* | *(102000)* | *(104000)* | *(113000)* | *(114000)* | *(116000)* | *(119000)* | *(124000)* | *(125000)* | *(122000)* | *(122000)* | |
| Solid Shaft OHL lbs | 17510 | 17510 | 17510 | 17510 | 18570 | 20070 | 20530 | 21790 | 22990 | 25560 | 26850 | 28470 | 28910 | |
| *(N)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(82590)* | *(89270)* | *(91310)* | *(96920)* | *(102250)* | *(113690)* | *(119420)* | *(126630)* | *(128590)* | |
| **Input Power HP** | **91.7** | **91.7** | **91.7** | **91.7** | **91.7** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | **67.9** | |
| ***(kW)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | |
| Output Torque in•lbs | 38580 | 47075 | 51500 | 58845 | 64335 | 57075 | 60885 | 66635 | 76105 | 95575 | 104425 | 123890 | 142475 | |
| *(N•m)* | *(4360)* | *(5320)* | *(5820)* | *(6650)* | *(7270)* | *(6450)* | *(6880)* | *(7530)* | *(8600)* | *(10800)* | *(11800)* | *(14000)* | *(16100)* | |
| Hollow Shaft OHL lbs | 20725 | 21555 | 21985 | 22480 | 22930 | 24950 | 25175 | 25625 | 26300 | 27200 | 27425 | 26750 | 26075 | |
| *(N)* | *(92200)* | *(95900)* | *(97800)* | *(100000)* | *(102000)* | *(111000)* | *(112000)* | *(114000)* | *(117000)* | *(121000)* | *(122000)* | *(119000)* | *(116000)* | |
| Solid Shaft OHL lbs | 17510 | 17510 | 17510 | 17510 | 18570 | 20070 | 20530 | 21790 | 22990 | 25560 | 26850 | 28470 | 28910 | |
| *(N)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(82590)* | *(89270)* | *(91310)* | *(96920)* | *(102250)* | *(113690)* | *(119420)* | *(126630)* | *(128590)* | |
| **Input Power HP** | **101** | **101** | **101** | **101** | **101** | **73.8** | **73.8** | **73.8** | **73.8** | **73.8** | **73.8** | **73.8** | **73.8** | |
| ***(kW)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | |
| Output Torque in•lbs | 42300 | 51590 | 56460 | 64510 | 70530 | 62035 | 66195 | 72385 | 82740 | 104425 | 114155 | 134510 | 154885 | |
| *(N•m)* | *(4780)* | *(5830)* | *(6380)* | *(7290)* | *(7970)* | *(7010)* | *(7480)* | *(8180)* | *(9350)* | *(11800)* | *(12900)* | *(15200)* | *(17500)* | |
| Hollow Shaft OHL lbs | 20480 | 21265 | 21645 | 22120 | 22480 | 24500 | 24725 | 25175 | 25850 | 26525 | 26975 | 26300 | 25400 | |
| *(N)* | *(91100)* | *(94600)* | *(96300)* | *(98400)* | *(100000)* | *(109000)* | *(110000)* | *(112000)* | *(115000)* | *(118000)* | *(120000)* | *(117000)* | *(113000)* | |
| Solid Shaft OHL lbs | 17510 | 17510 | 17510 | 17510 | 18570 | 20070 | 20530 | 21790 | 22990 | 25560 | 26850 | 28470 | 28910 | |
| *(N)* | *(77880)* | *(77880)* | *(77880)* | *(77880)* | *(82590)* | *(89270)* | *(91310)* | *(96920)* | *(102250)* | *(113690)* | *(119420)* | *(126630)* | *(128590)* | |

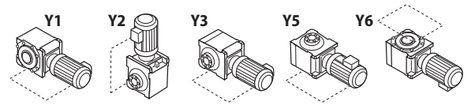
**Notes: [1]** For selections noted with *, the duty cycle for units mounted in the Y2 configuration is limited to 75% Equivalent Duty (10 minute cycle time).





Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

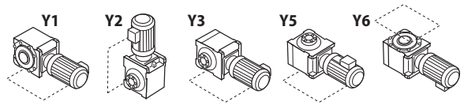



Dimensions on pages 2.156 - 2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.5 | 14.2 | 13.0 | 11.8 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **43.0** | **38.1** | **34.9** | **32.0** | **29.2** | **25.2** | **22.9** | **20.9** | **17.0** | **14.4** | **12.4** | **10.3** | **8.41** | **—** | |
| ***(kW)*** | ***(32.1)*** | ***(28.4)*** | ***(26.0)*** | ***(23.9)*** | ***(21.8)*** | ***(18.8)*** | ***(17.1)*** | ***(15.6)*** | ***(12.7)*** | ***(10.7)*** | ***(9.25)*** | ***(7.69)*** | ***(6.27)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 16140 | 17015 | 17690 | 18320 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(71800)* | *(75700)* | *(78700)* | *(81500)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 18840 | 19670 | 20270 | 20480 | 20700 | 21020 | 21200 | 21360 | 21630 | 21720 | 21790 | 21860 | 21920 | — | |
| *(N)* | *(83800)* | *(87490)* | *(90160)* | *(91090)* | *(92070)* | *(93490)* | *(94290)* | *(95000)* | *(96210)* | *(96610)* | *(96920)* | *(97230)* | *(97500)* | — | |
| **Input Power HP** | **43.0** | **38.1** | **34.9** | **32.0** | **29.2** | **25.2** | **22.9** | **20.9** | **17.0** | **14.4** | **12.4** | **10.3** | **8.41** | **—** | |
| ***(kW)*** | ***(32.1)*** | ***(28.4)*** | ***(26.0)*** | ***(23.9)*** | ***(21.8)*** | ***(18.8)*** | ***(17.1)*** | ***(15.6)*** | ***(12.7)*** | ***(10.7)*** | ***(9.25)*** | ***(7.69)*** | ***(6.27)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 16140 | 17015 | 17690 | 18320 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(71800)* | *(75700)* | *(78700)* | *(81500)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 18840 | 19670 | 20270 | 20480 | 20700 | 21020 | 21200 | 21360 | 21630 | 21720 | 21790 | 21860 | 21920 | — | |
| *(N)* | *(83800)* | *(87490)* | *(90160)* | *(91090)* | *(92070)* | *(93490)* | *(94290)* | *(95000)* | *(96210)* | *(96610)* | *(96920)* | *(97230)* | *(97500)* | — | |
| **Input Power HP** | **41.0** | **40.2** | **40.2** | **32.3** | **32.3** | **26.1** | **24.8** | **24.8** | **20.2** | **16.1** | **13.1** | **11.8** | **9.59** | **—** | |
| ***(kW)*** | ***(30.6)*** | ***(30.0)*** | ***(30.0)*** | ***(24.1)*** | ***(24.1)*** | ***(19.5)*** | ***(18.5)*** | ***(18.5)*** | ***(15.1)*** | ***(12.0)*** | ***(9.75)*** | ***(8.80)*** | ***(7.15)*** | **—** | |
| Output Torque in•lbs | 98230 | 107965 | 118580 | 103540 | 113270 | 106195 | 111500 | 122120 | 122120 | 115040 | 107965 | 117695 | 116810 | — | |
| *(N•m)* | *(11100)* | *(12200)* | *(13400)* | *(11700)* | *(12800)* | *(12000)* | *(12600)* | *(13800)* | *(13800)* | *(13000)* | *(12200)* | *(13300)* | *(13200)* | — | |
| Hollow Shaft OHL lbs | 27875 | 27425 | 26975 | 27650 | 27200 | 27650 | 27425 | 26975 | 26975 | 27200 | 27425 | 26975 | 27200 | — | |
| *(N)* | *(124000)* | *(122000)* | *(120000)* | *(123000)* | *(121000)* | *(123000)* | *(122000)* | *(120000)* | *(120000)* | *(121000)* | *(122000)* | *(120000)* | *(121000)* | — | |
| Solid Shaft OHL lbs | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 29010 | 29180 | 29300 | 29430 | 29530 | — | |
| *(N)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129030)* | *(129790)* | *(130320)* | *(130900)* | *(131340)* | — | |
| **Input Power HP** | **51.2** | **51.1** | **51.1** | **40.4** | **40.4** | **32.3** | **30.3** | **30.3** | **24.9** | **20.2** | **16.1** | **13.1** | **11.5** | **—** | |
| ***(kW)*** | ***(38.2)*** | ***(38.1)*** | ***(38.1)*** | ***(30.1)*** | ***(30.1)*** | ***(24.1)*** | ***(22.6)*** | ***(22.6)*** | ***(18.6)*** | ***(15.1)*** | ***(12.0)*** | ***(9.79)*** | ***(8.59)*** | **—** | |
| Output Torque in•lbs | 122120 | 137165 | 150440 | 129200 | 141590 | 131855 | 136280 | 148670 | 150440 | 145130 | 132740 | 130970 | 140705 | — | |
| *(N•m)* | *(13800)* | *(15500)* | *(17000)* | *(14600)* | *(16000)* | *(14900)* | *(15400)* | *(16800)* | *(17000)* | *(16400)* | *(15000)* | *(14800)* | *(15900)* | — | |
| Hollow Shaft OHL lbs | 26975 | 26300 | 25625 | 26525 | 26075 | 26525 | 26300 | 25625 | 25625 | 25850 | 26300 | 26525 | 26075 | — | |
| *(N)* | *(120000)* | *(117000)* | *(114000)* | *(118000)* | *(116000)* | *(118000)* | *(117000)* | *(114000)* | *(114000)* | *(115000)* | *(117000)* | *(118000)* | *(116000)* | — | |
| Solid Shaft OHL lbs | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 29010 | 29180 | 29300 | 29430 | 29530 | — | |
| *(N)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129030)* | *(129790)* | *(130320)* | *(130900)* | *(131340)* | — | |
| **Input Power HP** | **66.8** | **55.0** | **54.0** | **47.2** | **45.5** | **39.2** | **32.6** | **32.5** | **26.4** | **22.3** | **19.3** | **160** | **13.0** | **—** | |
| ***(kW)*** | ***(49.8)*** | ***(41.0)*** | ***(40.3)*** | ***(35.2)*** | ***(33.9)*** | ***(29.2)*** | ***(24.3)*** | ***(24.2)*** | ***(19.7)*** | ***(16.6)*** | ***(14.4)*** | ***(11.9)*** | ***(9.73)*** | **—** | |
| Output Torque in•lbs | 159310 | 147785 | 159310 | 151325 | 159310 | 159310 | 146015 | 159310 | 159310 | 159310 | 159310 | 159310 | 159310 | — | |
| *(N•m)* | *(18000)* | *(16700)* | *(18000)* | *(17100)* | *(18000)* | *(18000)* | *(16500)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | |
| Hollow Shaft OHL lbs | 25175 | 25850 | 25175 | 25625 | 25175 | 25175 | 25850 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(115000)* | *(112000)* | *(114000)* | *(112000)* | *(112000)* | *(115000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(113000)* | — | |
| Solid Shaft OHL lbs | 28940 | 28950 | 28940 | 28970 | 28940 | 28940 | 28970 | 28940 | 28940 | 28940 | 28940 | 28940 | 28940 | — | |
| *(N)* | *(128720)* | *(128760)* | *(128720)* | *(128850)* | *(128720)* | *(128720)* | *(128850)* | *(128720)* | *(128720)* | *(128720)* | *(128720)* | *(128720)* | *(128720)* | — | |
| **Input Power HP** | **66.8** | **59.1** | **54.0** | **49.8** | **45.5** | **39.2** | **35.5** | **32.5** | **26.4** | **22.3** | **19.3** | **16.0** | **13.0** | **—** | |
| ***(kW)*** | ***(49.8)*** | ***(44.1)*** | ***(40.3)*** | ***(37.1)*** | ***(33.9)*** | ***(29.2)*** | ***(26.5)*** | ***(24.2)*** | ***(19.7)*** | ***(16.6)*** | ***(14.4)*** | ***(11.9)*** | ***(9.73)*** | **—** | |
| Output Torque in•lbs | 159310 | 159290 | 159310 | 159290 | 159310 | 159310 | 159290 | 159310 | 159310 | 159310 | 159310 | 159310 | 159310 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 29010 | 29180 | 29300 | 29430 | 29530 | — | |
| *(N)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129030)* | *(129790)* | *(130320)* | *(130900)* | *(131340)* | — | |

# Frame Size Selection Tables 1165 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

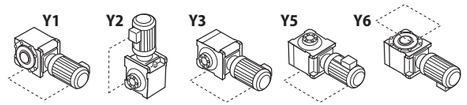



Dimensions on pages 2.156 - 2.166

| Output RPM | 106 | 89.6 | 83.2 | 72.8 | 64.7 | 55.5 | 53.0 | 46.6 | 41.6 | 33.3 | 29.9 | 25.3 | 22.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | — | — | **3.15** | **3.15** | **3.15** | **3.15** | **2.87** | |
| ***(kW)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | — | — | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.14)*** | |
| Output Torque in•lbs | 1645 | 2005 | 2200 | 2510 | 2750 | 3300 | — | — | 4395 | 5530 | 6050 | 7150 | 7510 | |
| *(N•m)* | *(186)* | *(227)* | *(249)* | *(284)* | *(311)* | *(373)* | — | — | *(497)* | *(625)* | *(684)* | *(808)* | *(849)* | **4A100** |
| Hollow Shaft OHL lbs | 4135 | 4360 | 4470 | 4605 | 4720 | 4920 | — | — | 5260 | 5530 | 5485 | 5190 | 5055 | |
| *(N)* | *(18400)* | *(19400)* | *(19900)* | *(20500)* | *(21000)* | *(21900)* | — | — | *(23400)* | *(24600)* | *(24400)* | *(23100)* | *(22500)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3480 | 3700 | 3920 | 4180 | — | — | 4530 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(15470)* | *(16450)* | *(17430)* | *(18590)* | — | — | *(20140)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | **—** | **—** | **4.26** | **4.26** | **4.26** | **3.97** | **3.45** | |
| ***(kW)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | **—** | **—** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(2.96)*** | ***(2.57)*** | |
| Output Torque in•lbs | 2230 | 2725 | 2970 | 3405 | 3725 | 4465 | — | — | 5955 | 7485 | 8185 | 9025 | 9025 | |
| *(N•m)* | *(252)* | *(308)* | *(336)* | *(385)* | *(421)* | *(505)* | — | — | *(673)* | *(846)* | *(925)* | *(1020)* | *(1020)* | **4A105** |
| Hollow Shaft OHL lbs | 4065 | 4270 | 4360 | 4495 | 4585 | 4765 | — | — | 5055 | 5080 | 4830 | 4515 | 4515 | |
| *(N)* | *(18100)* | *(19000)* | *(19400)* | *(20000)* | *(20400)* | *(21200)* | — | — | *(22500)* | *(22600)* | *(21500)* | *(20100)* | *(20100)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3480 | 3700 | 3920 | 4180 | — | — | 4530 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(15470)* | *(16450)* | *(17430)* | *(18590)* | — | — | *(20140)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **4.76** | **—** | **—** | **4.76** | **4.76** | **4.76** | **4.76** | **4.13** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(3.55)*** | **—** | **—** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | ***(3.08)*** | |
| Output Torque in•lbs | — | — | — | — | — | 4980 | — | — | 6645 | 8350 | 9115 | 10795 | 10795 | |
| *(N•m)* | — | — | — | — | — | *(563)* | — | — | *(751)* | *(944)* | *(1030)* | *(1220)* | *(1220)* | **4A110** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4695 | — | — | 4965 | 4765 | 4450 | 3570 | 3550 | |
| *(N)* | — | — | — | — | — | *(20900)* | — | — | *(22100)* | *(21200)* | *(19800)* | *(15900)* | *(15800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4180 | — | — | 4530 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(18590)* | — | — | *(20140)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **5.26** | **—** | **—** | **5.26** | **5.26** | **5.26** | **5.03** | **4.36** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(3.92)*** | **—** | **—** | ***(3.92)*** | ***(3.92)*** | ***(3.92)*** | ***(3.75)*** | ***(3.25)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5500 | — | — | 7345 | 9200 | 10085 | 11415 | 11415 | |
| *(N•m)* | — | — | — | — | — | *(622)* | — | — | *(830)* | *(1040)* | *(1140)* | *(1290)* | *(1290)* | **4A115** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4630 | — | — | 4855 | 4405 | 3975 | 3120 | 3120 | |
| *(N)* | — | — | — | — | — | *(20600)* | — | — | *(21600)* | *(19600)* | *(17700)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4180 | — | — | 4530 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(18590)* | — | — | *(20140)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **12.9** | **12.9** | **12.9** | **12.8** | **12.8** | **8.77** | **8.77** | **8.77** | **8.18** | **6.50** | **5.94** | **5.03** | **4.36** | |
| ***(kW)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(9.54)*** | ***(9.54)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(6.10)*** | ***(4.85)*** | ***(4.43)*** | ***(3.75)*** | ***(3.25)*** | |
| Output Torque in•lbs | 6740 | 8220 | 9025 | 10175 | 11150 | 9200 | 9820 | 10705 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(762)* | *(929)* | *(1020)* | *(1150)* | *(1260)* | *(1040)* | *(1110)* | *(1210)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | **4A120** |
| Hollow Shaft OHL lbs | 3435 | 3505 | 3525 | 3550 | 3300 | 4110 | 4135 | 3615 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(15300)* | *(15600)* | *(15700)* | *(15800)* | *(14700)* | *(18300)* | *(18400)* | *(16100)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3480 | 3700 | 3920 | 4180 | 4260 | 4450 | 4530 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(15470)* | *(16450)* | *(17430)* | *(18590)* | *(18940)* | *(19790)* | *(20140)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **14.8** | **13.5** | **13.5** | **12.8** | **12.8** | **9.79** | **9.11** | **9.11** | **8.18** | **6.50** | **5.94** | **5.03** | **4.36** | |
| ***(kW)*** | ***(11.0)*** | ***(10.1)*** | ***(10.1)*** | ***(9.54)*** | ***(9.54)*** | ***(7.30)*** | ***(6.79)*** | ***(6.79)*** | ***(6.10)*** | ***(4.85)*** | ***(4.43)*** | ***(3.75)*** | ***(3.25)*** | |
| Output Torque in•lbs | 7725 | 8625 | 9465 | 10175 | 11150 | 10265 | 10175 | 11150 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(873)* | *(975)* | *(1070)* | *(1150)* | *(1260)* | *(1160)* | *(1150)* | *(1260)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | **4A125** |
| Hollow Shaft OHL lbs | 3300 | 3435 | 3460 | 3550 | 3300 | 3885 | 3930 | 3345 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(14700)* | *(15300)* | *(15400)* | *(15800)* | *(14700)* | *(17300)* | *(17500)* | *(14900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3480 | 3700 | 3920 | 4180 | 4260 | 4450 | 4530 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(15470)* | *(16450)* | *(17430)* | *(18590)* | *(18940)* | *(19790)* | *(20140)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |



Frame Size Selection Tables 1165 RPM



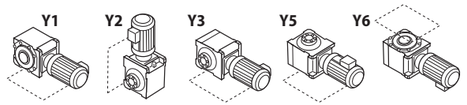

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 19.4 | 17.4 | 15.7 | 14.6 | 13.2 | 11.4 | 10.4 | 9.47 | 7.72 | 6.51 | 5.63 | 4.68 | 3.82 | 2.79 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **2.53** | **2.05** | **2.05** | **1.70** | **1.70** | **1.49** | **1.23** | **1.23** | **1.00** | **0.751** | **0.692** | **0.585** | **0.495** | **0.282** | |
| ***(kW)*** | ***(1.89)*** | ***(1.53)*** | ***(1.53)*** | ***(1.27)*** | ***(1.27)*** | ***(1.11)*** | ***(0.917)*** | ***(0.917)*** | ***(0.747)*** | ***(0.560)*** | ***(0.516)*** | ***(0.436)*** | ***(0.369)*** | ***(0.210)*** | |
| Output Torque in•lbs | 7510 | 6865 | 7510 | 6795 | 7430 | 7510 | 6865 | 7510 | 7510 | 6690 | 7120 | 7245 | 7510 | 5845 | |
| *(N•m)* | *(849)* | *(776)* | *(849)* | *(768)* | *(840)* | *(849)* | *(776)* | *(849)* | *(849)* | *(756)* | *(805)* | *(819)* | *(849)* | *(661)* | **4A100** |
| Hollow Shaft OHL lbs | 5055 | 5260 | 5055 | 5280 | 5100 | 5055 | 5260 | 5055 | 5055 | 5305 | 5190 | 5145 | 5055 | 5530 | |
| *(N)* | *(22500)* | *(23400)* | *(22500)* | *(23500)* | *(22700)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(23600)* | *(23100)* | *(22900)* | *(22500)* | *(24600)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **3.04** | **2.45** | **2.45** | **2.07** | **2.07** | **1.78** | **1.48** | **1.48** | **1.20** | **0.937** | **0.809** | **0.601** | **0.570** | **0.351** | |
| ***(kW)*** | ***(2.27)*** | ***(1.83)*** | ***(1.83)*** | ***(1.54)*** | ***(1.54)*** | ***(1.33)*** | ***(1.10)*** | ***(1.10)*** | ***(0.896)*** | ***(0.699)*** | ***(0.603)*** | ***(0.448)*** | ***(0.425)*** | ***(0.262)*** | |
| Output Torque in•lbs | 9025 | 8245 | 9025 | 8245 | 9025 | 9025 | 8245 | 9025 | 9025 | 8345 | 8325 | 7440 | 8660 | 7290 | |
| *(N•m)* | *(1020)* | *(932)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(943)* | *(941)* | *(841)* | *(979)* | *(824)* | **4A105** |
| Hollow Shaft OHL lbs | 4515 | 4810 | 4515 | 4810 | 4515 | 4515 | 4810 | 4515 | 4515 | 4785 | 4785 | 5080 | 4650 | 5125 | |
| *(N)* | *(20100)* | *(21400)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(21300)* | *(21300)* | *(22600)* | *(20700)* | *(22800)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **3.65** | **2.95** | **2.95** | **2.48** | **2.48** | **2.13** | **1.77** | **1.77** | **1.45** | **1.21** | **1.05** | **0.873** | **0.712** | **—** | |
| ***(kW)*** | ***(2.72)*** | ***(2.20)*** | ***(2.20)*** | ***(1.85)*** | ***(1.85)*** | ***(1.59)*** | ***(1.32)*** | ***(1.32)*** | ***(1.08)*** | ***(0.906)*** | ***(0.784)*** | ***(0.651)*** | ***(0.531)*** | **—** | |
| Output Torque in•lbs | 10795 | 9910 | 10795 | 9910 | 10795 | 10795 | 9910 | 10795 | 10795 | 10795 | 10795 | 10795 | 10795 | — | |
| *(N•m)* | *(1220)* | *(1120)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | — | **4A110** |
| Hollow Shaft OHL lbs | 3550 | 4090 | 3550 | 4090 | 3550 | 3550 | 4090 | 3550 | 3550 | 3550 | 3550 | 3550 | 3550 | — | |
| *(N)* | *(15800)* | *(18200)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **3.85** | **3.41** | **3.11** | **2.86** | **2.61** | **2.25** | **2.04** | **1.86** | **1.52** | **1.28** | **1.11** | **0.920** | **0.752** | **—** | |
| ***(kW)*** | ***(2.87)*** | ***(2.54)*** | ***(2.32)*** | ***(2.13)*** | ***(1.95)*** | ***(1.68)*** | ***(1.52)*** | ***(1.39)*** | ***(1.13)*** | ***(0.956)*** | ***(0.827)*** | ***(0.687)*** | ***(0.561)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A115** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | | |
| **Input Power HP** | **3.85** | **3.41** | **3.11** | **2.86** | **2.61** | **2.25** | **2.04** | **1.86** | **1.52** | **1.28** | **1.11** | **0.920** | **0.752** | **—** | |
| ***(kW)*** | ***(2.87)*** | ***(2.54)*** | ***(2.32)*** | ***(2.13)*** | ***(1.95)*** | ***(1.68)*** | ***(1.52)*** | ***(1.39)*** | ***(1.13)*** | ***(0.956)*** | ***(0.827)*** | ***(0.687)*** | ***(0.561)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A120** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | | |
| **Input Power HP** | **3.85** | **3.41** | **3.11** | **2.86** | **2.61** | **2.25** | **2.04** | **1.86** | **1.52** | **1.28** | **1.11** | **0.920** | **0.752** | **—** | |
| ***(kW)*** | ***(2.87)*** | ***(2.54)*** | ***(2.32)*** | ***(2.13)*** | ***(1.95)*** | ***(1.68)*** | ***(1.52)*** | ***(1.39)*** | ***(1.13)*** | ***(0.956)*** | ***(0.827)*** | ***(0.687)*** | ***(0.561)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A125** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | | |

# Frame Size Selection Tables 1165 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

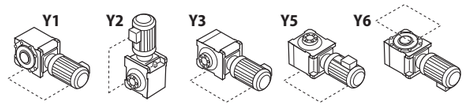
| Output RPM | 106 | 89.6 | 83.2 | 72.8 | 64.7 | 55.5 | 53.0 | 46.6 | 41.6 | 33.3 | 29.9 | 25.3 | 22.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **21.1** | **17.8** | **16.4** | **14.3** | **13.1** | **10.9** | **10.2** | **9.35** | **8.18** | **6.50** | **5.94** | **5.03** | **4.36** | 4A140 |
| ***(kW)*** | ***(15.7)*** | ***(13.3)*** | ***(12.2)*** | ***(10.7)*** | ***(9.75)*** | ***(8.13)*** | ***(7.62)*** | ***(6.97)*** | ***(6.10)*** | ***(4.85)*** | ***(4.43)*** | ***(3.75)*** | ***(3.25)*** | |
| Output Torque in•lbs | 11060 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1250)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 2855 | 3055 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(12700)* | *(13600)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3480 | 3700 | 3920 | 4180 | 4260 | 4450 | 4530 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(15470)* | *(16450)* | *(17430)* | *(18590)* | *(18940)* | *(19790)* | *(20140)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **21.1** | **17.8** | **16.4** | **14.3** | **13.1** | **10.9** | **10.2** | **9.35** | **8.18** | **6.50** | **5.94** | **5.03** | **4.36** | 4A145 |
| ***(kW)*** | ***(15.7)*** | ***(13.3)*** | ***(12.2)*** | ***(10.7)*** | ***(9.75)*** | ***(8.13)*** | ***(7.62)*** | ***(6.97)*** | ***(6.10)*** | ***(4.85)*** | ***(4.43)*** | ***(3.75)*** | ***(3.25)*** | |
| Output Torque in•lbs | 11060 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1250)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 2855 | 3055 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(12700)* | *(13600)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3350 | 3350 | 3480 | 3700 | 3920 | 4180 | 4260 | 4450 | 4530 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14900)* | *(14900)* | *(15470)* | *(16450)* | *(17430)* | *(18590)* | *(18940)* | *(19790)* | *(20140)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **12.9** | **12.9** | **12.9** | **12.8** | **12.8** | **8.77** | **8.77** | **8.77** | **8.77** | **6.80** | **6.80** | **6.80** | **6.02** | 4B120 |
| ***(kW)*** | ***(9.60)*** | ***(9.60)*** | ***(9.60)*** | ***(9.54)*** | ***(9.54)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(6.54)*** | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | ***(4.49)*** | |
| Output Torque in•lbs | 6740 | 8220 | 9025 | 10175 | 11150 | 9200 | 9820 | 10705 | 12210 | 11945 | 13095 | 15395 | 15750 | |
| *(N•m)* | *(762)* | *(929)* | *(1020)* | *(1150)* | *(1260)* | *(1040)* | *(1110)* | *(1210)* | *(1380)* | *(1350)* | *(1480)* | *(1740)* | *(1780)* | |
| Hollow Shaft OHL lbs | 5170 | 5370 | 5460 | 5575 | 5665 | 6270 | 6335 | 6450 | 6585 | 7170 | 7305 | 7485 | 7845 | |
| *(N)* | *(23000)* | *(23900)* | *(24300)* | *(24800)* | *(25200)* | *(27900)* | *(28200)* | *(28700)* | *(29300)* | *(31900)* | *(32500)* | *(33300)* | *(34900)* | |
| Solid Shaft OHL lbs | 3490 | 3500 | 3670 | 3970 | 4240 | 4610 | 4720 | 5030 | 5350 | 5950 | 6250 | 6740 | 7100 | |
| *(N)* | *(15520)* | *(15560)* | *(16320)* | *(17650)* | *(18850)* | *(20500)* | *(20990)* | *(22370)* | *(23790)* | *(26460)* | *(27800)* | *(29970)* | *(31580)* | |
| **Input Power HP** | **14.8** | **13.5** | **13.5** | **12.8** | **12.8** | **9.79** | **9.11** | **9.11** | **9.15** | **7.93** | **7.93** | **7.16** | **7.23** | 4B125 |
| ***(kW)*** | ***(11.0)*** | ***(10.1)*** | ***(10.1)*** | ***(9.54)*** | ***(9.54)*** | ***(7.30)*** | ***(6.79)*** | ***(6.79)*** | ***(6.82)*** | ***(5.91)*** | ***(5.91)*** | ***(5.34)*** | ***(5.39)*** | |
| Output Torque in•lbs | 7725 | 8625 | 9465 | 10175 | 11150 | 10265 | 10175 | 11150 | 12740 | 13890 | 15220 | 16280 | 18935 | |
| *(N•m)* | *(873)* | *(975)* | *(1070)* | *(1150)* | *(1260)* | *(1160)* | *(1150)* | *(1260)* | *(1440)* | *(1570)* | *(1720)* | *(1840)* | *(2140)* | |
| Hollow Shaft OHL lbs | 5055 | 5325 | 5415 | 5575 | 5665 | 6155 | 6290 | 6405 | 6540 | 6965 | 7055 | 7395 | 7325 | |
| *(N)* | *(22500)* | *(23700)* | *(24100)* | *(24800)* | *(25200)* | *(27400)* | *(28000)* | *(28500)* | *(29100)* | *(31000)* | *(31400)* | *(32900)* | *(32600)* | |
| Solid Shaft OHL lbs | 3490 | 3500 | 3670 | 3970 | 4240 | 4610 | 4720 | 5030 | 5350 | 5950 | 6250 | 6740 | 7100 | |
| *(N)* | *(15520)* | *(15560)* | *(16320)* | *(17650)* | *(18850)* | *(20500)* | *(20990)* | *(22370)* | *(23790)* | *(26460)* | *(27800)* | *(29970)* | *(31580)* | |
| **Input Power HP** | **24.7** | **24.7** | **24.7** | **24.7** | **24.7** | **17.4** | **17.4** | **17.4** | **16.2** | **13.0** | **11.8** | **10.0** | **8.69** | 4B140 |
| ***(kW)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(12.1)*** | ***(9.66)*** | ***(8.83)*** | ***(7.47)*** | ***(6.48)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 18230 | 19465 | 21325 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2060)* | *(2200)* | *(2410)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4495 | 4540 | 4560 | 4540 | 4540 | 5280 | 5280 | 5305 | 5460 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(20000)* | *(20200)* | *(20300)* | *(20200)* | *(20200)* | *(23500)* | *(23500)* | *(23600)* | *(24300)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3490 | 3500 | 3670 | 3970 | 4240 | 4610 | 4720 | 5030 | 5350 | 5950 | 6250 | 6740 | 7100 | |
| *(N)* | *(15520)* | *(15560)* | *(16320)* | *(17650)* | *(18850)* | *(20500)* | *(20990)* | *(22370)* | *(23790)* | *(26460)* | *(27800)* | *(29970)* | *(31580)* | |
| **Input Power HP** | **24.7** | **24.7** | **24.7** | **24.7** | **24.7** | **18.6** | **20.2** | **18.6** | **16.2** | **13.0** | **11.8** | **10.0** | **8.69** | 4B145 |
| ***(kW)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(13.9)*** | ***(15.1)*** | ***(13.9)*** | ***(12.1)*** | ***(9.66)*** | ***(8.83)*** | ***(7.47)*** | ***(6.48)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 19555 | 22650 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2210)* | *(2560)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4495 | 4540 | 4560 | 4540 | 4540 | 5145 | 4945 | 5145 | 5460 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(20000)* | *(20200)* | *(20300)* | *(20200)* | *(20200)* | *(22900)* | *(22000)* | *(22900)* | *(24300)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3490 | 3500 | 3670 | 3970 | 4240 | 4610 | 4720 | 5030 | 5350 | 5950 | 6250 | 6740 | 7100 | |
| *(N)* | *(15520)* | *(15560)* | *(16320)* | *(17650)* | *(18850)* | *(20500)* | *(20990)* | *(22370)* | *(23790)* | *(26460)* | *(27800)* | *(29970)* | *(31580)* | |





Speed Reducers

Frame Size Selection Tables 1165 RPM




## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

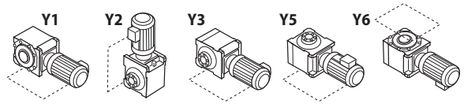
Dimensions on pages 2.156 - 2.166

| Output RPM | 19.4 | 17.4 | 15.7 | 14.6 | 13.2 | 11.4 | 10.4 | 9.47 | 7.72 | 6.51 | 5.63 | 4.68 | 3.82 | 2.79 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **3.85** | **3.41** | **3.11** | **2.86** | **2.61** | **2.25** | **2.04** | **1.86** | **1.52** | **1.28** | **1.11** | **0.920** | **0.752** | **—** | 4A140 |
| ***(kW)*** | ***(2.87)*** | ***(2.54)*** | ***(2.32)*** | ***(2.13)*** | ***(1.95)*** | ***(1.68)*** | ***(1.52)*** | ***(1.39)*** | ***(1.13)*** | ***(0.956)*** | ***(0.827)*** | ***(0.687)*** | ***(0.561)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **3.85** | **3.41** | **3.11** | **2.86** | **2.61** | **2.25** | **2.04** | **1.86** | **1.52** | **1.28** | **1.11** | **0.921** | **0.752** | **—** | 4A145 |
| ***(kW)*** | ***(2.87)*** | ***(2.54)*** | ***(2.32)*** | ***(2.13)*** | ***(1.95)*** | ***(1.68)*** | ***(1.52)*** | ***(1.39)*** | ***(1.13)*** | ***(0.956)*** | ***(0.827)*** | ***(0.687)*** | ***(0.561)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **5.27** | **4.28** | **4.28** | **3.62** | **3.62** | **3.08** | **2.59** | **2.59** | **2.11** | **1.77** | **1.53** | **1.27** | **1.04** | **—** | 4B120 |
| ***(kW)*** | ***(3.93)*** | ***(3.19)*** | ***(3.19)*** | ***(2.70)*** | ***(2.70)*** | ***(2.30)*** | ***(1.93)*** | ***(1.93)*** | ***(1.57)*** | ***(1.32)*** | ***(1.14)*** | ***(0.950)*** | ***(0.775)*** | **—** | |
| Output Torque in•lbs | 15660 | 14335 | 15660 | 14420 | 15750 | 15660 | 14420 | 15750 | 15750 | 15750 | 15750 | 15750 | 15750 | — | |
| *(N•m)* | *(1770)* | *(1620)* | *(1770)* | *(1630)* | *(1780)* | *(1770)* | *(1630)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | — | |
| Hollow Shaft OHL lbs | 8225 | 8585 | 8270 | 8565 | 8250 | 8295 | 8565 | 8250 | 8250 | 8250 | 8250 | 8250 | 8250 | — | |
| *(N)* | *(36600)* | *(38200)* | *(36800)* | *(38100)* | *(36700)* | *(36900)* | *(38100)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | — | |
| Solid Shaft OHL lbs | 7330 | 7400 | 7450 | 7480 | 7530 | 7580 | 7610 | 7570 | 7390 | 7270 | 7180 | 7120 | 7120 | — | |
| *(N)* | *(32600)* | *(32910)* | *(33130)* | *(33270)* | *(33490)* | *(33710)* | *(33840)* | *(33670)* | *(32870)* | *(32330)* | *(31930)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **6.38** | **5.16** | **5.16** | **4.34** | **4.34** | **3.74** | **3.10** | **3.10** | **2.52** | **2.13** | **1.84** | **1.29** | **1.16** | **—** | 4B125 |
| ***(kW)*** | ***(4.76)*** | ***(3.85)*** | ***(3.85)*** | ***(3.24)*** | ***(3.24)*** | ***(2.79)*** | ***(2.31)*** | ***(2.31)*** | ***(1.88)*** | ***(1.59)*** | ***(1.37)*** | ***(0.963)*** | ***(0.868)*** | **—** | |
| Output Torque in•lbs | 18935 | 17345 | 18935 | 17345 | 18935 | 18935 | 17345 | 18935 | 18935 | 18935 | 18935 | 16015 | 17695 | — | |
| *(N•m)* | *(2140)* | *(1960)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(1810)* | *(2000)* | — | |
| Hollow Shaft OHL lbs | 7325 | 7845 | 7325 | 7845 | 7325 | 7325 | 7845 | 7325 | 7325 | 7325 | 7325 | 8205 | 7730 | — | |
| *(N)* | *(32600)* | *(34900)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(32600)* | *(32600)* | *(36500)* | *(34400)* | — | |
| Solid Shaft OHL lbs | 7330 | 7400 | 7450 | 7480 | 7530 | 7580 | 7610 | 7570 | 7390 | 7270 | 7180 | 7120 | 7120 | — | |
| *(N)* | *(32600)* | *(32910)* | *(33130)* | *(33270)* | *(33490)* | *(33710)* | *(33840)* | *(33670)* | *(32870)* | *(32330)* | *(31930)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **7.66** | **6.79** | **6.21** | **5.70** | **5.22** | **4.49** | **4.08** | **3.73** | **3.03** | **2.55** | **2.21** | **1.84** | **1.50** | **—** | 4B140 |
| ***(kW)*** | ***(5.71)*** | ***(5.06)*** | ***(4.63)*** | ***(4.25)*** | ***(3.89)*** | ***(3.35)*** | ***(3.04)*** | ***(2.78)*** | ***(2.26)*** | ***(1.90)*** | ***(1.65)*** | ***(1.37)*** | ***(1.12)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7330 | 7400 | 7450 | 7480 | 7530 | 7580 | 7610 | 7570 | 7390 | 7270 | 7180 | 7120 | 7120 | — | |
| *(N)* | *(32600)* | *(32910)* | *(33130)* | *(33270)* | *(33490)* | *(33710)* | *(33840)* | *(33670)* | *(32870)* | *(32330)* | *(31930)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **7.66** | **6.79** | **6.21** | **5.70** | **5.22** | **4.49** | **4.08** | **3.73** | **3.03** | **2.55** | **2.21** | **1.84** | **1.50** | **—** | 4B145 |
| ***(kW)*** | ***(5.71)*** | ***(5.06)*** | ***(4.63)*** | ***(4.25)*** | ***(3.89)*** | ***(3.35)*** | ***(3.04)*** | ***(2.78)*** | ***(2.26)*** | ***(1.90)*** | ***(1.65)*** | ***(1.37)*** | ***(1.12)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7330 | 7400 | 7450 | 7480 | 7530 | 7580 | 7610 | 7570 | 7390 | 7270 | 7180 | 7120 | 7120 | — | |
| *(N)* | *(32600)* | *(32910)* | *(33130)* | *(33270)* | *(33490)* | *(33710)* | *(33840)* | *(33670)* | *(32870)* | *(32330)* | *(31930)* | *(31660)* | *(31660)* | — | |

Selection Tables

# Frame Size Selection Tables 1165 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



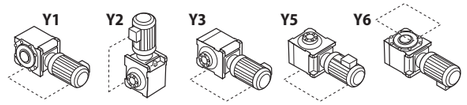

Dimensions on pages 2.156 - 2.166

| Output RPM | 106 | 89.6 | 83.2 | 72.8 | 64.7 | 55.5 | 53.0 | 46.6 | 41.6 | 33.3 | 29.9 | 25.3 | 22.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **31.2** | **31.2** | **31.2** | **28.6** | **26.0** | **21.7** | **20.4** | **18.6** | **16.2** | **13.0** | **11.8** | **10.0** | **8.69** | |
| ***(kW)*** | ***(23.3)*** | ***(23.3)*** | ***(23.3)*** | ***(21.3)*** | ***(19.4)*** | ***(16.2)*** | ***(15.2)*** | ***(13.9)*** | ***(12.1)*** | ***(9.66)*** | ***(8.83)*** | ***(7.47)*** | ***(6.48)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4135 | 4090 | 4065 | 4225 | 4425 | 4810 | 4920 | 5145 | 5460 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(18400)* | *(18200)* | *(18100)* | *(18800)* | *(19700)* | *(21400)* | *(21900)* | *(22900)* | *(24300)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3490 | 3500 | 3670 | 3970 | 4240 | 4610 | 4720 | 5030 | 5350 | 5950 | 6250 | 6740 | 7100 | |
| *(N)* | *(15520)* | *(15560)* | *(16320)* | *(17650)* | *(18850)* | *(20500)* | *(20990)* | *(22370)* | *(23790)* | *(26460)* | *(27800)* | *(29970)* | *(31580)* | |
| **Input Power HP** | **31.2** | **31.2** | **31.2** | **28.6** | **26.0** | **21.7** | **20.4** | **18.6** | **16.2** | **13.0** | **11.8** | **10.0** | **8.69** | |
| ***(kW)*** | ***(23.3)*** | ***(23.3)*** | ***(23.3)*** | ***(21.3)*** | ***(19.4)*** | ***(16.2)*** | ***(15.2)*** | ***(13.9)*** | ***(12.1)*** | ***(9.66)*** | ***(8.83)*** | ***(7.47)*** | ***(6.48)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4135 | 4090 | 4065 | 4225 | 4425 | 4810 | 4920 | 5145 | 5460 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(18400)* | *(18200)* | *(18100)* | *(18800)* | *(19700)* | *(21400)* | *(21900)* | *(22900)* | *(24300)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3490 | 3500 | 3670 | 3970 | 4240 | 4610 | 4720 | 5030 | 5350 | 5950 | 6250 | 6740 | 7100 | |
| *(N)* | *(15520)* | *(15560)* | *(16320)* | *(17650)* | *(18850)* | *(20500)* | *(20990)* | *(22370)* | *(23790)* | *(26460)* | *(27800)* | *(29970)* | *(31580)* | |
| **Input Power HP** | **24.7** | **24.7** | **24.7** | **24.7** | **24.7** | **17.4** | **17.4** | **17.4** | **17.4** | **17.4** | **17.4** | **16.2** | **14.1** | |
| ***(kW)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(13.0)*** | ***(12.1)*** | ***(10.5)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 18230 | 19465 | 21325 | 24335 | 30615 | 33450 | 36810 | 36810 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2060)* | *(2200)* | *(2410)* | *(2750)* | *(3460)* | *(3780)* | *(4160)* | *(4160)* | |
| Hollow Shaft OHL lbs | 6875 | 7100 | 7190 | 7305 | 7395 | 8250 | 8315 | 8430 | 8565 | 8720 | 8790 | 9100 | 9640 | |
| *(N)* | *(30600)* | *(31600)* | *(32000)* | *(32500)* | *(32900)* | *(36700)* | *(37000)* | *(37500)* | *(38100)* | *(38800)* | *(39100)* | *(40500)* | *(42900)* | |
| Solid Shaft OHL lbs | 4590 | 4600 | 4820 | 5210 | 5610 | 6120 | 6270 | 6710 | 7160 | 7990 | 8420 | 9220 | 9810 | |
| *(N)* | *(20410)* | *(20460)* | *(21430)* | *(23170)* | *(24950)* | *(27220)* | *(27880)* | *(29840)* | *(31840)* | *(35530)* | *(37450)* | *(41010)* | *(43630)* | |
| **Input Power HP** | **24.7** | **24.7** | **24.7** | **24.7** | **24.7** | **18.6** | **20.2** | **20.2** | **17.8** | **18.5** | **18.5** | **18.1** | **15.6** | |
| ***(kW)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(18.4)*** | ***(13.9)*** | ***(15.1)*** | ***(15.1)*** | ***(13.3)*** | ***(13.8)*** | ***(13.8)*** | ***(13.5)*** | ***(11.6)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 19555 | 22650 | 24775 | 24865 | 32385 | 35395 | 40970 | 40795 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2210)* | *(2560)* | *(2800)* | *(2810)* | *(3660)* | *(4000)* | *(4630)* | *(4610)* | |
| Hollow Shaft OHL lbs | 6875 | 7100 | 7190 | 7305 | 7395 | 8115 | 8000 | 8090 | 8520 | 8565 | 8610 | 8700 | 9260 | |
| *(N)* | *(30600)* | *(31600)* | *(32000)* | *(32500)* | *(32900)* | *(36100)* | *(35600)* | *(36000)* | *(37900)* | *(38100)* | *(38300)* | *(38700)* | *(41200)* | |
| Solid Shaft OHL lbs | 4590 | 4600 | 4820 | 5210 | 5610 | 6120 | 6270 | 6710 | 7160 | 7990 | 8420 | 9220 | 9810 | |
| *(N)* | *(20410)* | *(20460)* | *(21430)* | *(23170)* | *(24950)* | *(27220)* | *(27880)* | *(29840)* | *(31840)* | *(35530)* | *(37450)* | *(41010)* | *(43630)* | |
| **Input Power HP** | **33.9** | **33.9** | **33.9** | **33.9** | **33.9** | **33.9** | **27.2** | **27.2** | **26.4** | **25.9** | **23.7** | **20.0** | **17.4** | |
| ***(kW)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(20.3)*** | ***(20.3)*** | ***(19.7)*** | ***(19.3)*** | ***(17.7)*** | ***(14.9)*** | ***(13.0)*** | |
| Output Torque in•lbs | 17785 | 21680 | 23715 | 27075 | 29645 | 35575 | 30440 | 33270 | 36900 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(2010)* | *(2450)* | *(2680)* | *(3060)* | *(3350)* | *(4020)* | *(3440)* | *(3760)* | *(4170)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6425 | 6540 | 6585 | 6605 | 6630 | 6605 | 7280 | 7305 | 7370 | 7305 | 7665 | 8270 | 8835 | |
| *(N)* | *(28600)* | *(29100)* | *(29300)* | *(29400)* | *(29500)* | *(29400)* | *(32400)* | *(32500)* | *(32800)* | *(32500)* | *(34100)* | *(36800)* | *(39300)* | |
| Solid Shaft OHL lbs | 4590 | 4600 | 4820 | 5210 | 5610 | 6120 | 6270 | 6710 | 7160 | 7990 | 8420 | 9220 | 9810 | |
| *(N)* | *(20410)* | *(20460)* | *(21430)* | *(23170)* | *(24950)* | *(27220)* | *(27880)* | *(29840)* | *(31840)* | *(35530)* | *(37450)* | *(41010)* | *(43630)* | |
| **Input Power HP** | **40.2** | **40.2** | **40.2** | **40.2** | **40.2** | **38.0** | **32.3** | **32.3** | **32.3** | **25.9** | **23.7** | **20.0** | **17.4** | |
| ***(kW)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(28.3)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(19.3)*** | ***(17.7)*** | ***(14.9)*** | ***(13.0)*** | |
| Output Torque in•lbs | 21060 | 25660 | 28050 | 32120 | 35130 | 39820 | 36105 | 39465 | 45130 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(2380)* | *(2900)* | *(3170)* | *(3630)* | *(3970)* | *(4500)* | *(4080)* | *(4460)* | *(5100)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6110 | 6155 | 6180 | 6135 | 6110 | 6200 | 6740 | 6720 | 6605 | 7305 | 7665 | 8270 | 8835 | |
| *(N)* | *(27200)* | *(27400)* | *(27500)* | *(27300)* | *(27200)* | *(27600)* | *(30000)* | *(29900)* | *(29400)* | *(32500)* | *(34100)* | *(36800)* | *(39300)* | |
| Solid Shaft OHL lbs | 4590 | 4600 | 4820 | 5210 | 5610 | 6120 | 6270 | 6710 | 7160 | 7990 | 8420 | 9220 | 9810 | |
| *(N)* | *(20410)* | *(20460)* | *(21430)* | *(23170)* | *(24950)* | *(27220)* | *(27880)* | *(29840)* | *(31840)* | *(35530)* | *(37450)* | *(41010)* | *(43630)* | |



Speed Reducers

# Frame Size Selection Tables 1165 RPM




## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

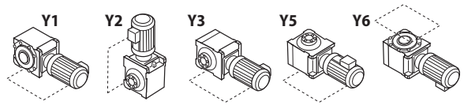
| Output RPM | 19.4 | 17.4 | 15.7 | 14.6 | 13.2 | 11.4 | 10.4 | 9.47 | 7.72 | 6.51 | 5.63 | 4.68 | 3.82 | 2.79 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **7.66** | **6.79** | **6.21** | **5.70** | **5.22** | **4.49** | **4.08** | **3.73** | **3.03** | **2.55** | **2.21** | **1.84** | **1.50** | **—** | |
| ***(kW)*** | ***(5.71)*** | ***(5.06)*** | ***(4.63)*** | ***(4.25)*** | ***(3.89)*** | ***(3.35)*** | ***(3.04)*** | ***(2.78)*** | ***(2.26)*** | ***(1.90)*** | ***(1.65)*** | ***(1.37)*** | ***(1.12)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7330 | 7400 | 7450 | 7480 | 7530 | 7580 | 7610 | 7570 | 7390 | 7270 | 7180 | 7120 | 7120 | — | |
| *(N)* | *(32600)* | *(32910)* | *(33130)* | *(33270)* | *(33490)* | *(33710)* | *(33840)* | *(33670)* | *(32870)* | *(32330)* | *(31930)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **7.66** | **6.79** | **6.21** | **5.70** | **5.22** | **4.49** | **4.08** | **3.73** | **3.03** | **2.55** | **2.21** | **1.84** | **1.50** | **—** | |
| ***(kW)*** | ***(5.71)*** | ***(5.06)*** | ***(4.63)*** | ***(4.25)*** | ***(3.89)*** | ***(3.35)*** | ***(3.04)*** | ***(2.78)*** | ***(2.26)*** | ***(1.90)*** | ***(1.65)*** | ***(1.37)*** | ***(1.12)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7330 | 7400 | 7450 | 7480 | 7530 | 7580 | 7610 | 7570 | 7390 | 7270 | 7180 | 7120 | 7120 | — | |
| *(N)* | *(32600)* | *(32910)* | *(33130)* | *(33270)* | *(33490)* | *(33710)* | *(33840)* | *(33670)* | *(32870)* | *(32330)* | *(31930)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **12.4** | **10.0** | **10.0** | **8.44** | **8.44** | **7.27** | **6.02** | **6.02** | **4.91** | **4.13** | **3.58** | **2.98** | **2.43** | **—** | |
| ***(kW)*** | ***(9.25)*** | ***(7.49)*** | ***(7.49)*** | ***(6.29)*** | ***(6.29)*** | ***(5.42)*** | ***(4.49)*** | ***(4.49)*** | ***(3.66)*** | ***(3.08)*** | ***(2.67)*** | ***(2.22)*** | ***(1.81)*** | **—** | |
| Output Torque in•lbs | 36810 | 33625 | 36810 | 33625 | 36810 | 36810 | 33625 | 36810 | 36810 | 36810 | 36810 | 36810 | 36810 | — | |
| *(N•m)* | *(4160)* | *(3800)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | — | |
| Hollow Shaft OHL lbs | 10160 | 10925 | 11035 | 11690 | 11825 | 12160 | 12900 | 12160 | 12160 | 12160 | 12160 | 12160 | 12160 | — | |
| *(N)* | *(45200)* | *(48600)* | *(49100)* | *(52000)* | *(52600)* | *(54100)* | *(57400)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | — | |
| Solid Shaft OHL lbs | 10310 | 10860 | 11300 | 11610 | 11970 | 12450 | 12730 | 12800 | 12700 | 12630 | 12580 | 12550 | 12550 | — | |
| *(N)* | *(45850)* | *(48300)* | *(50260)* | *(51640)* | *(53240)* | *(55370)* | *(56620)* | *(56930)* | *(56480)* | *(56170)* | *(55950)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **13.8** | **10.8** | **10.8** | **9.44** | **9.44** | **8.14** | **6.75** | **6.75** | **5.30** | **4.20** | **3.61** | **2.98** | **2.45** | **—** | |
| ***(kW)*** | ***(10.3)*** | ***(8.02)*** | ***(8.02)*** | ***(7.04)*** | ***(7.04)*** | ***(6.07)*** | ***(5.03)*** | ***(5.03)*** | ***(3.95)*** | ***(3.13)*** | ***(2.69)*** | ***(2.22)*** | ***(1.83)*** | **—** | |
| Output Torque in•lbs | 41150 | 36105 | 39465 | 37610 | 41150 | 41150 | 37610 | 41150 | 39730 | 37345 | 37165 | 36900 | 37165 | — | |
| *(N•m)* | *(4650)* | *(4080)* | *(4460)* | *(4250)* | *(4650)* | *(4650)* | *(4250)* | *(4650)* | *(4490)* | *(4220)* | *(4200)* | *(4170)* | *(4200)* | — | |
| Hollow Shaft OHL lbs | 9730 | 10700 | 10790 | 11305 | 10945 | 10945 | 11955 | 10945 | 11375 | 12025 | 12070 | 12160 | 12070 | — | |
| *(N)* | *(43300)* | *(47600)* | *(48000)* | *(50300)* | *(48700)* | *(48700)* | *(53200)* | *(48700)* | *(50600)* | *(53500)* | *(53700)* | *(54100)* | *(53700)* | — | |
| Solid Shaft OHL lbs | 10310 | 10860 | 11300 | 11610 | 11970 | 12450 | 12730 | 12800 | 12700 | 12630 | 12580 | 12550 | 12550 | — | |
| *(N)* | *(45850)* | *(48300)* | *(50260)* | *(51640)* | *(53240)* | *(55370)* | *(56620)* | *(56930)* | *(56480)* | *(56170)* | *(55950)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **15.3** | **13.5** | **12.4** | **11.4** | **10.4** | **8.98** | **8.14** | **7.44** | **6.06** | **5.11** | **4.41** | **3.67** | **2.99** | **—** | |
| ***(kW)*** | ***(11.4)*** | ***(10.1)*** | ***(9.25)*** | ***(8.50)*** | ***(7.77)*** | ***(6.70)*** | ***(6.07)*** | ***(5.55)*** | ***(4.52)*** | ***(3.81)*** | ***(3.29)*** | ***(2.74)*** | ***(2.23)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9325 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41500)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 10310 | 10860 | 11300 | 11610 | 11970 | 12450 | 12730 | 12800 | 12700 | 12630 | 12580 | 12550 | 12550 | — | |
| *(N)* | *(45850)* | *(48300)* | *(50260)* | *(51640)* | *(53240)* | *(55370)* | *(56620)* | *(56930)* | *(56480)* | *(56170)* | *(55950)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **15.3** | **13.5** | **12.4** | **11.4** | **10.4** | **8.98** | **8.14** | **7.44** | **6.06** | **5.11** | **4.41** | **3.67** | **2.99** | **—** | |
| ***(kW)*** | ***(11.4)*** | ***(10.1)*** | ***(9.25)*** | ***(8.50)*** | ***(7.77)*** | ***(6.70)*** | ***(6.07)*** | ***(5.55)*** | ***(4.52)*** | ***(3.81)*** | ***(3.29)*** | ***(2.74)*** | ***(2.23)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9325 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41500)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 10310 | 10860 | 11300 | 11610 | 11970 | 12450 | 12730 | 12800 | 12700 | 12630 | 12580 | 12550 | 12550 | — | |
| *(N)* | *(45850)* | *(48300)* | *(50260)* | *(51640)* | *(53240)* | *(55370)* | *(56620)* | *(56930)* | *(56480)* | *(56170)* | *(55950)* | *(55820)* | *(55820)* | — | |



Selection Tables

# Frame Size Selection Tables 1165 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

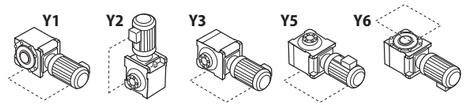



Dimensions on pages 2.156 - 2.166

| Output RPM | 106 | 89.6 | 83.2 | 72.8 | 64.7 | 55.5 | 53.0 | 46.6 | 41.6 | 33.3 | 29.9 | 25.3 | 22.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **55.7** | **55.7** | **55.2** | **50.8** | **47.6** | **38.8** | **38.8** | **37.1** | **32.6** | **25.9** | **23.7** | **20.0** | **17.4** | |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.2)*** | ***(37.9)*** | ***(35.5)*** | ***(28.9)*** | ***(28.9)*** | ***(27.7)*** | ***(24.3)*** | ***(19.3)*** | ***(17.7)*** | ***(14.9)*** | ***(13.0)*** | |
| Output Torque in•lbs | 29115 | 35490 | 38585 | 40535 | 41595 | 40615 | 43360 | 45395 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3290)* | *(4010)* | *(4360)* | *(4580)* | *(4700)* | *(4590)* | *(4900)* | *(5130)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | **4C170** |
| Hollow Shaft OHL lbs | 5350 | 5235 | 5190 | 5350 | 5505 | 6135 | 6065 | 6155 | 6560 | 7305 | 7665 | 8270 | 8835 | |
| *(N)* | *(23800)* | *(23300)* | *(23100)* | *(23800)* | *(24500)* | *(27300)* | *(27000)* | *(27400)* | *(29200)* | *(32500)* | *(34100)* | *(36800)* | *(39300)* | |
| Solid Shaft OHL lbs | 4590 | 4600 | 4820 | 5210 | 5610 | 6120 | 6270 | 6710 | 7160 | 7990 | 8420 | 9220 | 9810 | |
| *(N)* | *(20410)* | *(20460)* | *(21430)* | *(23170)* | *(24950)* | *(27220)* | *(27880)* | *(29840)* | *(31840)* | *(35530)* | *(37450)* | *(41010)* | *(43630)* | |
| **Input Power HP** | **60.3** | **58.9** | **55.2** | **50.8** | **47.6** | **38.8** | **38.8** | **37.1** | **32.6** | **25.9** | **23.7** | **20.0** | **17.4** | |
| ***(kW)*** | ***(45.0)*** | ***(43.9)*** | ***(41.2)*** | ***(37.9)*** | ***(35.5)*** | ***(28.9)*** | ***(28.9)*** | ***(27.7)*** | ***(24.3)*** | ***(19.3)*** | ***(17.7)*** | ***(14.9)*** | ***(13.0)*** | |
| Output Torque in•lbs | 31595 | 37615 | 38585 | 40535 | 41595 | 40615 | 43360 | 45395 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3570)* | *(4250)* | *(4360)* | *(4580)* | *(4700)* | *(4590)* | *(4900)* | *(5130)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | **4C175** |
| Hollow Shaft OHL lbs | 5100 | 5035 | 5190 | 5350 | 5505 | 6135 | 6065 | 6155 | 6560 | 7305 | 7665 | 8270 | 8835 | |
| *(N)* | *(22700)* | *(22400)* | *(23100)* | *(23800)* | *(24500)* | *(27300)* | *(27000)* | *(27400)* | *(29200)* | *(32500)* | *(34100)* | *(36800)* | *(39300)* | |
| Solid Shaft OHL lbs | 4590 | 4600 | 4820 | 5210 | 5610 | 6120 | 6270 | 6710 | 7160 | 7990 | 8420 | 9220 | 9810 | |
| *(N)* | *(20410)* | *(20460)* | *(24130)* | *(23170)* | *(24950)* | *(27220)* | *(27880)* | *(29840)* | *(31840)* | *(35530)* | *(37450)* | *(41010)* | *(43630)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **33.9** | **27.2** | **27.2** | **26.4** | **26.4** | **26.4** | **23.2** | **20.1** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(25.3)*** | ***(20.3)*** | ***(20.3)*** | ***(19.7)*** | ***(19.7)*** | ***(19.7)*** | ***(17.3)*** | ***(15.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | 35575 | 30440 | 33270 | 36900 | 46370 | 50705 | 52740 | 52740 | |
| *(N•m)* | — | — | — | — | — | *(4020)* | *(3440)* | *(3760)* | *(4170)* | *(5240)* | *(5730)* | *(5960)* | *(5960)* | **4D160** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 11555 | 12225 | 12405 | 12745 | 13060 | 13195 | 13915 | 14725 | |
| *(N)* | — | — | — | — | — | *(51400)* | *(54400)* | *(55200)* | *(56700)* | *(58100)* | *(58700)* | *(61900)* | *(65500)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 8730 | 8960 | 9590 | 10220 | 11430 | 12050 | 13210 | 14060 | |
| *(N)* | — | — | — | — | — | *(38830)* | *(39850)* | *(42650)* | *(45450)* | *(50840)* | *(53590)* | *(58750)* | *(62530)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **38.0** | **32.3** | **32.3** | **32.3** | **32.3** | **32.3** | **27.8** | **24.1** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(28.3)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(24.1)*** | ***(20.7)*** | ***(18.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 36105 | 39465 | 45130 | 56725 | 62035 | 63095 | 63095 | |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(4080)* | *(4460)* | *(5100)* | *(6410)* | *(7010)* | *(7130)* | *(7130)* | **4D165** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 11195 | 11755 | 11910 | 12070 | 12225 | 12295 | 13080 | 13890 | |
| *(N)* | — | — | — | — | — | *(49800)* | *(52300)* | *(53000)* | *(53700)* | *(54400)* | *(54700)* | *(58200)* | *(61800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 8730 | 8960 | 9590 | 10220 | 11430 | 12050 | 13210 | 14060 | |
| *(N)* | — | — | — | — | — | *(38830)* | *(39850)* | *(42650)* | *(45450)* | *(50840)* | *(53590)* | *(58750)* | *(62530)* | |
| **Input Power HP** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **45.5** | **45.5** | **45.5** | **45.5** | **37.0** | **37.0** | **33.5** | **29.1** | |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(27.6)*** | ***(27.6)*** | ***(25.0)*** | ***(21.7)*** | |
| Output Torque in•lbs | 29115 | 35485 | 38845 | 44420 | 48580 | 47610 | 50795 | 55575 | 63450 | 64955 | 71060 | 75925 | 76015 | |
| *(N•m)* | *(3290)* | *(4010)* | *(4390)* | *(5020)* | *(5490)* | *(5380)* | *(5740)* | *(6280)* | *(7170)* | *(7340)* | *(8030)* | *(8580)* | *(8590)* | **4D170** |
| Hollow Shaft OHL lbs | 9350 | 9555 | 9620 | 9710 | 9730 | 10565 | 10565 | 10610 | 10585 | 11555 | 11555 | 11865 | 11825 | |
| *(N)* | *(41600)* | *(42500)* | *(42800)* | *(43200)* | *(43300)* | *(47000)* | *(47000)* | *(47200)* | *(47100)* | *(51400)* | *(51400)* | *(52800)* | *(52600)* | |
| Solid Shaft OHL lbs | 6480 | 6500 | 6840 | 7430 | 7990 | 8730 | 8960 | 9590 | 10220 | 11430 | 12050 | 13210 | 14060 | |
| *(N)* | *(28820)* | *(28910)* | *(30420)* | *(33040)* | *(35530)* | *(38830)* | *(39850)* | *(42650)* | *(45450)* | *(50840)* | *(53590)* | *(58750)* | *(62530)* | |
| **Input Power HP** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **49.6** | **49.6** | **49.6** | **49.6** | **40.4** | **40.2** | **34.1** | **29.5** | |
| ***(kW)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(30.1)*** | ***(30.0)*** | ***(25.4)*** | ***(22.0)*** | |
| Output Torque in•lbs | 31590 | 38495 | 42120 | 48140 | 52655 | 51945 | 55395 | 60615 | 69290 | 70885 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(3570)* | *(4350)* | *(4760)* | *(5440)* | *(5950)* | *(5870)* | *(6260)* | *(6850)* | *(7830)* | *(8010)* | *(8720)* | *(8720)* | *(8720)* | **4D175** |
| Hollow Shaft OHL lbs | 9150 | 9305 | 9375 | 9395 | 9395 | 10225 | 10205 | 10205 | 10115 | 11080 | 11060 | 11375 | 11375 | |
| *(N)* | *(40700)* | *(41400)* | *(41700)* | *(41800)* | *(41800)* | *(45500)* | *(45400)* | *(45400)* | *(45000)* | *(49300)* | *(49200)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 6480 | 6500 | 6840 | 7430 | 7990 | 8730 | 8960 | 9590 | 10220 | 11430 | 12050 | 13210 | 14060 | |
| *(N)* | *(28820)* | *(28910)* | *(30420)* | *(33040)* | *(35530)* | *(38830)* | *(39850)* | *(42650)* | *(45450)* | *(50840)* | *(53590)* | *(58750)* | *(62530)* | |



# Frame Size Selection Tables 1165 RPM



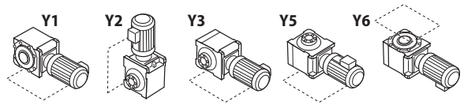

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 19.4 | 17.4 | 15.7 | 14.6 | 13.2 | 11.4 | 10.4 | 9.47 | 7.72 | 6.51 | 5.63 | 4.68 | 3.82 | 2.79 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **15.3** | **13.5** | **12.4** | **11.4** | **10.4** | **8.98** | **8.14** | **7.44** | **6.06** | **5.11** | **4.41** | **3.67** | **2.99** | **—** | |
| ***(kW)*** | ***(11.4)*** | ***(10.1)*** | ***(9.25)*** | ***(8.50)*** | ***(7.77)*** | ***(6.70)*** | ***(6.07)*** | ***(5.55)*** | ***(4.52)*** | ***(3.81)*** | ***(3.29)*** | ***(2.74)*** | ***(2.23)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | **4C170** |
| Hollow Shaft OHL lbs | 9325 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41500)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 10310 | 10860 | 11300 | 11610 | 11970 | 12450 | 12730 | 12800 | 12700 | 12630 | 12580 | 12550 | 12550 | — | |
| *(N)* | *(45850)* | *(48300)* | *(50260)* | *(51640)* | *(53240)* | *(55370)* | *(56620)* | *(56930)* | *(56480)* | *(56170)* | *(55950)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **15.3** | **13.5** | **12.4** | **11.4** | **10.4** | **8.98** | **8.14** | **7.44** | **6.06** | **5.11** | **4.41** | **3.67** | **2.99** | **—** | |
| ***(kW)*** | ***(11.4)*** | ***(10.1)*** | ***(9.25)*** | ***(8.50)*** | ***(7.77)*** | ***(6.70)*** | ***(6.07)*** | ***(5.55)*** | ***(4.52)*** | ***(3.81)*** | ***(3.29)*** | ***(2.74)*** | ***(2.23)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | **4C175** |
| Hollow Shaft OHL lbs | 9325 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41500)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 10310 | 10860 | 11300 | 11610 | 11970 | 12450 | 12730 | 12800 | 12700 | 12630 | 12580 | 12550 | 12550 | — | |
| *(N)* | *(45850)* | *(48300)* | *(50260)* | *(51640)* | *(53240)* | *(55370)* | *(56620)* | *(56930)* | *(56480)* | *(56170)* | *(55950)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **17.6** | **14.3** | **14.3** | **12.1** | **12.1** | **10.4** | **8.64** | **8.64** | **6.95** | **5.93** | **5.12** | **4.25** | **3.47** | **—** | |
| ***(kW)*** | ***(13.1)*** | ***(10.7)*** | ***(10.7)*** | ***(9.01)*** | ***(9.01)*** | ***(7.77)*** | ***(6.44)*** | ***(6.44)*** | ***(5.18)*** | ***(4.42)*** | ***(3.82)*** | ***(3.17)*** | ***(2.59)*** | **—** | |
| Output Torque in•lbs | 52120 | 48230 | 52740 | 48230 | 52740 | 52740 | 48230 | 52740 | 52120 | 52740 | 52740 | 52740 | 52740 | — | |
| *(N•m)* | *(5890)* | *(5450)* | *(5960)* | *(5450)* | *(5960)* | *(5960)* | *(5450)* | *(5960)* | *(5890)* | *(5960)* | *(5960)* | *(5960)* | *(5960)* | — | **4D160** |
| Hollow Shaft OHL lbs | 15510 | 16520 | 16725 | 17600 | 17845 | 17915 | 18680 | 17915 | 18025 | 17915 | 17915 | 17915 | 17915 | — | |
| *(N)* | *(69000)* | *(73500)* | *(74400)* | *(78300)* | *(79400)* | *(79700)* | *(83100)* | *(79700)* | *(80200)* | *(79700)* | *(79700)* | *(79700)* | *(79700)* | — | |
| Solid Shaft OHL lbs | 14690 | 15120 | 15470 | 15720 | 16010 | 16390 | 16610 | 16680 | 16640 | 16610 | 16590 | 16580 | 16580 | — | |
| *(N)* | *(65340)* | *(67250)* | *(68810)* | *(69920)* | *(71210)* | *(72900)* | *(73880)* | *(74190)* | *(74010)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **21.3** | **17.2** | **17.2** | **14.5** | **14.5** | **12.5** | **10.3** | **10.3** | **8.41** | **7.09** | **6.13** | **5.10** | **4.06** | **—** | |
| ***(kW)*** | ***(15.9)*** | ***(12.8)*** | ***(12.8)*** | ***(10.8)*** | ***(10.8)*** | ***(9.30)*** | ***(7.70)*** | ***(7.70)*** | ***(6.27)*** | ***(5.29)*** | ***(4.57)*** | ***(3.80)*** | ***(3.03)*** | **—** | |
| Output Torque in•lbs | 63095 | 57695 | 63095 | 57695 | 63095 | 63095 | 57695 | 63095 | 63095 | 63095 | 63095 | 63095 | 61680 | — | |
| *(N•m)* | *(7130)* | *(6520)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(6970)* | — | **4D165** |
| Hollow Shaft OHL lbs | 14610 | 15735 | 15755 | 16835 | 15755 | 15755 | 16970 | 15755 | 15755 | 15755 | 15755 | 15755 | 16115 | — | |
| *(N)* | *(65000)* | *(70000)* | *(70100)* | *(74900)* | *(70100)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(71700)* | — | |
| Solid Shaft OHL lbs | 14690 | 15120 | 15470 | 15720 | 16010 | 16390 | 16610 | 16680 | 16640 | 16610 | 16590 | 16580 | 16580 | — | |
| *(N)* | *(65340)* | *(67250)* | *(68810)* | *(69920)* | *(71210)* | *(72900)* | *(73880)* | *(74190)* | *(74010)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **25.6** | **20.8** | **20.8** | **17.4** | **17.4** | **15.0** | **12.4** | **12.4** | **10.1** | **8.54** | **7.39** | **6.14** | **5.00** | **—** | |
| ***(kW)*** | ***(19.1)*** | ***(15.5)*** | ***(15.5)*** | ***(13.0)*** | ***(13.0)*** | ***(11.2)*** | ***(9.28)*** | ***(9.28)*** | ***(7.56)*** | ***(6.37)*** | ***(5.51)*** | ***(4.58)*** | ***(3.73)*** | **—** | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | **4D170** |
| Hollow Shaft OHL lbs | 11825 | 14050 | 11825 | 14050 | 11825 | 11825 | 14050 | 11825 | 11825 | 11825 | 11825 | 11825 | 11825 | — | |
| *(N)* | *(52600)* | *(62500)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | — | |
| Solid Shaft OHL lbs | 14690 | 15120 | 15470 | 15720 | 16010 | 16390 | 16610 | 16680 | 16640 | 16610 | 16590 | 16580 | 16580 | — | |
| *(N)* | *(65340)* | *(67250)* | *(68810)* | *(69920)* | *(71210)* | *(72900)* | *(73880)* | *(74190)* | *(74010)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **26.0** | **23.1** | **21.1** | **19.3** | **17.7** | **15.3** | **13.8** | **12.6** | **10.3** | **8.66** | **7.50** | **6.22** | **5.08** | **—** | |
| ***(kW)*** | ***(19.4)*** | ***(17.2)*** | ***(15.7)*** | ***(14.4)*** | ***(13.2)*** | ***(11.4)*** | ***(10.3)*** | ***(9.42)*** | ***(7.67)*** | ***(6.46)*** | ***(5.59)*** | ***(4.64)*** | ***(3.79)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | **4D175** |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 14690 | 15120 | 15470 | 15720 | 16010 | 16390 | 16610 | 16680 | 16640 | 16610 | 16590 | 16580 | 16580 | — | |
| *(N)* | *(65340)* | *(67250)* | *(68810)* | *(69920)* | *(71210)* | *(72900)* | *(73880)* | *(74190)* | *(74010)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | — | |

# Frame Size Selection Tables 1165 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

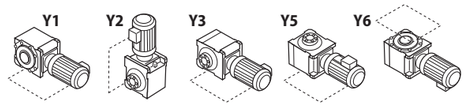
| Output RPM | 106 | 89.6 | 83.2 | 72.8 | 64.7 | 55.5 | 53.0 | 46.6 | 41.6 | 33.3 | 29.9 | 25.3 | 22.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **55.7** | **55.7** | **52.7** | **44.0** | **40.2** | **34.1** | **29.5** | 4D180 |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(39.3)*** | ***(32.8)*** | ***(30.0)*** | ***(25.4)*** | ***(22.0)*** | |
| Output Torque in•lbs | 37520 | 45750 | 50000 | 57165 | 62485 | 58315 | 62220 | 67970 | 73635 | 77175 | 77175 | 77175 | 77165 | |
| *(N•m)* | *(4240)* | *(5170)* | *(5650)* | *(6460)* | *(7060)* | *(6590)* | *(7030)* | *(7680)* | *(8320)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 8675 | 8745 | 8720 | 8675 | 8610 | 9710 | 9685 | 9620 | 9775 | 10610 | 11060 | 11375 | 11375 | |
| *(N)* | *(38600)* | *(38900)* | *(38800)* | *(38600)* | *(38300)* | *(43200)* | *(43100)* | *(42800)* | *(43500)* | *(47200)* | *(49200)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 6480 | 6500 | 6840 | 7430 | 7990 | 8730 | 8960 | 9590 | 10220 | 11430 | 12050 | 13210 | 14060 | |
| *(N)* | *(28820)* | *(28910)* | *(30420)* | *(33040)* | *(35530)* | *(38830)* | *(39850)* | *(42650)* | *(45450)* | *(50840)* | *(53590)* | *(58750)* | *(62530)* | |
| **Input Power HP** | **80.5** | **80.5** | **75.5** | **72.5** | **66.6** | **56.6** | **55.3** | **50.8** | **46.3** | **40.2** | **37.0** | **33.0** | **29.5** | 4D185 |
| ***(kW)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(56.6)*** | ***(45.0)*** | ***(45.0)*** | ***(43.2)*** | ***(39.3)*** | ***(32.8)*** | ***(30.0)*** | ***(25.4)*** | ***(22.0)*** | |
| Output Torque in•lbs | 42120 | 51325 | 56200 | 64255 | 66200 | 63190 | 67440 | 70715 | 73635 | 77175 | 77175 | 77175 | 77165 | |
| *(N•m)* | *(4760)* | *(5800)* | *(6350)* | *(7260)* | *(7480)* | *(7140)* | *(7620)* | *(7990)* | *(8320)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 8315 | 8270 | 8225 | 8115 | 8315 | 9305 | 9260 | 9395 | 9775 | 10610 | 11060 | 11375 | 11375 | |
| *(N)* | *(37000)* | *(36800)* | *(36600)* | *(36600)* | *(36100)* | *(41400)* | *(41200)* | *(41800)* | *(43500)* | *(47200)* | *(49200)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 6480 | 6500 | 6840 | 7430 | 7990 | 8730 | 8960 | 9590 | 10220 | 11430 | 12050 | 13210 | 14060 | |
| *(N)* | *(28820)* | *(28910)* | *(30420)* | *(33040)* | *(35530)* | *(38830)* | *(39850)* | *(42650)* | *(45450)* | *(50840)* | *(53590)* | *(58750)* | *(62530)* | |
| **Input Power HP** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **45.5** | **45.5** | **45.5** | **45.5** | **37.0** | **37.0** | **33.5** | **29.1** | 4E170 |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(27.6)*** | ***(27.6)*** | ***(25.0)*** | ***(21.7)*** | |
| Output Torque in•lbs | 29115 | 35485 | 38845 | 44420 | 48580 | 47610 | 50795 | 55575 | 63450 | 64955 | 71060 | 75925 | 76015 | |
| *(N•m)* | *(3290)* | *(4010)* | *(4390)* | *(5020)* | *(5490)* | *(5380)* | *(5740)* | *(6280)* | *(7170)* | *(7340)* | *(8030)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 12880 | 13330 | 13510 | 13780 | 13935 | 14990 | 15105 | 15285 | 15485 | 16790 | 16970 | 17735 | 18770 | |
| *(N)* | *(57300)* | *(59300)* | *(60100)* | *(61300)* | *(62000)* | *(66700)* | *(67200)* | *(68000)* | *(68900)* | *(74700)* | *(75500)* | *(78900)* | *(83500)* | |
| Solid Shaft OHL lbs | 9770 | 9790 | 10230 | 10980 | 11700 | 12650 | 12950 | 13780 | 14600 | 16140 | 16950 | 18450 | 19560 | |
| *(N)* | *(43450)* | *(43540)* | *(45500)* | *(48830)* | *(52040)* | *(56260)* | *(57600)* | *(61290)* | *(64940)* | *(71790)* | *(75390)* | *(82060)* | *(87000)* | |
| **Input Power HP** | **60.3** | **60.3** | **60.3** | **60.3** | **60.3** | **49.6** | **49.6** | **49.6** | **49.6** | **40.4** | **40.4** | **38.4** | **33.3** | 4E175 |
| ***(kW)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(37.0)*** | ***(30.1)*** | ***(30.1)*** | ***(28.6)*** | ***(24.8)*** | |
| Output Torque in•lbs | 31590 | 38495 | 42120 | 48140 | 52655 | 51945 | 55395 | 60615 | 69290 | 70885 | 77520 | 86990 | 86990 | |
| *(N•m)* | *(3570)* | *(4350)* | *(4760)* | *(5440)* | *(5950)* | *(5870)* | *(6260)* | *(6850)* | *(7830)* | *(8010)* | *(8760)* | *(9830)* | *(9830)* | |
| Hollow Shaft OHL lbs | 12700 | 13105 | 13285 | 13510 | 13645 | 14680 | 14745 | 14900 | 15060 | 16340 | 16475 | 16925 | 17960 | |
| *(N)* | *(56500)* | *(58300)* | *(59100)* | *(60100)* | *(60700)* | *(65300)* | *(65600)* | *(66300)* | *(67000)* | *(72700)* | *(73300)* | *(75300)* | *(79900)* | |
| Solid Shaft OHL lbs | 9770 | 9790 | 10230 | 10980 | 11700 | 12650 | 12950 | 13780 | 14600 | 16140 | 16950 | 18450 | 19560 | |
| *(N)* | *(43450)* | *(43540)* | *(45500)* | *(48830)* | *(52040)* | *(56260)* | *(57600)* | *(61290)* | *(64940)* | *(71790)* | *(75390)* | *(82060)* | *(87000)* | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **55.7** | **55.7** | **53.0** | **55.7** | **53.5** | **45.2** | **39.2** | 4E180 |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(39.5)*** | ***(41.5)*** | ***(39.9)*** | ***(33.7)*** | ***(29.2)*** | |
| Output Torque in•lbs | 37520 | 45750 | 50000 | 57165 | 62475 | 58315 | 62210 | 67960 | 73980 | 97355 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(4240)* | *(5170)* | *(5650)* | *(6460)* | *(7060)* | *(6590)* | *(7030)* | *(7680)* | *(8360)* | *(11000)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 12275 | 12585 | 12700 | 12835 | 12925 | 14205 | 14275 | 14365 | 14725 | 14410 | 14655 | 15780 | 16815 | |
| *(N)* | *(54600)* | *(56000)* | *(56500)* | *(57100)* | *(57500)* | *(63200)* | *(63500)* | *(63900)* | *(65500)* | *(64100)* | *(65200)* | *(70200)* | *(74800)* | |
| Solid Shaft OHL lbs | 9770 | 9790 | 10230 | 10980 | 11700 | 12650 | 12950 | 13780 | 14600 | 16140 | 16950 | 18450 | 19560 | |
| *(N)* | *(43450)* | *(43540)* | *(45500)* | *(48830)* | *(52040)* | *(56260)* | *(57600)* | *(61290)* | *(64940)* | *(71790)* | *(75390)* | *(82060)* | *(87000)* | |
| **Input Power HP** | **80.5** | **80.5** | **80.5** | **80.5** | **80.5** | **60.3** | **60.3** | **60.3** | **53.9** | **58.5** | **53.5** | **45.2** | **39.2** | 4E185 |
| ***(kW)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(40.2)*** | ***(43.6)*** | ***(39.9)*** | ***(33.7)*** | ***(29.2)*** | |
| Output Torque in•lbs | 42120 | 51325 | 56190 | 64245 | 70265 | 63185 | 67430 | 73715 | 75310 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(4760)* | *(5800)* | *(6350)* | *(7260)* | *(7940)* | *(7140)* | *(7620)* | *(8330)* | *(8510)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 11935 | 12160 | 12250 | 12320 | 12360 | 13845 | 13890 | 13960 | 14635 | 14050 | 14655 | 15780 | 16815 | |
| *(N)* | *(53100)* | *(54100)* | *(54500)* | *(54800)* | *(55000)* | *(61600)* | *(61800)* | *(62100)* | *(65100)* | *(62500)* | *(65200)* | *(70200)* | *(74800)* | |
| Solid Shaft OHL lbs | 9770 | 9790 | 10230 | 10980 | 11700 | 12650 | 12950 | 13780 | 14600 | 16140 | 16950 | 18450 | 19560 | |
| *(N)* | *(43450)* | *(43540)* | *(45500)* | *(48830)* | *(52040)* | *(56260)* | *(57600)* | *(61290)* | *(64940)* | *(71790)* | *(75390)* | *(82060)* | *(87000)* | |





Speed Reducers

Frame Size Selection Tables 1165 RPM



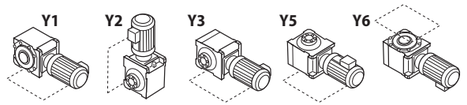

Single Reduction
Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 19.4 | 17.4 | 15.7 | 14.6 | 13.2 | 11.4 | 10.4 | 9.47 | 7.72 | 6.51 | 5.63 | 4.68 | 3.82 | 2.79 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **26.0** | **23.1** | **21.1** | **19.3** | **17.7** | **15.3** | **13.8** | **12.6** | **10.3** | **8.66** | **7.50** | **6.22** | **5.08** | **—** | 4D180 |
| ***(kW)*** | ***(19.4)*** | ***(17.2)*** | ***(15.7)*** | ***(14.4)*** | ***(13.2)*** | ***(11.4)*** | ***(10.3)*** | ***(9.42)*** | ***(7.67)*** | ***(6.46)*** | ***(5.59)*** | ***(4.64)*** | ***(3.79)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 14690 | 15120 | 15470 | 15720 | 16010 | 16390 | 16610 | 16680 | 16640 | 16610 | 16590 | 16580 | 16580 | — | |
| *(N)* | *(65340)* | *(67250)* | *(68810)* | *(69920)* | *(71210)* | *(72900)* | *(73880)* | *(74190)* | *(74010)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **26.0** | **23.1** | **21.1** | **19.3** | **17.7** | **15.3** | **13.8** | **12.6** | **10.3** | **8.66** | **7.50** | **6.22** | **5.08** | **—** | 4D185 |
| ***(kW)*** | ***(19.4)*** | ***(17.2)*** | ***(15.7)*** | ***(14.4)*** | ***(13.2)*** | ***(11.4)*** | ***(10.3)*** | ***(9.42)*** | ***(7.67)*** | ***(6.46)*** | ***(5.59)*** | ***(4.64)*** | ***(3.79)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 14690 | 15120 | 15470 | 15720 | 16010 | 16390 | 16610 | 16680 | 16640 | 16610 | 16590 | 16580 | 16580 | — | |
| *(N)* | *(65340)* | *(67250)* | *(68810)* | *(69920)* | *(71210)* | *(72900)* | *(73880)* | *(74190)* | *(74010)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **25.6** | **20.8** | **20.8** | **17.4** | **17.4** | **15.0** | **12.4** | **12.4** | **10.1** | **8.54** | **7.39** | **6.14** | **5.00** | **—** | 4E170 |
| ***(kW)*** | ***(19.1)*** | ***(15.5)*** | ***(15.5)*** | ***(13.0)*** | ***(13.0)*** | ***(11.2)*** | ***(9.28)*** | ***(9.28)*** | ***(7.56)*** | ***(6.37)*** | ***(5.51)*** | ***(4.58)*** | ***(3.73)*** | **—** | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 19690 | 20275 | 19940 | 20275 | 19940 | 19940 | 20275 | 19940 | 19940 | 19940 | 19940 | 19940 | 19940 | — | |
| *(N)* | *(87600)* | *(90200)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | — | |
| Solid Shaft OHL lbs | 20300 | 20580 | 20810 | 20970 | 21150 | 21410 | 21550 | 21640 | 21750 | 21820 | 21880 | 21920 | 21920 | — | |
| *(N)* | *(90290)* | *(91530)* | *(92560)* | *(93270)* | *(94070)* | *(95230)* | *(95850)* | *(96250)* | *(96740)* | *(97050)* | *(97320)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **29.4** | **25.9** | **23.7** | **21.7** | **20.0** | **17.2** | **15.6** | **15.6** | **12.6** | **10.6** | **9.20** | **7.64** | **6.24** | **—** | 4E175 |
| ***(kW)*** | ***(21.9)*** | ***(19.3)*** | ***(17.7)*** | ***(16.2)*** | ***(14.9)*** | ***(12.8)*** | ***(11.6)*** | ***(11.6)*** | ***(9.41)*** | ***(7.93)*** | ***(6.86)*** | ***(5.70)*** | ***(4.65)*** | **—** | |
| Output Torque in•lbs | 86990 | 86545 | 86990 | 86545 | 86990 | 86990 | 86545 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | — | |
| *(N•m)* | *(9830)* | *(9780)* | *(9830)* | *(9780)* | *(9830)* | *(9830)* | *(9780)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | — | |
| Hollow Shaft OHL lbs | 18880 | 19420 | 19400 | 19420 | 19400 | 19400 | 19420 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | — | |
| *(N)* | *(84000)* | *(86400)* | *(86300)* | *(86400)* | *(86300)* | *(86300)* | *(86400)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | — | |
| Solid Shaft OHL lbs | 20300 | 20580 | 20810 | 20970 | 21150 | 21410 | 21550 | 21640 | 21750 | 21820 | 21880 | 21920 | 21920 | — | |
| *(N)* | *(90290)* | *(91530)* | *(92560)* | *(93270)* | *(94070)* | *(95230)* | *(95850)* | *(96250)* | *(96740)* | *(97050)* | *(97320)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **34.6** | **30.6** | **28.0** | **25.7** | **23.5** | **20.2** | **18.4** | **16.8** | **13.7** | **11.5** | **9.96** | **8.29** | **6.76** | **—** | 4E180 |
| ***(kW)*** | ***(25.8)*** | ***(22.8)*** | ***(20.9)*** | ***(19.2)*** | ***(17.5)*** | ***(15.1)*** | ***(13.7)*** | ***(12.5)*** | ***(10.2)*** | ***(8.60)*** | ***(7.43)*** | ***(6.18)*** | ***(5.04)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 17735 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(78900)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20300 | 20580 | 20810 | 20970 | 21150 | 21410 | 21550 | 21640 | 21750 | 21820 | 21880 | 21920 | 21920 | — | |
| *(N)* | *(90290)* | *(91530)* | *(92560)* | *(93270)* | *(94070)* | *(95230)* | *(95850)* | *(96250)* | *(96740)* | *(97050)* | *(97320)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **34.6** | **30.6** | **28.0** | **25.7** | **23.5** | **20.2** | **18.4** | **16.8** | **13.7** | **11.5** | **9.96** | **8.29** | **6.76** | **—** | 4E185 |
| ***(kW)*** | ***(25.8)*** | ***(22.8)*** | ***(20.9)*** | ***(19.2)*** | ***(17.5)*** | ***(15.1)*** | ***(13.7)*** | ***(12.5)*** | ***(10.2)*** | ***(8.60)*** | ***(7.43)*** | ***(6.18)*** | ***(5.04)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 17735 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(78900)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20300 | 20580 | 20810 | 20970 | 21150 | 21410 | 21550 | 21640 | 21750 | 21820 | 21880 | 21920 | 21920 | — | |
| *(N)* | *(90290)* | *(91530)* | *(92560)* | *(93270)* | *(94070)* | *(95230)* | *(95850)* | *(96250)* | *(96740)* | *(97050)* | *(97320)* | *(97500)* | *(97500)* | — | |

# Frame Size Selection Tables 1165 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

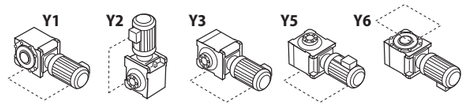



Dimensions on pages 2.156 - 2.166

| Output RPM | 106 | 89.6 | 83.2 | 72.8 | 64.7 | 55.5 | 53.0 | 46.6 | 41.6 | 33.3 | 29.9 | 25.3 | 22.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **91.7** | **91.7** | **91.7** | **91.7** | **91.7** | **67.9** | **67.9** | **67.9** | **65.8** | **58.5** | **53.5** | **45.2** | **39.2** | |
| ***(kW)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(49.1)*** | ***(43.6)*** | ***(39.9)*** | ***(33.7)*** | ***(29.2)*** | |
| Output Torque in•lbs | 48050 | 58580 | 64070 | 73185 | 80095 | 71060 | 75840 | 82930 | 92045 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5430)* | *(6620)* | *(7240)* | *(8270)* | *(9050)* | *(8030)* | *(8570)* | *(9370)* | *(10400)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 11485 | 11645 | 11665 | 11665 | 11620 | 13285 | 13285 | 13285 | 13420 | 14050 | 14655 | 15780 | 16815 | |
| *(N)* | *(51100)* | *(51800)* | *(51900)* | *(51900)* | *(51700)* | *(59100)* | *(59100)* | *(59100)* | *(59700)* | *(62500)* | *(65200)* | *(70200)* | *(74800)* | |
| Solid Shaft OHL lbs | 9770 | 9790 | 10230 | 10980 | 11700 | 12650 | 12950 | 13780 | 14600 | 16140 | 16950 | 18450 | 19560 | |
| *(N)* | *(43450)* | *(43540)* | *(45500)* | *(48830)* | *(52040)* | *(56260)* | *(57600)* | *(61290)* | *(64940)* | *(71790)* | *(75390)* | *(82060)* | *(87000)* | **4E190** |
| **Input Power HP** | **100.6** | **100.6** | **100.6** | **100.6** | **100.4** | **73.8** | **73.8** | **73.8** | **67.2** | **58.5** | **53.5** | **45.2** | **39.2** | |
| ***(kW)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(74.9)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(50.1)*** | ***(43.6)*** | ***(39.9)*** | ***(33.7)*** | ***(29.2)*** | |
| Output Torque in•lbs | 52655 | 64245 | 70275 | 80275 | 87710 | 77265 | 82400 | 90275 | 93815 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5950)* | *(7260)* | *(7940)* | *(9070)* | *(9910)* | *(8730)* | *(9310)* | *(10200)* | *(10600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 11150 | 11215 | 11215 | 11150 | 11050 | 12810 | 12790 | 12745 | 13285 | 14050 | 14655 | 15780 | 16815 | |
| *(N)* | *(49600)* | *(49900)* | *(49900)* | *(49600)* | *(49200)* | *(57000)* | *(56900)* | *(56700)* | *(59100)* | *(62500)* | *(65200)* | *(70200)* | *(74800)* | |
| Solid Shaft OHL lbs | 9770 | 9790 | 10230 | 10980 | 11700 | 12650 | 12950 | 13780 | 14600 | 16140 | 16950 | 18450 | 19560 | |
| *(N)* | *(43450)* | *(43540)* | *(45500)* | *(48830)* | *(52040)* | *(56260)* | *(57600)* | *(61290)* | *(64940)* | *(71790)* | *(75390)* | *(82060)* | *(87000)* | **4E195** |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **55.7** | **55.7** | **53.0** | **55.7** | **55.7** | **53.8** | **43.4** | |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(39.5)*** | ***(41.5)*** | ***(41.5)*** | ***(40.1)*** | ***(32.4)*** | |
| Output Torque in•lbs | 37520 | 45750 | 50000 | 57165 | 62475 | 58315 | 62210 | 67960 | 73980 | 97345 | 107080 | 122120 | 114155 | |
| *(N•m)* | *(4240)* | *(5170)* | *(5650)* | *(6460)* | *(7060)* | *(6590)* | *(7030)* | *(7680)* | *(8360)* | *(11000)* | *(12100)* | *(13800)* | *(12900)* | |
| Hollow Shaft OHL lbs | 22365 | 23380 | 23825 | 24500 | 24950 | 26750 | 26975 | 27650 | 28550 | 27875 | 27650 | 26975 | 27200 | |
| *(N)* | *(99500)* | *(104000)* | *(106000)* | *(109000)* | *(111000)* | *(119000)* | *(120000)* | *(123000)* | *(127000)* | *(124000)* | *(123000)* | *(120000)* | *(121000)* | |
| Solid Shaft OHL lbs | 17510 | 17550 | 18270 | 19520 | 20710 | 22280 | 22760 | 24120 | 25510 | 27980 | 28900 | 28930 | 28950 | |
| *(N)* | *(77880)* | *(78060)* | *(81260)* | *(86820)* | *(92110)* | *(99100)* | *(101230)* | *(107280)* | *(113460)* | *(124450)* | *(128540)* | *(128680)* | *(128760)* | **4F180** |
| **Input Power HP** | **80.5** | **80.5** | **80.5** | **80.5** | **80.5** | **60.3** | **60.3** | **60.3** | **53.9** | **60.3** | **60.3** | **60.3** | **45.6** | |
| ***(kW)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(60.0)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(40.2)*** | ***(45.0)*** | ***(45.0)*** | ***(45.0)*** | ***(34.0)*** | |
| Output Torque in•lbs | 42120 | 51325 | 56190 | 64245 | 70265 | 63185 | 67430 | 73715 | 75310 | 106195 | 115925 | 137165 | 119465 | |
| *(N•m)* | *(4760)* | *(5800)* | *(6350)* | *(7260)* | *(7940)* | *(7140)* | *(7620)* | *(8330)* | *(8510)* | *(12000)* | *(13100)* | *(15500)* | *(13500)* | |
| Hollow Shaft OHL lbs | 22075 | 22930 | 23380 | 23825 | 24275 | 26525 | 26750 | 27200 | 28325 | 27650 | 27200 | 26300 | 26975 | |
| *(N)* | *(98200)* | *(102000)* | *(104000)* | *(106000)* | *(108000)* | *(118000)* | *(119000)* | *(121000)* | *(126000)* | *(123000)* | *(121000)* | *(117000)* | *(120000)* | |
| Solid Shaft OHL lbs | 17510 | 17550 | 18270 | 19520 | 20710 | 22280 | 22760 | 24120 | 25510 | 27980 | 28900 | 28930 | 28950 | |
| *(N)* | *(77880)* | *(78060)* | *(81260)* | *(86820)* | *(92110)* | *(99100)* | *(101230)* | *(107280)* | *(113460)* | *(124450)* | *(128540)* | *(128680)* | *(128760)* | **4F185** |
| **Input Power HP** | **91.7** | **91.7** | **91.7** | **91.7** | **91.7** | **67.9** | **67.9** | **67.9** | **65.8** | **67.9** | **67.9** | **67.9** | **60.9** | |
| ***(kW)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(49.1)*** | ***(50.6)*** | ***(50.6)*** | ***(50.6)*** | ***(45.4)*** | |
| Output Torque in•lbs | 48050 | 58580 | 64070 | 73185 | 80085 | 71060 | 75840 | 82920 | 92035 | 119465 | 130085 | 153980 | 159290 | |
| *(N•m)* | *(5430)* | *(6620)* | *(7240)* | *(8270)* | *(9050)* | *(8030)* | *(8570)* | *(9370)* | *(10400)* | *(13500)* | *(14700)* | *(17400)* | *(18000)* | |
| Hollow Shaft OHL lbs | 21690 | 22480 | 22930 | 23380 | 23605 | 25850 | 26075 | 26525 | 27200 | 26975 | 26525 | 25400 | 25175 | |
| *(N)* | *(96500)* | *(100000)* | *(102000)* | *(104000)* | *(105000)* | *(115000)* | *(116000)* | *(118000)* | *(121000)* | *(120000)* | *(118000)* | *(113000)* | *(112000)* | |
| Solid Shaft OHL lbs | 17510 | 17550 | 18270 | 19520 | 20710 | 22280 | 22760 | 24120 | 25510 | 27980 | 28900 | 28930 | 28950 | |
| *(N)* | *(77880)* | *(78060)* | *(81260)* | *(86820)* | *(92110)* | *(99100)* | *(101230)* | *(107280)* | *(113460)* | *(124450)* | *(128540)* | *(128680)* | *(128760)* | **4F190** |
| **Input Power HP** | **100.6** | **100.6** | **100.6** | **100.6** | **100.6** | **73.8** | **73.8** | **73.8** | **67.2** | **73.8** | **73.8** | **70.1** | **60.9** | |
| ***(kW)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(55.0)*** | ***(55.0)*** | ***(55.0)*** | ***(50.1)*** | ***(55.0)*** | ***(55.0)*** | ***(52.3)*** | ***(45.4)*** | |
| Output Torque in•lbs | 52655 | 64245 | 70265 | 80265 | 87785 | 77255 | 82385 | 90265 | 93805 | 129200 | 141590 | 159290 | 159290 | |
| *(N•m)* | *(5950)* | *(7260)* | *(7940)* | *(9070)* | *(9920)* | *(8730)* | *(9310)* | *(10200)* | *(10600)* | *(14600)* | *(16000)* | *(18000)* | *(18000)* | |
| Hollow Shaft OHL lbs | 21375 | 22095 | 22455 | 22930 | 23155 | 25400 | 25625 | 26075 | 27200 | 26525 | 26075 | 25175 | 25175 | |
| *(N)* | *(95100)* | *(98300)* | *(99900)* | *(102000)* | *(103000)* | *(113000)* | *(114000)* | *(116000)* | *(121000)* | *(118000)* | *(116000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 17510 | 17550 | 18270 | 19520 | 20710 | 22280 | 22760 | 24120 | 25510 | 27980 | 28900 | 28930 | 28950 | |
| *(N)* | *(77880)* | *(78060)* | *(81260)* | *(86820)* | *(92110)* | *(99100)* | *(101230)* | *(107280)* | *(113460)* | *(124450)* | *(128540)* | *(128680)* | *(128760)* | **4F195** |



Frame Size Selection Tables 1165 RPM



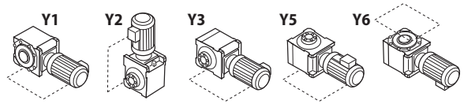

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 19.4 | 17.4 | 15.7 | 14.6 | 13.2 | 11.4 | 10.4 | 9.47 | 7.72 | 6.51 | 5.63 | 4.68 | 3.82 | 2.79 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **34.6** | **30.6** | **28.0** | **25.7** | **23.5** | **20.2** | **18.4** | **16.8** | **13.7** | **11.5** | **9.96** | **8.29** | **6.76** | **—** | |
| ***(kW)*** | ***(25.8)*** | ***(22.8)*** | ***(20.9)*** | ***(19.2)*** | ***(17.5)*** | ***(15.1)*** | ***(13.7)*** | ***(12.5)*** | ***(10.2)*** | ***(8.60)*** | ***(7.43)*** | ***(6.18)*** | ***(5.04)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 17735 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(78900)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20300 | 20580 | 20810 | 20970 | 21150 | 21410 | 21550 | 21640 | 21750 | 21820 | 21880 | 21920 | 21920 | — | |
| *(N)* | *(90290)* | *(91530)* | *(92560)* | *(93270)* | *(94070)* | *(95230)* | *(95850)* | *(96250)* | *(96740)* | *(97050)* | *(97320)* | *(97500)* | *(97500)* | — | **4E190** |
| **Input Power HP** | **34.6** | **30.6** | **28.0** | **25.7** | **23.5** | **20.2** | **18.4** | **16.8** | **13.7** | **11.5** | **9.96** | **8.29** | **6.76** | **—** | |
| ***(kW)*** | ***(25.8)*** | ***(22.8)*** | ***(20.9)*** | ***(19.2)*** | ***(17.5)*** | ***(15.1)*** | ***(13.7)*** | ***(12.5)*** | ***(10.2)*** | ***(8.60)*** | ***(7.43)*** | ***(6.18)*** | ***(5.04)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102655 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 17735 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(78900)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20300 | 20580 | 20810 | 20970 | 21150 | 21410 | 21550 | 21640 | 21750 | 21820 | 21880 | 21920 | 21920 | — | |
| *(N)* | *(90290)* | *(91530)* | *(92560)* | *(93270)* | *(94070)* | *(95230)* | *(95850)* | *(96250)* | *(96740)* | *(97050)* | *(97320)* | *(97500)* | *(97500)* | — | **4E195** |
| **Input Power HP** | **41.0** | **33.3** | **33.3** | **27.9** | **27.9** | **24.0** | **20.0** | **20.0** | **16.2** | **13.7** | **11.8** | **9.83** | **8.03** | **—** | |
| ***(kW)*** | ***(30.6)*** | ***(24.8)*** | ***(24.8)*** | ***(20.8)*** | ***(20.8)*** | ***(17.9)*** | ***(14.9)*** | ***(14.9)*** | ***(12.1)*** | ***(10.2)*** | ***(8.82)*** | ***(7.33)*** | ***(5.99)*** | **—** | |
| Output Torque in•lbs | 122120 | 111500 | 122120 | 111500 | 122120 | 121235 | 111500 | 122120 | 122120 | 122120 | 122120 | 122120 | 122120 | — | |
| *(N•m)* | *(13800)* | *(12600)* | *(13800)* | *(12600)* | *(13800)* | *(13700)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | — | |
| Hollow Shaft OHL lbs | 26975 | 27425 | 26975 | 27425 | 26975 | 26975 | 27425 | 26975 | 26975 | 26975 | 26975 | 26975 | 26975 | — | |
| *(N)* | *(120000)* | *(122000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 29020 | 29220 | 29360 | 29450 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129080)* | *(129970)* | *(130590)* | *(130990)* | *(131340)* | *(131340)* | — | **4F180** |
| **Input Power HP** | **43.3** | **41.0** | **41.0** | **34.5** | **34.5** | **29.6** | **24.5** | **24.5** | **20.0** | **16.9** | **14.6** | **10.9** | **9.90** | **—** | |
| ***(kW)*** | ***(32.3)*** | ***(30.6)*** | ***(30.6)*** | ***(25.7)*** | ***(25.7)*** | ***(22.1)*** | ***(18.3)*** | ***(18.3)*** | ***(14.9)*** | ***(12.6)*** | ***(10.9)*** | ***(8.16)*** | ***(7.38)*** | **—** | |
| Output Torque in•lbs | 128315 | 137165 | 150440 | 137165 | 150440 | 150440 | 137165 | 149555 | 149555 | 150440 | 150440 | 135395 | 150440 | — | |
| *(N•m)* | *(14500)* | *(15500)* | *(17000)* | *(15500)* | *(17000)* | *(17000)* | *(15500)* | *(16900)* | *(16900)* | *(17000)* | *(17000)* | *(15300)* | *(17000)* | — | |
| Hollow Shaft OHL lbs | 26525 | 26300 | 25625 | 26300 | 25625 | 25625 | 26300 | 25625 | 25625 | 25625 | 25625 | 26300 | 25625 | — | |
| *(N)* | *(118000)* | *(117000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 29020 | 29220 | 29360 | 29450 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129080)* | *(129970)* | *(130590)* | *(130990)* | *(131340)* | *(131340)* | — | **4F185** |
| **Input Power HP** | **53.6** | **47.5** | **43.4** | **40.0** | **36.5** | **31.5** | **28.6** | **26.0** | **21.2** | **17.8** | **15.4** | **12.8** | **10.5** | **—** | |
| ***(kW)*** | ***(40.0)*** | ***(35.4)*** | ***(32.4)*** | ***(29.8)*** | ***(27.2)*** | ***(23.5)*** | ***(21.3)*** | ***(19.4)*** | ***(15.8)*** | ***(13.3)*** | ***(11.5)*** | ***(9.58)*** | ***(7.82)*** | **—** | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 29020 | 29220 | 29360 | 29450 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129080)* | *(129970)* | *(130590)* | *(130990)* | *(131340)* | *(131340)* | — | **4F190** |
| **Input Power HP** | **53.6** | **47.5** | **43.4** | **40.0** | **36.5** | **31.5** | **28.6** | **26.0** | **21.2** | **17.8** | **15.4** | **12.8** | **10.5** | **—** | |
| ***(kW)*** | ***(40.0)*** | ***(35.4)*** | ***(32.4)*** | ***(29.8)*** | ***(27.2)*** | ***(23.5)*** | ***(21.3)*** | ***(19.4)*** | ***(15.8)*** | ***(13.3)*** | ***(11.5)*** | ***(9.58)*** | ***(7.82)*** | **—** | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 29020 | 29220 | 29360 | 29450 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129080)* | *(129970)* | *(130590)* | *(130990)* | *(131340)* | *(131340)* | — | **4F195** |

# Frame Size Selection Tables 980 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

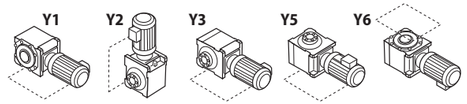



Dimensions on pages 2.156 - 2.166

| Output RPM | 89.1 | 75.4 | 70.0 | 61.3 | 54.4 | 46.7 | 44.5 | 39.2 | 35.0 | 28.0 | 25.1 | 21.3 | 18.5 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | — | — | **3.15** | **3.15** | **3.15** | **2.79** | **2.41** | |
| ***(kW)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | — | — | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.08)*** | ***(1.80)*** | |
| Output Torque in•lbs | 1960 | 2385 | 2615 | 2990 | 3265 | 3920 | — | — | 5230 | 6575 | 7190 | 7510 | 7510 | |
| *(N•m)* | *(222)* | *(270)* | *(296)* | *(338)* | *(369)* | *(443)* | — | — | *(591)* | *(743)* | *(813)* | *(849)* | *(849)* | **4A100** |
| Hollow Shaft OHL lbs | 4335 | 4560 | 4650 | 4810 | 4920 | 5125 | — | — | 5460 | 5350 | 5170 | 5055 | 5055 | |
| *(N)* | *(19300)* | *(20300)* | *(20700)* | *(21400)* | *(21900)* | *(22800)* | — | — | *(24300)* | *(23800)* | *(23000)* | *(22500)* | *(22500)* | |
| Solid Shaft OHL lbs | 3360 | 3640 | 3780 | 4010 | 4210 | 4450 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14940)* | *(16190)* | *(16810)* | *(17830)* | *(18720)* | *(19790)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **4.05** | **4.05** | **4.05** | **4.05** | **4.05** | **4.05** | **—** | **—** | **3.73** | **3.84** | **3.84** | **3.34** | **2.90** | |
| ***(kW)*** | ***(3.02)*** | ***(3.02)*** | ***(3.02)*** | ***(3.02)*** | ***(3.02)*** | ***(3.02)*** | **—** | **—** | ***(2.78)*** | ***(2.86)*** | ***(2.86)*** | ***(2.49)*** | ***(2.16)*** | |
| Output Torque in•lbs | 2520 | 3075 | 3360 | 3845 | 4200 | 5040 | — | — | 6200 | 8000 | 8750 | 9025 | 9025 | |
| *(N•m)* | *(285)* | *(348)* | *(380)* | *(435)* | *(475)* | *(570)* | — | — | *(701)* | *(904)* | *(989)* | *(1020)* | *(1020)* | **4A105** |
| Hollow Shaft OHL lbs | 4245 | 4470 | 4560 | 4695 | 4785 | 4965 | — | — | 5325 | 4900 | 4605 | 4515 | 4515 | |
| *(N)* | *(18900)* | *(19900)* | *(20300)* | *(20900)* | *(21300)* | *(22100)* | — | — | *(23700)* | *(21800)* | *(20500)* | *(20100)* | *(20100)* | |
| Solid Shaft OHL lbs | 3360 | 3640 | 3780 | 4010 | 4210 | 4450 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14940)* | *(16190)* | *(16810)* | *(17830)* | *(18720)* | *(19790)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **4.67** | **—** | **—** | **4.76** | **4.75** | **4.75** | **4.01** | **3.47** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(3.48)*** | **—** | **—** | ***(3.55)*** | ***(3.54)*** | ***(3.54)*** | ***(2.99)*** | ***(2.59)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5810 | — | — | 7900 | 9910 | 10795 | 10795 | 10795 | |
| *(N•m)* | — | — | — | — | — | *(657)* | — | — | *(893)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | **4A110** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4875 | — | — | 4945 | 4090 | 3550 | 3550 | 3550 | |
| *(N)* | — | — | — | — | — | *(21700)* | — | — | *(22000)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4450 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(19790)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **4.67** | **—** | **—** | **5.26** | **5.26** | **5.00** | **4.24** | **3.66** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(3.48)*** | **—** | **—** | ***(3.92)*** | ***(3.92)*** | ***(3.73)*** | ***(3.16)*** | ***(2.73)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5810 | — | — | 8725 | 10970 | 11415 | 11415 | 11415 | |
| *(N•m)* | — | — | — | — | — | *(657)* | — | — | *(986)* | *(1240)* | *(1290)* | *(1290)* | *(1290)* | **4A115** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4875 | — | — | 4630 | 3460 | 3120 | 3120 | 3120 | |
| *(N)* | — | — | — | — | — | *(21700)* | — | — | *(20600)* | *(15400)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4450 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(19790)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **12.9** | **12.0** | **12.0** | **11.3** | **11.0** | **8.58** | **7.98** | **7.86** | **6.88** | **5.47** | **5.00** | **4.24** | **3.66** | |
| ***(kW)*** | ***(9.60)*** | ***(8.93)*** | ***(8.93)*** | ***(8.45)*** | ***(8.20)*** | ***(6.40)*** | ***(5.95)*** | ***(5.86)*** | ***(5.13)*** | ***(4.08)*** | ***(3.73)*** | ***(3.16)*** | ***(2.73)*** | |
| Output Torque in•lbs | 8015 | 9115 | 9910 | 10795 | 11415 | 10705 | 10615 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(906)* | *(1030)* | *(1120)* | *(1220)* | *(1290)* | *(1210)* | *(1200)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | **4A120** |
| Hollow Shaft OHL lbs | 3505 | 3640 | 3660 | 3595 | 3120 | 3640 | 3685 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(15600)* | *(16200)* | *(16300)* | *(16000)* | *(13900)* | *(16200)* | *(16400)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3360 | 3640 | 3780 | 4010 | 4210 | 4450 | 4510 | 4550 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14940)* | *(16190)* | *(16810)* | *(17830)* | *(18720)* | *(19790)* | *(20060)* | *(20230)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **13.3** | **12.0** | **12.0** | **11.3** | **11.0** | **8.58** | **7.98** | **7.86** | **6.88** | **5.47** | **5.00** | **4.24** | **3.66** | |
| ***(kW)*** | ***(9.90)*** | ***(8.93)*** | ***(8.93)*** | ***(8.45)*** | ***(8.20)*** | ***(6.40)*** | ***(5.95)*** | ***(5.86)*** | ***(5.13)*** | ***(4.08)*** | ***(3.73)*** | ***(3.16)*** | ***(2.73)*** | |
| Output Torque in•lbs | 8265 | 9115 | 9910 | 10795 | 11415 | 10705 | 10615 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(934)* | *(1030)* | *(1120)* | *(1220)* | *(1290)* | *(1210)* | *(1200)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | **4A125** |
| Hollow Shaft OHL lbs | 3460 | 3640 | 3660 | 3595 | 3120 | 3640 | 3685 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(15400)* | *(16200)* | *(16300)* | *(16000)* | *(13900)* | *(16200)* | *(16400)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3360 | 3640 | 3780 | 4010 | 4210 | 4450 | 4510 | 4550 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14940)* | *(16190)* | *(16810)* | *(17830)* | *(18720)* | *(19790)* | *(20060)* | *(20230)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |



# Frame Size Selection Tables 980 RPM




## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

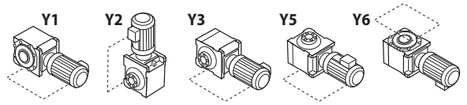
| Output RPM | 16.3 | 14.6 | 13.2 | 12.3 | 11.1 | 9.61 | 8.75 | 7.97 | 6.49 | 5.47 | 4.73 | 3.94 | 3.21 | 2.35 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **2.13** | **1.73** | **1.73** | **1.45** | **1.45** | **1.25** | **1.04** | **1.04** | **0.840** | **0.711** | **0.614** | **0.510** | **0.416** | **0.282** | |
| ***(kW)*** | ***(1.59)*** | ***(1.29)*** | ***(1.29)*** | ***(1.08)*** | ***(1.08)*** | ***(0.931)*** | ***(0.772)*** | ***(0.772)*** | ***(0.628)*** | ***(0.530)*** | ***(0.458)*** | ***(0.380)*** | ***(0.310)*** | ***(0.210)*** | |
| Output Torque in•lbs | 7510 | 6865 | 7510 | 6865 | 7510 | 7510 | 6865 | 7510 | 7510 | 7510 | 7510 | 7510 | 7510 | 6955 | |
| *(N•m)* | *(849)* | *(776)* | *(849)* | *(776)* | *(849)* | *(849)* | *(776)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | *(786)* | **4A100** |
| Hollow Shaft OHL lbs | 5055 | 5260 | 5055 | 5260 | 5055 | 5055 | 5260 | 5055 | 5055 | 5055 | 5055 | 5055 | 5055 | 5235 | |
| *(N)* | *(22500)* | *(23400)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(23300)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **2.56** | **2.07** | **2.07** | **1.74** | **1.74** | **1.50** | **1.24** | **1.24** | **1.01** | **0.844** | **0.711** | **0.539** | **0.499** | **0.315** | |
| ***(kW)*** | ***(1.91)*** | ***(1.54)*** | ***(1.54)*** | ***(1.30)*** | ***(1.30)*** | ***(1.12)*** | ***(0.926)*** | ***(0.926)*** | ***(0.754)*** | ***(0.629)*** | ***(0.530)*** | ***(0.402)*** | ***(0.372)*** | ***(0.235)*** | |
| Output Torque in•lbs | 9025 | 8245 | 9025 | 8245 | 9025 | 9025 | 8245 | 9025 | 9025 | 8935 | 8705 | 7935 | 9025 | 7765 | |
| *(N•m)* | *(1020)* | *(932)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(1010)* | *(984)* | *(897)* | *(1020)* | *(878)* | **4A105** |
| Hollow Shaft OHL lbs | 4515 | 4810 | 4515 | 4810 | 4515 | 4515 | 4810 | 4515 | 4515 | 4540 | 4630 | 4920 | 4515 | 4990 | |
| *(N)* | *(20100)* | *(21400)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(20200)* | *(20600)* | *(21900)* | *(20100)* | *(22200)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **3.07** | **2.48** | **2.48** | **2.09** | **2.09** | **1.80** | **1.49** | **1.49** | **1.21** | **1.02** | **0.880** | **0.735** | **0.599** | **—** | |
| ***(kW)*** | ***(2.29)*** | ***(1.85)*** | ***(1.85)*** | ***(1.56)*** | ***(1.56)*** | ***(1.34)*** | ***(1.11)*** | ***(1.11)*** | ***(0.904)*** | ***(0.762)*** | ***(0.659)*** | ***(0.548)*** | ***(0.447)*** | **—** | |
| Output Torque in•lbs | 10795 | 9910 | 10795 | 9910 | 10795 | 10795 | 9910 | 10795 | 10795 | 10795 | 10795 | 10795 | 10795 | — | |
| *(N•m)* | *(1220)* | *(1120)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | — | **4A110** |
| Hollow Shaft OHL lbs | 3550 | 4090 | 3550 | 4090 | 3550 | 3550 | 4090 | 3550 | 3550 | 3550 | 3550 | 3550 | 3550 | — | |
| *(N)* | *(15800)* | *(18200)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **3.23** | **2.87** | **2.61** | **2.40** | **2.20** | **1.89** | **1.72** | **1.57** | **1.28** | **1.08** | **0.930** | **0.780** | **0.633** | **—** | |
| ***(kW)*** | ***(2.41)*** | ***(2.14)*** | ***(1.95)*** | ***(1.79)*** | ***(1.64)*** | ***(1.41)*** | ***(1.28)*** | ***(1.17)*** | ***(0.954)*** | ***(0.804)*** | ***(0.695)*** | ***(0.578)*** | ***(0.472)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A115** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **3.23** | **2.87** | **2.61** | **2.40** | **2.20** | **1.89** | **1.72** | **1.57** | **1.28** | **1.08** | **0.930** | **0.780** | **0.633** | **—** | |
| ***(kW)*** | ***(2.41)*** | ***(2.14)*** | ***(1.95)*** | ***(1.79)*** | ***(1.64)*** | ***(1.41)*** | ***(1.28)*** | ***(1.17)*** | ***(0.954)*** | ***(0.804)*** | ***(0.695)*** | ***(0.578)*** | ***(0.472)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A120** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **3.23** | **2.87** | **2.61** | **2.40** | **2.20** | **1.89** | **1.72** | **1.57** | **1.28** | **1.08** | **0.930** | **0.780** | **0.633** | **—** | |
| ***(kW)*** | ***(2.41)*** | ***(2.14)*** | ***(1.95)*** | ***(1.79)*** | ***(1.64)*** | ***(1.41)*** | ***(1.28)*** | ***(1.17)*** | ***(0.954)*** | ***(0.804)*** | ***(0.695)*** | ***(0.578)*** | ***(0.472)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A125** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |



Speed Reducers

# Frame Size Selection Tables 980 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

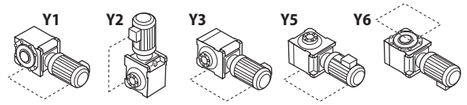



Dimensions on pages 2.156 - 2.166

| Output RPM | 89.1 | 75.4 | 70.0 | 61.3 | 54.4 | 46.7 | 44.5 | 39.2 | 35.0 | 28.0 | 25.1 | 21.3 | 18.5 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **18.4** | **15.0** | **13.8** | **12.0** | **11.0** | **9.17** | **8.60** | **7.86** | **6.88** | **5.47** | **5.00** | **4.24** | **3.66** | 4A140 |
| ***(kW)*** | ***(13.7)*** | ***(11.2)*** | ***(10.3)*** | ***(8.97)*** | ***(8.20)*** | ***(6.84)*** | ***(6.41)*** | ***(5.86)*** | ***(5.13)*** | ***(4.08)*** | ***(3.73)*** | ***(3.16)*** | ***(2.73)*** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3030 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(13500)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3360 | 3640 | 3780 | 4010 | 4210 | 4450 | 4510 | 4550 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14940)* | *(16190)* | *(16810)* | *(17830)* | *(18720)* | *(19790)* | *(20060)* | *(20230)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **18.4** | **15.0** | **13.8** | **12.0** | **11.0** | **9.17** | **8.60** | **7.86** | **6.88** | **5.47** | **5.00** | **4.24** | **3.66** | 4A145 |
| ***(kW)*** | ***(13.7)*** | ***(11.2)*** | ***(10.3)*** | ***(8.97)*** | ***(8.20)*** | ***(6.84)*** | ***(6.41)*** | ***(5.86)*** | ***(5.13)*** | ***(4.08)*** | ***(3.73)*** | ***(3.16)*** | ***(2.73)*** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3030 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(13500)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3360 | 3640 | 3780 | 4010 | 4210 | 4450 | 4510 | 4550 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(14940)* | *(16190)* | *(16810)* | *(17830)* | *(18720)* | *(19790)* | *(20060)* | *(20230)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **12.9** | **12.0** | **12.0** | **11.3** | **11.3** | **8.58** | **7.98** | **7.98** | **8.01** | **6.80** | **6.80** | **5.85** | **5.07** | 4B120 |
| ***(kW)*** | ***(9.60)*** | ***(8.93)*** | ***(8.93)*** | ***(8.45)*** | ***(8.45)*** | ***(6.40)*** | ***(5.95)*** | ***(5.95)*** | ***(5.97)*** | ***(5.07)*** | ***(5.07)*** | ***(4.36)*** | ***(3.78)*** | |
| Output Torque in•lbs | 8015 | 9115 | 9910 | 10795 | 11765 | 10705 | 10615 | 11590 | 13270 | 14155 | 15485 | 15750 | 15750 | |
| *(N•m)* | *(906)* | *(1030)* | *(1120)* | *(1220)* | *(1330)* | *(1210)* | *(1200)* | *(1310)* | *(1500)* | *(1600)* | *(1750)* | *(1780)* | *(1780)* | |
| Hollow Shaft OHL lbs | 5350 | 5595 | 5710 | 5890 | 5975 | 6495 | 6650 | 6765 | 6900 | 7395 | 7505 | 7935 | 8250 | |
| *(N)* | *(23800)* | *(24900)* | *(25400)* | *(26200)* | *(26600)* | *(28900)* | *(29600)* | *(30100)* | *(30700)* | *(32900)* | *(33400)* | *(35300)* | *(36700)* | |
| Solid Shaft OHL lbs | 3510 | 3890 | 4070 | 4360 | 4460 | 5030 | 5150 | 5510 | 5800 | 6450 | 6760 | 7170 | 7360 | |
| *(N)* | *(15610)* | *(17300)* | *(18100)* | *(19390)* | *(19830)* | *(22370)* | *(22900)* | *(24500)* | *(25790)* | *(28680)* | *(30060)* | *(31890)* | *(32730)* | |
| **Input Power HP** | **13.3** | **12.0** | **12.0** | **11.3** | **11.3** | **8.58** | **7.98** | **7.98** | **8.01** | **6.95** | **6.95** | **6.28** | **6.09** | 4B125 |
| ***(kW)*** | ***(9.90)*** | ***(8.93)*** | ***(8.93)*** | ***(8.45)*** | ***(8.45)*** | ***(6.40)*** | ***(5.95)*** | ***(5.95)*** | ***(5.97)*** | ***(5.18)*** | ***(5.18)*** | ***(4.68)*** | ***(4.54)*** | |
| Output Torque in•lbs | 8265 | 9115 | 9910 | 10795 | 11765 | 10705 | 10615 | 11590 | 13270 | 14510 | 15840 | 16900 | 18935 | |
| *(N•m)* | *(934)* | *(1030)* | *(1120)* | *(1220)* | *(1330)* | *(1210)* | *(1200)* | *(1310)* | *(1500)* | *(1640)* | *(1790)* | *(1910)* | *(2140)* | |
| Hollow Shaft OHL lbs | 5325 | 5595 | 5710 | 5890 | 5975 | 6495 | 6650 | 6765 | 6900 | 7350 | 7460 | 7820 | 7325 | |
| *(N)* | *(23700)* | *(24900)* | *(25400)* | *(26200)* | *(26600)* | *(28900)* | *(29600)* | *(30100)* | *(30700)* | *(32700)* | *(33200)* | *(34800)* | *(32600)* | |
| Solid Shaft OHL lbs | 3510 | 3890 | 4070 | 4360 | 4460 | 5030 | 5150 | 5510 | 5800 | 6450 | 6760 | 7170 | 7360 | |
| *(N)* | *(15610)* | *(17300)* | *(18100)* | *(19390)* | *(19830)* | *(22370)* | *(22900)* | *(24500)* | *(25790)* | *(28680)* | *(30060)* | *(31890)* | *(32730)* | |
| **Input Power HP** | **20.8** | **20.8** | **20.8** | **20.8** | **20.8** | **16.4** | **17.2** | **15.7** | **13.7** | **10.9** | **9.96** | **8.44** | **7.31** | 4B140 |
| ***(kW)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(12.2)*** | ***(12.8)*** | ***(11.7)*** | ***(10.2)*** | ***(8.13)*** | ***(7.43)*** | ***(6.29)*** | ***(5.45)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 20350 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2300)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4810 | 4875 | 4900 | 4900 | 4920 | 5440 | 5325 | 5550 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(21400)* | *(21700)* | *(21800)* | *(21800)* | *(21900)* | *(24200)* | *(23700)* | *(24700)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3510 | 3890 | 4070 | 4360 | 4460 | 5030 | 5150 | 5510 | 5800 | 6450 | 6760 | 7170 | 7360 | |
| *(N)* | *(15610)* | *(17300)* | *(18100)* | *(19390)* | *(19830)* | *(22370)* | *(22900)* | *(24500)* | *(25790)* | *(28680)* | *(30060)* | *(31890)* | *(32730)* | |
| **Input Power HP** | **20.8** | **20.8** | **20.8** | **20.8** | **20.8** | **16.4** | **17.2** | **15.7** | **13.7** | **10.9** | **9.96** | **8.44** | **7.31** | 4B145 |
| ***(kW)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(12.2)*** | ***(12.8)*** | ***(11.7)*** | ***(10.2)*** | ***(8.13)*** | ***(7.43)*** | ***(6.29)*** | ***(5.45)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 20350 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2300)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4810 | 4875 | 4900 | 4900 | 4920 | 5440 | 5325 | 5550 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(21400)* | *(21700)* | *(21800)* | *(21800)* | *(21900)* | *(24200)* | *(23700)* | *(24700)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3510 | 3890 | 4070 | 4360 | 4460 | 5030 | 5150 | 5510 | 5800 | 6450 | 6760 | 7170 | 7360 | |
| *(N)* | *(15610)* | *(17300)* | *(18100)* | *(19390)* | *(19830)* | *(22370)* | *(22900)* | *(24500)* | *(25790)* | *(28680)* | *(30060)* | *(31890)* | *(32730)* | |



Frame Size Selection Tables 980 RPM



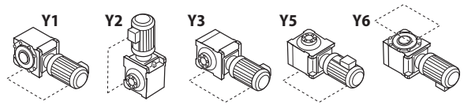

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 16.3 | 14.6 | 13.2 | 12.3 | 11.1 | 9.61 | 8.75 | 7.97 | 6.49 | 5.47 | 4.73 | 3.94 | 3.21 | 2.35 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **3.23** | **2.87** | **2.61** | **2.40** | **2.20** | **1.89** | **1.72** | **1.57** | **1.28** | **1.08** | **0.932** | **0.775** | **0.633** | **—** | 4A140 |
| ***(kW)*** | ***(2.41)*** | ***(2.14)*** | ***(1.95)*** | ***(1.79)*** | ***(1.64)*** | ***(1.41)*** | ***(1.28)*** | ***(1.17)*** | ***(0.954)*** | ***(0.804)*** | ***(0.695)*** | ***(0.578)*** | ***(0.472)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **3.23** | **2.87** | **2.61** | **2.40** | **2.20** | **1.89** | **1.72** | **1.57** | **1.28** | **1.08** | **0.932** | **0.775** | **0.633** | **—** | 4A145 |
| ***(kW)*** | ***(2.41)*** | ***(2.14)*** | ***(1.95)*** | ***(1.79)*** | ***(1.64)*** | ***(1.41)*** | ***(1.28)*** | ***(1.17)*** | ***(0.954)*** | ***(0.804)*** | ***(0.695)*** | ***(0.578)*** | ***(0.472)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **4.43** | **3.59** | **3.59** | **3.04** | **3.04** | **2.60** | **2.17** | **2.17** | **1.77** | **1.49** | **1.29** | **1.07** | **0.874** | **—** | 4B120 |
| ***(kW)*** | ***(3.30)*** | ***(2.68)*** | ***(2.68)*** | ***(2.27)*** | ***(2.27)*** | ***(1.94)*** | ***(1.62)*** | ***(1.62)*** | ***(1.32)*** | ***(1.11)*** | ***(0.961)*** | ***(0.799)*** | ***(0.652)*** | **—** | |
| Output Torque in•lbs | 15660 | 14335 | 15660 | 14420 | 15750 | 15660 | 14420 | 15750 | 15750 | 15750 | 15750 | 15750 | 15750 | — | |
| *(N•m)* | *(1770)* | *(1620)* | *(1770)* | *(1630)* | *(1780)* | *(1770)* | *(1630)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | — | |
| Hollow Shaft OHL lbs | 8295 | 8585 | 8270 | 8565 | 8250 | 8295 | 8565 | 8250 | 8250 | 8250 | 8250 | 8250 | 8250 | — | |
| *(N)* | *(36900)* | *(38200)* | *(36800)* | *(38100)* | *(36700)* | *(36900)* | *(38100)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | — | |
| Solid Shaft OHL lbs | 7430 | 7480 | 7520 | 7560 | 7590 | 7590 | 7500 | 7420 | 7270 | 7160 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33040)* | *(33270)* | *(33440)* | *(33620)* | *(33760)* | *(33760)* | *(33360)* | *(33000)* | *(32330)* | *(31840)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **5.36** | **4.34** | **4.34** | **3.65** | **3.65** | **3.15** | **2.60** | **2.60** | **2.12** | **1.78** | **1.54** | **1.13** | **1.02** | **—** | 4B125 |
| ***(kW)*** | ***(4.00)*** | ***(3.24)*** | ***(3.24)*** | ***(2.72)*** | ***(2.72)*** | ***(2.35)*** | ***(1.94)*** | ***(1.94)*** | ***(1.58)*** | ***(1.33)*** | ***(1.15)*** | ***(0.843)*** | ***(0.761)*** | **—** | |
| Output Torque in•lbs | 18935 | 17345 | 18935 | 17345 | 18935 | 18935 | 17345 | 18935 | 18935 | 18935 | 18935 | 16635 | 18405 | — | |
| *(N•m)* | *(2140)* | *(1960)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(1880)* | *(2080)* | — | |
| Hollow Shaft OHL lbs | 7325 | 7845 | 7325 | 7845 | 7325 | 7325 | 7845 | 7325 | 7325 | 7325 | 7325 | 8025 | 7505 | — | |
| *(N)* | *(32600)* | *(34900)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(32600)* | *(32600)* | *(35700)* | *(33400)* | — | |
| Solid Shaft OHL lbs | 7430 | 7480 | 7520 | 7560 | 7590 | 7590 | 7500 | 7420 | 7270 | 7160 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33040)* | *(33270)* | *(33440)* | *(33620)* | *(33760)* | *(33760)* | *(33360)* | *(33000)* | *(32330)* | *(31840)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **6.45** | **5.71** | **5.22** | **4.80** | **4.39** | **3.78** | **3.42** | **3.14** | **2.55** | **2.15** | **1.86** | **1.54** | **1.26** | **—** | 4B140 |
| ***(kW)*** | ***(4.81)*** | ***(4.26)*** | ***(3.89)*** | ***(3.58)*** | ***(3.27)*** | ***(2.82)*** | ***(2.55)*** | ***(2.34)*** | ***(1.90)*** | ***(1.60)*** | ***(1.39)*** | ***(1.15)*** | ***(0.939)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7430 | 7480 | 7520 | 7560 | 7590 | 7590 | 7500 | 7420 | 7270 | 7160 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33040)* | *(33270)* | *(33440)* | *(33620)* | *(33760)* | *(33760)* | *(33360)* | *(33000)* | *(32330)* | *(31840)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **6.45** | **5.71** | **5.22** | **4.80** | **4.39** | **3.78** | **3.42** | **3.14** | **2.55** | **2.15** | **1.86** | **1.54** | **1.26** | **—** | 4B145 |
| ***(kW)*** | ***(4.81)*** | ***(4.26)*** | ***(3.89)*** | ***(3.58)*** | ***(3.27)*** | ***(2.82)*** | ***(2.55)*** | ***(2.34)*** | ***(1.90)*** | ***(1.60)*** | ***(1.39)*** | ***(1.15)*** | ***(0.939)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7430 | 7480 | 7520 | 7560 | 7590 | 7590 | 7500 | 7420 | 7270 | 7160 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33040)* | *(33270)* | *(33440)* | *(33620)* | *(33760)* | *(33760)* | *(33360)* | *(33000)* | *(32330)* | *(31840)* | *(31660)* | *(31660)* | *(31660)* | — | |

# Frame Size Selection Tables 980 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

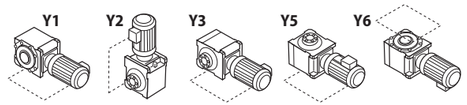
| Output RPM | 89.1 | 75.4 | 70.0 | 61.3 | 54.4 | 46.7 | 44.5 | 39.2 | 35.0 | 28.0 | 25.1 | 21.3 | 18.5 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **26.3** | **26.3** | **26.3** | **24.0** | **21.9** | **18.2** | **17.2** | **15.7** | **13.7** | **10.9** | **9.96** | **8.44** | **7.31** | |
| ***(kW)*** | ***(19.6)*** | ***(19.6)*** | ***(19.6)*** | ***(17.9)*** | ***(16.3)*** | ***(13.6)*** | ***(12.8)*** | ***(11.7)*** | ***(10.2)*** | ***(8.13)*** | ***(7.43)*** | ***(6.29)*** | ***(5.45)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4450 | 4425 | 4425 | 4585 | 4785 | 5190 | 5325 | 5550 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(19800)* | *(19700)* | *(19700)* | *(20400)* | *(21300)* | *(23100)* | *(23700)* | *(24700)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | **4B160** |
| Solid Shaft OHL lbs | 3510 | 3890 | 4070 | 4360 | 4460 | 5030 | 5150 | 5510 | 5800 | 6450 | 6760 | 7170 | 7360 | |
| *(N)* | *(15610)* | *(17300)* | *(18100)* | *(19390)* | *(19830)* | *(22370)* | *(22900)* | *(24500)* | *(25790)* | *(28680)* | *(30060)* | *(31890)* | *(32730)* | |
| **Input Power HP** | **26.3** | **26.3** | **26.3** | **24.0** | **21.9** | **18.2** | **17.2** | **15.7** | **13.7** | **10.9** | **9.96** | **8.44** | **7.31** | |
| ***(kW)*** | ***(19.6)*** | ***(19.6)*** | ***(19.6)*** | ***(17.9)*** | ***(16.3)*** | ***(13.6)*** | ***(12.8)*** | ***(11.7)*** | ***(10.2)*** | ***(8.13)*** | ***(7.43)*** | ***(6.29)*** | ***(5.45)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4450 | 4425 | 4425 | 4585 | 4785 | 5190 | 5325 | 5550 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(19800)* | *(19700)* | *(19700)* | *(20400)* | *(21300)* | *(23100)* | *(23700)* | *(24700)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | **4B165** |
| Solid Shaft OHL lbs | 3510 | 3890 | 4070 | 4360 | 4460 | 5030 | 5150 | 5510 | 5800 | 6450 | 6760 | 7170 | 7360 | |
| *(N)* | *(15610)* | *(17300)* | *(18100)* | *(19390)* | *(19830)* | *(22370)* | *(22900)* | *(24500)* | *(25790)* | *(28680)* | *(30060)* | *(31890)* | *(32730)* | |
| **Input Power HP** | **20.8** | **20.8** | **20.8** | **20.8** | **20.8** | **16.4** | **17.4** | **17.4** | **15.6** | **16.1** | **16.1** | **13.7** | **11.8** | |
| ***(kW)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(12.2)*** | ***(13.0)*** | ***(13.0)*** | ***(11.6)*** | ***(12.0)*** | ***(12.0)*** | ***(10.2)*** | ***(8.82)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 20350 | 23185 | 25305 | 25925 | 33625 | 36810 | 36810 | 36810 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2300)* | *(2620)* | *(2860)* | *(2930)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | |
| Hollow Shaft OHL lbs | 7305 | 7550 | 7665 | 7800 | 7910 | 8585 | 8495 | 8610 | 8990 | 9055 | 9125 | 9755 | 10340 | |
| *(N)* | *(32500)* | *(33600)* | *(34100)* | *(34700)* | *(35200)* | *(38200)* | *(37800)* | *(38300)* | *(40000)* | *(40300)* | *(40600)* | *(43400)* | *(46000)* | **4C140** |
| Solid Shaft OHL lbs | 4620 | 5090 | 5350 | 5780 | 6180 | 6710 | 6880 | 7390 | 7790 | 8750 | 9250 | 9930 | 10560 | |
| *(N)* | *(20540)* | *(22640)* | *(23790)* | *(25700)* | *(27480)* | *(29840)* | *(30600)* | *(32870)* | *(34640)* | *(38920)* | *(41140)* | *(44160)* | *(46970)* | |
| **Input Power HP** | **20.8** | **20.8** | **20.8** | **20.8** | **20.8** | **16.4** | **18.0** | **18.0** | **15.6** | **16.2** | **16.2** | **15.3** | **13.1** | |
| ***(kW)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(15.5)*** | ***(12.2)*** | ***(13.4)*** | ***(13.4)*** | ***(11.6)*** | ***(12.1)*** | ***(12.1)*** | ***(11.4)*** | ***(9.78)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 20350 | 23980 | 26190 | 25925 | 33715 | 36900 | 41150 | 40795 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2300)* | *(2710)* | *(2960)* | *(2930)* | *(3810)* | *(4170)* | *(4650)* | *(4610)* | |
| Hollow Shaft OHL lbs | 7305 | 7550 | 7665 | 7800 | 7910 | 8585 | 8430 | 8520 | 8990 | 9055 | 9100 | 9350 | 9955 | |
| *(N)* | *(32500)* | *(33600)* | *(34100)* | *(34700)* | *(35200)* | *(38200)* | *(37500)* | *(37900)* | *(40000)* | *(40300)* | *(40500)* | *(41600)* | *(44300)* | **4C145** |
| Solid Shaft OHL lbs | 4620 | 5090 | 5350 | 5780 | 6180 | 6710 | 6880 | 7390 | 7790 | 8750 | 9250 | 9930 | 10560 | |
| *(N)* | *(20540)* | *(22640)* | *(23790)* | *(25700)* | *(27480)* | *(29840)* | *(30600)* | *(32870)* | *(34640)* | *(38920)* | *(41140)* | *(44160)* | *(46970)* | |
| **Input Power HP** | **33.9** | **33.9** | **33.9** | **33.9** | **33.9** | **31.9** | **27.2** | **27.2** | **26.4** | **21.9** | **20.0** | **16.9** | **14.6** | |
| ***(kW)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(23.8)*** | ***(20.3)*** | ***(20.3)*** | ***(19.7)*** | ***(16.3)*** | ***(14.9)*** | ***(12.6)*** | ***(10.9)*** | |
| Output Torque in•lbs | 21150 | 25750 | 28140 | 32210 | 35220 | 39820 | 36190 | 39555 | 43890 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(2390)* | *(2910)* | *(3180)* | *(3640)* | *(3980)* | *(4500)* | *(4090)* | *(4470)* | *(4960)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6540 | 6605 | 6630 | 6605 | 6605 | 6740 | 7260 | 7260 | 7305 | 7935 | 8295 | 8945 | 9415 | |
| *(N)* | *(29100)* | *(29400)* | *(29500)* | *(29400)* | *(29400)* | *(30000)* | *(32300)* | *(32300)* | *(32500)* | *(35300)* | *(36900)* | *(39800)* | *(41900)* | **4C160** |
| Solid Shaft OHL lbs | 4620 | 5090 | 5350 | 5780 | 6180 | 6710 | 6880 | 7390 | 7790 | 8750 | 9250 | 9930 | 10560 | |
| *(N)* | *(20540)* | *(22640)* | *(23790)* | *(25700)* | *(27480)* | *(29840)* | *(30600)* | *(32870)* | *(34640)* | *(38920)* | *(41140)* | *(44160)* | *(46970)* | |
| **Input Power HP** | **40.2** | **40.2** | **40.2** | **40.2** | **40.2** | **31.9** | **32.3** | **31.4** | **27.4** | **21.9** | **20.0** | **16.9** | **14.6** | |
| ***(kW)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(23.8)*** | ***(24.1)*** | ***(23.4)*** | ***(20.4)*** | ***(16.3)*** | ***(14.9)*** | ***(12.6)*** | ***(10.9)*** | |
| Output Torque in•lbs | 25040 | 30530 | 33360 | 38140 | 41770 | 39820 | 42920 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(2830)* | *(3450)* | *(3770)* | *(4310)* | *(4720)* | *(4500)* | *(4850)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6155 | 6135 | 6135 | 6045 | 6000 | 6740 | 6630 | 6695 | 7145 | 7935 | 8295 | 8945 | 9415 | |
| *(N)* | *(27400)* | *(27300)* | *(27300)* | *(26900)* | *(26700)* | *(30000)* | *(29500)* | *(29800)* | *(31800)* | *(35300)* | *(36900)* | *(39800)* | *(41900)* | **4C165** |
| Solid Shaft OHL lbs | 4620 | 5090 | 5350 | 5780 | 6180 | 6710 | 6880 | 7390 | 7790 | 8750 | 9250 | 9930 | 10560 | |
| *(N)* | *(20540)* | *(22640)* | *(23790)* | *(25700)* | *(27480)* | *(29840)* | *(30600)* | *(32870)* | *(34640)* | *(38920)* | *(41140)* | *(44160)* | *(46970)* | |



Speed Reducers



Frame Size Selection Tables 980 RPM



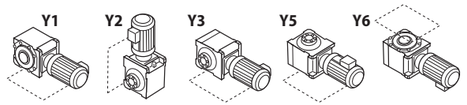

Single Reduction
Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 16.3 | 14.6 | 13.2 | 12.3 | 11.1 | 9.61 | 8.75 | 7.97 | 6.49 | 5.47 | 4.73 | 3.94 | 3.21 | 2.35 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **6.45** | **5.71** | **5.22** | **4.80** | **4.39** | **3.78** | **3.42** | **3.14** | **2.55** | **2.15** | **1.86** | **1.54** | **1.26** | **—** | |
| ***(kW)*** | ***(4.81)*** | ***(4.26)*** | ***(3.89)*** | ***(3.58)*** | ***(3.27)*** | ***(2.82)*** | ***(2.55)*** | ***(2.34)*** | ***(1.90)*** | ***(1.60)*** | ***(1.39)*** | ***(1.15)*** | ***(0.939)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | **4B160** |
| Solid Shaft OHL lbs | 7430 | 7480 | 7520 | 7560 | 7590 | 7590 | 7500 | 7420 | 7270 | 7160 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33040)* | *(33270)* | *(33440)* | *(33620)* | *(33760)* | *(33760)* | *(33360)* | *(33000)* | *(32330)* | *(31840)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **6.45** | **5.71** | **5.22** | **4.80** | **4.39** | **3.78** | **3.42** | **3.14** | **2.55** | **2.15** | **1.86** | **1.54** | **1.26** | **—** | |
| ***(kW)*** | ***(4.81)*** | ***(4.26)*** | ***(3.89)*** | ***(3.58)*** | ***(3.27)*** | ***(2.82)*** | ***(2.55)*** | ***(2.34)*** | ***(1.90)*** | ***(1.60)*** | ***(1.39)*** | ***(1.15)*** | ***(0.939)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | **4B165** |
| Solid Shaft OHL lbs | 7430 | 7480 | 7520 | 7560 | 7590 | 7590 | 7500 | 7420 | 7270 | 7160 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33040)* | *(33270)* | *(33440)* | *(33620)* | *(33760)* | *(33760)* | *(33360)* | *(33000)* | *(32330)* | *(31840)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **10.43** | **8.45** | **8.45** | **7.09** | **7.09** | **6.12** | **5.07** | **5.07** | **4.13** | **3.47** | **3.00** | **2.49** | **2.04** | **—** | |
| ***(kW)*** | ***(7.78)*** | ***(6.30)*** | ***(6.30)*** | ***(5.29)*** | ***(5.29)*** | ***(4.56)*** | ***(3.78)*** | ***(3.78)*** | ***(3.08)*** | ***(2.59)*** | ***(2.24)*** | ***(1.86)*** | ***(1.52)*** | **—** | |
| Output Torque in•lbs | 36810 | 33625 | 36810 | 33625 | 36810 | 36810 | 33625 | 36810 | 36810 | 36810 | 36810 | 36810 | 36810 | — | |
| *(N•m)* | *(4160)* | *(3800)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | — | |
| Hollow Shaft OHL lbs | 10880 | 11690 | 11825 | 12475 | 12160 | 12160 | 12900 | 12160 | 12160 | 12160 | 12160 | 12160 | 12160 | — | |
| *(N)* | *(48400)* | *(52000)* | *(52600)* | *(55500)* | *(54100)* | *(54100)* | *(57400)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | — | **4C140** |
| Solid Shaft OHL lbs | 11140 | 11600 | 11970 | 12230 | 12530 | 12810 | 12760 | 12720 | 12630 | 12570 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(49550)* | *(51590)* | *(53240)* | *(54390)* | *(55730)* | *(56970)* | *(56750)* | *(56570)* | *(56170)* | *(55910)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **11.7** | **9.23** | **9.23** | **7.94** | **7.94** | **6.84** | **5.67** | **5.67** | **4.61** | **3.67** | **3.16** | **2.60** | **2.08** | **—** | |
| ***(kW)*** | ***(8.70)*** | ***(6.88)*** | ***(6.88)*** | ***(5.92)*** | ***(5.92)*** | ***(5.10)*** | ***(4.23)*** | ***(4.23)*** | ***(3.44)*** | ***(2.74)*** | ***(2.36)*** | ***(1.94)*** | ***(1.55)*** | **—** | |
| Output Torque in•lbs | 41150 | 36810 | 40265 | 37610 | 41150 | 41150 | 37610 | 41150 | 41150 | 38935 | 38760 | 38405 | 37520 | — | |
| *(N•m)* | *(4650)* | *(4160)* | *(4550)* | *(4250)* | *(4650)* | *(4650)* | *(4250)* | *(4650)* | *(4650)* | *(4400)* | *(4380)* | *(4340)* | *(4240)* | — | |
| Hollow Shaft OHL lbs | 10475 | 11395 | 11240 | 11955 | 10945 | 10945 | 11955 | 10945 | 10945 | 11620 | 11665 | 11755 | 11980 | — | |
| *(N)* | *(46600)* | *(50700)* | *(50000)* | *(53200)* | *(48700)* | *(48700)* | *(53200)* | *(48700)* | *(48700)* | *(51700)* | *(51900)* | *(52300)* | *(53300)* | — | **4C145** |
| Solid Shaft OHL lbs | 11140 | 11600 | 11970 | 12230 | 12530 | 12810 | 12760 | 12720 | 12630 | 12570 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(49550)* | *(51590)* | *(53240)* | *(54390)* | *(55730)* | *(56970)* | *(56750)* | *(56570)* | *(56170)* | *(55910)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **12.9** | **11.4** | **10.4** | **9.59** | **8.77** | **7.56** | **6.85** | **6.26** | **5.10** | **4.29** | **3.71** | **3.08** | **2.52** | **—** | |
| ***(kW)*** | ***(9.61)*** | ***(8.51)*** | ***(7.78)*** | ***(7.15)*** | ***(6.54)*** | ***(5.64)*** | ***(5.11)*** | ***(4.67)*** | ***(3.80)*** | ***(3.20)*** | ***(2.77)*** | ***(2.30)*** | ***(1.88)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | **4C160** |
| Solid Shaft OHL lbs | 11140 | 11600 | 11970 | 12230 | 12530 | 12810 | 12760 | 12720 | 12630 | 12570 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(49550)* | *(51590)* | *(53240)* | *(54390)* | *(55730)* | *(56970)* | *(56750)* | *(56570)* | *(56170)* | *(55910)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **12.9** | **11.4** | **10.4** | **9.59** | **8.77** | **7.56** | **6.85** | **6.26** | **5.10** | **4.29** | **3.71** | **3.08** | **2.52** | **—** | |
| ***(kW)*** | ***(9.61)*** | ***(8.51)*** | ***(7.78)*** | ***(7.15)*** | ***(6.54)*** | ***(5.64)*** | ***(5.11)*** | ***(4.67)*** | ***(3.80)*** | ***(3.20)*** | ***(2.77)*** | ***(2.30)*** | ***(1.88)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | **4C165** |
| Solid Shaft OHL lbs | 11140 | 11600 | 11970 | 12230 | 12530 | 12810 | 12760 | 12720 | 12630 | 12570 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(49550)* | *(51590)* | *(53240)* | *(54390)* | *(55730)* | *(56970)* | *(56750)* | *(56570)* | *(56170)* | *(55910)* | *(55820)* | *(55820)* | *(55820)* | — | |

# Frame Size Selection Tables 980 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



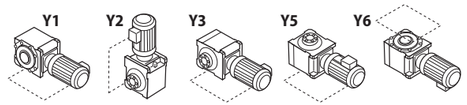

Dimensions on pages 2.156 - 2.166

| Output RPM | 89.1 | 75.4 | 70.0 | 61.3 | 54.4 | 46.7 | 44.5 | 39.2 | 35.0 | 28.0 | 25.1 | 21.3 | 18.5 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **55.7** | **52.2** | **48.9** | **45.1** | **42.2** | **32.6** | **32.6** | **31.4** | **27.4** | **21.9** | **20.0** | **16.9** | **14.6** | |
| ***(kW)*** | ***(41.5)*** | ***(38.9)*** | ***(36.5)*** | ***(33.6)*** | ***(31.5)*** | ***(24.3)*** | ***(24.3)*** | ***(23.4)*** | ***(20.4)*** | ***(16.3)*** | ***(14.9)*** | ***(12.6)*** | ***(10.9)*** | |
| Output Torque in•lbs | 34695 | 39650 | 40625 | 42750 | 43810 | 40615 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3920)* | *(4480)* | *(4590)* | *(4830)* | *(4950)* | *(4590)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 5260 | 5305 | 5460 | 5460 | 5800 | 6675 | 6605 | 6695 | 7145 | 7935 | 8295 | 8945 | 9415 | |
| *(N)* | *(23400)* | *(23600)* | *(24300)* | *(25100)* | *(25800)* | *(29700)* | *(29400)* | *(29800)* | *(31800)* | *(35300)* | *(36900)* | *(39800)* | *(41900)* | |
| Solid Shaft OHL lbs | 6710 | 6710 | 6710 | 6710 | 6710 | 6710 | 6880 | 7390 | 7790 | 8750 | 9250 | 9930 | 10560 | 4C170 |
| *(N)* | *(29840)* | *(29840)* | *(29840)* | *(29840)* | *(29840)* | *(29840)* | *(30600)* | *(32870)* | *(34640)* | *(38920)* | *(41140)* | *(44160)* | *(46970)* | |
| **Input Power HP** | **56.5** | **52.2** | **48.9** | **45.1** | **42.2** | **32.6** | **32.6** | **31.4** | **27.4** | **21.9** | **20.0** | **16.9** | **14.6** | |
| ***(kW)*** | ***(42.1)*** | ***(38.9)*** | ***(36.5)*** | ***(33.6)*** | ***(31.5)*** | ***(24.3)*** | ***(24.3)*** | ***(23.4)*** | ***(20.4)*** | ***(16.3)*** | ***(14.9)*** | ***(12.6)*** | ***(10.9)*** | |
| Output Torque in•lbs | 35135 | 39650 | 40625 | 42750 | 43810 | 40615 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3970)* | *(4480)* | *(4590)* | *(4830)* | *(4950)* | *(4590)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 5215 | 5305 | 5460 | 5640 | 5800 | 6675 | 6605 | 6695 | 7145 | 7935 | 8295 | 8945 | 9415 | |
| *(N)* | *(23200)* | *(23600)* | *(24300)* | *(25100)* | *(25800)* | *(29700)* | *(29400)* | *(29800)* | *(31800)* | *(35300)* | *(36900)* | *(39800)* | *(41900)* | |
| Solid Shaft OHL lbs | 6710 | 6710 | 6710 | 6710 | 6710 | 6710 | 6880 | 7390 | 7790 | 8750 | 9250 | 9930 | 10560 | 4C175 |
| *(N)* | *(29840)* | *(29840)* | *(29840)* | *(29840)* | *(29840)* | *(29840)* | *(30600)* | *(32870)* | *(34640)* | *(38920)* | *(41140)* | *(44160)* | *(46970)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **31.9** | **27.2** | **27.2** | **26.4** | **23.1** | **23.1** | **19.6** | **16.9** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(23.8)*** | ***(20.3)*** | ***(20.3)*** | ***(19.7)*** | ***(17.2)*** | ***(17.2)*** | ***(14.6)*** | ***(12.6)*** | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 36190 | 39555 | 43890 | 48230 | 52740 | 52740 | 52740 | |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(4090)* | *(4470)* | *(4960)* | *(5450)* | *(5960)* | *(5960)* | *(5960)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 11955 | 12540 | 12700 | 13015 | 13800 | 13960 | 14880 | 15735 | |
| *(N)* | — | — | — | — | — | *(53200)* | *(55800)* | *(56500)* | *(57900)* | *(61400)* | *(62100)* | *(66200)* | *(70000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 9580 | 9820 | 10550 | 11130 | 12530 | 13260 | 14230 | 14890 | 4D160 |
| *(N)* | — | — | — | — | — | *(42610)* | *(43670)* | *(46920)* | *(49500)* | *(55730)* | *(58980)* | *(63290)* | *(66230)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **31.9** | **32.3** | **32.3** | **30.2** | **27.6** | **27.6** | **23.3** | **20.2** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(23.8)*** | ***(24.1)*** | ***(24.1)*** | ***(22.5)*** | ***(20.6)*** | ***(20.6)*** | ***(17.4)*** | ***(15.1)*** | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 42920 | 46990 | 50175 | 57695 | 63095 | 63095 | 63095 | |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(4850)* | *(5310)* | *(5670)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 11955 | 12000 | 12115 | 12495 | 13035 | 13125 | 14050 | 14880 | |
| *(N)* | — | — | — | — | — | *(53200)* | *(53400)* | *(53900)* | *(55600)* | *(58000)* | *(58400)* | *(62500)* | *(66200)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 9580 | 9820 | 10550 | 11130 | 12530 | 13260 | 14230 | 14890 | 4D165 |
| *(N)* | — | — | — | — | — | *(42610)* | *(43670)* | *(46920)* | *(49500)* | *(55730)* | *(58980)* | *(63290)* | *(66230)* | |
| **Input Power HP** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **44.8** | **45.5** | **45.5** | **45.5** | **33.3** | **33.3** | **28.2** | **24.4** | |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(33.4)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(24.8)*** | ***(24.8)*** | ***(21.0)*** | ***(18.2)*** | |
| Output Torque in•lbs | 34690 | 42210 | 46190 | 52830 | 57785 | 55840 | 60350 | 66015 | 75485 | 69555 | 76015 | 75925 | 76015 | |
| *(N•m)* | *(3920)* | *(4770)* | *(5220)* | *(5970)* | *(6530)* | *(6310)* | *(6820)* | *(7460)* | *(8530)* | *(7860)* | *(8590)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 9530 | 9665 | 9710 | 9730 | 9712 | 10675 | 10585 | 10585 | 10475 | 12070 | 11825 | 11865 | 11825 | |
| *(N)* | *(42400)* | *(43000)* | *(43200)* | *(43300)* | *(43200)* | *(47500)* | *(47100)* | *(47100)* | *(46600)* | *(53700)* | *(52600)* | *(52800)* | *(52600)* | |
| Solid Shaft OHL lbs | 6520 | 7250 | 7620 | 8230 | 8820 | 9580 | 9820 | 10550 | 11130 | 12530 | 13260 | 14230 | 14890 | 4D170 |
| *(N)* | *(29000)* | *(32240)* | *(33890)* | *(36600)* | *(39230)* | *(42610)* | *(43670)* | *(46920)* | *(49500)* | *(55730)* | *(58980)* | *(63290)* | *(66230)* | |
| **Input Power HP** | **56.5** | **56.5** | **56.5** | **56.5** | **56.5** | **44.8** | **49.6** | **49.6** | **46.4** | **37.0** | **33.8** | **28.6** | **24.8** | |
| ***(kW)*** | ***(42.1)*** | ***(42.1)*** | ***(42.1)*** | ***(42.1)*** | ***(42.1)*** | ***(33.4)*** | ***(37.0)*** | ***(37.0)*** | ***(34.6)*** | ***(27.6)*** | ***(25.2)*** | ***(21.3)*** | ***(18.5)*** | |
| Output Torque in•lbs | 35130 | 42830 | 46900 | 53540 | 58580 | 55840 | 65925 | 72035 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(3970)* | *(4840)* | *(5300)* | *(6050)* | *(6620)* | *(6310)* | *(7450)* | *(8140)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9485 | 9620 | 9665 | 9665 | 9640 | 10675 | 10135 | 10090 | 10340 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(42200)* | *(42800)* | *(43000)* | *(43000)* | *(42900)* | *(47500)* | *(45100)* | *(44900)* | *(46000)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 6520 | 7250 | 7620 | 8230 | 8820 | 9580 | 9820 | 10550 | 11130 | 12530 | 13260 | 14230 | 14890 | 4D175 |
| *(N)* | *(29000)* | *(32240)* | *(33890)* | *(36600)* | *(39230)* | *(42610)* | *(43670)* | *(46920)* | *(49500)* | *(55730)* | *(58980)* | *(63290)* | *(66230)* | |



Frame Size Selection Tables 980 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

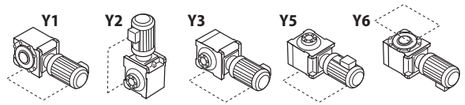



Dimensions on pages 2.156 - 2.166

| Output RPM | 16.3 | 14.6 | 13.2 | 12.3 | 11.14 | 9.61 | 8.75 | 7.97 | 6.49 | 5.47 | 4.73 | 3.94 | 3.21 | 2.35 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **12.9** | **11.4** | **10.4** | **9.59** | **8.77** | **7.56** | **6.85** | **6.26** | **5.10** | **4.29** | **3.71** | **3.08** | **2.52** | **—** | |
| ***(kW)*** | ***(9.61)*** | ***(8.51)*** | ***(7.78)*** | ***(7.15)*** | ***(6.54)*** | ***(5.64)*** | ***(5.11)*** | ***(4.67)*** | ***(3.80)*** | ***(3.20)*** | ***(2.77)*** | ***(2.30)*** | ***(1.88)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 11140 | 11600 | 11970 | 12230 | 12530 | 12810 | 12760 | 12720 | 12630 | 12570 | 12550 | 12550 | 12550 | — | 4C170 |
| *(N)* | *(49550)* | *(51590)* | *(53240)* | *(54390)* | *(55730)* | *(56970)* | *(56750)* | *(56570)* | *(56170)* | *(55910)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **12.9** | **11.4** | **10.4** | **9.59** | **8.77** | **7.56** | **6.85** | **6.26** | **5.10** | **4.29** | **3.71** | **3.08** | **2.52** | **—** | |
| ***(kW)*** | ***(9.61)*** | ***(8.51)*** | ***(7.78)*** | ***(7.15)*** | ***(6.54)*** | ***(5.64)*** | ***(5.11)*** | ***(4.67)*** | ***(3.80)*** | ***(3.20)*** | ***(2.77)*** | ***(2.30)*** | ***(1.88)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 11140 | 11600 | 11970 | 12230 | 12530 | 12810 | 12760 | 12720 | 12630 | 12570 | 12550 | 12550 | 12550 | — | 4C175 |
| *(N)* | *(49550)* | *(51590)* | *(53240)* | *(54390)* | *(55730)* | *(56970)* | *(56750)* | *(56570)* | *(56170)* | *(55910)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **15.0** | **12.1** | **12.1** | **10.2** | **10.2** | **8.77** | **7.27** | **7.27** | **5.85** | **4.99** | **4.30** | **3.58** | **2.92** | **—** | |
| ***(kW)*** | ***(11.2)*** | ***(9.03)*** | ***(9.03)*** | ***(7.58)*** | ***(7.58)*** | ***(6.54)*** | ***(5.42)*** | ***(5.42)*** | ***(4.36)*** | ***(3.72)*** | ***(3.21)*** | ***(2.67)*** | ***(2.18)*** | **—** | |
| Output Torque in•lbs | 52740 | 48230 | 52740 | 48230 | 52740 | 52740 | 48230 | 52740 | 52120 | 52740 | 52740 | 52740 | 52740 | — | |
| *(N•m)* | *(5960)* | *(5450)* | *(5960)* | *(5450)* | *(5960)* | *(5960)* | *(5450)* | *(5960)* | *(5890)* | *(5960)* | *(5960)* | *(5960)* | *(5960)* | — | |
| Hollow Shaft OHL lbs | 16500 | 17600 | 17845 | 18680 | 17915 | 17915 | 18680 | 17915 | 18025 | 17915 | 17915 | 17915 | 17915 | — | |
| *(N)* | *(73400)* | *(78300)* | *(79400)* | *(83100)* | *(79700)* | *(79700)* | *(83100)* | *(79700)* | *(80200)* | *(79700)* | *(79700)* | *(79700)* | *(79700)* | — | |
| Solid Shaft OHL lbs | 15350 | 15710 | 16000 | 16220 | 16450 | 16690 | 16670 | 16650 | 16610 | 16590 | 16580 | 16580 | 16580 | — | 4D160 |
| *(N)* | *(68270)* | *(69870)* | *(71160)* | *(72140)* | *(73160)* | *(74230)* | *(74140)* | *(74050)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **17.8** | **14.5** | **14.5** | **12.2** | **12.2** | **10.5** | **8.69** | **8.69** | **7.08** | **5.97** | **5.15** | **4.28** | **3.42** | **—** | |
| ***(kW)*** | ***(13.3)*** | ***(10.8)*** | ***(10.8)*** | ***(9.07)*** | ***(9.07)*** | ***(7.82)*** | ***(6.48)*** | ***(6.48)*** | ***(5.28)*** | ***(4.45)*** | ***(3.84)*** | ***(3.19)*** | ***(2.55)*** | **—** | |
| Output Torque in•lbs | 63095 | 57695 | 63095 | 57695 | 63095 | 63095 | 57695 | 63095 | 63095 | 63095 | 63095 | 63095 | 61680 | — | |
| *(N•m)* | *(7130)* | *(6520)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(6970)* | — | |
| Hollow Shaft OHL lbs | 15645 | 16835 | 15755 | 16970 | 15755 | 15755 | 16970 | 15755 | 15755 | 15755 | 15755 | 15755 | 16115 | — | |
| *(N)* | *(69600)* | *(74900)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(71700)* | — | |
| Solid Shaft OHL lbs | 15350 | 15710 | 16000 | 16220 | 16450 | 16690 | 16670 | 16650 | 16610 | 16590 | 16580 | 16580 | 16580 | — | 4D165 |
| *(N)* | *(68270)* | *(69870)* | *(71160)* | *(72140)* | *(73160)* | *(74230)* | *(74140)* | *(74050)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **21.6** | **17.4** | **17.4** | **14.6** | **14.6** | **12.6** | **10.5** | **10.5** | **8.53** | **7.19** | **6.21** | **5.16** | **4.21** | **—** | |
| ***(kW)*** | ***(16.1)*** | ***(13.0)*** | ***(13.0)*** | ***(10.9)*** | ***(10.9)*** | ***(9.42)*** | ***(7.81)*** | ***(7.81)*** | ***(6.36)*** | ***(5.36)*** | ***(4.63)*** | ***(3.85)*** | ***(3.14)*** | **—** | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 11825 | 14050 | 11825 | 14050 | 11825 | 11825 | 14050 | 11825 | 11825 | 11825 | 11825 | 11825 | 11825 | — | |
| *(N)* | *(52600)* | *(62500)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | — | |
| Solid Shaft OHL lbs | 15350 | 15710 | 16000 | 16220 | 16450 | 16690 | 16670 | 16650 | 16610 | 16590 | 16580 | 16580 | 16580 | — | 4D170 |
| *(N)* | *(68270)* | *(69870)* | *(71160)* | *(72140)* | *(73160)* | *(74230)* | *(74140)* | *(74050)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **21.9** | **19.3** | **17.7** | **16.2** | **14.9** | **12.8** | **11.6** | **10.6** | **8.65** | **7.30** | **6.30** | **5.24** | **4.28** | **—** | |
| ***(kW)*** | ***(16.3)*** | ***(14.4)*** | ***(13.2)*** | ***(12.1)*** | ***(11.1)*** | ***(9.56)*** | ***(8.67)*** | ***(7.92)*** | ***(6.45)*** | ***(5.44)*** | ***(4.70)*** | ***(3.91)*** | ***(3.19)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 15350 | 15710 | 16000 | 16220 | 16450 | 16690 | 16670 | 16650 | 16610 | 16590 | 16580 | 16580 | 16580 | — | 4D175 |
| *(N)* | *(68270)* | *(69870)* | *(71160)* | *(72140)* | *(73160)* | *(74230)* | *(74140)* | *(74050)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | — | |

# Frame Size Selection Tables 980 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

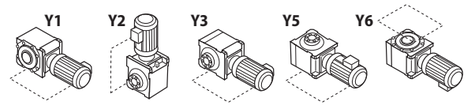
| Output RPM | 89.1 | 75.4 | 70.0 | 61.3 | 54.4 | 46.7 | 44.5 | 39.2 | 35.0 | 28.0 | 25.1 | 21.3 | 18.5 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **67.2** | **55.7** | **50.2** | **50.2** | **44.7** | **37.0** | **33.8** | **28.6** | **24.8** | 4D180 |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(50.1)*** | ***(41.5)*** | ***(37.4)*** | ***(37.4)*** | ***(33.3)*** | ***(27.6)*** | ***(25.2)*** | ***(21.3)*** | ***(18.5)*** | |
| Output Torque in•lbs | 44600 | 54335 | 59475 | 67970 | 69740 | 69300 | 66645 | 72840 | 74165 | 77175 | 77175 | 77165 | 77165 | |
| *(N•m)* | *(5040)* | *(6140)* | *(6270)* | *(7680)* | *(7880)* | *(7830)* | *(7530)* | *(8230)* | *(8380)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 8745 | 8700 | 8655 | 8520 | 8745 | 9595 | 10090 | 10025 | 10585 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(38900)* | *(38700)* | *(38500)* | *(37900)* | *(38900)* | *(42700)* | *(44900)* | *(44600)* | *(47100)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 6520 | 7250 | 7620 | 8230 | 8820 | 9580 | 9820 | 10550 | 11130 | 12530 | 13260 | 14230 | 14890 | |
| *(N)* | *(29000)* | *(32240)* | *(33890)* | *(36600)* | *(39230)* | *(42610)* | *(43670)* | *(46920)* | *(49500)* | *(55730)* | *(58980)* | *(63290)* | *(66230)* | |
| **Input Power HP** | **75.0** | **75.0** | **75.0** | **73.1** | **67.2** | **57.1** | **51.0** | **51.0** | **45.3** | **37.0** | **33.8** | **28.6** | **24.8** | 4D185 |
| ***(kW)*** | ***(55.9)*** | ***(55.9)*** | ***(55.9)*** | ***(54.5)*** | ***(50.1)*** | ***(42.6)*** | ***(38.0)*** | ***(38.0)*** | ***(33.8)*** | ***(27.6)*** | ***(25.2)*** | ***(21.3)*** | ***(18.5)*** | |
| Output Torque in•lbs | 46635 | 56910 | 62220 | 69390 | 69740 | 71160 | 67705 | 73990 | 75230 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(5270)* | *(6430)* | *(7030)* | *(7840)* | *(7880)* | *(8040)* | *(7650)* | *(8360)* | *(8500)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 8565 | 8494 | 8430 | 8408 | 8745 | 9442 | 10026 | 9937 | 10499 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(38100)* | *(37800)* | *(37500)* | *(37400)* | *(38900)* | *(42000)* | *(44600)* | *(44200)* | *(46700)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 6520 | 7250 | 7620 | 8230 | 8820 | 9580 | 9820 | 10550 | 11130 | 12530 | 13260 | 14230 | 14890 | |
| *(N)* | *(29000)* | *(32240)* | *(33890)* | *(36600)* | *(39230)* | *(42610)* | *(43670)* | *(46920)* | *(49500)* | *(55730)* | *(58980)* | *(63290)* | *(66230)* | |
| **Input Power HP** | **55.7** | **55.7** | **55.7** | **55.7** | **55.7** | **44.8** | **45.5** | **45.5** | **45.5** | **33.3** | **33.3** | **28.2** | **24.4** | 4E170 |
| ***(kW)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(41.5)*** | ***(33.4)*** | ***(33.9)*** | ***(33.9)*** | ***(33.9)*** | ***(24.8)*** | ***(24.8)*** | ***(21.0)*** | ***(18.2)*** | |
| Output Torque in•lbs | 34690 | 42210 | 46190 | 52830 | 57785 | 55840 | 60350 | 66015 | 75485 | 69555 | 76015 | 75925 | 76015 | |
| *(N•m)* | *(3920)* | *(4770)* | *(5220)* | *(5970)* | *(6530)* | *(6310)* | *(6820)* | *(7460)* | *(8530)* | *(7860)* | *(8590)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 13285 | 13690 | 13845 | 14070 | 14205 | 15375 | 15395 | 15555 | 15690 | 17600 | 17780 | 18995 | 19940 | |
| *(N)* | *(59100)* | *(60900)* | *(61600)* | *(62600)* | *(63200)* | *(68400)* | *(68500)* | *(69200)* | *(69800)* | *(78300)* | *(79100)* | *(84500)* | *(88700)* | |
| Solid Shaft OHL lbs | 9830 | 10760 | 11230 | 12000 | 12770 | 13770 | 14080 | 15010 | 15750 | 17570 | 18520 | 19780 | 20420 | |
| *(N)* | *(43720)* | *(47860)* | *(49950)* | *(53370)* | *(56800)* | *(61240)* | *(62620)* | *(66760)* | *(70050)* | *(78150)* | *(82370)* | *(87980)* | *(90820)* | |
| **Input Power HP** | **56.5** | **56.5** | **56.5** | **56.5** | **56.5** | **44.8** | **49.6** | **49.6** | **47.1** | **40.4** | **38.1** | **32.2** | **27.9** | 4E175 |
| ***(kW)*** | ***(42.1)*** | ***(42.1)*** | ***(42.1)*** | ***(42.1)*** | ***(42.1)*** | ***(33.4)*** | ***(37.0)*** | ***(37.0)*** | ***(35.1)*** | ***(30.1)*** | ***(28.4)*** | ***(24.0)*** | ***(20.8)*** | |
| Output Torque in•lbs | 35130 | 42830 | 46900 | 53540 | 58580 | 55840 | 65925 | 72035 | 78230 | 84245 | 86990 | 86990 | 86990 | |
| *(N•m)* | *(3970)* | *(4840)* | *(5300)* | *(6050)* | *(6620)* | *(6310)* | *(7450)* | *(8140)* | *(8840)* | *(9520)* | *(9830)* | *(9830)* | *(9830)* | |
| Hollow Shaft OHL lbs | 13240 | 13645 | 13800 | 14025 | 14140 | 15375 | 14990 | 15105 | 15485 | 16500 | 16970 | 18185 | 19240 | |
| *(N)* | *(58900)* | *(60700)* | *(61400)* | *(62400)* | *(62900)* | *(68400)* | *(66700)* | *(67200)* | *(68900)* | *(73400)* | *(75500)* | *(80900)* | *(85600)* | |
| Solid Shaft OHL lbs | 9830 | 10760 | 11230 | 12000 | 12770 | 13770 | 14080 | 15010 | 15750 | 17570 | 18520 | 19780 | 20420 | |
| *(N)* | *(43720)* | *(47860)* | *(49950)* | *(53370)* | *(56800)* | *(61240)* | *(62620)* | *(66760)* | *(70050)* | *(78150)* | *(82370)* | *(87980)* | *(90820)* | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **50.2** | **50.2** | **44.7** | **49.2** | **44.9** | **38.1** | **33.0** | 4E180 |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(37.4)*** | ***(37.4)*** | ***(33.3)*** | ***(36.7)*** | ***(33.5)*** | ***(28.4)*** | ***(24.6)*** | |
| Output Torque in•lbs | 44600 | 54335 | 59465 | 67960 | 74335 | 69290 | 66635 | 72830 | 74155 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5040)* | *(6140)* | *(6720)* | *(7680)* | *(8400)* | *(7830)* | *(7530)* | *(8230)* | *(8380)* | *(11600)* | *(11600)* | *(11600)* | *(9830)* | |
| Hollow Shaft OHL lbs | 12540 | 12790 | 12880 | 12970 | 12990 | 14385 | 14950 | 15040 | 15800 | 15195 | 15825 | 17015 | 18095 | |
| *(N)* | *(55800)* | *(56900)* | *(57300)* | *(57700)* | *(57800)* | *(64000)* | *(66500)* | *(66900)* | *(70300)* | *(67600)* | *(70400)* | *(75700)* | *(80500)* | |
| Solid Shaft OHL lbs | 9830 | 10760 | 11230 | 12000 | 12770 | 13770 | 14080 | 15010 | 15750 | 17570 | 18520 | 19780 | 20420 | |
| *(N)* | *(43720)* | *(47860)* | *(49950)* | *(53370)* | *(56800)* | *(61240)* | *(62620)* | *(66760)* | *(70050)* | *(78150)* | *(82370)* | *(87980)* | *(90820)* | |
| **Input Power HP** | **75.0** | **75.0** | **75.0** | **75.0** | **75.0** | **57.4** | **51.0** | **51.0** | **45.3** | **49.2** | **44.9** | **38.1** | **33.0** | 4E185 |
| ***(kW)*** | ***(55.9)*** | ***(55.9)*** | ***(55.9)*** | ***(55.9)*** | ***(55.9)*** | ***(42.8)*** | ***(38.0)*** | ***(38.0)*** | ***(33.8)*** | ***(36.7)*** | ***(33.5)*** | ***(28.4)*** | ***(24.6)*** | |
| Output Torque in•lbs | 46635 | 56900 | 62210 | 71150 | 77785 | 71500 | 67695 | 73980 | 75220 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5270)* | *(6430)* | *(7030)* | *(8040)* | *(8790)* | *(8080)* | *(7650)* | *(8360)* | *(8500)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 12385 | 12610 | 12675 | 12720 | 12720 | 14230 | 14880 | 14970 | 15710 | 15195 | 15825 | 17015 | 18095 | |
| *(N)* | *(55100)* | *(56100)* | *(56400)* | *(56600)* | *(56600)* | *(63300)* | *(66200)* | *(66600)* | *(69900)* | *(67600)* | *(70400)* | *(75700)* | *(80500)* | |
| Solid Shaft OHL lbs | 9830 | 10760 | 11230 | 12000 | 12770 | 13770 | 14080 | 15010 | 15750 | 17570 | 18520 | 19780 | 20420 | |
| *(N)* | *(43720)* | *(47860)* | *(49950)* | *(53370)* | *(56800)* | *(61240)* | *(62620)* | *(66760)* | *(70050)* | *(78150)* | *(82370)* | *(87980)* | *(90820)* | |





Speed Reducers

Frame Size Selection Tables 980 RPM




## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 16.3 | 14.6 | 13.2 | 12.3 | 11.1 | 9.61 | 8.75 | 7.97 | 6.49 | 5.47 | 4.73 | 3.94 | 3.21 | 2.35 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **21.9** | **19.3** | **17.7** | **16.2** | **14.9** | **12.8** | **11.6** | **10.6** | **8.65** | **7.30** | **6.30** | **5.24** | **4.28** | **—** | 4D180 |
| ***(kW)*** | ***(16.3)*** | ***(14.4)*** | ***(13.2)*** | ***(12.1)*** | ***(11.1)*** | ***(9.56)*** | ***(8.67)*** | ***(7.92)*** | ***(6.45)*** | ***(5.44)*** | ***(4.70)*** | ***(3.91)*** | ***(3.19)*** | ***—*** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 15350 | 15710 | 16000 | 16220 | 16450 | 16690 | 16670 | 16650 | 16610 | 16590 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(68270)* | *(69870)* | *(71160)* | *(72140)* | *(73160)* | *(74230)* | *(74140)* | *(74050)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **21.9** | **19.3** | **17.7** | **16.2** | **14.9** | **12.8** | **11.6** | **10.6** | **8.65** | **7.30** | **6.30** | **5.24** | **4.28** | **—** | 4D185 |
| ***(kW)*** | ***(16.3)*** | ***(14.4)*** | ***(13.2)*** | ***(12.1)*** | ***(11.1)*** | ***(9.56)*** | ***(8.67)*** | ***(7.92)*** | ***(6.45)*** | ***(5.44)*** | ***(4.70)*** | ***(3.91)*** | ***(3.19)*** | ***—*** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 15350 | 15710 | 16000 | 16220 | 16450 | 16690 | 16670 | 16650 | 16610 | 16590 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(68270)* | *(69870)* | *(71160)* | *(72140)* | *(73160)* | *(74230)* | *(74140)* | *(74050)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **21.6** | **17.4** | **17.4** | **14.6** | **14.6** | **12.6** | **10.5** | **10.5** | **8.53** | **7.19** | **6.21** | **5.16** | **4.21** | **—** | 4E170 |
| ***(kW)*** | ***(16.1)*** | ***(13.0)*** | ***(13.0)*** | ***(10.9)*** | ***(10.9)*** | ***(9.42)*** | ***(7.81)*** | ***(7.81)*** | ***(6.36)*** | ***(5.36)*** | ***(4.63)*** | ***(3.85)*** | ***(3.14)*** | ***—*** | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 19940 | 20275 | 19940 | 20275 | 19940 | 19940 | 20275 | 19940 | 19940 | 19940 | 19940 | 19940 | 19940 | — | |
| *(N)* | *(88700)* | *(90200)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | — | |
| Solid Shaft OHL lbs | 20720 | 20960 | 21150 | 21290 | 21450 | 21630 | 21680 | 21730 | 21820 | 21890 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(92160)* | *(93230)* | *(94070)* | *(94690)* | *(95400)* | *(96210)* | *(96430)* | *(96650)* | *(97050)* | *(97360)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **24.7** | **21.7** | **20.0** | **18.2** | **16.8** | **14.5** | **13.0** | **13.0** | **10.6** | **8.94** | **7.74** | **6.42** | **5.24** | **—** | 4E175 |
| ***(kW)*** | ***(18.4)*** | ***(16.2)*** | ***(14.9)*** | ***(13.6)*** | ***(12.5)*** | ***(10.8)*** | ***(9.72)*** | ***(9.72)*** | ***(7.91)*** | ***(6.67)*** | ***(5.77)*** | ***(4.79)*** | ***(3.91)*** | ***—*** | |
| Output Torque in•lbs | 86990 | 86545 | 86990 | 86545 | 86990 | 86990 | 86545 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | — | |
| *(N•m)* | *(9830)* | *(9780)* | *(9830)* | *(9780)* | *(9830)* | *(9830)* | *(9780)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | — | |
| Hollow Shaft OHL lbs | 19400 | 19420 | 19400 | 19420 | 19400 | 19400 | 19420 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | — | |
| *(N)* | *(86300)* | *(86400)* | *(86300)* | *(86400)* | *(86300)* | *(86300)* | *(86400)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | — | |
| Solid Shaft OHL lbs | 20720 | 20960 | 21150 | 21290 | 21450 | 21630 | 21680 | 21730 | 21820 | 21890 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(92160)* | *(93230)* | *(94070)* | *(94690)* | *(95400)* | *(96210)* | *(96430)* | *(96650)* | *(97050)* | *(97360)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **29.1** | **25.7** | **23.6** | **21.6** | **19.8** | **17.0** | **15.4** | **14.1** | **11.5** | **9.70** | **8.38** | **6.97** | **5.69** | **—** | 4E180 |
| ***(kW)*** | ***(21.7)*** | ***(19.2)*** | ***(17.6)*** | ***(16.1)*** | ***(14.8)*** | ***(12.7)*** | ***(11.5)*** | ***(10.5)*** | ***(8.58)*** | ***(7.23)*** | ***(6.25)*** | ***(5.20)*** | ***(4.24)*** | ***—*** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20720 | 20960 | 21150 | 21290 | 21450 | 21630 | 21680 | 21730 | 21820 | 21890 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(92160)* | *(93230)* | *(94070)* | *(94690)* | *(95400)* | *(96210)* | *(96430)* | *(96650)* | *(97050)* | *(97360)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **29.1** | **25.7** | **23.6** | **21.6** | **19.8** | **17.0** | **15.4** | **14.1** | **11.5** | **9.70** | **8.38** | **6.97** | **5.69** | **—** | 4E185 |
| ***(kW)*** | ***(21.7)*** | ***(19.2)*** | ***(17.6)*** | ***(16.1)*** | ***(14.8)*** | ***(12.7)*** | ***(11.5)*** | ***(10.5)*** | ***(8.58)*** | ***(7.23)*** | ***(6.25)*** | ***(5.20)*** | ***(4.24)*** | ***—*** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20720 | 20960 | 21150 | 21290 | 21450 | 21630 | 21680 | 21730 | 21820 | 21890 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(92160)* | *(93230)* | *(94070)* | *(94690)* | *(95400)* | *(96210)* | *(96430)* | *(96650)* | *(97050)* | *(97360)* | *(97500)* | *(97500)* | *(97500)* | — | |

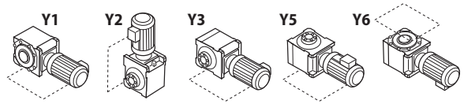




Sumitomo Drive Technologies Cyclo® BBB4

# Frame Size Selection Tables 980 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



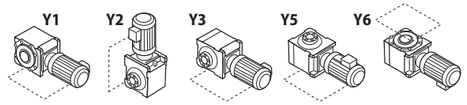

Dimensions on pages 2.156 - 2.166

| Output RPM | 89.1 | 75.4 | 70.0 | 61.3 | 54.4 | 46.7 | 44.5 | 39.2 | 35.0 | 28.0 | 25.1 | 21.3 | 18.5 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **91.7** | **91.7** | **91.7** | **91.7** | **89.0** | **67.9** | **62.4** | **62.4** | **55.4** | **49.2** | **44.9** | **38.1** | **33.0** | |
| ***(kW)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(66.4)*** | ***(50.6)*** | ***(46.5)*** | ***(46.5)*** | ***(41.3)*** | ***(36.7)*** | ***(33.5)*** | ***(28.4)*** | ***(24.6)*** | |
| Output Torque in•lbs | 57075 | 69645 | 76115 | 87000 | 92045 | 84525 | 82840 | 90275 | 92045 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(6450)* | *(7870)* | *(8600)* | *(9830)* | *(10400)* | *(9550)* | *(9360)* | *(10200)* | *(10400)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | **4E190** |
| Hollow Shaft OHL lbs | 11620 | 11665 | 11665 | 11555 | 11655 | 13285 | 13780 | 13755 | 14475 | 15195 | 15825 | 17015 | 18095 | |
| *(N)* | *(51700)* | *(51900)* | *(51900)* | *(51400)* | *(51900)* | *(59100)* | *(61300)* | *(61200)* | *(64400)* | *(67600)* | *(70400)* | *(75700)* | *(80500)* | |
| Solid Shaft OHL lbs | 9830 | 10760 | 11230 | 12000 | 12770 | 13770 | 14080 | 15010 | 15750 | 17570 | 18520 | 19780 | 20420 | |
| *(N)* | *(43720)* | *(47860)* | *(49950)* | *(53370)* | *(56800)* | *(61240)* | *(62620)* | *(66760)* | *(70050)* | *(78150)* | *(82370)* | *(87980)* | *(90820)* | |
| **Input Power HP** | **100.6** | **100.6** | **100.4** | **96.7** | **89.0** | **72.0** | **63.6** | **63.6** | **56.5** | **49.2** | **44.9** | **38.1** | **33.0** | |
| ***(kW)*** | ***(75.0)*** | ***(75.0)*** | ***(74.9)*** | ***(72.1)*** | ***(66.4)*** | ***(53.7)*** | ***(47.4)*** | ***(47.4)*** | ***(42.1)*** | ***(36.7)*** | ***(33.5)*** | ***(28.4)*** | ***(24.6)*** | |
| Output Torque in•lbs | 62655 | 76380 | 83460 | 92045 | 92045 | 89390 | 84435 | 92045 | 93815 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(7080)* | *(8630)* | *(9430)* | *(10400)* | *(10400)* | *(10100)* | *(9540)* | *(10400)* | *(10600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | **4E195** |
| Hollow Shaft OHL lbs | 11215 | 11170 | 11125 | 11215 | 11665 | 12900 | 13665 | 13620 | 14365 | 15195 | 15825 | 17015 | 18095 | |
| *(N)* | *(49900)* | *(49700)* | *(49500)* | *(49900)* | *(51900)* | *(57400)* | *(60800)* | *(60600)* | *(63900)* | *(67600)* | *(70400)* | *(75700)* | *(80500)* | |
| Solid Shaft OHL lbs | 9830 | 10760 | 11230 | 12000 | 12770 | 13770 | 14080 | 15010 | 15750 | 17570 | 18520 | 19780 | 20420 | |
| *(N)* | *(43720)* | *(47860)* | *(49950)* | *(53370)* | *(56800)* | *(61240)* | *(62620)* | *(66760)* | *(70050)* | *(78150)* | *(82370)* | *(87980)* | *(90820)* | |
| **Input Power HP** | **71.6** | **71.6** | **71.6** | **71.6** | **71.6** | **55.7** | **50.2** | **50.2** | **44.7** | **53.5** | **53.5** | **45.2** | **39.2** | |
| ***(kW)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(53.4)*** | ***(41.5)*** | ***(37.4)*** | ***(37.4)*** | ***(33.3)*** | ***(39.9)*** | ***(39.9)*** | ***(33.7)*** | ***(29.2)*** | |
| Output Torque in•lbs | 44600 | 54335 | 59465 | 67960 | 74335 | 69290 | 66635 | 72830 | 74155 | 111500 | 122120 | 122120 | 122120 | |
| *(N•m)* | *(5040)* | *(6140)* | *(6720)* | *(7680)* | *(8400)* | *(7830)* | *(7530)* | *(8230)* | *(8380)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | **4F180** |
| Hollow Shaft OHL lbs | 23155 | 24050 | 24725 | 25175 | 25625 | 27650 | 28325 | 29000 | 29000 | 27425 | 26975 | 26975 | 26975 | |
| *(N)* | *(103000)* | *(107000)* | *(110000)* | *(112000)* | *(114000)* | *(123000)* | *(126000)* | *(129000)* | *(129000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | |
| Solid Shaft OHL lbs | 17610 | 19150 | 19930 | 21220 | 22480 | 24100 | 24620 | 26240 | 27510 | 28910 | 28930 | 28960 | 28970 | |
| *(N)* | *(78320)* | *(85170)* | *(88640)* | *(94380)* | *(99990)* | *(107190)* | *(109500)* | *(116710)* | *(122360)* | *(128590)* | *(128680)* | *(128810)* | *(128850)* | |
| **Input Power HP** | **75.0** | **75.0** | **75.0** | **75.0** | **75.0** | **57.4** | **51.0** | **51.0** | **45.3** | **59.4** | **59.4** | **53.2** | **40.0** | |
| ***(kW)*** | ***(55.9)*** | ***(55.9)*** | ***(55.9)*** | ***(55.9)*** | ***(55.9)*** | ***(42.8)*** | ***(38.0)*** | ***(38.0)*** | ***(33.8)*** | ***(44.3)*** | ***(44.3)*** | ***(39.7)*** | ***(29.8)*** | |
| Output Torque in•lbs | 46635 | 56900 | 62210 | 71150 | 77785 | 71500 | 67695 | 73980 | 75220 | 123890 | 135395 | 143360 | 124775 | |
| *(N•m)* | *(5270)* | *(6430)* | *(7030)* | *(8040)* | *(8790)* | *(8080)* | *(7650)* | *(8360)* | *(8500)* | *(14000)* | *(15300)* | *(16200)* | *(14100)* | **4F185** |
| Hollow Shaft OHL lbs | 23155 | 24050 | 24500 | 24950 | 25400 | 27425 | 28325 | 28775 | 29000 | 26750 | 26300 | 25850 | 26750 | |
| *(N)* | *(103000)* | *(107000)* | *(109000)* | *(111000)* | *(113000)* | *(122000)* | *(126000)* | *(128000)* | *(129000)* | *(119000)* | *(117000)* | *(115000)* | *(119000)* | |
| Solid Shaft OHL lbs | 17610 | 19150 | 19930 | 21220 | 22480 | 24100 | 24620 | 26240 | 27510 | 28910 | 28930 | 28960 | 28970 | |
| *(N)* | *(78320)* | *(85170)* | *(88640)* | *(94380)* | *(99990)* | *(107190)* | *(109500)* | *(116710)* | *(122360)* | *(128590)* | *(128680)* | *(128810)* | *(128850)* | |
| **Input Power HP** | **91.7** | **91.7** | **91.7** | **91.7** | **91.7** | **67.9** | **62.4** | **62.4** | **55.4** | **67.9** | **67.9** | **59.0** | **51.2** | |
| ***(kW)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(68.4)*** | ***(50.6)*** | ***(46.5)*** | ***(46.5)*** | ***(41.3)*** | ***(50.6)*** | ***(50.6)*** | ***(44.0)*** | ***(38.2)*** | |
| Output Torque in•lbs | 57075 | 69645 | 76105 | 86990 | 95575 | 84510 | 82830 | 90265 | 92035 | 141590 | 154885 | 159290 | 159290 | |
| *(N•m)* | *(6450)* | *(7870)* | *(8600)* | *(9830)* | *(10800)* | *(9550)* | *(9360)* | *(10200)* | *(10400)* | *(16000)* | *(17500)* | *(18000)* | *(18000)* | **4F190** |
| Hollow Shaft OHL lbs | 22410 | 23155 | 23605 | 23825 | 24275 | 26750 | 27425 | 27875 | 28100 | 26075 | 25400 | 25175 | 25175 | |
| *(N)* | *(99700)* | *(103000)* | *(105000)* | *(106000)* | *(108000)* | *(119000)* | *(122000)* | *(124000)* | *(125000)* | *(116000)* | *(113000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 17610 | 19150 | 19930 | 21220 | 22480 | 24100 | 24620 | 26240 | 27510 | 28910 | 28930 | 28960 | 28970 | |
| *(N)* | *(78320)* | *(85170)* | *(88640)* | *(94380)* | *(99990)* | *(107190)* | *(109500)* | *(116710)* | *(122360)* | *(128590)* | *(128680)* | *(128810)* | *(128850)* | |
| **Input Power HP** | **101** | **101** | **101** | **101** | **101** | **72.0** | **63.6** | **63.6** | **56.5** | **73.8** | **69.7** | **59.0** | **51.2** | |
| ***(kW)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(75.0)*** | ***(53.7)*** | ***(47.4)*** | ***(47.4)*** | ***(42.1)*** | ***(55.0)*** | ***(52.0)*** | ***(44.0)*** | ***(38.2)*** | |
| Output Torque in•lbs | 62655 | 76370 | 83450 | 95575 | 104425 | 89380 | 84425 | 92035 | 93805 | 153980 | 159290 | 159290 | 159290 | |
| *(N•m)* | *(7080)* | *(8630)* | *(9430)* | *(10800)* | *(11800)* | *(10100)* | *(9540)* | *(10400)* | *(10600)* | *(17400)* | *(18000)* | *(18000)* | *(18000)* | **4F195** |
| Hollow Shaft OHL lbs | 22050 | 22705 | 22930 | 23380 | 23605 | 26300 | 27200 | 27650 | 28100 | 25400 | 25175 | 25175 | 25175 | |
| *(N)* | *(98100)* | *(101000)* | *(102000)* | *(104000)* | *(105000)* | *(117000)* | *(121000)* | *(123000)* | *(125000)* | *(113000)* | *(112000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 17610 | 19150 | 19930 | 21220 | 22480 | 24100 | 24620 | 26240 | 27510 | 28910 | 28930 | 28960 | 28970 | |
| *(N)* | *(78320)* | *(85170)* | *(88640)* | *(94380)* | *(99990)* | *(107190)* | *(109500)* | *(116710)* | *(122360)* | *(128590)* | *(128680)* | *(128810)* | *(128850)* | |



Frame Size Selection Tables 980 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

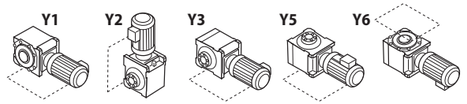



Dimensions on pages 2.156 - 2.166

| Output RPM | 16.3 | 14.6 | 13.2 | 12.3 | 11.1 | 9.61 | 8.75 | 7.97 | 6.49 | 5.47 | 4.73 | 3.94 | 3.21 | 2.35 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **29.1** | **25.7** | **23.6** | **21.6** | **19.8** | **17.0** | **15.4** | **14.1** | **11.5** | **9.70** | **8.38** | **6.97** | **5.69** | **—** | |
| ***(kW)*** | ***(21.7)*** | ***(19.2)*** | ***(17.6)*** | ***(16.1)*** | ***(14.8)*** | ***(12.7)*** | ***(11.5)*** | ***(10.5)*** | ***(8.58)*** | ***(7.23)*** | ***(6.25)*** | ***(5.20)*** | ***(4.24)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | **4E190** |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20720 | 20960 | 21150 | 21290 | 21450 | 21630 | 21680 | 21730 | 21820 | 21890 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(92160)* | *(93230)* | *(94070)* | *(94690)* | *(95400)* | *(96210)* | *(96430)* | *(96650)* | *(97050)* | *(97360)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **29.1** | **25.7** | **23.6** | **21.6** | **19.8** | **17.0** | **15.4** | **14.1** | **11.5** | **9.70** | **8.38** | **6.97** | **5.69** | **—** | |
| ***(kW)*** | ***(21.7)*** | ***(19.2)*** | ***(17.6)*** | ***(16.1)*** | ***(14.8)*** | ***(12.7)*** | ***(11.5)*** | ***(10.5)*** | ***(8.58)*** | ***(7.23)*** | ***(6.25)*** | ***(5.20)*** | ***(4.24)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | **4E195** |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20720 | 20960 | 21150 | 21290 | 21450 | 21630 | 21680 | 21730 | 21820 | 21890 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(92160)* | *(93230)* | *(94070)* | *(94690)* | *(95400)* | *(96210)* | *(96430)* | *(96650)* | *(97050)* | *(97360)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **34.6** | **27.9** | **27.9** | **23.5** | **23.5** | **20.2** | **16.8** | **16.8** | **13.7** | **11.5** | **9.95** | **8.26** | **6.76** | **—** | |
| ***(kW)*** | ***(25.8)*** | ***(20.8)*** | ***(20.8)*** | ***(17.5)*** | ***(17.5)*** | ***(15.1)*** | ***(12.5)*** | ***(12.5)*** | ***(10.2)*** | ***(8.58)*** | ***(7.42)*** | ***(6.16)*** | ***(5.04)*** | **—** | |
| Output Torque in•lbs | 122120 | 111500 | 121235 | 111500 | 122120 | 122120 | 111500 | 122120 | 122120 | 122120 | 122120 | 122120 | 122120 | — | |
| *(N•m)* | *(13800)* | *(12600)* | *(13700)* | *(12600)* | *(13800)* | *(13800)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | — | **4F180** |
| Hollow Shaft OHL lbs | 26975 | 27425 | 26975 | 27425 | 26975 | 26975 | 27425 | 26975 | 26975 | 26975 | 26975 | 26975 | 26975 | — | |
| *(N)* | *(120000)* | *(122000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 29010 | 29110 | 29190 | 29360 | 29470 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129030)* | *(129480)* | *(129830)* | *(130590)* | *(131080)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **38.0** | **34.5** | **34.5** | **29.0** | **29.0** | **24.9** | **20.7** | **20.7** | **16.9** | **14.2** | **12.3** | **9.21** | **8.33** | **—** | |
| ***(kW)*** | ***(28.3)*** | ***(25.7)*** | ***(25.7)*** | ***(21.6)*** | ***(21.6)*** | ***(18.6)*** | ***(15.4)*** | ***(15.4)*** | ***(12.6)*** | ***(10.6)*** | ***(9.15)*** | ***(6.87)*** | ***(6.21)*** | **—** | |
| Output Torque in•lbs | 133625 | 137165 | 150440 | 137165 | 150440 | 150440 | 137165 | 149555 | 150440 | 150440 | 150440 | 135395 | 150440 | — | |
| *(N•m)* | *(15100)* | *(15500)* | *(17000)* | *(15500)* | *(17000)* | *(17000)* | *(15500)* | *(16900)* | *(17000)* | *(17000)* | *(17000)* | *(15300)* | *(17000)* | — | **4F185** |
| Hollow Shaft OHL lbs | 26300 | 26300 | 25625 | 26300 | 25625 | 25625 | 26300 | 25625 | 25625 | 25625 | 25625 | 26300 | 25625 | — | |
| *(N)* | *(117000)* | *(117000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 29010 | 29110 | 29190 | 29360 | 29470 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129030)* | *(129480)* | *(129830)* | *(130590)* | *(131080)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **45.2** | **40.0** | **36.6** | **33.5** | **30.7** | **26.4** | **24.0** | **22.0** | **17.8** | **15.0** | **13.0** | **10.8** | **8.82** | **—** | |
| ***(kW)*** | ***(33.7)*** | ***(29.8)*** | ***(27.3)*** | ***(25.0)*** | ***(22.9)*** | ***(19.7)*** | ***(17.9)*** | ***(16.4)*** | ***(13.3)*** | ***(11.2)*** | ***(9.70)*** | ***(8.06)*** | ***(6.58)*** | **—** | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | **4F190** |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 29010 | 29110 | 29190 | 29360 | 29470 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129030)* | *(129480)* | *(129830)* | *(130590)* | *(131080)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **45.2** | **40.0** | **36.6** | **33.5** | **30.7** | **26.4** | **24.0** | **22.0** | **17.8** | **15.0** | **13.0** | **10.8** | **8.82** | **—** | |
| ***(kW)*** | ***(33.7)*** | ***(29.8)*** | ***(27.3)*** | ***(25.0)*** | ***(22.9)*** | ***(19.7)*** | ***(17.9)*** | ***(16.4)*** | ***(13.3)*** | ***(11.2)*** | ***(9.70)*** | ***(8.06)*** | ***(6.58)*** | **—** | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | **4F195** |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 29010 | 29110 | 29190 | 29360 | 29470 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129030)* | *(129480)* | *(129830)* | *(130590)* | *(131080)* | *(131340)* | *(131340)* | *(131340)* | — | |

# Frame Size Selection Tables 870 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

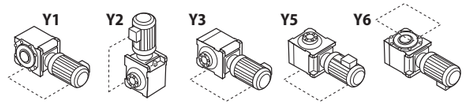



Dimensions on pages 2.156 - 2.166

| Output RPM | 79.1 | 66.9 | 62.1 | 54.4 | 48.3 | 41.4 | 39.5 | 34.8 | 31.1 | 24.9 | 22.3 | 18.9 | 16.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | — | — | **3.15** | **2.92** | **2.92** | **2.47** | **2.15** | |
| ***(kW)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | — | — | ***(2.35)*** | ***(2.18)*** | ***(2.18)*** | ***(1.84)*** | ***(1.60)*** | |
| Output Torque in•lbs | 2210 | 2690 | 2945 | 3370 | 3680 | 4415 | — | — | 5890 | 6865 | 7510 | 7510 | 7510 | |
| *(N•m)* | *(250)* | *(304)* | *(333)* | *(381)* | *(416)* | *(499)* | — | — | *(666)* | *(776)* | *(849)* | *(849)* | *(849)* | **4A100** |
| Hollow Shaft OHL lbs | 4470 | 4695 | 4810 | 4945 | 5055 | 5260 | — | — | 5505 | 5260 | 5055 | 5055 | 5055 | |
| *(N)* | *(19900)* | *(20900)* | *(21400)* | *(22000)* | *(22500)* | *(23400)* | — | — | *(24500)* | *(23400)* | *(22500)* | *(22500)* | *(22500)* | |
| Solid Shaft OHL lbs | 3560 | 3860 | 3990 | 4210 | 4400 | 4530 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(15830)* | *(17160)* | *(17740)* | *(18720)* | *(19570)* | *(20140)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **3.66** | **3.66** | **3.66** | **3.66** | **3.66** | **3.66** | **—** | **—** | **3.41** | **3.50** | **3.50** | **2.96** | **2.57** | |
| ***(kW)*** | ***(2.73)*** | ***(2.73)*** | ***(2.73)*** | ***(2.73)*** | ***(2.73)*** | ***(2.73)*** | **—** | **—** | ***(2.54)*** | ***(2.61)*** | ***(2.61)*** | ***(2.21)*** | ***(1.92)*** | |
| Output Torque in•lbs | 2565 | 3120 | 3415 | 3910 | 4270 | 5130 | — | — | 6370 | 8230 | 9025 | 9025 | 9025 | |
| *(N•m)* | *(290)* | *(353)* | *(386)* | *(442)* | *(483)* | *(580)* | — | — | *(720)* | *(930)* | *(1020)* | *(1020)* | *(1020)* | **4A105** |
| Hollow Shaft OHL lbs | 4425 | 4630 | 4740 | 4875 | 4965 | 5170 | — | — | 5395 | 4810 | 4515 | 4515 | 4515 | |
| *(N)* | *(19700)* | *(20600)* | *(21100)* | *(21700)* | *(22100)* | *(23000)* | — | — | *(24000)* | *(21400)* | *(20100)* | *(20100)* | *(20100)* | |
| Solid Shaft OHL lbs | 3560 | 3860 | 3990 | 4210 | 4400 | 4530 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(15830)* | *(17160)* | *(17740)* | *(18720)* | *(19570)* | *(20140)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **4.14** | **—** | **—** | **4.76** | **4.21** | **4.21** | **3.57** | **3.08** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(3.09)*** | **—** | **—** | ***(3.55)*** | ***(3.14)*** | ***(3.14)*** | ***(2.66)*** | ***(2.30)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5810 | — | — | 8935 | 9910 | 10795 | 10795 | 10795 | |
| *(N•m)* | — | — | — | — | — | *(657)* | — | — | *(1010)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | **4A110** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5080 | — | — | 4560 | 4090 | 3550 | 3550 | 3550 | |
| *(N)* | — | — | — | — | — | *(22600)* | — | — | *(20300)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4530 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(20140)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **4.14** | **—** | **—** | **5.26** | **4.85** | **4.44** | **3.75** | **3.26** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(3.09)*** | **—** | **—** | ***(3.92)*** | ***(3.62)*** | ***(3.31)*** | ***(2.80)*** | ***(2.43)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5810 | — | — | 9820 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | — | — | — | — | — | *(657)* | — | — | *(1110)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | **4A115** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5080 | — | — | 4135 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | — | — | — | — | — | *(22600)* | — | — | *(18400)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4530 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(20140)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **11.8** | **11.0** | **11.0** | **10.4** | **9.76** | **7.83** | **7.28** | **6.97** | **6.10** | **4.85** | **4.44** | **3.75** | **3.26** | |
| ***(kW)*** | ***(8.79)*** | ***(8.21)*** | ***(8.21)*** | ***(7.78)*** | ***(7.28)*** | ***(5.84)*** | ***(5.43)*** | ***(5.20)*** | ***(4.55)*** | ***(3.62)*** | ***(3.31)*** | ***(2.80)*** | ***(2.43)*** | |
| Output Torque in•lbs | 8265 | 9380 | 10265 | 11150 | 11415 | 10970 | 10885 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(934)* | *(1060)* | *(1160)* | *(1260)* | *(1290)* | *(1240)* | *(1230)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | **4A120** |
| Hollow Shaft OHL lbs | 3640 | 3750 | 3795 | 3325 | 3120 | 3435 | 3505 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(16200)* | *(16700)* | *(16900)* | *(14800)* | *(13900)* | *(15300)* | *(15600)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3560 | 3860 | 3990 | 4210 | 4400 | 4530 | 4540 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(15830)* | *(17160)* | *(17740)* | *(18720)* | *(19570)* | *(20140)* | *(20190)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **11.8** | **11.0** | **11.0** | **10.4** | **9.76** | **7.83** | **7.28** | **6.97** | **6.10** | **4.85** | **4.44** | **3.75** | **3.26** | |
| ***(kW)*** | ***(8.79)*** | ***(8.21)*** | ***(8.21)*** | ***(7.78)*** | ***(7.28)*** | ***(5.84)*** | ***(5.43)*** | ***(5.20)*** | ***(4.55)*** | ***(3.62)*** | ***(3.31)*** | ***(2.80)*** | ***(2.43)*** | |
| Output Torque in•lbs | 8265 | 9380 | 10265 | 11150 | 11415 | 10970 | 10885 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(934)* | *(1060)* | *(1160)* | *(1260)* | *(1290)* | *(1240)* | *(1230)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | **4A125** |
| Hollow Shaft OHL lbs | 3640 | 3750 | 3795 | 3325 | 3120 | 3435 | 3505 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(16200)* | *(16700)* | *(16900)* | *(14800)* | *(13900)* | *(15300)* | *(15600)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3560 | 3860 | 3990 | 4210 | 4400 | 4530 | 4540 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(15830)* | *(17160)* | *(17740)* | *(18720)* | *(19570)* | *(20140)* | *(20190)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |



Frame Size Selection Tables 870 RPM



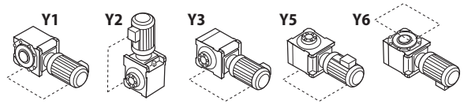

Single Reduction
Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 14.5 | 13.0 | 11.8 | 10.9 | 9.89 | 8.53 | 7.77 | 7.07 | 5.76 | 4.86 | 4.20 | 3.49 | 2.85 | 2.09 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **1.89** | **1.53** | **1.53** | **1.29** | **1.29** | **1.11** | **0.92** | **0.92** | **0.750** | **0.630** | **0.544** | **0.453** | **0.370** | **0.270** | |
| ***(kW)*** | ***(1.41)*** | ***(1.14)*** | ***(1.14)*** | ***(0.959)*** | ***(0.959)*** | ***(0.827)*** | ***(0.685)*** | ***(0.685)*** | ***(0.558)*** | ***(0.47)*** | ***(0.406)*** | ***(0.338)*** | ***(0.276)*** | ***(0.201)*** | |
| Output Torque in•lbs | 7510 | 6865 | 7510 | 6865 | 7510 | 7510 | 6865 | 7510 | 7510 | 7510 | 7510 | 7510 | 7510 | 7510 | |
| *(N•m)* | *(849)* | *(776)* | *(849)* | *(776)* | *(849)* | *(849)* | *(776)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | **4A100** |
| Hollow Shaft OHL lbs | 5055 | 5260 | 5055 | 5260 | 5055 | 5055 | 5260 | 5055 | 5055 | 5055 | 5055 | 5055 | 5055 | 5055 | |
| *(N)* | *(22500)* | *(23400)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **2.27** | **1.84** | **1.84** | **1.54** | **1.54** | **1.33** | **1.10** | **1.10** | **0.900** | **0.748** | **0.645** | **0.479** | **0.444** | **0.279** | |
| ***(kW)*** | ***(1.69)*** | ***(1.37)*** | ***(1.37)*** | ***(1.15)*** | ***(1.15)*** | ***(0.992)*** | ***(0.822)*** | ***(0.822)*** | ***(0.669)*** | ***(0.558)*** | ***(0.481)*** | ***(0.357)*** | ***(0.331)*** | ***(0.208)*** | |
| Output Torque in•lbs | 9025 | 8245 | 9025 | 8245 | 9025 | 9025 | 8245 | 9025 | 9025 | 8935 | 8935 | 7935 | 9025 | 7765 | |
| *(N•m)* | *(1020)* | *(932)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(1010)* | *(1010)* | *(897)* | *(1020)* | *(878)* | **4A105** |
| Hollow Shaft OHL lbs | 4515 | 4810 | 4515 | 4810 | 4515 | 4515 | 4810 | 4515 | 4515 | 4540 | 4560 | 4920 | 4515 | 4990 | |
| *(N)* | *(20100)* | *(21400)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(20200)* | *(20300)* | *(21900)* | *(20100)* | *(22200)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **2.72** | **2.20** | **2.20** | **1.85** | **1.85** | **1.60** | **1.32** | **1.32** | **1.08** | **0.910** | **0.780** | **0.652** | **0.532** | **—** | |
| ***(kW)*** | ***(2.03)*** | ***(1.64)*** | ***(1.64)*** | ***(1.38)*** | ***(1.38)*** | ***(1.19)*** | ***(0.986)*** | ***(0.986)*** | ***(0.803)*** | ***(0.677)*** | ***(0.585)*** | ***(0.486)*** | ***(0.397)*** | **—** | |
| Output Torque in•lbs | 10795 | 9910 | 10795 | 9910 | 10795 | 10795 | 9910 | 10795 | 10795 | 10795 | 10795 | 10795 | 10795 | — | |
| *(N•m)* | *(1220)* | *(1120)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | — | **4A110** |
| Hollow Shaft OHL lbs | 3550 | 4090 | 3550 | 4090 | 3550 | 3550 | 4090 | 3550 | 3550 | 3550 | 3550 | 3550 | 3550 | — | |
| *(N)* | *(15800)* | *(18200)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **2.87** | **2.55** | **2.32** | **2.13** | **1.96** | **1.69** | **1.53** | **1.39** | **1.14** | **0.960** | **0.830** | **0.690** | **0.562** | **—** | |
| ***(kW)*** | ***(2.14)*** | ***(1.90)*** | ***(1.73)*** | ***(1.59)*** | ***(1.46)*** | ***(1.26)*** | ***(1.14)*** | ***(1.04)*** | ***(0.847)*** | ***(0.714)*** | ***(0.617)*** | ***(0.513)*** | ***(0.419)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A115** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **2.87** | **2.55** | **2.32** | **2.13** | **1.96** | **1.69** | **1.53** | **1.39** | **1.14** | **0.960** | **0.830** | **0.690** | **0.562** | **—** | |
| ***(kW)*** | ***(2.14)*** | ***(1.90)*** | ***(1.73)*** | ***(1.59)*** | ***(1.46)*** | ***(1.26)*** | ***(1.14)*** | ***(1.04)*** | ***(0.847)*** | ***(0.714)*** | ***(0.617)*** | ***(0.513)*** | ***(0.419)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A120** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **2.87** | **2.55** | **2.32** | **2.13** | **1.96** | **1.69** | **1.53** | **1.39** | **1.14** | **0.960** | **0.830** | **0.690** | **0.562** | **—** | |
| ***(kW)*** | ***(2.14)*** | ***(1.90)*** | ***(1.73)*** | ***(1.59)*** | ***(1.46)*** | ***(1.26)*** | ***(1.14)*** | ***(1.04)*** | ***(0.847)*** | ***(0.714)*** | ***(0.617)*** | ***(0.513)*** | ***(0.419)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A125** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |

# Frame Size Selection Tables 870 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



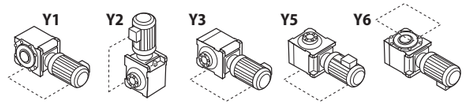

Dimensions on pages 2.156 - 2.166

| Output RPM | 79.1 | 66.9 | 62.1 | 54.4 | 48.3 | 41.4 | 39.5 | 34.8 | 31.1 | 24.9 | 22.3 | 18.9 | 16.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **16.2** | **13.4** | **12.2** | **10.7** | **9.76** | **8.14** | **7.63** | **6.97** | **6.10** | **4.85** | **4.44** | **3.75** | **3.26** | 4A140 |
| ***(kW)*** | ***(12.1)*** | ***(9.96)*** | ***(9.10)*** | ***(7.97)*** | ***(7.28)*** | ***(6.07)*** | ***(5.69)*** | ***(5.20)*** | ***(4.55)*** | ***(3.62)*** | ***(3.31)*** | ***(2.80)*** | ***(2.43)*** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3560 | 3860 | 3990 | 4210 | 4400 | 4530 | 4540 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(15830)* | *(17160)* | *(17740)* | *(18720)* | *(19570)* | *(20140)* | *(20190)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **16.2** | **13.4** | **12.2** | **10.7** | **9.76** | **8.14** | **7.63** | **6.97** | **6.10** | **4.85** | **4.44** | **3.75** | **3.26** | 4A145 |
| ***(kW)*** | ***(12.1)*** | ***(9.96)*** | ***(9.10)*** | ***(7.97)*** | ***(7.28)*** | ***(6.07)*** | ***(5.69)*** | ***(5.20)*** | ***(4.55)*** | ***(3.62)*** | ***(3.31)*** | ***(2.80)*** | ***(2.43)*** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3560 | 3860 | 3990 | 4210 | 4400 | 4530 | 4540 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(15830)* | *(17160)* | *(17740)* | *(18720)* | *(19570)* | *(20140)* | *(20190)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **11.8** | **11.0** | **11.0** | **10.4** | **10.4** | **7.83** | **7.28** | **7.28** | **7.31** | **6.14** | **6.14** | **5.19** | **4.51** | 4B120 |
| ***(kW)*** | ***(8.79)*** | ***(8.21)*** | ***(8.21)*** | ***(7.78)*** | ***(7.78)*** | ***(5.84)*** | ***(5.43)*** | ***(5.43)*** | ***(5.45)*** | ***(4.58)*** | ***(4.58)*** | ***(3.87)*** | ***(3.36)*** | |
| Output Torque in•lbs | 8265 | 9380 | 10265 | 11150 | 12210 | 10970 | 10885 | 11945 | 13715 | 14420 | 15750 | 15750 | 15750 | |
| *(N•m)* | *(934)* | *(1060)* | *(1160)* | *(1260)* | *(1380)* | *(1240)* | *(1230)* | *(1350)* | *(1550)* | *(1630)* | *(1780)* | *(1780)* | *(1780)* | |
| Hollow Shaft OHL lbs | 5550 | 5800 | 5910 | 6090 | 6180 | 6740 | 6900 | 7010 | 7170 | 7685 | 7800 | 8250 | 8250 | |
| *(N)* | *(24700)* | *(25800)* | *(26300)* | *(27100)* | *(27500)* | *(30000)* | *(30700)* | *(31200)* | *(31900)* | *(34200)* | *(34700)* | *(36700)* | *(36700)* | |
| Solid Shaft OHL lbs | 3780 | 4170 | 4330 | 4660 | 4940 | 5360 | 5490 | 5810 | 6140 | 6790 | 7070 | 7350 | 7430 | |
| *(N)* | *(16810)* | *(18540)* | *(19250)* | *(20720)* | *(21970)* | *(23840)* | *(24410)* | *(25840)* | *(27310)* | *(30200)* | *(31440)* | *(32690)* | *(33040)* | |
| **Input Power HP** | **11.8** | **11.0** | **11.0** | **10.4** | **10.4** | **7.83** | **7.28** | **7.28** | **7.31** | **6.34** | **6.34** | **5.73** | **5.40** | 4B125 |
| ***(kW)*** | ***(8.79)*** | ***(8.21)*** | ***(8.21)*** | ***(7.78)*** | ***(7.78)*** | ***(5.84)*** | ***(5.43)*** | ***(5.43)*** | ***(5.45)*** | ***(4.73)*** | ***(4.73)*** | ***(4.27)*** | ***(4.03)*** | |
| Output Torque in•lbs | 8265 | 9380 | 10265 | 11150 | 12210 | 10970 | 10885 | 11945 | 13715 | 14865 | 16280 | 17430 | 18935 | |
| *(N•m)* | *(934)* | *(1060)* | *(1160)* | *(1260)* | *(1380)* | *(1240)* | *(1230)* | *(1350)* | *(1550)* | *(1680)* | *(1840)* | *(1970)* | *(2140)* | |
| Hollow Shaft OHL lbs | 5550 | 5800 | 5910 | 6090 | 6180 | 6740 | 6900 | 7010 | 7170 | 7640 | 7755 | 7800 | 7325 | |
| *(N)* | *(24700)* | *(25800)* | *(26300)* | *(27100)* | *(27500)* | *(30000)* | *(30700)* | *(31200)* | *(31900)* | *(34000)* | *(34500)* | *(34700)* | *(32600)* | |
| Solid Shaft OHL lbs | 3780 | 4170 | 4330 | 4660 | 4940 | 5360 | 5490 | 5810 | 6140 | 6790 | 7070 | 7350 | 7430 | |
| *(N)* | *(16810)* | *(18540)* | *(19250)* | *(20720)* | *(21970)* | *(23840)* | *(24410)* | *(25840)* | *(27310)* | *(30200)* | *(31440)* | *(32690)* | *(33040)* | |
| **Input Power HP** | **18.5** | **18.5** | **18.5** | **18.5** | **18.5** | **15.0** | **15.2** | **13.9** | **12.2** | **9.67** | **8.85** | **7.48** | **6.49** | 4B140 |
| ***(kW)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(11.2)*** | ***(11.3)*** | ***(10.4)*** | ***(9.07)*** | ***(7.21)*** | ***(6.60)*** | ***(5.58)*** | ***(4.84)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 20970 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2370)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5035 | 5125 | 5145 | 5170 | 5170 | 5665 | 5620 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(22400)* | *(22800)* | *(22900)* | *(23000)* | *(23000)* | *(25200)* | *(25000)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3780 | 4170 | 4330 | 4660 | 4940 | 5360 | 5490 | 5810 | 6140 | 6790 | 7070 | 7350 | 7430 | |
| *(N)* | *(16810)* | *(18540)* | *(19250)* | *(20720)* | *(21970)* | *(23840)* | *(24410)* | *(25840)* | *(27310)* | *(30200)* | *(31440)* | *(32690)* | *(33040)* | |
| **Input Power HP** | **18.5** | **18.5** | **18.5** | **18.5** | **18.5** | **15.0** | **15.2** | **13.9** | **12.2** | **9.67** | **8.85** | **7.48** | **6.49** | 4B145 |
| ***(kW)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(11.2)*** | ***(11.3)*** | ***(10.4)*** | ***(9.07)*** | ***(7.21)*** | ***(6.60)*** | ***(5.58)*** | ***(4.84)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 20970 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2370)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5035 | 5125 | 5145 | 5170 | 5170 | 5665 | 5620 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(22400)* | *(22800)* | *(22900)* | *(23000)* | *(23000)* | *(25200)* | *(25000)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3780 | 4170 | 4330 | 4660 | 4940 | 5360 | 5490 | 5810 | 6140 | 6790 | 7070 | 7350 | 7430 | |
| *(N)* | *(16810)* | *(18540)* | *(19250)* | *(20720)* | *(21970)* | *(23840)* | *(24410)* | *(25840)* | *(27310)* | *(30200)* | *(31440)* | *(32690)* | *(33040)* | |





Frame Size Selection Tables 870 RPM



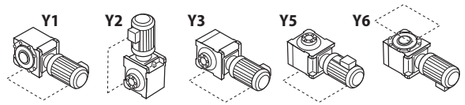

Single Reduction
Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 14.5 | 13.0 | 11.8 | 10.9 | 9.89 | 8.53 | 7.77 | 7.07 | 5.76 | 4.86 | 4.20 | 3.49 | 2.85 | 2.09 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **2.87** | **2.55** | **2.32** | **2.13** | **1.96** | **1.69** | **1.53** | **1.39** | **1.14** | **0.957** | **0.827** | **0.688** | **0.562** | **—** | 4A140 |
| ***(kW)*** | ***(2.14)*** | ***(1.90)*** | ***(1.73)*** | ***(1.59)*** | ***(1.46)*** | ***(1.26)*** | ***(1.14)*** | ***(1.04)*** | ***(0.847)*** | ***(0.714)*** | ***(0.617)*** | ***(0.513)*** | ***(0.419)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **2.87** | **2.55** | **2.32** | **2.13** | **1.96** | **1.69** | **1.53** | **1.39** | **1.14** | **0.957** | **0.827** | **0.688** | **0.562** | **—** | 4A145 |
| ***(kW)*** | ***(2.14)*** | ***(1.90)*** | ***(1.73)*** | ***(1.59)*** | ***(1.46)*** | ***(1.26)*** | ***(1.14)*** | ***(1.04)*** | ***(0.847)*** | ***(0.714)*** | ***(0.617)*** | ***(0.513)*** | ***(0.419)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4560 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **3.93** | **3.19** | **3.19** | **2.70** | **2.70** | **2.31** | **1.93** | **1.93** | **1.57** | **1.32** | **1.14** | **0.951** | **0.776** | **—** | 4B120 |
| ***(kW)*** | ***(2.93)*** | ***(2.38)*** | ***(2.38)*** | ***(2.01)*** | ***(2.01)*** | ***(1.72)*** | ***(1.44)*** | ***(1.44)*** | ***(1.17)*** | ***(0.987)*** | ***(0.853)*** | ***(0.709)*** | ***(0.579)*** | **—** | |
| Output Torque in•lbs | 15660 | 14335 | 15660 | 14420 | 15750 | 15660 | 14420 | 15750 | 15750 | 15750 | 15750 | 15750 | 15750 | — | |
| *(N•m)* | *(1770)* | *(1620)* | *(1770)* | *(1630)* | *(1780)* | *(1770)* | *(1630)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | — | |
| Hollow Shaft OHL lbs | 8295 | 8585 | 8270 | 8565 | 8250 | 8295 | 8565 | 8250 | 8250 | 8250 | 8250 | 8250 | 8250 | — | |
| *(N)* | *(36900)* | *(38200)* | *(36800)* | *(38100)* | *(36700)* | *(36900)* | *(38100)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | — | |
| Solid Shaft OHL lbs | 7490 | 7530 | 7576 | 7600 | 7610 | 7480 | 7400 | 7330 | 7190 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33310)* | *(33490)* | *(33690)* | *(33800)* | *(33840)* | *(33270)* | *(32910)* | *(32600)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **4.76** | **3.86** | **3.86** | **3.25** | **3.25** | **2.79** | **2.32** | **2.32** | **1.88** | **1.58** | **1.37** | **1.03** | **0.931** | **—** | 4B125 |
| ***(kW)*** | ***(3.55)*** | ***(2.88)*** | ***(2.88)*** | ***(2.42)*** | ***(2.42)*** | ***(2.08)*** | ***(1.73)*** | ***(1.73)*** | ***(1.40)*** | ***(1.18)*** | ***(1.02)*** | ***(0.770)*** | ***(0.694)*** | **—** | |
| Output Torque in•lbs | 18935 | 17345 | 18935 | 17345 | 18935 | 18935 | 17345 | 18935 | 18935 | 18935 | 18935 | 17165 | 18935 | — | |
| *(N•m)* | *(2140)* | *(1960)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(1940)* | *(2140)* | — | |
| Hollow Shaft OHL lbs | 7325 | 7845 | 7325 | 7845 | 7325 | 7325 | 7845 | 7325 | 7325 | 7325 | 7325 | 7890 | 7325 | — | |
| *(N)* | *(32600)* | *(34900)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(32600)* | *(32600)* | *(35100)* | *(32600)* | — | |
| Solid Shaft OHL lbs | 7490 | 7530 | 7576 | 7600 | 7610 | 7480 | 7400 | 7330 | 7190 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33310)* | *(33490)* | *(33690)* | *(33800)* | *(33840)* | *(33270)* | *(32910)* | *(32600)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **5.73** | **5.07** | **4.63** | **4.25** | **3.89** | **3.35** | **3.04** | **2.78** | **2.27** | **1.90** | **1.65** | **1.37** | **1.12** | **—** | 4B140 |
| ***(kW)*** | ***(4.27)*** | ***(3.78)*** | ***(3.45)*** | ***(3.17)*** | ***(2.90)*** | ***(2.50)*** | ***(2.27)*** | ***(2.07)*** | ***(1.69)*** | ***(1.42)*** | ***(1.23)*** | ***(1.02)*** | ***(0.834)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7490 | 7530 | 7576 | 7600 | 7610 | 7480 | 7400 | 7330 | 7190 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33310)* | *(33490)* | *(33690)* | *(33800)* | *(33840)* | *(33270)* | *(32910)* | *(32600)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **5.73** | **5.07** | **4.63** | **4.25** | **3.89** | **3.35** | **3.04** | **2.78** | **2.27** | **1.90** | **1.65** | **1.37** | **1.12** | **—** | 4B145 |
| ***(kW)*** | ***(4.27)*** | ***(3.78)*** | ***(3.45)*** | ***(3.17)*** | ***(2.90)*** | ***(2.50)*** | ***(2.27)*** | ***(2.07)*** | ***(1.69)*** | ***(1.42)*** | ***(1.23)*** | ***(1.02)*** | ***(0.834)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7490 | 7530 | 7576 | 7600 | 7610 | 7480 | 7400 | 7330 | 7190 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33310)* | *(33490)* | *(33690)* | *(33800)* | *(33840)* | *(33270)* | *(32910)* | *(32600)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |

# Frame Size Selection Tables 870 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



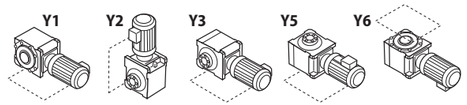

Dimensions on pages 2.156 - 2.166

| Output RPM | 79.1 | 66.9 | 62.1 | 54.4 | 48.3 | 41.4 | 39.5 | 34.8 | 31.1 | 24.9 | 22.3 | 18.9 | 16.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **23.3** | **23.3** | **23.3** | **21.3** | **19.4** | **16.2** | **15.2** | **13.9** | **12.2** | **9.67** | **8.85** | **7.48** | **6.49** | 4B160 |
| ***(kW)*** | ***(17.4)*** | ***(17.4)*** | ***(17.4)*** | ***(15.9)*** | ***(14.5)*** | ***(12.1)*** | ***(11.3)*** | ***(10.4)*** | ***(9.07)*** | ***(7.21)*** | ***(6.60)*** | ***(5.58)*** | ***(4.84)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4675 | 4650 | 4675 | 4830 | 5055 | 5460 | 5620 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(20800)* | *(20700)* | *(20800)* | *(21500)* | *(22500)* | *(24300)* | *(25000)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3780 | 4170 | 4330 | 4660 | 4940 | 5360 | 5490 | 5810 | 6140 | 6790 | 7070 | 7350 | 7430 | |
| *(N)* | *(16810)* | *(18540)* | *(19250)* | *(20720)* | *(21970)* | *(23840)* | *(24410)* | *(25840)* | *(27310)* | *(30200)* | *(31440)* | *(32690)* | *(33040)* | |
| **Input Power HP** | **23.3** | **23.3** | **23.3** | **21.3** | **19.4** | **16.2** | **15.2** | **13.9** | **12.2** | **9.67** | **8.85** | **7.48** | **6.49** | 4B165 |
| ***(kW)*** | ***(17.4)*** | ***(17.4)*** | ***(17.4)*** | ***(15.9)*** | ***(14.5)*** | ***(12.1)*** | ***(11.3)*** | ***(10.4)*** | ***(9.07)*** | ***(7.21)*** | ***(6.60)*** | ***(5.58)*** | ***(4.84)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 4675 | 4650 | 4675 | 4830 | 5055 | 5460 | 5620 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(20800)* | *(20700)* | *(20800)* | *(21500)* | *(22500)* | *(24300)* | *(25000)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 3780 | 4170 | 4330 | 4660 | 4940 | 5360 | 5490 | 5810 | 6140 | 6790 | 7070 | 7350 | 7430 | |
| *(N)* | *(16810)* | *(18540)* | *(19250)* | *(20720)* | *(21970)* | *(23840)* | *(24410)* | *(25840)* | *(27310)* | *(30200)* | *(31440)* | *(32690)* | *(33040)* | |
| **Input Power HP** | **18.5** | **18.5** | **18.5** | **18.5** | **18.5** | **15.0** | **16.5** | **16.5** | **14.2** | **14.3** | **14.3** | **12.1** | **10.5** | 4C140 |
| ***(kW)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(11.2)*** | ***(12.3)*** | ***(12.3)*** | ***(10.6)*** | ***(10.7)*** | ***(10.7)*** | ***(9.04)*** | ***(7.83)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 20970 | 24600 | 26900 | 26635 | 33625 | 36810 | 36810 | 36810 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2370)* | *(2780)* | *(3040)* | *(3010)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | |
| Hollow Shaft OHL lbs | 7620 | 7890 | 8000 | 8160 | 8270 | 8900 | 8745 | 8855 | 9350 | 9505 | 9575 | 10250 | 10855 | |
| *(N)* | *(33900)* | *(35100)* | *(35600)* | *(36300)* | *(36800)* | *(39600)* | *(38900)* | *(39400)* | *(41600)* | *(42300)* | *(42600)* | *(45600)* | *(48300)* | |
| Solid Shaft OHL lbs | 4960 | 5500 | 5740 | 6190 | 6580 | 7170 | 7350 | 7810 | 8260 | 9300 | 9750 | 10450 | 11120 | |
| *(N)* | *(22060)* | *(24460)* | *(25530)* | *(27530)* | *(29260)* | *(31890)* | *(32690)* | *(34730)* | *(36740)* | *(41360)* | *(43360)* | *(46480)* | *(49460)* | |
| **Input Power HP** | **18.5** | **18.5** | **18.5** | **18.5** | **18.5** | **15.0** | **16.5** | **16.5** | **14.2** | **14.8** | **14.8** | **13.5** | **11.6** | 4C145 |
| ***(kW)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(13.8)*** | ***(11.2)*** | ***(12.3)*** | ***(12.3)*** | ***(10.6)*** | ***(11.0)*** | ***(11.0)*** | ***(10.1)*** | ***(8.68)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 20970 | 24600 | 26900 | 26635 | 34690 | 37960 | 41150 | 40795 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2370)* | *(2780)* | *(3040)* | *(3010)* | *(3920)* | *(4290)* | *(4650)* | *(4610)* | |
| Hollow Shaft OHL lbs | 7620 | 7890 | 8000 | 8160 | 8270 | 8900 | 8745 | 8855 | 9350 | 9395 | 9460 | 9845 | 10475 | |
| *(N)* | *(33900)* | *(35100)* | *(35600)* | *(36300)* | *(36800)* | *(39600)* | *(38900)* | *(39400)* | *(41600)* | *(41800)* | *(42100)* | *(43800)* | *(46600)* | |
| Solid Shaft OHL lbs | 4960 | 5500 | 5740 | 6190 | 6580 | 7170 | 7350 | 7810 | 8260 | 9300 | 9750 | 10450 | 11120 | |
| *(N)* | *(22060)* | *(24460)* | *(25530)* | *(27530)* | *(29260)* | *(31890)* | *(32690)* | *(34730)* | *(36740)* | *(41360)* | *(43360)* | *(46480)* | *(49460)* | |
| **Input Power HP** | **33.9** | **33.9** | **33.9** | **33.9** | **33.9** | **28.4** | **27.2** | **27.2** | **24.3** | **19.3** | **17.7** | **15.0** | **13.0** | 4C160 |
| ***(kW)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(21.2)*** | ***(20.3)*** | ***(20.3)*** | ***(18.1)*** | ***(14.4)*** | ***(13.2)*** | ***(11.2)*** | ***(9.67)*** | |
| Output Torque in•lbs | 23805 | 29025 | 31680 | 36280 | 39645 | 39820 | 40705 | 44510 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(2690)* | *(3280)* | *(3580)* | *(4100)* | *(4480)* | *(4500)* | *(4600)* | *(5030)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6585 | 6630 | 6630 | 6585 | 6560 | 7125 | 7215 | 7190 | 7575 | 8385 | 8745 | 9415 | 9415 | |
| *(N)* | *(29300)* | *(29500)* | *(29500)* | *(29300)* | *(29200)* | *(31700)* | *(32100)* | *(32000)* | *(33700)* | *(37300)* | *(38900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 4960 | 5500 | 5740 | 6190 | 6580 | 7170 | 7350 | 7810 | 8260 | 9300 | 9750 | 10450 | 11120 | |
| *(N)* | *(22060)* | *(24460)* | *(25530)* | *(27530)* | *(29260)* | *(31890)* | *(32690)* | *(34730)* | *(36740)* | *(41360)* | *(43360)* | *(46480)* | *(49460)* | |
| **Input Power HP** | **40.2** | **40.2** | **40.2** | **37.7** | **37.7** | **28.4** | **29.0** | **27.8** | **24.3** | **19.3** | **17.7** | **15.0** | **13.0** | 4C165 |
| ***(kW)*** | ***(30.0)*** | ***(30.0)*** | ***(30.0)*** | ***(28.1)*** | ***(28.1)*** | ***(21.2)*** | ***(21.6)*** | ***(20.7)*** | ***(18.1)*** | ***(14.4)*** | ***(13.2)*** | ***(11.2)*** | ***(9.67)*** | |
| Output Torque in•lbs | 28230 | 34420 | 37610 | 40265 | 44070 | 39820 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3190)* | *(3890)* | *(4250)* | *(4550)* | *(4980)* | *(4500)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6180 | 6110 | 6090 | 6180 | 6135 | 7125 | 6965 | 7100 | 7575 | 8385 | 8745 | 9415 | 9415 | |
| *(N)* | *(27500)* | *(27200)* | *(27100)* | *(27500)* | *(27300)* | *(31700)* | *(31000)* | *(31600)* | *(33700)* | *(37300)* | *(38900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 4960 | 5500 | 5740 | 6190 | 6580 | 7170 | 7350 | 7810 | 8260 | 9300 | 9750 | 10450 | 11120 | |
| *(N)* | *(22060)* | *(24460)* | *(25530)* | *(27530)* | *(29260)* | *(31890)* | *(32690)* | *(34730)* | *(36740)* | *(41360)* | *(43360)* | *(46480)* | *(49460)* | |



Frame Size Selection Tables 870 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

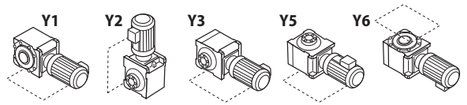



Dimensions on pages 2.156 - 2.166

| Output RPM | 14.5 | 13.0 | 11.8 | 10.9 | 9.89 | 8.53 | 7.77 | 7.07 | 5.76 | 4.86 | 4.20 | 3.49 | 2.85 | 2.09 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **5.73** | **5.07** | **4.63** | **4.25** | **3.89** | **3.35** | **3.04** | **2.78** | **2.27** | **1.90** | **1.65** | **1.37** | **1.12** | **—** | 4B160 |
| ***(kW)*** | ***(4.27)*** | ***(3.78)*** | ***(3.45)*** | ***(3.17)*** | ***(2.90)*** | ***(2.50)*** | ***(2.27)*** | ***(2.07)*** | ***(1.69)*** | ***(1.42)*** | ***(1.23)*** | ***(1.02)*** | ***(0.834)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7490 | 7530 | 7576 | 7600 | 7610 | 7480 | 7400 | 7330 | 7190 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33310)* | *(33490)* | *(33690)* | *(33800)* | *(33840)* | *(33270)* | *(32910)* | *(32600)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **5.73** | **5.07** | **4.63** | **4.25** | **3.89** | **3.35** | **3.04** | **2.78** | **2.27** | **1.90** | **1.65** | **1.37** | **1.12** | **—** | 4B165 |
| ***(kW)*** | ***(4.27)*** | ***(3.78)*** | ***(3.45)*** | ***(3.17)*** | ***(2.90)*** | ***(2.50)*** | ***(2.27)*** | ***(2.07)*** | ***(1.69)*** | ***(1.42)*** | ***(1.23)*** | ***(1.02)*** | ***(0.834)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7490 | 7530 | 7576 | 7600 | 7610 | 7480 | 7400 | 7330 | 7190 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33310)* | *(33490)* | *(33690)* | *(33800)* | *(33840)* | *(33270)* | *(32910)* | *(32600)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **9.27** | **7.50** | **7.50** | **6.30** | **6.30** | **5.43** | **4.51** | **4.51** | **3.66** | **3.08** | **2.67** | **2.21** | **1.81** | **—** | 4C140 |
| ***(kW)*** | ***(6.91)*** | ***(5.59)*** | ***(5.59)*** | ***(4.70)*** | ***(4.70)*** | ***(4.05)*** | ***(3.36)*** | ***(3.36)*** | ***(2.73)*** | ***(2.30)*** | ***(1.99)*** | ***(1.65)*** | ***(1.35)*** | **—** | |
| Output Torque in•lbs | 36810 | 33625 | 36810 | 33625 | 36810 | 36810 | 33625 | 36810 | 36810 | 36810 | 36810 | 36810 | 36810 | — | |
| *(N•m)* | *(4160)* | *(3800)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | — | |
| Hollow Shaft OHL lbs | 11395 | 12225 | 12160 | 12900 | 12160 | 12160 | 12900 | 12160 | 12160 | 12160 | 12160 | 12160 | 12160 | — | |
| *(N)* | *(50700)* | *(54400)* | *(54100)* | *(57400)* | *(54100)* | *(54100)* | *(57400)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | — | |
| Solid Shaft OHL lbs | 11630 | 12040 | 12360 | 12600 | 12830 | 12750 | 12710 | 12670 | 12590 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(51730)* | *(53550)* | *(54970)* | *(56040)* | *(57060)* | *(56710)* | *(56530)* | *(56350)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **10.4** | **8.19** | **8.19** | **7.05** | **7.05** | **6.07** | **5.03** | **5.03** | **4.10** | **3.35** | **2.88** | **2.37** | **1.85** | **—** | 4C145 |
| ***(kW)*** | ***(7.72)*** | ***(6.11)*** | ***(6.11)*** | ***(5.26)*** | ***(5.26)*** | ***(4.53)*** | ***(3.75)*** | ***(3.75)*** | ***(3.06)*** | ***(2.50)*** | ***(2.15)*** | ***(1.77)*** | ***(1.38)*** | **—** | |
| Output Torque in•lbs | 41150 | 36810 | 40265 | 37610 | 41150 | 41150 | 37610 | 41150 | 41150 | 40000 | 39820 | 39465 | 37520 | — | |
| *(N•m)* | *(4650)* | *(4160)* | *(4550)* | *(4250)* | *(4650)* | *(4650)* | *(4250)* | *(4650)* | *(4650)* | *(4520)* | *(4500)* | *(4460)* | *(4240)* | — | |
| Hollow Shaft OHL lbs | 10945 | 11935 | 11240 | 11955 | 10945 | 10945 | 11955 | 10945 | 10945 | 11285 | 11350 | 11440 | 11980 | — | |
| *(N)* | *(48700)* | *(53100)* | *(50000)* | *(53200)* | *(48700)* | *(48700)* | *(53200)* | *(48700)* | *(48700)* | *(50200)* | *(50500)* | *(50900)* | *(53300)* | — | |
| Solid Shaft OHL lbs | 11630 | 12040 | 12360 | 12600 | 12830 | 12750 | 12710 | 12670 | 12590 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(51730)* | *(53550)* | *(54970)* | *(56040)* | *(57060)* | *(56710)* | *(56530)* | *(56350)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **11.5** | **10.1** | **9.27** | **8.52** | **7.78** | **6.71** | **6.07** | **5.57** | **4.52** | **3.82** | **3.30** | **2.74** | **2.24** | **—** | 4C160 |
| ***(kW)*** | ***(8.54)*** | ***(7.56)*** | ***(6.91)*** | ***(6.35)*** | ***(5.80)*** | ***(4.53)*** | ***(4.53)*** | ***(4.15)*** | ***(3.37)*** | ***(2.85)*** | ***(2.46)*** | ***(2.04)*** | ***(1.67)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 11630 | 12040 | 12360 | 12600 | 12830 | 12750 | 12710 | 12670 | 12590 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(51730)* | *(53550)* | *(54970)* | *(56040)* | *(57060)* | *(56710)* | *(56530)* | *(56350)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **11.5** | **10.1** | **9.27** | **8.52** | **7.78** | **6.71** | **6.07** | **5.57** | **4.52** | **3.82** | **3.30** | **2.74** | **2.24** | **—** | 4C165 |
| ***(kW)*** | ***(8.54)*** | ***(7.56)*** | ***(6.91)*** | ***(6.35)*** | ***(5.80)*** | ***(5.00)*** | ***(4.53)*** | ***(4.15)*** | ***(3.37)*** | ***(2.85)*** | ***(2.46)*** | ***(2.04)*** | ***(1.67)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 11630 | 12040 | 12360 | 12600 | 12830 | 12750 | 12710 | 12670 | 12590 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(51730)* | *(53550)* | *(54970)* | *(56040)* | *(57060)* | *(56710)* | *(56530)* | *(56350)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |

# Frame Size Selection Tables 870 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



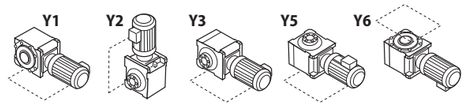

Dimensions on pages 2.156 - 2.166

| Output RPM | 79.1 | 66.9 | 62.1 | 54.4 | 48.3 | 41.4 | 39.5 | 34.8 | 31.1 | 24.9 | 22.3 | 18.9 | 16.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **50.2** | **48.0** | **45.1** | **41.4** | **37.5** | **29.0** | **29.0** | **27.8** | **24.3** | **19.3** | **17.7** | **15.0** | **13.0** | |
| ***(kW)*** | ***(37.4)*** | ***(35.8)*** | ***(33.6)*** | ***(30.9)*** | ***(28.0)*** | ***(21.6)*** | ***(21.6)*** | ***(20.7)*** | ***(18.1)*** | ***(14.4)*** | ***(13.2)*** | ***(11.2)*** | ***(9.67)*** | |
| Output Torque in•lbs | 35135 | 41065 | 42130 | 44250 | 43900 | 40615 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | **4C170** |
| *(N•m)* | *(3970)* | *(4640)* | *(4760)* | *(5000)* | *(4960)* | *(4590)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 5530 | 5485 | 5665 | 5845 | 6160 | 7035 | 6990 | 7100 | 7575 | 8385 | 8745 | 9415 | 9415 | |
| *(N)* | *(24600)* | *(24400)* | *(25200)* | *(26000)* | *(27400)* | *(31300)* | *(31100)* | *(31600)* | *(33700)* | *(37300)* | *(38900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 4960 | 5500 | 5740 | 6190 | 6580 | 7170 | 7350 | 7810 | 8260 | 9300 | 9750 | 10450 | 11120 | |
| *(N)* | *(22060)* | *(24460)* | *(25530)* | *(27530)* | *(29260)* | *(31890)* | *(32690)* | *(34730)* | *(36740)* | *(41360)* | *(43360)* | *(46480)* | *(49460)* | |
| **Input Power HP** | **50.2** | **48.0** | **45.1** | **41.4** | **37.5** | **29.0** | **29.0** | **27.8** | **24.3** | **19.3** | **17.7** | **15.0** | **13.0** | |
| ***(kW)*** | ***(37.4)*** | ***(35.8)*** | ***(33.6)*** | ***(30.9)*** | ***(28.0)*** | ***(21.6)*** | ***(21.6)*** | ***(20.7)*** | ***(18.1)*** | ***(14.4)*** | ***(13.2)*** | ***(11.2)*** | ***(9.67)*** | |
| Output Torque in•lbs | 35135 | 41065 | 42130 | 44250 | 43900 | 40615 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | **4C175** |
| *(N•m)* | *(3970)* | *(4640)* | *(4760)* | *(5000)* | *(4960)* | *(4590)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 5530 | 5485 | 5665 | 5845 | 6160 | 7035 | 6990 | 7100 | 7575 | 8385 | 8745 | 9415 | 9415 | |
| *(N)* | *(24600)* | *(24400)* | *(25200)* | *(26000)* | *(27400)* | *(31300)* | *(31100)* | *(31600)* | *(33700)* | *(37300)* | *(38900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 4960 | 5500 | 5740 | 6190 | 6580 | 7170 | 7350 | 7810 | 8260 | 9300 | 9750 | 10450 | 11120 | |
| *(N)* | *(22060)* | *(24460)* | *(25530)* | *(27530)* | *(29260)* | *(31890)* | *(32690)* | *(34730)* | *(36740)* | *(41360)* | *(43360)* | *(46480)* | *(49460)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **28.4** | **27.2** | **27.2** | **26.4** | **20.5** | **20.5** | **17.3** | **15.0** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(21.2)*** | ***(20.3)*** | ***(20.3)*** | ***(19.7)*** | ***(15.3)*** | ***(15.3)*** | ***(12.9)*** | ***(11.2)*** | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 40705 | 44510 | 49380 | 48230 | 52740 | 52740 | 52740 | **4D160** |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(4600)* | *(5030)* | *(5580)* | *(5450)* | *(5960)* | *(5960)* | *(5960)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 12520 | 12720 | 12880 | 13170 | 14455 | 14610 | 15575 | 16455 | |
| *(N)* | — | — | — | — | — | *(55700)* | *(56600)* | *(57300)* | *(58600)* | *(64300)* | *(65000)* | *(69300)* | *(73200)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 10240 | 10500 | 11160 | 11820 | 13330 | 13980 | 14800 | 15330 | |
| *(N)* | — | — | — | — | — | *(45540)* | *(46700)* | *(49630)* | *(52570)* | *(59290)* | *(62180)* | *(65830)* | *(68180)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **28.4** | **30.4** | **30.4** | **27.6** | **24.5** | **24.5** | **20.8** | **18.0** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(21.2)*** | ***(22.7)*** | ***(22.7)*** | ***(20.6)*** | ***(18.3)*** | ***(18.3)*** | ***(15.5)*** | ***(13.4)*** | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 45575 | 49910 | 51590 | 57695 | 63095 | 63095 | 63095 | **4D165** |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(5150)* | *(5640)* | *(5830)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 12520 | 12340 | 12450 | 12990 | 13690 | 13780 | 14745 | 15620 | |
| *(N)* | — | — | — | — | — | *(55700)* | *(54900)* | *(55400)* | *(57800)* | *(60900)* | *(61300)* | *(65600)* | *(69500)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 10240 | 10500 | 11160 | 11820 | 13330 | 13980 | 14800 | 15330 | |
| *(N)* | — | — | — | — | — | *(45540)* | *(46700)* | *(49630)* | *(52570)* | *(59290)* | *(62180)* | *(65830)* | *(68180)* | |
| **Input Power HP** | **50.2** | **50.2** | **50.2** | **50.2** | **50.2** | **39.8** | **45.5** | **45.5** | **40.6** | **29.6** | **29.6** | **24.9** | **21.7** | |
| ***(kW)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(29.7)*** | ***(33.9)*** | ***(33.9)*** | ***(30.3)*** | ***(22.1)*** | ***(22.1)*** | ***(18.6)*** | ***(16.2)*** | |
| Output Torque in•lbs | 35130 | 42920 | 46900 | 53625 | 58580 | 55840 | 68050 | 74425 | 76015 | 69555 | 76015 | 75925 | 76015 | **4D170** |
| *(N•m)* | *(3970)* | *(4850)* | *(5300)* | *(6060)* | *(6620)* | *(6310)* | *(7690)* | *(8410)* | *(8590)* | *(7860)* | *(8590)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 9935 | 10115 | 10160 | 10180 | 10180 | 11240 | 10520 | 10475 | 11015 | 12720 | 11825 | 11865 | 11825 | |
| *(N)* | *(44200)* | *(45000)* | *(45200)* | *(45300)* | *(45300)* | *(50000)* | *(46800)* | *(46600)* | *(49000)* | *(56600)* | *(52600)* | *(52800)* | *(52600)* | |
| Solid Shaft OHL lbs | 7060 | 7840 | 8170 | 8830 | 9400 | 10240 | 10500 | 11160 | 11820 | 13330 | 13980 | 14800 | 15330 | |
| *(N)* | *(31400)* | *(34870)* | *(36340)* | *(39270)* | *(41810)* | *(45540)* | *(46700)* | *(49630)* | *(52570)* | *(59290)* | *(62180)* | *(65830)* | *(68180)* | |
| **Input Power HP** | **50.2** | **50.2** | **50.2** | **50.2** | **50.2** | **39.8** | **49.6** | **46.9** | **41.3** | **32.9** | **30.0** | **25.3** | **22.0** | |
| ***(kW)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(29.7)*** | ***(37.0)*** | ***(35.0)*** | ***(30.8)*** | ***(24.5)*** | ***(22.4)*** | ***(18.9)*** | ***(16.4)*** | |
| Output Torque in•lbs | 35130 | 42920 | 46900 | 53625 | 58580 | 55840 | 74245 | 76810 | 77165 | 77165 | 77165 | 77165 | 77165 | **4D175** |
| *(N•m)* | *(3970)* | *(4850)* | *(5300)* | *(6060)* | *(6620)* | *(6310)* | *(8390)* | *(8680)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9935 | 10115 | 10160 | 10180 | 10180 | 11240 | 10025 | 10295 | 10925 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(44200)* | *(45000)* | *(45200)* | *(45300)* | *(45300)* | *(50000)* | *(44600)* | *(45800)* | *(48600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 7060 | 7840 | 8170 | 8830 | 9400 | 10240 | 10500 | 11160 | 11820 | 13330 | 13980 | 14800 | 15330 | |
| *(N)* | *(31400)* | *(34870)* | *(36340)* | *(39270)* | *(41810)* | *(45540)* | *(46700)* | *(49630)* | *(52570)* | *(59290)* | *(62180)* | *(65830)* | *(68180)* | |



Frame Size Selection Tables 870 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

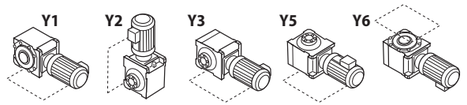



Dimensions on pages 2.156 - 2.166

| Output RPM | 14.5 | 13.0 | 11.8 | 10.9 | 9.89 | 8.53 | 7.77 | 7.07 | 5.76 | 4.86 | 4.20 | 3.49 | 2.85 | 2.09 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **11.5** | **10.1** | **9.27** | **8.52** | **7.78** | **6.71** | **6.07** | **5.57** | **4.52** | **3.82** | **3.30** | **2.74** | **2.24** | **—** | |
| ***(kW)*** | ***(8.54)*** | ***(7.56)*** | ***(6.91)*** | ***(6.35)*** | ***(5.80)*** | ***(5.00)*** | ***(4.53)*** | ***(4.15)*** | ***(3.37)*** | ***(2.85)*** | ***(2.46)*** | ***(2.04)*** | ***(1.67)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | **4C170** |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 11630 | 12040 | 12360 | 12600 | 12830 | 12750 | 12710 | 12670 | 12590 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(51730)* | *(53550)* | *(54970)* | *(56040)* | *(57060)* | *(56710)* | *(56530)* | *(56350)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **11.5** | **10.1** | **9.27** | **8.52** | **7.78** | **6.71** | **6.07** | **5.57** | **4.52** | **3.82** | **3.30** | **2.74** | **2.24** | **—** | |
| ***(kW)*** | ***(8.54)*** | ***(7.56)*** | ***(6.91)*** | ***(6.35)*** | ***(5.80)*** | ***(5.00)*** | ***(4.53)*** | ***(4.15)*** | ***(3.37)*** | ***(2.85)*** | ***(2.46)*** | ***(2.04)*** | ***(1.67)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | **4C175** |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 11630 | 12040 | 12360 | 12600 | 12830 | 12750 | 12710 | 12670 | 12590 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(51730)* | *(53550)* | *(54970)* | *(56040)* | *(57060)* | *(56710)* | *(56530)* | *(56350)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **13.3** | **10.7** | **10.7** | **9.03** | **9.03** | **7.78** | **6.45** | **6.45** | **5.19** | **4.43** | **3.82** | **3.18** | **2.59** | **—** | |
| ***(kW)*** | ***(9.90)*** | ***(8.01)*** | ***(8.01)*** | ***(6.73)*** | ***(6.73)*** | ***(5.80)*** | ***(4.81)*** | ***(4.81)*** | ***(3.87)*** | ***(3.30)*** | ***(2.85)*** | ***(2.37)*** | ***(1.93)*** | **—** | |
| Output Torque in•lbs | 52740 | 48230 | 52740 | 48230 | 52740 | 52740 | 48230 | 52740 | 52120 | 52740 | 52740 | 52740 | 52740 | — | **4D160** |
| *(N•m)* | *(5960)* | *(5450)* | *(5960)* | *(5450)* | *(5960)* | *(5960)* | *(5450)* | *(5960)* | *(5890)* | *(5960)* | *(5960)* | *(5960)* | *(5960)* | — | |
| Hollow Shaft OHL lbs | 17240 | 18385 | 17915 | 18680 | 17915 | 17915 | 18680 | 17915 | 18025 | 17915 | 17915 | 17915 | 17915 | — | |
| *(N)* | *(76700)* | *(81800)* | *(79700)* | *(83100)* | *(79700)* | *(79700)* | *(83100)* | *(79700)* | *(80200)* | *(79700)* | *(79700)* | *(79700)* | *(79700)* | — | |
| Solid Shaft OHL lbs | 15740 | 16060 | 16320 | 16510 | 16690 | 16660 | 16640 | 16620 | 16590 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(70010)* | *(71430)* | *(72590)* | *(73430)* | *(74230)* | *(74100)* | *(74010)* | *(73920)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **15.8** | **12.9** | **12.9** | **10.8** | **10.8** | **9.31** | **7.71** | **7.71** | **6.28** | **5.30** | **4.57** | **3.81** | **3.03** | **—** | |
| ***(kW)*** | ***(11.8)*** | ***(9.59)*** | ***(9.59)*** | ***(8.06)*** | ***(8.06)*** | ***(6.94)*** | ***(5.75)*** | ***(5.75)*** | ***(4.68)*** | ***(3.95)*** | ***(3.41)*** | ***(2.84)*** | ***(2.26)*** | **—** | |
| Output Torque in•lbs | 63095 | 57695 | 63095 | 57695 | 63095 | 63095 | 57695 | 63095 | 63095 | 63095 | 63095 | 63095 | 61680 | — | **4D165** |
| *(N•m)* | *(7130)* | *(6520)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(6970)* | — | |
| Hollow Shaft OHL lbs | 15755 | 16970 | 15755 | 16970 | 15755 | 15755 | 16970 | 15755 | 15755 | 15755 | 15755 | 15755 | 16115 | — | |
| *(N)* | *(70100)* | *(75500)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(71700)* | — | |
| Solid Shaft OHL lbs | 15740 | 16060 | 16320 | 16510 | 16690 | 16660 | 16640 | 16620 | 16590 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(70010)* | *(71430)* | *(72590)* | *(73430)* | *(74230)* | *(74100)* | *(74010)* | *(73920)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **19.2** | **15.6** | **15.6** | **13.0** | **13.0** | **11.2** | **9.29** | **9.29** | **7.56** | **6.38** | **5.51** | **4.59** | **3.74** | **—** | |
| ***(kW)*** | ***(14.3)*** | ***(11.6)*** | ***(11.6)*** | ***(9.70)*** | ***(9.70)*** | ***(8.37)*** | ***(6.93)*** | ***(6.93)*** | ***(5.64)*** | ***(4.76)*** | ***(4.11)*** | ***(3.42)*** | ***(2.79)*** | **—** | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | **4D170** |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 11825 | 14050 | 11825 | 14050 | 11825 | 11825 | 14050 | 11825 | 11825 | 11825 | 11825 | 11825 | 11825 | — | |
| *(N)* | *(52600)* | *(62500)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | — | |
| Solid Shaft OHL lbs | 15740 | 16060 | 16320 | 16510 | 16690 | 16660 | 16640 | 16620 | 16590 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(70010)* | *(71430)* | *(72590)* | *(73430)* | *(74230)* | *(74100)* | *(74010)* | *(73920)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **19.4** | **17.2** | **15.7** | **14.5** | **13.2** | **11.4** | **10.3** | **9.43** | **7.67** | **6.48** | **5.59** | **4.65** | **3.80** | **—** | |
| ***(kW)*** | ***(14.5)*** | ***(12.8)*** | ***(11.7)*** | ***(10.8)*** | ***(9.85)*** | ***(8.49)*** | ***(7.69)*** | ***(7.03)*** | ***(5.72)*** | ***(4.83)*** | ***(4.17)*** | ***(3.47)*** | ***(2.83)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | **4D175** |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 15740 | 16060 | 16320 | 16510 | 16690 | 16660 | 16640 | 16620 | 16590 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(70010)* | *(71430)* | *(72590)* | *(73430)* | *(74230)* | *(74100)* | *(74010)* | *(73920)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |

# Frame Size Selection Tables 870 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



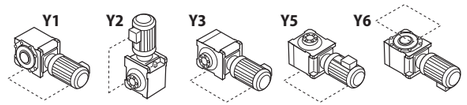

Dimensions on pages 2.156 - 2.166

| Output RPM | 79.1 | 66.9 | 62.1 | 54.4 | 48.3 | 41.4 | 39.5 | 34.8 | 31.1 | 24.9 | 22.3 | 18.9 | 16.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **66.5** | **66.5** | **66.5** | **66.5** | **61.8** | **50.2** | **44.5** | **44.5** | **39.6** | **32.9** | **30.0** | **25.3** | **22.0** | 4D180 |
| ***(kW)*** | ***(49.6)*** | ***(49.6)*** | ***(49.6)*** | ***(49.6)*** | ***(46.1)*** | ***(37.4)*** | ***(33.2)*** | ***(33.2)*** | ***(29.5)*** | ***(24.5)*** | ***(22.4)*** | ***(18.9)*** | ***(16.4)*** | |
| Output Torque in•lbs | 46635 | 56900 | 62220 | 71070 | 72310 | 70360 | 66635 | 72840 | 73990 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(5270)* | *(6430)* | *(7030)* | *(8030)* | *(8170)* | *(7950)* | *(7530)* | *(8230)* | *(8360)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9015 | 8970 | 8925 | 8765 | 9080 | 10070 | 10655 | 10610 | 11170 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(40100)* | *(39900)* | *(39700)* | *(39000)* | *(40400)* | *(44800)* | *(47400)* | *(47200)* | *(49700)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 7060 | 7840 | 8170 | 8830 | 9400 | 10240 | 10500 | 11160 | 11820 | 13330 | 13980 | 14800 | 15330 | |
| *(N)* | *(31400)* | *(34870)* | *(36340)* | *(39270)* | *(41810)* | *(45540)* | *(46700)* | *(49630)* | *(52570)* | *(59290)* | *(62180)* | *(65830)* | *(68180)* | |
| **Input Power HP** | **66.5** | **66.5** | **66.5** | **66.5** | **61.8** | **51.0** | **45.2** | **45.2** | **40.2** | **32.9** | **30.0** | **25.3** | **22.0** | 4D185 |
| ***(kW)*** | ***(49.6)*** | ***(49.6)*** | ***(49.6)*** | ***(49.6)*** | ***(46.1)*** | ***(38.0)*** | ***(33.7)*** | ***(33.7)*** | ***(30.0)*** | ***(24.5)*** | ***(22.4)*** | ***(18.9)*** | ***(16.4)*** | |
| Output Torque in•lbs | 46635 | 56900 | 62220 | 71070 | 72310 | 71510 | 67620 | 73990 | 75230 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(5270)* | *(6430)* | *(7030)* | *(8030)* | *(8170)* | *(8080)* | *(7640)* | *(8360)* | *(8500)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9015 | 8970 | 8925 | 8765 | 9080 | 9980 | 10585 | 10520 | 11080 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(40100)* | *(39900)* | *(39700)* | *(39000)* | *(40400)* | *(44400)* | *(47100)* | *(46800)* | *(49300)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 7060 | 7840 | 8170 | 8830 | 9400 | 10240 | 10500 | 11160 | 11820 | 13330 | 13980 | 14800 | 15330 | |
| *(N)* | *(31400)* | *(34870)* | *(36340)* | *(39270)* | *(41810)* | *(45540)* | *(46700)* | *(49630)* | *(52570)* | *(59290)* | *(62180)* | *(65830)* | *(68180)* | |
| **Input Power HP** | **50.2** | **50.2** | **50.2** | **50.2** | **50.2** | **39.8** | **45.5** | **45.5** | **40.6** | **29.6** | **29.6** | **24.9** | **21.7** | 4E170 |
| ***(kW)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(29.7)*** | ***(33.9)*** | ***(33.9)*** | ***(30.3)*** | ***(22.1)*** | ***(22.1)*** | ***(18.6)*** | ***(16.2)*** | |
| Output Torque in•lbs | 35130 | 42920 | 46900 | 53625 | 58580 | 55840 | 68050 | 74425 | 76015 | 69555 | 76015 | 75925 | 76015 | |
| *(N•m)* | *(3970)* | *(4850)* | *(5300)* | *(6060)* | *(6620)* | *(6310)* | *(7690)* | *(8410)* | *(8590)* | *(7860)* | *(8590)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 13825 | 14250 | 14430 | 14680 | 14815 | 16095 | 15555 | 15690 | 16430 | 18430 | 18635 | 19870 | 19940 | |
| *(N)* | *(61500)* | *(63400)* | *(64200)* | *(65300)* | *(65900)* | *(71600)* | *(69200)* | *(69800)* | *(73100)* | *(82000)* | *(82900)* | *(88400)* | *(88700)* | |
| Solid Shaft OHL lbs | 10510 | 11500 | 11920 | 12780 | 13530 | 14630 | 14950 | 15790 | 16660 | 18610 | 19450 | 20370 | 20710 | |
| *(N)* | *(46740)* | *(51150)* | *(53020)* | *(56840)* | *(60180)* | *(65070)* | *(66490)* | *(70230)* | *(74100)* | *(82770)* | *(86510)* | *(90600)* | *(92110)* | |
| **Input Power HP** | **50.2** | **50.2** | **50.2** | **50.2** | **50.2** | **39.8** | **49.6** | **49.6** | **41.8** | **36.9** | **33.8** | **28.6** | **24.8** | 4E175 |
| ***(kW)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(37.4)*** | ***(29.7)*** | ***(37.0)*** | ***(37.0)*** | ***(31.2)*** | ***(27.5)*** | ***(25.2)*** | ***(21.3)*** | ***(18.5)*** | |
| Output Torque in•lbs | 35130 | 42920 | 46900 | 53625 | 58580 | 55840 | 74245 | 81150 | 78230 | 86545 | 86990 | 86990 | 86990 | |
| *(N•m)* | *(3970)* | *(4850)* | *(5300)* | *(6060)* | *(6620)* | *(6310)* | *(8390)* | *(9170)* | *(8840)* | *(9780)* | *(9830)* | *(9830)* | *(9830)* | |
| Hollow Shaft OHL lbs | 13825 | 14250 | 14430 | 14680 | 14815 | 16095 | 15080 | 15170 | 16250 | 17175 | 17825 | 19060 | 19400 | |
| *(N)* | *(61500)* | *(63400)* | *(64200)* | *(65300)* | *(65900)* | *(71600)* | *(67100)* | *(67500)* | *(72300)* | *(76400)* | *(79300)* | *(84800)* | *(86300)* | |
| Solid Shaft OHL lbs | 10510 | 11500 | 11920 | 12780 | 13530 | 14630 | 14950 | 15790 | 16660 | 18610 | 19450 | 20370 | 20710 | |
| *(N)* | *(46740)* | *(51150)* | *(53020)* | *(56840)* | *(60180)* | *(65070)* | *(66490)* | *(70230)* | *(74100)* | *(82770)* | *(86510)* | *(90600)* | *(92110)* | |
| **Input Power HP** | **66.5** | **66.5** | **66.5** | **66.5** | **66.5** | **50.2** | **44.5** | **44.5** | **39.6** | **43.7** | **40.0** | **33.8** | **29.2** | 4E180 |
| ***(kW)*** | ***(49.6)*** | ***(49.6)*** | ***(49.6)*** | ***(49.6)*** | ***(49.6)*** | ***(37.4)*** | ***(33.2)*** | ***(33.2)*** | ***(29.5)*** | ***(32.6)*** | ***(29.8)*** | ***(25.2)*** | ***(21.8)*** | |
| Output Torque in•lbs | 46635 | 56900 | 62210 | 71060 | 77695 | 70350 | 66635 | 72830 | 73980 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5270)* | *(6430)* | *(7030)* | *(8030)* | *(8780)* | *(7950)* | *(7530)* | *(8230)* | *(8360)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 12970 | 13215 | 13305 | 13375 | 13400 | 15015 | 15690 | 15780 | 16565 | 16025 | 16680 | 17915 | 18430 | |
| *(N)* | *(57700)* | *(58800)* | *(59200)* | *(59500)* | *(59600)* | *(66800)* | *(69800)* | *(70200)* | *(73700)* | *(71300)* | *(74200)* | *(79700)* | *(82000)* | |
| Solid Shaft OHL lbs | 10510 | 11500 | 11920 | 12780 | 13530 | 14630 | 14950 | 15790 | 16660 | 18610 | 19450 | 20370 | 20710 | |
| *(N)* | *(46740)* | *(51150)* | *(53020)* | *(56840)* | *(60180)* | *(65070)* | *(66490)* | *(70230)* | *(74100)* | *(82770)* | *(86510)* | *(90600)* | *(92110)* | |
| **Input Power HP** | **66.5** | **66.5** | **66.5** | **66.5** | **66.5** | **51.0** | **45.2** | **45.2** | **40.2** | **43.7** | **40.0** | **33.8** | **29.2** | 4E185 |
| ***(kW)*** | ***(49.6)*** | ***(49.6)*** | ***(49.6)*** | ***(49.6)*** | ***(49.6)*** | ***(38.0)*** | ***(33.7)*** | ***(33.7)*** | ***(30.0)*** | ***(32.6)*** | ***(29.8)*** | ***(25.2)*** | ***(21.8)*** | |
| Output Torque in•lbs | 46635 | 56900 | 62210 | 71060 | 77695 | 71500 | 67610 | 73980 | 75220 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5270)* | *(6430)* | *(7030)* | *(8030)* | *(8780)* | *(8080)* | *(7640)* | *(8360)* | *(8500)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 12970 | 13215 | 13305 | 13375 | 13400 | 14950 | 15600 | 15710 | 16475 | 16025 | 16680 | 17915 | 18430 | |
| *(N)* | *(57700)* | *(58800)* | *(59200)* | *(59500)* | *(59600)* | *(66500)* | *(69400)* | *(69900)* | *(73300)* | *(71300)* | *(74200)* | *(79700)* | *(82000)* | |
| Solid Shaft OHL lbs | 10510 | 11500 | 11920 | 12780 | 13530 | 14630 | 14950 | 15790 | 16660 | 18610 | 19450 | 20370 | 20710 | |
| *(N)* | *(46740)* | *(51150)* | *(53020)* | *(56840)* | *(60180)* | *(65070)* | *(66490)* | *(70230)* | *(74100)* | *(82770)* | *(86510)* | *(90600)* | *(92110)* | |



Frame Size Selection Tables 870 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

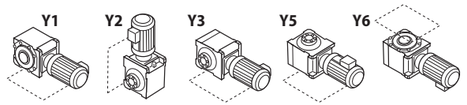



Dimensions on pages 2.156 - 2.166

| Output RPM | 14.5 | 13.0 | 11.8 | 10.9 | 9.89 | 8.53 | 7.77 | 7.07 | 5.76 | 4.86 | 4.20 | 3.49 | 2.85 | 2.09 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **19.4** | **17.2** | **15.7** | **14.5** | **13.2** | **11.4** | **10.3** | **9.43** | **7.67** | **6.48** | **5.59** | **4.65** | **3.80** | **—** | 4D180 |
| ***(kW)*** | ***(14.5)*** | ***(12.8)*** | ***(11.7)*** | ***(10.8)*** | ***(9.85)*** | ***(8.49)*** | ***(7.69)*** | ***(7.03)*** | ***(5.72)*** | ***(4.83)*** | ***(4.17)*** | ***(3.47)*** | ***(2.83)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 15740 | 16060 | 16320 | 16510 | 16690 | 16660 | 16640 | 16620 | 16590 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(70010)* | *(71430)* | *(72590)* | *(73430)* | *(74230)* | *(74100)* | *(74010)* | *(73920)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **19.4** | **17.2** | **15.7** | **14.5** | **13.2** | **11.4** | **10.3** | **9.43** | **7.67** | **6.48** | **5.59** | **4.65** | **3.80** | **—** | 4D185 |
| ***(kW)*** | ***(14.5)*** | ***(12.8)*** | ***(11.7)*** | ***(10.8)*** | ***(9.85)*** | ***(8.49)*** | ***(7.69)*** | ***(7.03)*** | ***(5.72)*** | ***(4.83)*** | ***(4.17)*** | ***(3.47)*** | ***(2.83)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 15740 | 16060 | 16320 | 16510 | 16690 | 16660 | 16640 | 16620 | 16590 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(70010)* | *(71430)* | *(72590)* | *(73430)* | *(74230)* | *(74100)* | *(74010)* | *(73920)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **19.2** | **15.6** | **15.6** | **13.0** | **13.0** | **11.2** | **9.29** | **9.29** | **7.56** | **6.38** | **5.51** | **4.59** | **3.74** | **—** | 4E170 |
| ***(kW)*** | ***(14.3)*** | ***(11.6)*** | ***(11.6)*** | ***(9.70)*** | ***(9.70)*** | ***(8.37)*** | ***(6.93)*** | ***(6.93)*** | ***(5.64)*** | ***(4.76)*** | ***(4.11)*** | ***(3.42)*** | ***(2.79)*** | **—** | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 19940 | 20275 | 19940 | 20275 | 19940 | 19940 | 20275 | 19940 | 19940 | 19940 | 19940 | 19940 | 19940 | — | |
| *(N)* | *(88700)* | *(90200)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | — | |
| Solid Shaft OHL lbs | 20980 | 21190 | 21360 | 21480 | 21610 | 21700 | 21740 | 21790 | 21870 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(93310)* | *(94250)* | *(95000)* | *(95540)* | *(96120)* | *(96520)* | *(96690)* | *(96920)* | *(97270)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **21.9** | **19.3** | **17.7** | **16.2** | **14.9** | **12.8** | **11.6** | **11.6** | **9.41** | **7.94** | **6.87** | **5.70** | **4.65** | **—** | 4E175 |
| ***(kW)*** | ***(16.3)*** | ***(14.4)*** | ***(13.2)*** | ***(12.1)*** | ***(11.1)*** | ***(9.57)*** | ***(8.63)*** | ***(8.63)*** | ***(7.02)*** | ***(5.92)*** | ***(5.12)*** | ***(4.25)*** | ***(3.47)*** | **—** | |
| Output Torque in•lbs | 86990 | 86545 | 86990 | 86545 | 86990 | 86990 | 86545 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | — | |
| *(N•m)* | *(9830)* | *(9780)* | *(9830)* | *(9780)* | *(9830)* | *(9830)* | *(9780)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | — | |
| Hollow Shaft OHL lbs | 19400 | 19420 | 19400 | 19420 | 19400 | 19400 | 19420 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | — | |
| *(N)* | *(86300)* | *(86400)* | *(86300)* | *(86400)* | *(86300)* | *(86300)* | *(86400)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | — | |
| Solid Shaft OHL lbs | 20980 | 21190 | 21360 | 21480 | 21610 | 21700 | 21740 | 21790 | 21870 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(93310)* | *(94250)* | *(95000)* | *(95540)* | *(96120)* | *(96520)* | *(96690)* | *(96920)* | *(97270)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **25.9** | **22.9** | **20.9** | **19.2** | **17.6** | **15.2** | **13.7** | **12.6** | **10.2** | **8.61** | **7.44** | **6.18** | **5.04** | **—** | 4E180 |
| ***(kW)*** | ***(19.3)*** | ***(17.1)*** | ***(15.6)*** | ***(14.3)*** | ***(13.1)*** | ***(11.3)*** | ***(10.2)*** | ***(9.36)*** | ***(7.62)*** | ***(6.42)*** | ***(5.55)*** | ***(4.61)*** | ***(3.76)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20980 | 21190 | 21360 | 21480 | 21610 | 21700 | 21740 | 21790 | 21870 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(93310)* | *(94250)* | *(95000)* | *(95540)* | *(96120)* | *(96520)* | *(96690)* | *(96920)* | *(97270)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **25.9** | **22.9** | **20.9** | **19.2** | **17.6** | **15.2** | **13.7** | **12.6** | **10.2** | **8.61** | **7.44** | **6.18** | **5.04** | **—** | 4E185 |
| ***(kW)*** | ***(19.3)*** | ***(17.1)*** | ***(15.6)*** | ***(14.3)*** | ***(13.1)*** | ***(11.3)*** | ***(10.2)*** | ***(9.36)*** | ***(7.62)*** | ***(6.42)*** | ***(5.55)*** | ***(4.61)*** | ***(3.76)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20980 | 21190 | 21360 | 21480 | 21610 | 21700 | 21740 | 21790 | 21870 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(93310)* | *(94250)* | *(95000)* | *(95540)* | *(96120)* | *(96520)* | *(96690)* | *(96920)* | *(97270)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |

# Frame Size Selection Tables 870 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

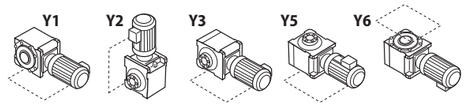
| Output RPM | 79.1 | 66.9 | 62.1 | 54.4 | 48.3 | 41.4 | 39.5 | 34.8 | 31.1 | 24.9 | 22.3 | 18.9 | 16.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **91.7** | **91.7** | **91.7** | **88.9** | **81.9** | **62.6** | **55.4** | **55.4** | **49.2** | **43.7** | **40.0** | **33.8** | **29.2** | 4E190 |
| *(kW)* | *(68.4)* | *(68.4)* | *(68.4)* | *(66.3)* | *(61.1)* | *(46.7)* | *(41.3)* | *(41.3)* | *(36.7)* | *(32.6)* | *(29.8)* | *(25.2)* | *(21.8)* | |
| Output Torque in•lbs | 64335 | 78418 | 85764 | 94703 | 95588 | 87888 | 82830 | 90278 | 92048 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(7270)* | *(8860)* | *(9690)* | *(10700)* | *(10800)* | *(9930)* | *(9360)* | *(10200)* | *(10400)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 11655 | 11645 | 11575 | 11620 | 12095 | 13735 | 14500 | 14500 | 15265 | 16025 | 16680 | 17915 | 18430 | |
| *(N)* | *(51900)* | *(51800)* | *(51500)* | *(51700)* | *(53800)* | *(61100)* | *(64500)* | *(64500)* | *(67900)* | *(71300)* | *(74200)* | *(79700)* | *(82000)* | |
| Solid Shaft OHL lbs | 10510 | 11500 | 11920 | 12780 | 13530 | 14630 | 14950 | 15790 | 16660 | 18610 | 19450 | 20370 | 20710 | |
| *(N)* | *(46740)* | *(51150)* | *(53020)* | *(56840)* | *(60180)* | *(65070)* | *(66490)* | *(70230)* | *(74100)* | *(82770)* | *(86510)* | *(90600)* | *(92110)* | |
| **Input Power HP** | **99.9** | **100.3** | **92.4** | **88.9** | **81.9** | **63.8** | **56.5** | **56.5** | **50.2** | **43.7** | **40.0** | **33.8** | **29.2** | 4E195 |
| *(kW)* | *(74.5)* | *(74.8)* | *(68.9)* | *(66.3)* | *(61.1)* | *(47.6)* | *(42.1)* | *(42.1)* | *(37.4)* | *(32.6)* | *(29.8)* | *(25.2)* | *(21.8)* | |
| Output Torque in•lbs | 70095 | 85760 | 86470 | 94700 | 95585 | 89390 | 84425 | 92045 | 93815 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(7920)* | *(9690)* | *(9770)* | *(10700)* | *(10800)* | *(10100)* | *(9540)* | *(10400)* | *(10600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 11240 | 11105 | 11530 | 11620 | 12095 | 13600 | 14385 | 14365 | 15130 | 16025 | 16680 | 17915 | 18430 | |
| *(N)* | *(50000)* | *(49400)* | *(51300)* | *(51700)* | *(53800)* | *(60500)* | *(64000)* | *(63900)* | *(67300)* | *(71300)* | *(74200)* | *(79700)* | *(82000)* | |
| Solid Shaft OHL lbs | 10510 | 11500 | 11920 | 12780 | 13530 | 14630 | 14950 | 15790 | 16660 | 18610 | 19450 | 20370 | 20710 | |
| *(N)* | *(46740)* | *(51150)* | *(53020)* | *(56840)* | *(60180)* | *(65070)* | *(66490)* | *(70230)* | *(74100)* | *(82770)* | *(86510)* | *(90600)* | *(92110)* | |
| **Input Power HP** | **66.5** | **66.5** | **66.5** | **66.5** | **66.5** | **50.2** | **44.5** | **44.5** | **39.6** | **47.5** | **47.5** | **40.1** | **34.9** | 4F180 |
| *(kW)* | *(49.6)* | *(49.6)* | *(49.6)* | *(49.6)* | *(49.6)* | *(37.4)* | *(33.2)* | *(33.2)* | *(29.5)* | *(35.4)* | *(35.4)* | *(29.9)* | *(26.0)* | |
| Output Torque in•lbs | 46635 | 56900 | 62210 | 71060 | 77695 | 70350 | 66635 | 72830 | 73980 | 111500 | 122120 | 122120 | 122120 | |
| *(N•m)* | *(5270)* | *(6430)* | *(7030)* | *(8030)* | *(8780)* | *(7950)* | *(7530)* | *(8230)* | *(8360)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | |
| Hollow Shaft OHL lbs | 24050 | 24950 | 25400 | 26075 | 26525 | 28775 | 29225 | 29000 | 29000 | 27425 | 26975 | 26975 | 26975 | |
| *(N)* | *(107000)* | *(111000)* | *(113000)* | *(116000)* | *(118000)* | *(128000)* | *(130000)* | *(129000)* | *(129000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | |
| Solid Shaft OHL lbs | 18730 | 20390 | 21090 | 22490 | 23720 | 25560 | 26130 | 27560 | 28600 | 28930 | 28950 | 28970 | 28970 | |
| *(N)* | *(83310)* | *(90690)* | *(93800)* | *(100030)* | *(105500)* | *(113690)* | *(116220)* | *(122580)* | *(127210)* | *(128680)* | *(128760)* | *(128850)* | *(128850)* | |
| **Input Power HP** | **66.5** | **66.5** | **66.5** | **66.5** | **66.5** | **51.0** | **45.2** | **45.2** | **40.2** | **54.2** | **54.2** | **48.5** | **36.5** | 4F185 |
| *(kW)* | *(49.6)* | *(49.6)* | *(49.6)* | *(49.6)* | *(49.6)* | *(38.0)* | *(33.7)* | *(33.7)* | *(30.0)* | *(40.4)* | *(40.4)* | *(36.2)* | *(27.2)* | |
| Output Torque in•lbs | 46635 | 56900 | 62210 | 71060 | 77695 | 71500 | 67610 | 73980 | 75220 | 127430 | 138935 | 147785 | 128315 | |
| *(N•m)* | *(5270)* | *(6430)* | *(7030)* | *(8030)* | *(8780)* | *(8080)* | *(7640)* | *(8360)* | *(8500)* | *(14400)* | *(15700)* | *(16700)* | *(14500)* | |
| Hollow Shaft OHL lbs | 24050 | 24950 | 25400 | 26075 | 26525 | 28775 | 29225 | 29000 | 29000 | 26750 | 26075 | 25850 | 26525 | |
| *(N)* | *(107000)* | *(111000)* | *(113000)* | *(116000)* | *(118000)* | *(128000)* | *(130000)* | *(129000)* | *(129000)* | *(119000)* | *(116000)* | *(115000)* | *(118000)* | |
| Solid Shaft OHL lbs | 18730 | 20390 | 21090 | 22490 | 23720 | 25560 | 26130 | 27560 | 28600 | 28930 | 28950 | 28970 | 28970 | |
| *(N)* | *(83310)* | *(90690)* | *(93800)* | *(100030)* | *(105500)* | *(113690)* | *(116220)* | *(122580)* | *(127210)* | *(128680)* | *(128760)* | *(128850)* | *(128850)* | |
| **Input Power HP** | **91.7** | **91.7** | **91.7** | **91.7** | **91.7** | **62.6** | **55.4** | **55.4** | **49.2** | **67.7** | **62.0** | **52.4** | **45.5** | 4F190 |
| *(kW)* | *(68.4)* | *(68.4)* | *(68.4)* | *(68.4)* | *(68.4)* | *(46.7)* | *(41.3)* | *(41.3)* | *(36.7)* | *(50.5)* | *(46.2)* | *(39.1)* | *(33.9)* | |
| Output Torque in•lbs | 64335 | 78405 | 85750 | 98230 | 107080 | 87875 | 82830 | 90265 | 92035 | 159290 | 159290 | 159290 | 159290 | |
| *(N•m)* | *(7270)* | *(8860)* | *(9690)* | *(11100)* | *(12100)* | *(9930)* | *(9360)* | *(10200)* | *(10400)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | |
| Hollow Shaft OHL lbs | 22930 | 23605 | 23825 | 24275 | 24500 | 27650 | 28550 | 28325 | 28100 | 25175 | 25175 | 25175 | 25175 | |
| *(N)* | *(102000)* | *(105000)* | *(106000)* | *(108000)* | *(109000)* | *(123000)* | *(127000)* | *(126000)* | *(125000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 18730 | 20390 | 21090 | 22490 | 23720 | 25560 | 26130 | 27560 | 28600 | 28930 | 28950 | 28970 | 28970 | |
| *(N)* | *(83310)* | *(90690)* | *(93800)* | *(100030)* | *(105500)* | *(113690)* | *(116220)* | *(122580)* | *(127210)* | *(128680)* | *(128760)* | *(128850)* | *(128850)* | |
| **Input Power HP** | **99.9** | **101** | **101** | **95.2** | **95.2** | **63.8** | **56.5** | **56.5** | **50.2** | **67.7** | **62.0** | **52.4** | **45.5** | 4F195 |
| *(kW)* | *(74.5)* | *(75.0)* | *(75.0)* | *(71.0)* | *(71.0)* | *(47.6)* | *(42.1)* | *(42.1)* | *(37.4)* | *(50.5)* | *(46.2)* | *(39.1)* | *(33.9)* | |
| Output Torque in•lbs | 70085 | 86015 | 93805 | 101780 | 111515 | 89380 | 84425 | 92035 | 93805 | 159290 | 159290 | 159290 | 159290 | |
| *(N•m)* | *(7920)* | *(9720)* | *(10600)* | *(11500)* | *(12600)* | *(10100)* | *(9540)* | *(10400)* | *(10600)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | |
| Hollow Shaft OHL lbs | 22480 | 23155 | 23380 | 24055 | 24275 | 27425 | 28325 | 28100 | 28100 | 25175 | 25175 | 25175 | 25175 | |
| *(N)* | *(100000)* | *(103000)* | *(104000)* | *(107000)* | *(108000)* | *(122000)* | *(126000)* | *(125000)* | *(125000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 18730 | 20390 | 21090 | 22490 | 23720 | 25560 | 26130 | 27560 | 28600 | 28930 | 28950 | 28970 | 28970 | |
| *(N)* | *(83310)* | *(90690)* | *(93800)* | *(100030)* | *(105500)* | *(113690)* | *(116220)* | *(122580)* | *(127210)* | *(128680)* | *(128760)* | *(128850)* | *(128850)* | |





Frame Size Selection Tables 870 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

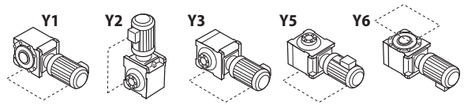



Dimensions on pages 2.156 - 2.166

| Output RPM | 14.5 | 13.0 | 11.8 | 10.9 | 9.89 | 8.53 | 7.77 | 7.07 | 5.76 | 4.86 | 4.20 | 3.49 | 2.85 | 2.09 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **25.9** | **22.9** | **20.9** | **19.2** | **17.6** | **15.2** | **13.7** | **12.6** | **10.2** | **8.61** | **7.44** | **6.18** | **5.04** | **—** | 4E190 |
| *(kW)* | *(19.3)* | *(17.1)* | *(15.6)* | *(14.3)* | *(13.1)* | *(11.3)* | *(10.2)* | *(9.36)* | *(7.62)* | *(6.42)* | *(5.55)* | *(4.61)* | *(3.76)* | *—* | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20980 | 21190 | 21360 | 21480 | 21610 | 21700 | 21740 | 21790 | 21870 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(93310)* | *(94250)* | *(95000)* | *(95540)* | *(96120)* | *(96520)* | *(96690)* | *(96920)* | *(97270)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **25.9** | **22.9** | **20.9** | **19.2** | **17.6** | **15.2** | **13.7** | **12.6** | **10.2** | **8.61** | **7.44** | **6.18** | **5.04** | **—** | 4E195 |
| *(kW)* | *(19.3)* | *(17.1)* | *(15.6)* | *(14.3)* | *(13.1)* | *(11.3)* | *(10.2)* | *(9.36)* | *(7.62)* | *(6.42)* | *(5.55)* | *(4.61)* | *(3.76)* | *—* | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 20980 | 21190 | 21360 | 21480 | 21610 | 21700 | 21740 | 21790 | 21870 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(93310)* | *(94250)* | *(95000)* | *(95540)* | *(96120)* | *(96520)* | *(96690)* | *(96920)* | *(97270)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **30.7** | **24.8** | **24.8** | **20.8** | **20.8** | **18.0** | **14.9** | **14.9** | **12.1** | **10.2** | **8.82** | **7.34** | **6.01** | **—** | 4F180 |
| *(kW)* | *(22.9)* | *(18.5)* | *(18.5)* | *(15.5)* | *(15.5)* | *(13.4)* | *(11.1)* | *(11.1)* | *(9.05)* | *(7.62)* | *(6.58)* | *(5.47)* | *(4.48)* | *—* | |
| Output Torque in•lbs | 122120 | 111500 | 122120 | 110620 | 121235 | 122120 | 111500 | 122120 | 122120 | 122120 | 122120 | 122120 | 122120 | — | |
| *(N•m)* | *(13800)* | *(12600)* | *(13800)* | *(12500)* | *(13700)* | *(13800)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | — | |
| Hollow Shaft OHL lbs | 26975 | 27425 | 26975 | 27425 | 26975 | 26975 | 27425 | 26975 | 26975 | 26975 | 26975 | 26975 | 26975 | — | |
| *(N)* | *(120000)* | *(122000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 29130 | 29220 | 29290 | 29440 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129570)* | *(129970)* | *(130280)* | *(130940)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **34.6** | **30.6** | **30.6** | **25.7** | **25.7** | **22.1** | **18.4** | **18.4** | **15.0** | **12.6** | **10.9** | **8.18** | **7.39** | **—** | 4F185 |
| *(kW)* | *(25.8)* | *(22.8)* | *(22.8)* | *(19.2)* | *(19.2)* | *(16.5)* | *(13.7)* | *(13.7)* | *(11.2)* | *(9.40)* | *(8.13)* | *(6.10)* | *(5.51)* | *—* | |
| Output Torque in•lbs | 137165 | 137165 | 150440 | 137165 | 150440 | 149555 | 137165 | 150440 | 151325 | 150440 | 150440 | 135395 | 150440 | — | |
| *(N•m)* | *(15500)* | *(15500)* | *(17000)* | *(15500)* | *(17000)* | *(16900)* | *(15500)* | *(17000)* | *(17100)* | *(17000)* | *(17000)* | *(15300)* | *(17000)* | — | |
| Hollow Shaft OHL lbs | 26300 | 26300 | 25625 | 26300 | 25625 | 25625 | 26300 | 25625 | 25625 | 25625 | 25625 | 26300 | 25625 | — | |
| *(N)* | *(117000)* | *(117000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 29130 | 29220 | 29290 | 29440 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129570)* | *(129970)* | *(130280)* | *(130940)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **40.1** | **35.5** | **32.5** | **29.8** | **27.2** | **23.5** | **21.3** | **19.4** | **15.8** | **13.4** | **11.5** | **9.60** | **7.83** | **—** | 4F190 |
| *(kW)* | *(29.9)* | *(26.5)* | *(24.2)* | *(22.2)* | *(20.3)* | *(17.5)* | *(15.9)* | *(14.5)* | *(11.8)* | *(10.0)* | *(8.60)* | *(7.20)* | *(5.80)* | *—* | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 29130 | 29220 | 29290 | 29440 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129570)* | *(129970)* | *(130280)* | *(130940)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **40.1** | **35.5** | **32.5** | **29.8** | **27.2** | **23.5** | **21.3** | **19.4** | **15.8** | **13.4** | **11.5** | **9.60** | **7.83** | **—** | 4F195 |
| *(kW)* | *(29.9)* | *(26.5)* | *(24.2)* | *(22.2)* | *(20.3)* | *(17.5)* | *(15.9)* | *(14.5* | *(11.8)* | *(10.0)* | *(8.61)* | *(7.16)* | *(5.84)* | *—* | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 28970 | 28970 | 28970 | 29130 | 29220 | 29290 | 29440 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129570)* | *(129970)* | *(130280)* | *(130940)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |

# Frame Size Selection Tables 720 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

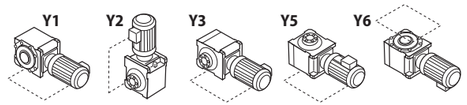
| Output RPM | 65.5 | 55.4 | 51.4 | 45.0 | 40.0 | 34.3 | 32.7 | 28.8 | 25.7 | 20.6 | 18.5 | 15.7 | 13.6 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **11** | **13** | **14** | **16** | **18** | **21** | **22** | **25** | **28** | **35** | **39** | **46** | **53** | |
| **Input Power HP** | **3.03** | **3.03** | **3.03** | **3.03** | **3.03** | **3.03** | **—** | **—** | **2.95** | **2.41** | **2.41** | **2.05** | **1.77** | |
| ***(kW)*** | ***(2.26)*** | ***(2.26)*** | ***(2.26)*** | ***(2.26)*** | ***(2.26)*** | ***(2.26)*** | **—** | **—** | ***(2.20)*** | ***(1.80)*** | ***(1.80)*** | ***(1.53)*** | ***(1.32)*** | |
| Output Torque in•lbs | 2565 | 3120 | 3415 | 3910 | 4270 | 5130 | — | — | 6660 | 6865 | 7510 | 7510 | 7510 | |
| *(N•m)* | *(290)* | *(353)* | *(386)* | *(442)* | *(483)* | *(580)* | — | — | *(753)* | *(776)* | *(849)* | *(849)* | *(849)* | **4A100** |
| Hollow Shaft OHL lbs | 4695 | 4920 | 5035 | 5190 | 5305 | 5505 | — | — | 5325 | 5260 | 5055 | 5055 | 5055 | |
| *(N)* | *(20900)* | *(21900)* | *(22400)* | *(23100)* | *(23600)* | *(24500)* | — | — | *(23700)* | *(23400)* | *(22500)* | *(22500)* | *(22500)* | |
| Solid Shaft OHL lbs | 3900 | 4180 | 4300 | 4510 | 4540 | 4580 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(17340)* | *(18590)* | *(19120)* | *(20060)* | *(20190)* | *(20370)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **3.03** | **3.03** | **3.03** | **3.03** | **3.03** | **3.03** | **—** | **—** | **2.95** | **2.98** | **2.98** | **2.45** | **2.13** | |
| ***(kW)*** | ***(2.26)*** | ***(2.26)*** | ***(2.26)*** | ***(2.26)*** | ***(2.26)*** | ***(2.26)*** | **—** | **—** | ***(2.20)*** | ***(2.22)*** | ***(2.22)*** | ***(1.83)*** | ***(1.59)*** | |
| Output Torque in•lbs | 2565 | 3120 | 3415 | 3910 | 4270 | 5130 | — | — | 6660 | 8450 | 9290 | 9025 | 9025 | |
| *(N•m)* | *(290)* | *(353)* | *(386)* | *(442)* | *(483)* | *(580)* | — | — | *(753)* | *(955)* | *(1050)* | *(1020)* | *(1020)* | **4A105** |
| Hollow Shaft OHL lbs | 4695 | 4920 | 5035 | 5190 | 5305 | 5505 | — | — | 5325 | 4740 | 4405 | 4515 | 4515 | |
| *(N)* | *(20900)* | *(21900)* | *(22400)* | *(23100)* | *(23600)* | *(24500)* | — | — | *(23700)* | *(21100)* | *(19600)* | *(20100)* | *(20100)* | |
| Solid Shaft OHL lbs | 3900 | 4180 | 4300 | 4510 | 4540 | 4580 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(17340)* | *(18590)* | *(19120)* | *(20060)* | *(20190)* | *(20370)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **3.43** | **—** | **—** | **4.76** | **3.49** | **3.49** | **2.95** | **2.55** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(2.56)*** | **—** | **—** | ***(3.55)*** | ***(2.60)*** | ***(2.60)*** | ***(2.20)*** | ***(1.90)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5810 | — | — | 10795 | 9910 | 10795 | 10795 | 10795 | |
| *(N•m)* | — | — | — | — | — | *(657)* | — | — | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | **4A110** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5415 | — | — | 3595 | 4090 | 3550 | 3550 | 3550 | |
| *(N)* | — | — | — | — | — | *(24100)* | — | — | *(16000)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4580 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(20370)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **3.43** | **—** | **—** | **4.76** | **4.02** | **3.67** | **3.11** | **2.70** | |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(2.56)*** | **—** | **—** | ***(3.55)*** | ***(3.00)*** | ***(2.74)*** | ***(2.32)*** | ***(2.01)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5810 | — | — | 10755 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | — | — | — | — | — | *(657)* | — | — | *(1215)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | **4A115** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5415 | — | — | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | — | — | — | — | — | *(24100)* | — | — | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4580 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(20370)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **9.76** | **9.66** | **9.66** | **8.84** | **8.09** | **6.50** | **6.30** | **5.78** | **5.06** | **4.02** | **3.67** | **3.11** | **2.70** | |
| ***(kW)*** | ***(7.28)*** | ***(7.20)*** | ***(7.20)*** | ***(6.59)*** | ***(6.03)*** | ***(4.85)*** | ***(4.70)*** | ***(4.31)*** | ***(3.77)*** | ***(3.00)*** | ***(2.74)*** | ***(2.32)*** | ***(2.01)*** | |
| Output Torque in•lbs | 8265 | 10000 | 10885 | 11415 | 11415 | 10970 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(934)* | *(1130)* | *(1230)* | *(1290)* | *(1290)* | *(1240)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | **4A120** |
| Hollow Shaft OHL lbs | 3910 | 3975 | 3505 | 3120 | 3120 | 3415 | 3145 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(17400)* | *(17700)* | *(15600)* | *(13900)* | *(13900)* | *(15200)* | *(14000)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3900 | 4180 | 4300 | 4510 | 4540 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(17340)* | *(18590)* | *(19120)* | *(20060)* | *(20190)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **9.80** | **9.66** | **9.66** | **8.84** | **8.09** | **6.50** | **6.30** | **5.78** | **5.06** | **4.02** | **3.67** | **3.11** | **2.70** | |
| ***(kW)*** | ***(7.28)*** | ***(7.20)*** | ***(7.20)*** | ***(6.59)*** | ***(6.03)*** | ***(4.85)*** | ***(4.70)*** | ***(4.31)*** | ***(3.77)*** | ***(3.00)*** | ***(2.74)*** | ***(2.32)*** | ***(2.01)*** | |
| Output Torque in•lbs | 8265 | 10000 | 10885 | 11415 | 11415 | 10970 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(934)* | *(1130)* | *(1230)* | *(1290)* | *(1290)* | *(1240)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | **4A125** |
| Hollow Shaft OHL lbs | 3910 | 3975 | 3505 | 3120 | 3120 | 3415 | 3145 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(17400)* | *(17700)* | *(15600)* | *(13900)* | *(13900)* | *(15200)* | *(14000)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3900 | 4180 | 4300 | 4510 | 4540 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(17340)* | *(18590)* | *(19120)* | *(20060)* | *(20190)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |





Speed Reducers

Frame Size Selection Tables 720 RPM




Single Reduction
Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

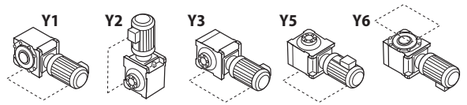
| Output RPM | 12.0 | 10.7 | 9.73 | 9.00 | 8.18 | 7.06 | 6.43 | 5.85 | 4.77 | 4.02 | 3.48 | 2.89 | 2.36 | 1.73 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **60** | **67** | **74** | **80** | **88** | **102** | **112** | **123** | **151** | **179** | **207** | **249** | **305** | **417** | |
| **Input Power HP** | **1.57** | **1.27** | **1.27** | **1.06** | **1.06** | **0.920** | **0.760** | **0.760** | **0.620** | **0.522** | **0.451** | **0.374** | **0.306** | **0.224** | |
| ***(kW)*** | ***(1.17)*** | ***(0.945)*** | ***(0.945)*** | ***(0.794)*** | ***(0.794)*** | ***(0.684)*** | ***(0.567)*** | ***(0.567)*** | ***(0.461)*** | ***(0.389)*** | ***(0.336)*** | ***(0.279)*** | ***(0.228)*** | ***(0.167)*** | |
| Output Torque in•lbs | 7510 | 6865 | 7510 | 6865 | 7510 | 7510 | 6865 | 7510 | 7510 | 7510 | 7510 | 7510 | 7510 | 7510 | |
| *(N•m)* | *(849)* | *(776)* | *(849)* | *(776)* | *(849)* | *(849)* | *(776)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | **4A100** |
| Hollow Shaft OHL lbs | 5055 | 5260 | 5055 | 5260 | 5055 | 5055 | 5260 | 5055 | 5055 | 5055 | 5055 | 5055 | 5055 | 5055 | |
| *(N)* | *(22500)* | *(23400)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **1.88** | **1.52** | **1.52** | **1.28** | **1.28** | **1.10** | **0.910** | **0.910** | **0.740** | **0.620** | **0.534** | **0.396** | **0.367** | **0.231** | |
| ***(kW)*** | ***(1.4)*** | ***(1.13)*** | ***(1.13)*** | ***(0.952)*** | ***(0.952)*** | ***(0.821)*** | ***(0.68)*** | ***(0.68)*** | ***(0.554)*** | ***(0.462)*** | ***(0.398)*** | ***(0.295)*** | ***(0.274)*** | ***(0.172)*** | |
| Output Torque in•lbs | 9025 | 8245 | 9025 | 8245 | 9025 | 9025 | 8245 | 9025 | 9025 | 8935 | 8935 | 7935 | 9025 | 7765 | |
| *(N•m)* | *(1020)* | *(932)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(1010)* | *(1010)* | *(897)* | *(1020)* | *(878)* | **4A105** |
| Hollow Shaft OHL lbs | 4515 | 4810 | 4515 | 4810 | 4515 | 4515 | 4810 | 4515 | 4515 | 4540 | 4560 | 4920 | 4515 | 4990 | |
| *(N)* | *(20100)* | *(21400)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(20200)* | *(20300)* | *(21900)* | *(20100)* | *(22200)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **2.25** | **1.82** | **1.82** | **1.53** | **1.53** | **1.32** | **1.09** | **1.09** | **0.890** | **0.750** | **0.650** | **0.539** | **0.440** | **—** | |
| ***(kW)*** | ***(1.68)*** | ***(1.36)*** | ***(1.36)*** | ***(1.14)*** | ***(1.14)*** | ***(0.985)*** | ***(0.816)*** | ***(0.816)*** | ***(0.664)*** | ***(0.56)*** | ***(0.484)*** | ***(0.402)*** | ***(0.328)*** | **—** | |
| Output Torque in•lbs | 10795 | 9910 | 10795 | 9910 | 10795 | 10795 | 9910 | 10795 | 10795 | 10795 | 10795 | 10795 | 10795 | — | |
| *(N•m)* | *(1220)* | *(1120)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | — | **4A110** |
| Hollow Shaft OHL lbs | 3550 | 4090 | 3550 | 4090 | 3550 | 3550 | 4090 | 3550 | 3550 | 3550 | 3550 | 3550 | 3550 | — | |
| *(N)* | *(15800)* | *(18200)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **2.37** | **2.11** | **1.93** | **1.77** | **1.62** | **1.39** | **1.26** | **1.15** | **0.940** | **0.790** | **0.690** | **0.570** | **0.464** | **—** | |
| ***(kW)*** | ***(1.77)*** | ***(1.57)*** | ***(1.44)*** | ***(1.32)*** | ***(1.21)*** | ***(1.04)*** | ***(0.942)*** | ***(0.861)*** | ***(0.701)*** | ***(0.591)*** | ***(0.511)*** | ***(0.424)*** | ***(0.346)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A115** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **2.37** | **2.11** | **1.93** | **1.77** | **1.62** | **1.39** | **1.26** | **1.15** | **0.940** | **0.790** | **0.690** | **0.570** | **0.464** | **—** | |
| ***(kW)*** | ***(1.77)*** | ***(1.57)*** | ***(1.44)*** | ***(1.32)*** | ***(1.21)*** | ***(1.04)*** | ***(0.942)*** | ***(0.861)*** | ***(0.701)*** | ***(0.591)*** | ***(0.511)*** | ***(0.424)*** | ***(0.346)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A120** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **2.37** | **2.11** | **1.93** | **1.77** | **1.62** | **1.39** | **1.26** | **1.15** | **0.940** | **0.790** | **0.690** | **0.570** | **0.464** | **—** | |
| ***(kW)*** | ***(1.77)*** | ***(1.57)*** | ***(1.44)*** | ***(1.32)*** | ***(1.21)*** | ***(1.04)*** | ***(0.942)*** | ***(0.861)*** | ***(0.701)*** | ***(0.591)*** | ***(0.511)*** | ***(0.424)*** | ***(0.346)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | **4A125** |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |

Speed Reducers

Selection Tables

# Frame Size Selection Tables 720 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



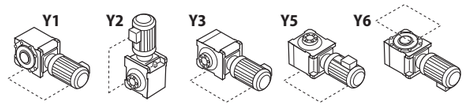

Dimensions on pages 2.156 - 2.166

| Output RPM | 65.5 | 55.4 | 51.4 | 45.0 | 40.0 | 34.3 | 32.7 | 28.8 | 25.7 | 20.6 | 18.5 | 15.7 | 13.6 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **13.4** | **11.1** | **10.1** | **8.80** | **8.09** | **6.73** | **6.32** | **5.78** | **5.06** | **4.02** | **3.67** | **3.11** | **2.70** | 4A140 |
| ***(kW)*** | ***(10.0)*** | ***(8.24)*** | ***(7.53)*** | ***(6.59)*** | ***(6.03)*** | ***(5.02)*** | ***(4.71)*** | ***(4.31)*** | ***(3.77)*** | ***(3.00)*** | ***(2.74)*** | ***(2.32)*** | ***(2.01)*** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3900 | 4180 | 4300 | 4510 | 4540 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(17340)* | *(18590)* | *(19120)* | *(20060)* | *(20190)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **13.4** | **11.1** | **10.1** | **8.80** | **8.09** | **6.73** | **6.32** | **5.78** | **5.06** | **4.02** | **3.67** | **3.11** | **2.70** | 4A145 |
| ***(kW)*** | ***(10.0)*** | ***(8.24)*** | ***(7.53)*** | ***(6.59)*** | ***(6.03)*** | ***(5.02)*** | ***(4.71)*** | ***(4.31)*** | ***(3.77)*** | ***(3.00)*** | ***(2.74)*** | ***(2.32)*** | ***(2.01)*** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 3900 | 4180 | 4300 | 4510 | 4540 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(17340)* | *(18590)* | *(19120)* | *(20060)* | *(20190)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **9.76** | **9.66** | **9.66** | **9.13** | **9.13** | **6.50** | **6.30** | **6.30** | **6.33** | **5.08** | **5.08** | **4.29** | **3.73** | 4B120 |
| ***(kW)*** | ***(7.28)*** | ***(7.20)*** | ***(7.20)*** | ***(6.81)*** | ***(6.81)*** | ***(4.85)*** | ***(4.70)*** | ***(4.70)*** | ***(4.72)*** | ***(3.79)*** | ***(3.79)*** | ***(3.20)*** | ***(2.78)*** | |
| Output Torque in•lbs | 8265 | 10000 | 10885 | 11765 | 12920 | 10970 | 11415 | 12475 | 14335 | 14420 | 15750 | 15750 | 15750 | |
| *(N•m)* | *(934)* | *(1130)* | *(1230)* | *(1330)* | *(1460)* | *(1240)* | *(1290)* | *(1410)* | *(1620)* | *(1630)* | *(1780)* | *(1780)* | *(1780)* | |
| Hollow Shaft OHL lbs | 5910 | 6135 | 6245 | 6450 | 6540 | 7190 | 7305 | 7440 | 7595 | 8225 | 8250 | 8250 | 8250 | |
| *(N)* | *(26300)* | *(27300)* | *(27800)* | *(28700)* | *(29100)* | *(32000)* | *(32500)* | *(33100)* | *(33800)* | *(36600)* | *(36700)* | *(36700)* | *(36700)* | |
| Solid Shaft OHL lbs | 4220 | 4610 | 4790 | 5120 | 5460 | 5860 | 6000 | 6370 | 6700 | 7250 | 7360 | 7450 | 7510 | |
| *(N)* | *(18770)* | *(20500)* | *(21300)* | *(22770)* | *(24280)* | *(26060)* | *(26680)* | *(28330)* | *(29800)* | *(32240)* | *(32730)* | *(33130)* | *(33400)* | |
| **Input Power HP** | **9.80** | **9.70** | **9.70** | **9.10** | **9.10** | **6.50** | **6.30** | **6.30** | **6.33** | **5.48** | **5.48** | **4.95** | **4.47** | 4B125 |
| ***(kW)*** | ***(7.28)*** | ***(7.20)*** | ***(7.20)*** | ***(6.81)*** | ***(6.81)*** | ***(4.85)*** | ***(4.70)*** | ***(4.70)*** | ***(4.72)*** | ***(4.09)*** | ***(4.09)*** | ***(3.69)*** | ***(3.33)*** | |
| Output Torque in•lbs | 8265 | 10000 | 10885 | 11765 | 12920 | 10970 | 11415 | 12475 | 14335 | 15575 | 17075 | 18230 | 18935 | |
| *(N•m)* | *(934)* | *(1130)* | *(1230)* | *(1330)* | *(1460)* | *(1240)* | *(1290)* | *(1410)* | *(1620)* | *(1760)* | *(1930)* | *(2060)* | *(2140)* | |
| Hollow Shaft OHL lbs | 5910 | 6135 | 6245 | 6450 | 6540 | 7190 | 7305 | 7440 | 7595 | 8090 | 7910 | 7575 | 7325 | |
| *(N)* | *(26300)* | *(27300)* | *(27800)* | *(28700)* | *(29100)* | *(32000)* | *(32500)* | *(33100)* | *(33800)* | *(36000)* | *(35200)* | *(33700)* | *(32600)* | |
| Solid Shaft OHL lbs | 4220 | 4610 | 4790 | 5120 | 5460 | 5860 | 6000 | 6370 | 6700 | 7250 | 7360 | 7450 | 7510 | |
| *(N)* | *(18770)* | *(20500)* | *(21300)* | *(22770)* | *(24280)* | *(26060)* | *(26680)* | *(28330)* | *(29800)* | *(32240)* | *(32730)* | *(33130)* | *(33400)* | |
| **Input Power HP** | **15.3** | **15.3** | **15.3** | **15.3** | **15.3** | **12.7** | **12.6** | **11.5** | **10.1** | **8.01** | **7.32** | **6.20** | **5.36** | 4B140 |
| ***(kW)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(9.48)*** | ***(9.38)*** | ***(8.58)*** | ***(7.51)*** | ***(5.97)*** | ***(5.46)*** | ***(4.62)*** | ***(4.00)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5415 | 5505 | 5575 | 5595 | 5620 | 6065 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(24100)* | *(24500)* | *(24800)* | *(24900)* | *(25000)* | *(27000)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 4220 | 4610 | 4790 | 5120 | 5460 | 5860 | 6000 | 6370 | 6700 | 7250 | 7360 | 7450 | 7510 | |
| *(N)* | *(18770)* | *(20500)* | *(21300)* | *(22770)* | *(24280)* | *(26060)* | *(26680)* | *(28330)* | *(29800)* | *(32240)* | *(32730)* | *(33130)* | *(33400)* | |
| **Input Power HP** | **15.3** | **15.3** | **15.3** | **15.3** | **15.3** | **12.7** | **12.6** | **11.5** | **10.1** | **8.01** | **7.32** | **6.20** | **5.36** | 4B145 |
| ***(kW)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(9.48)*** | ***(9.38)*** | ***(8.58)*** | ***(7.51)*** | ***(5.97)*** | ***(5.46)*** | ***(4.62)*** | ***(4.00)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5415 | 5505 | 5575 | 5595 | 5620 | 6065 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(24100)* | *(24500)* | *(24800)* | *(24900)* | *(25000)* | *(27000)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 4220 | 4610 | 4790 | 5120 | 5460 | 5860 | 6000 | 6370 | 6700 | 7250 | 7360 | 7450 | 7510 | |
| *(N)* | *(18770)* | *(20500)* | *(21300)* | *(22770)* | *(24280)* | *(26060)* | *(26680)* | *(28330)* | *(29800)* | *(32240)* | *(32730)* | *(33130)* | *(33400)* | |



Speed Reducers

# Frame Size Selection Tables 720 RPM




## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

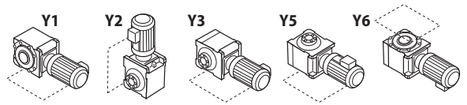
| Output RPM | 12.0 | 10.7 | 9.73 | 9.00 | 8.18 | 7.06 | 6.43 | 5.85 | 4.77 | 4.02 | 3.48 | 2.89 | 2.36 | 1.73 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **2.37** | **2.11** | **1.93** | **1.77** | **1.62** | **1.39** | **1.26** | **1.15** | **0.940** | **0.793** | **0.685** | **0.569** | **0.464** | **—** | 4A140 |
| ***(kW)*** | ***(1.77)*** | ***(1.57)*** | ***(1.44)*** | ***(1.32)*** | ***(1.21)*** | ***(1.04)*** | ***(0.942)*** | ***(0.861)*** | ***(0.701)*** | ***(0.591)*** | ***(0.511)*** | ***(0.424)*** | ***(0.346)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **2.37** | **2.11** | **1.93** | **1.77** | **1.62** | **1.39** | **1.26** | **1.15** | **0.940** | **0.793** | **0.685** | **0.569** | **0.464** | **—** | 4A145 |
| ***(kW)*** | ***(1.77)*** | ***(1.57)*** | ***(1.44)*** | ***(1.32)*** | ***(1.21)*** | ***(1.04)*** | ***(0.942)*** | ***(0.861)*** | ***(0.701)*** | ***(0.591)*** | ***(0.511)*** | ***(0.424)*** | ***(0.346)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4570 | 4570 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20320)* | *(20320)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **3.26** | **2.64** | **2.64** | **2.24** | **2.24** | **1.90** | **1.60** | **1.60** | **1.30** | **1.10** | **0.950** | **0.787** | **0.642** | **—** | 4B120 |
| ***(kW)*** | ***(2.43)*** | ***(1.97)*** | ***(1.97)*** | ***(1.67)*** | ***(1.67)*** | ***(1.42)*** | ***(1.19)*** | ***(1.19)*** | ***(0.969)*** | ***(0.817)*** | ***(0.706)*** | ***(0.587)*** | ***(0.479)*** | **—** | |
| Output Torque in•lbs | 15660 | 14335 | 15660 | 14420 | 15750 | 15660 | 14420 | 15750 | 15750 | 15750 | 15750 | 15750 | 15750 | — | |
| *(N•m)* | *(1770)* | *(1620)* | *(1770)* | *(1630)* | *(1780)* | *(1770)* | *(1630)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | — | |
| Hollow Shaft OHL lbs | 8295 | 8585 | 8270 | 8565 | 8250 | 8295 | 8565 | 8250 | 8250 | 8250 | 8250 | 8250 | 8250 | — | |
| *(N)* | *(36900)* | *(38200)* | *(36800)* | *(38100)* | *(36700)* | *(36900)* | *(38100)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | — | |
| Solid Shaft OHL lbs | 7560 | 7600 | 7600 | 7520 | 7440 | 7330 | 7260 | 7200 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33620)* | *(33800)* | *(33800)* | *(33440)* | *(33090)* | *(32600)* | *(32290)* | *(32020)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **3.94** | **3.19** | **3.19** | **2.68** | **2.68** | **2.31** | **1.92** | **1.92** | **1.56** | **1.31** | **1.14** | **0.890** | **0.771** | **—** | 4B125 |
| ***(kW)*** | ***(2.94)*** | ***(2.38)*** | ***(2.38)*** | ***(2.00)*** | ***(2.00)*** | ***(1.72)*** | ***(1.43)*** | ***(1.43)*** | ***(1.16)*** | ***(0.980)*** | ***(0.847)*** | ***(0.661)*** | ***(0.575)*** | **—** | |
| Output Torque in•lbs | 18935 | 17345 | 18935 | 17345 | 18935 | 18935 | 17345 | 18935 | 18935 | 18935 | 18935 | 17785 | 18935 | — | |
| *(N•m)* | *(2140)* | *(1960)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2010)* | *(2140)* | — | |
| Hollow Shaft OHL lbs | 7325 | 7845 | 7325 | 7845 | 7325 | 7325 | 7845 | 7325 | 7325 | 7325 | 7325 | 7685 | 7325 | — | |
| *(N)* | *(32600)* | *(34900)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(32600)* | *(32600)* | *(34200)* | *(32600)* | — | |
| Solid Shaft OHL lbs | 7560 | 7600 | 7600 | 7520 | 7440 | 7330 | 7260 | 7200 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33620)* | *(33800)* | *(33800)* | *(33440)* | *(33090)* | *(32600)* | *(32290)* | *(32020)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **4.73** | **4.20** | **3.84** | **3.53** | **3.22** | **2.78** | **2.52** | **2.31** | **1.88** | **1.58** | **1.37** | **1.13** | **0.930** | **—** | 4B140 |
| ***(kW)*** | ***(3.53)*** | ***(3.13)*** | ***(2.86)*** | ***(2.63)*** | ***(2.40)*** | ***(2.07)*** | ***(1.88)*** | ***(1.72)*** | ***(1.40)*** | ***(1.18)*** | ***(1.02)*** | ***(0.846)*** | ***(0.690)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7560 | 7600 | 7600 | 7520 | 7440 | 7330 | 7260 | 7200 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33620)* | *(33800)* | *(33800)* | *(33440)* | *(33090)* | *(32600)* | *(32290)* | *(32020)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **4.73** | **4.20** | **3.84** | **3.53** | **3.22** | **2.78** | **2.52** | **2.31** | **1.88** | **1.58** | **1.37** | **1.13** | **0.930** | **—** | 4B145 |
| ***(kW)*** | ***(3.53)*** | ***(3.13)*** | ***(2.86)*** | ***(2.63)*** | ***(2.40)*** | ***(2.07)*** | ***(1.88)*** | ***(1.72)*** | ***(1.40)*** | ***(1.18)*** | ***(1.02)*** | ***(0.846)*** | ***(0.690)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7560 | 7600 | 7600 | 7520 | 7440 | 7330 | 7260 | 7200 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33620)* | *(33800)* | *(33800)* | *(33440)* | *(33090)* | *(32600)* | *(32290)* | *(32020)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |



Speed Reducers
Selection Tables

# Frame Size Selection Tables 720 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



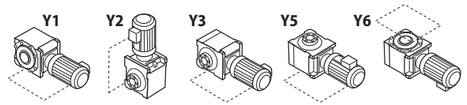

Dimensions on pages 2.156 - 2.166

| Output RPM | 65.5 | 55.4 | 51.4 | 45.0 | 40.0 | 34.3 | 32.7 | 28.8 | 25.7 | 20.6 | 18.5 | 15.7 | 13.6 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **19.3** | **19.3** | **19.3** | **17.6** | **16.1** | **13.4** | **12.6** | **11.5** | **10.1** | **8.01** | **7.32** | **6.20** | **5.36** | 4B160 |
| ***(kW)*** | ***(14.4)*** | ***(14.4)*** | ***(14.4)*** | ***(13.1)*** | ***(12.0)*** | ***(10.0)*** | ***(9.38)*** | ***(8.58)*** | ***(7.51)*** | ***(5.97)*** | ***(5.46)*** | ***(4.62)*** | ***(4.00)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5055 | 5055 | 5080 | 5260 | 5485 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(22500)* | *(22500)* | *(22600)* | *(23400)* | *(24400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 4220 | 4610 | 4790 | 5120 | 5460 | 5860 | 6000 | 6370 | 6700 | 7250 | 7360 | 7450 | 7510 | |
| *(N)* | *(18770)* | *(20500)* | *(21300)* | *(22770)* | *(24280)* | *(26060)* | *(26680)* | *(28330)* | *(29800)* | *(32240)* | *(32730)* | *(33130)* | *(33400)* | |
| **Input Power HP** | **19.3** | **19.3** | **19.3** | **17.6** | **16.1** | **13.4** | **12.6** | **11.5** | **10.1** | **8.01** | **7.32** | **6.20** | **5.36** | 4B165 |
| ***(kW)*** | ***(14.4)*** | ***(14.4)*** | ***(14.4)*** | ***(13.1)*** | ***(12.0)*** | ***(10.0)*** | ***(9.38)*** | ***(8.58)*** | ***(7.51)*** | ***(5.97)*** | ***(5.46)*** | ***(4.62)*** | ***(4.00)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5055 | 5055 | 5080 | 5260 | 5485 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(22500)* | *(22500)* | *(22600)* | *(23400)* | *(24400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 4220 | 4610 | 4790 | 5120 | 5460 | 5860 | 6000 | 6370 | 6700 | 7250 | 7360 | 7450 | 7510 | |
| *(N)* | *(18770)* | *(20500)* | *(21300)* | *(22770)* | *(24280)* | *(26060)* | *(26680)* | *(28330)* | *(29800)* | *(32240)* | *(32730)* | *(33130)* | *(33400)* | |
| **Input Power HP** | **15.3** | **15.3** | **15.3** | **15.3** | **15.3** | **12.7** | **14.2** | **14.2** | **12.3** | **11.9** | **11.9** | **10.0** | **8.70** | 4C140 |
| ***(kW)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(9.48)*** | ***(10.6)*** | ***(10.6)*** | ***(9.20)*** | ***(8.84)*** | ***(8.84)*** | ***(7.48)*** | ***(6.48)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 25665 | 28140 | 27875 | 33625 | 36810 | 36810 | 36810 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(2900)* | *(3180)* | *(3150)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | |
| Hollow Shaft OHL lbs | 8135 | 8430 | 8565 | 8745 | 8875 | 9485 | 9305 | 9395 | 9935 | 10250 | 10340 | 11060 | 11690 | |
| *(N)* | *(36200)* | *(37500)* | *(38100)* | *(38900)* | *(39500)* | *(42200)* | *(41400)* | *(41800)* | *(44200)* | *(45600)* | *(46000)* | *(49200)* | *(52000)* | |
| Solid Shaft OHL lbs | 5580 | 6130 | 6370 | 6840 | 7310 | 7870 | 8060 | 8610 | 9150 | 10050 | 10570 | 11320 | 11870 | |
| *(N)* | *(24810)* | *(27260)* | *(28330)* | *(30420)* | *(32510)* | *(35000)* | *(35850)* | *(38290)* | *(40690)* | *(44700)* | *(47010)* | *(50350)* | *(52790)* | |
| **Input Power HP** | **15.3** | **15.3** | **15.3** | **15.3** | **15.3** | **12.7** | **14.2** | **14.2** | **12.3** | **12.5** | **12.5** | **11.2** | **9.60** | 4C145 |
| ***(kW)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(11.4)*** | ***(9.48)*** | ***(10.6)*** | ***(10.6)*** | ***(9.20)*** | ***(9.32)*** | ***(9.32)*** | ***(8.36)*** | ***(7.18)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 25750 | 28140 | 27875 | 35485 | 38845 | 41150 | 40795 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(2910)* | *(3180)* | *(3150)* | *(4010)* | *(4390)* | *(4650)* | *(4610)* | |
| Hollow Shaft OHL lbs | 8135 | 8430 | 8565 | 8745 | 8875 | 9485 | 9305 | 9395 | 9935 | 10070 | 10135 | 10630 | 11060 | |
| *(N)* | *(36200)* | *(37500)* | *(38100)* | *(38900)* | *(39500)* | *(42200)* | *(41400)* | *(41800)* | *(44200)* | *(44800)* | *(45100)* | *(47300)* | *(49200)* | |
| Solid Shaft OHL lbs | 5580 | 6130 | 6370 | 6840 | 7310 | 7870 | 8060 | 8610 | 9150 | 10050 | 10570 | 11320 | 11870 | |
| *(N)* | *(24810)* | *(27260)* | *(28330)* | *(30420)* | *(32510)* | *(35000)* | *(35850)* | *(38290)* | *(40690)* | *(44700)* | *(47010)* | *(50350)* | *(52790)* | |
| **Input Power HP** | **33.9** | **33.9** | **33.9** | **33.0** | **32.2** | **23.5** | **24.0** | **23.1** | **20.1** | **16.0** | **14.6** | **12.4** | **10.7** | 4C160 |
| ***(kW)*** | ***(25.3)*** | ***(25.3)*** | ***(25.3)*** | ***(24.6)*** | ***(24.0)*** | ***(17.5)*** | ***(17.9)*** | ***(17.2)*** | ***(15.0)*** | ***(11.9)*** | ***(10.9)*** | ***(9.24)*** | ***(8.01)*** | |
| Output Torque in•lbs | 28760 | 35040 | 38315 | 42655 | 45485 | 39820 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3250)* | *(3960)* | *(4330)* | *(4820)* | *(5140)* | *(4500)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6630 | 6585 | 6585 | 6560 | 6605 | 7755 | 7620 | 7755 | 8250 | 9125 | 9415 | 9415 | 9415 | |
| *(N)* | *(29500)* | *(29300)* | *(29300)* | *(29200)* | *(29400)* | *(34500)* | *(33900)* | *(34500)* | *(36700)* | *(40600)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 5580 | 6130 | 6370 | 6840 | 7310 | 7870 | 8060 | 8610 | 9150 | 10050 | 10570 | 11320 | 11870 | |
| *(N)* | *(24810)* | *(27260)* | *(28330)* | *(30420)* | *(32510)* | *(35000)* | *(35850)* | *(38290)* | *(40690)* | *(44700)* | *(47010)* | *(50350)* | *(52790)* | |
| **Input Power HP** | **34.1** | **34.1** | **34.1** | **33.0** | **32.2** | **23.5** | **24.0** | **23.1** | **20.1** | **16.0** | **14.6** | **12.4** | **10.7** | 4C165 |
| ***(kW)*** | ***(25.4)*** | ***(25.4)*** | ***(25.4)*** | ***(24.6)*** | ***(24.0)*** | ***(17.5)*** | ***(17.9)*** | ***(17.2)*** | ***(15.0)*** | ***(11.9)*** | ***(10.9)*** | ***(9.24)*** | ***(8.01)*** | |
| Output Torque in•lbs | 28845 | 35220 | 38495 | 42655 | 45485 | 39820 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3260)* | *(3980)* | *(4350)* | *(4820)* | *(5140)* | *(4500)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6630 | 6585 | 6560 | 6560 | 6605 | 7755 | 7620 | 7755 | 8250 | 9125 | 9415 | 9415 | 9415 | |
| *(N)* | *(29500)* | *(29300)* | *(29200)* | *(29200)* | *(29400)* | *(34500)* | *(33900)* | *(34500)* | *(36700)* | *(40600)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 5580 | 6130 | 6370 | 6840 | 7310 | 7870 | 8060 | 8610 | 9150 | 10050 | 10570 | 11320 | 11870 | |
| *(N)* | *(24810)* | *(27260)* | *(28330)* | *(30420)* | *(32510)* | *(35000)* | *(35850)* | *(38290)* | *(40690)* | *(44700)* | *(47010)* | *(50350)* | *(52790)* | |





Frame Size Selection Tables 720 RPM



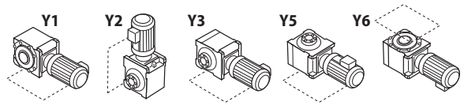

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 12.0 | 10.7 | 9.73 | 9.00 | 8.18 | 7.06 | 6.43 | 5.85 | 4.77 | 4.02 | 3.48 | 2.89 | 2.36 | 1.73 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **4.73** | **4.20** | **3.84** | **3.53** | **3.22** | **2.78** | **2.52** | **2.31** | **1.88** | **1.58** | **1.37** | **1.13** | **0.925** | **—** | 4B160 |
| ***(kW)*** | ***(3.53)*** | ***(3.13)*** | ***(2.86)*** | ***(2.63)*** | ***(2.40)*** | ***(2.07)*** | ***(1.88)*** | ***(1.72)*** | ***(1.40)*** | ***(1.18)*** | ***(1.02)*** | ***(0.846)*** | ***(0.690)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7560 | 7600 | 7600 | 7520 | 7440 | 7330 | 7260 | 7200 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33620)* | *(33800)* | *(33800)* | *(33440)* | *(33090)* | *(32600)* | *(32290)* | *(32020)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **4.73** | **4.20** | **3.84** | **3.53** | **3.22** | **2.78** | **2.52** | **2.31** | **1.88** | **1.58** | **1.37** | **1.13** | **0.925** | **—** | 4B165 |
| ***(kW)*** | ***(3.53)*** | ***(3.13)*** | ***(2.86)*** | ***(2.63)*** | ***(2.40)*** | ***(2.07)*** | ***(1.88)*** | ***(1.72)*** | ***(1.40)*** | ***(1.18)*** | ***(1.02)*** | ***(0.846)*** | ***(0.690)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7560 | 7600 | 7600 | 7520 | 7440 | 7330 | 7260 | 7200 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33620)* | *(33800)* | *(33800)* | *(33440)* | *(33090)* | *(32600)* | *(32290)* | *(32020)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **7.67** | **6.21** | **6.21** | **5.22** | **5.22** | **4.49** | **3.73** | **3.73** | **3.03** | **2.56** | **2.21** | **1.84** | **1.50** | **—** | 4C140 |
| ***(kW)*** | ***(5.72)*** | ***(4.63)*** | ***(4.63)*** | ***(3.89)*** | ***(3.89)*** | ***(3.35)*** | ***(2.78)*** | ***(2.78)*** | ***(2.26)*** | ***(1.91)*** | ***(1.65)*** | ***(1.37)*** | ***(1.12)*** | **—** | |
| Output Torque in•lbs | 36810 | 33625 | 36810 | 33625 | 36810 | 36810 | 33625 | 36810 | 36810 | 36810 | 36810 | 36810 | 36810 | — | |
| *(N•m)* | *(4160)* | *(3800)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | — | |
| Hollow Shaft OHL lbs | 12160 | 12900 | 12160 | 12900 | 12160 | 12160 | 12900 | 12160 | 12160 | 12160 | 12160 | 12160 | 12160 | — | |
| *(N)* | *(54100)* | *(57400)* | *(54100)* | *(57400)* | *(54100)* | *(54100)* | *(57400)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | — | |
| Solid Shaft OHL lbs | 12300 | 12640 | 12820 | 12780 | 12730 | 12660 | 12630 | 12590 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(54710)* | *(56220)* | *(57020)* | *(56840)* | *(56620)* | *(56310)* | *(56170)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **8.60** | **6.79** | **6.79** | **5.83** | **5.83** | **5.03** | **4.17** | **4.17** | **3.39** | **2.86** | **2.47** | **1.98** | **1.53** | **—** | 4C145 |
| ***(kW)*** | ***(6.39)*** | ***(5.06)*** | ***(5.06)*** | ***(4.35)*** | ***(4.35)*** | ***(3.75)*** | ***(3.11)*** | ***(3.11)*** | ***(2.53)*** | ***(2.13)*** | ***(1.84)*** | ***(1.48)*** | ***(1.14)*** | **—** | |
| Output Torque in•lbs | 41150 | 36810 | 40265 | 37610 | 41150 | 41150 | 37610 | 41150 | 41150 | 41150 | 41150 | 39820 | 37520 | — | |
| *(N•m)* | *(4650)* | *(4160)* | *(4550)* | *(4250)* | *(4650)* | *(4650)* | *(4250)* | *(4650)* | *(4650)* | *(4650)* | *(4650)* | *(4500)* | *(4240)* | — | |
| Hollow Shaft OHL lbs | 10945 | 12180 | 11240 | 11955 | 10945 | 10945 | 11955 | 10945 | 10945 | 10945 | 10945 | 11375 | 11980 | — | |
| *(N)* | *(48700)* | *(54200)* | *(50000)* | *(53200)* | *(48700)* | *(48700)* | *(53200)* | *(48700)* | *(48700)* | *(48700)* | *(48700)* | *(50600)* | *(53300)* | — | |
| Solid Shaft OHL lbs | 12300 | 12640 | 12820 | 12780 | 12730 | 12660 | 12630 | 12590 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(54710)* | *(56220)* | *(57020)* | *(56840)* | *(56620)* | *(56310)* | *(56170)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **9.50** | **8.40** | **7.67** | **7.04** | **6.44** | **5.55** | **5.03** | **4.60** | **3.74** | **3.15** | **2.74** | **2.27** | **1.85** | **—** | 4C160 |
| ***(kW)*** | ***(7.06)*** | ***(6.25)*** | ***(5.72)*** | ***(5.25)*** | ***(4.80)*** | ***(4.14)*** | ***(3.75)*** | ***(3.43)*** | ***(2.79)*** | ***(2.35)*** | ***(2.04)*** | ***(1.69)*** | ***(1.38)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12300 | 12640 | 12820 | 12780 | 12730 | 12660 | 12630 | 12590 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(54710)* | *(56220)* | *(57020)* | *(56840)* | *(56620)* | *(56310)* | *(56170)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **9.47** | **8.38** | **7.67** | **7.04** | **6.44** | **5.55** | **5.03** | **4.60** | **3.74** | **3.15** | **2.74** | **2.27** | **1.85** | **—** | 4C165 |
| ***(kW)*** | ***(7.06)*** | ***(6.25)*** | ***(5.72)*** | ***(5.25)*** | ***(4.80)*** | ***(4.14)*** | ***(3.75)*** | ***(3.43)*** | ***(2.79)*** | ***(2.35)*** | ***(2.04)*** | ***(1.69)*** | ***(1.38)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12300 | 12640 | 12820 | 12780 | 12730 | 12660 | 12630 | 12590 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(54710)* | *(56220)* | *(57020)* | *(56840)* | *(56620)* | *(56310)* | *(56170)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |

# Frame Size Selection Tables 720 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

| Output RPM | 65.5 | 55.4 | 51.4 | 45.0 | 40.0 | 34.3 | 32.7 | 28.8 | 25.7 | 20.6 | 18.5 | 15.7 | 13.6 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **41.4** | **41.4** | **38.4** | **35.3** | **31.1** | **24.0** | **24.0** | **23.1** | **20.1** | **16.0** | **14.6** | **12.4** | **10.7** | 4C170 |
| ***(kW)*** | ***(30.9)*** | ***(30.9)*** | ***(28.6)*** | ***(26.3)*** | ***(23.2)*** | ***(17.9)*** | ***(17.9)*** | ***(17.2)*** | ***(15.0)*** | ***(11.9)*** | ***(10.9)*** | ***(9.24)*** | ***(8.01)*** | |
| Output Torque in•lbs | 35135 | 42835 | 43370 | 45490 | 43900 | 40615 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3970)* | *(4840)* | *(4900)* | *(5140)* | *(4960)* | *(4590)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6045 | 5865 | 6090 | 6315 | 6765 | 7665 | 7640 | 7755 | 8250 | 9125 | 9415 | 9415 | 9415 | |
| *(N)* | *(26900)* | *(26100)* | *(27100)* | *(28100)* | *(30100)* | *(34100)* | *(34000)* | *(34500)* | *(36700)* | *(40600)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 7940 | 8740 | 9100 | 9760 | 10400 | 7870 | 8060 | 8610 | 9150 | 10050 | 10570 | 11320 | 11870 | |
| *(N)* | *(35310)* | *(38870)* | *(40470)* | *(43410)* | *(46430)* | *(35000)* | *(35850)* | *(38290)* | *(40690)* | *(44700)* | *(47010)* | *(50350)* | *(52790)* | |
| **Input Power HP** | **41.4** | **41.4** | **38.4** | **35.3** | **31.1** | **24.0** | **24.0** | **23.1** | **20.1** | **16.0** | **14.6** | **12.4** | **10.7** | 4C175 |
| ***(kW)*** | ***(30.9)*** | ***(30.9)*** | ***(28.6)*** | ***(26.3)*** | ***(23.2)*** | ***(17.9)*** | ***(17.9)*** | ***(17.2)*** | ***(15.0)*** | ***(11.9)*** | ***(10.9)*** | ***(9.24)*** | ***(8.01)*** | |
| Output Torque in•lbs | 35135 | 42835 | 43370 | 45490 | 43900 | 40615 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3970)* | *(4840)* | *(4900)* | *(5140)* | *(4960)* | *(4590)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6045 | 5865 | 6090 | 6315 | 6765 | 7665 | 7640 | 7755 | 8250 | 9125 | 9415 | 9415 | 9415 | |
| *(N)* | *(26900)* | *(26100)* | *(27100)* | *(28100)* | *(30100)* | *(34100)* | *(34000)* | *(34500)* | *(36700)* | *(40600)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 7940 | 8740 | 9100 | 9760 | 10440 | 7870 | 8060 | 8610 | 9150 | 10050 | 10570 | 11320 | 11870 | |
| *(N)* | *(35310)* | *(38870)* | *(40470)* | *(43410)* | *(46430)* | *(35000)* | *(35850)* | *(38290)* | *(40690)* | *(44700)* | *(47010)* | *(50350)* | *(52790)* | |
| **Input Power HP** | — | — | — | — | — | **23.5** | **26.4** | **26.4** | **23.3** | **17.0** | **17.0** | **14.3** | **12.5** | 4D160 |
| ***(kW)*** | — | — | — | — | — | ***(17.5)*** | ***(19.7)*** | ***(19.7)*** | ***(17.4)*** | ***(12.7)*** | ***(12.7)*** | ***(10.7)*** | ***(9.29)*** | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 47695 | 52120 | 52740 | 48230 | 52740 | 52740 | 52740 | |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(5390)* | *(5890)* | *(5960)* | *(5450)* | *(5960)* | *(5960)* | *(5960)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 13440 | 13105 | 13240 | 13890 | 15530 | 15710 | 16745 | 17670 | |
| *(N)* | — | — | — | — | — | *(59800)* | *(58300)* | *(58900)* | *(61800)* | *(69100)* | *(69900)* | *(74500)* | *(78600)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 11250 | 11530 | 12320 | 13110 | 14420 | 14890 | 15490 | 15930 | |
| *(N)* | — | — | — | — | — | *(50040)* | *(51280)* | *(54790)* | *(58310)* | *(64140)* | *(66230)* | *(68890)* | *(70850)* | |
| **Input Power HP** | — | — | — | — | — | **23.5** | **26.4** | **26.4** | **23.9** | **20.4** | **20.4** | **17.2** | **14.9** | 4D165 |
| ***(kW)*** | — | — | — | — | — | ***(17.5)*** | ***(19.7)*** | ***(19.7)*** | ***(17.8)*** | ***(15.2)*** | ***(15.2)*** | ***(12.8)*** | ***(11.1)*** | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 47695 | 52120 | 53890 | 57695 | 63095 | 63095 | 63095 | |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(5390)* | *(5890)* | *(6090)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 13440 | 13105 | 13240 | 13800 | 14745 | 14880 | 15755 | 15755 | |
| *(N)* | — | — | — | — | — | *(59800)* | *(58300)* | *(58900)* | *(61400)* | *(65600)* | *(66200)* | *(70100)* | *(70100)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 11250 | 11530 | 12320 | 13110 | 14420 | 14890 | 15490 | 15930 | |
| *(N)* | — | — | — | — | — | *(50040)* | *(51280)* | *(54790)* | *(58310)* | *(64140)* | *(66230)* | *(68890)* | *(70850)* | |
| **Input Power HP** | **41.4** | **41.4** | **41.4** | **41.4** | **41.4** | **33.0** | **38.5** | **38.5** | **33.7** | **24.5** | **24.5** | **20.7** | **18.0** | 4D170 |
| ***(kW)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(24.6)*** | ***(28.7)*** | ***(28.7)*** | ***(25.1)*** | ***(18.3)*** | ***(18.3)*** | ***(15.4)*** | ***(13.4)*** | |
| Output Torque in•lbs | 35130 | 42830 | 46810 | 53540 | 58495 | 55840 | 69555 | 76015 | 76015 | 69555 | 76015 | 75925 | 76015 | |
| *(N•m)* | *(3970)* | *(4840)* | *(5290)* | *(6050)* | *(6610)* | *(6310)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 10700 | 10900 | 10970 | 11035 | 11035 | 12135 | 11330 | 11305 | 11825 | 13800 | 11825 | 11865 | 11825 | |
| *(N)* | *(47600)* | *(48500)* | *(48800)* | *(49100)* | *(49100)* | *(54000)* | *(50400)* | *(50300)* | *(52600)* | *(61400)* | *(52600)* | *(52800)* | *(52600)* | |
| Solid Shaft OHL lbs | 7940 | 8740 | 9100 | 9760 | 10440 | 11250 | 11530 | 12320 | 13110 | 14420 | 14890 | 15490 | 15930 | |
| *(N)* | *(35310)* | *(38870)* | *(40470)* | *(43410)* | *(46430)* | *(50040)* | *(51280)* | *(54790)* | *(58310)* | *(64140)* | *(66230)* | *(68890)* | *(70850)* | |
| **Input Power HP** | **41.4** | **41.4** | **41.4** | **41.4** | **41.4** | **33.0** | **41.4** | **39.0** | **34.2** | **27.2** | **24.8** | **21.1** | **18.2** | 4D175 |
| ***(kW)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(24.6)*** | ***(30.9)*** | ***(29.1)*** | ***(25.5)*** | ***(20.3)*** | ***(18.5)*** | ***(15.7)*** | ***(13.6)*** | |
| Output Torque in•lbs | 35130 | 42830 | 46810 | 53540 | 58495 | 55840 | 74955 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(3970)* | *(4840)* | *(5290)* | *(6050)* | *(6610)* | *(6310)* | *(8470)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 10700 | 10900 | 10970 | 11035 | 11035 | 12135 | 10900 | 11215 | 11375 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(47600)* | *(48500)* | *(48800)* | *(49100)* | *(49100)* | *(54000)* | *(48500)* | *(49900)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 7940 | 8740 | 9100 | 9760 | 10440 | 11250 | 11530 | 12320 | 13110 | 14420 | 14890 | 15490 | 15930 | |
| *(N)* | *(35310)* | *(38870)* | *(40470)* | *(43410)* | *(46430)* | *(50040)* | *(51280)* | *(54790)* | *(58310)* | *(64140)* | *(66230)* | *(68890)* | *(70850)* | |





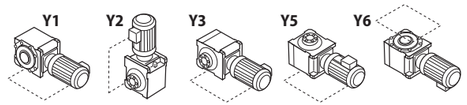




Speed Reducers

Frame Size Selection Tables 720 RPM

Single Reduction
Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

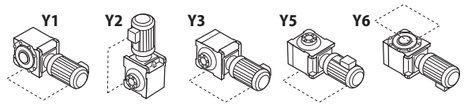
| Output RPM | 12.0 | 10.7 | 9.73 | 9.00 | 8.18 | 7.06 | 6.43 | 5.85 | 4.77 | 4.02 | 3.48 | 2.89 | 2.36 | 1.73 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **9.50** | **8.40** | **7.67** | **7.04** | **6.44** | **5.55** | **5.03** | **4.60** | **3.74** | **3.15** | **2.74** | **2.27** | **1.85** | — | 4C170 |
| ***(kW)*** | ***(7.06)*** | ***(6.25)*** | ***(5.72)*** | ***(5.25)*** | ***(4.80)*** | ***(4.14)*** | ***(3.75)*** | ***(3.43)*** | ***(2.79)*** | ***(2.35)*** | ***(2.04)*** | ***(1.69)*** | ***(1.38)*** | — | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12300 | 12640 | 12820 | 12780 | 12730 | 12660 | 12630 | 12590 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(54710)* | *(56220)* | *(57020)* | *(56840)* | *(56620)* | *(56310)* | *(56170)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **9.50** | **8.40** | **7.67** | **7.04** | **6.44** | **5.55** | **5.03** | **4.60** | **3.74** | **3.15** | **2.74** | **2.27** | **1.85** | — | 4C175 |
| ***(kW)*** | ***(7.06)*** | ***(6.25)*** | ***(5.72)*** | ***(5.25)*** | ***(4.80)*** | ***(4.14)*** | ***(3.75)*** | ***(3.43)*** | ***(2.79)*** | ***(2.35)*** | ***(2.04)*** | ***(1.69)*** | ***(1.38)*** | — | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12300 | 12640 | 12820 | 12780 | 12730 | 12660 | 12630 | 12590 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(54710)* | *(56220)* | *(57020)* | *(56840)* | *(56620)* | *(56310)* | *(56170)* | *(56000)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **11.0** | **8.90** | **8.90** | **7.47** | **7.47** | **6.44** | **5.34** | **5.34** | **4.29** | **3.66** | **3.16** | **2.63** | **2.15** | — | 4D160 |
| ***(kW)*** | ***(8.19)*** | ***(6.63)*** | ***(6.63)*** | ***(5.57)*** | ***(5.57)*** | ***(4.80)*** | ***(3.98)*** | ***(3.98)*** | ***(3.20)*** | ***(2.73)*** | ***(2.36)*** | ***(1.96)*** | ***(1.60)*** | — | |
| Output Torque in•lbs | 52740 | 48230 | 52740 | 48230 | 52740 | 52740 | 48230 | 52740 | 52120 | 52740 | 52740 | 52740 | 52740 | — | |
| *(N•m)* | *(5960)* | *(5450)* | *(5960)* | *(5450)* | *(5960)* | *(5960)* | *(5450)* | *(5960)* | *(5890)* | *(5960)* | *(5960)* | *(5960)* | *(5960)* | — | |
| Hollow Shaft OHL lbs | 17915 | 18680 | 17915 | 18680 | 17915 | 17915 | 18680 | 17915 | 18025 | 17915 | 17915 | 17915 | 17915 | — | |
| *(N)* | *(79700)* | *(83100)* | *(79700)* | *(83100)* | *(79700)* | *(79700)* | *(83100)* | *(79700)* | *(80200)* | *(79700)* | *(79700)* | *(79700)* | *(79700)* | — | |
| Solid Shaft OHL lbs | 16270 | 16540 | 16690 | 16670 | 16650 | 16620 | 16610 | 16600 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(72360)* | *(73560)* | *(74230)* | *(74140)* | *(74050)* | *(73920)* | *(73880)* | *(73830)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **13.1** | **10.6** | **10.6** | **8.90** | **8.90** | **7.71** | **6.38** | **6.38** | **5.20** | **4.39** | **3.78** | **3.15** | **2.51** | — | 4D165 |
| ***(kW)*** | ***(9.80)*** | ***(7.94)*** | ***(7.94)*** | ***(6.67)*** | ***(6.67)*** | ***(5.75)*** | ***(4.76)*** | ***(4.76)*** | ***(3.88)*** | ***(3.27)*** | ***(2.82)*** | ***(2.35)*** | ***(1.87)*** | — | |
| Output Torque in•lbs | 63095 | 57695 | 63095 | 57695 | 63095 | 63095 | 57695 | 63095 | 63095 | 63095 | 63095 | 63095 | 61680 | — | |
| *(N•m)* | *(7130)* | *(6520)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(6970)* | — | |
| Hollow Shaft OHL lbs | 15755 | 16970 | 15755 | 16970 | 15755 | 15755 | 16970 | 15755 | 15755 | 15755 | 15755 | 15755 | 16115 | — | |
| *(N)* | *(70100)* | *(75500)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(71700)* | — | |
| Solid Shaft OHL lbs | 16270 | 16540 | 16690 | 16670 | 16650 | 16620 | 16610 | 16600 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(72360)* | *(73560)* | *(74230)* | *(74140)* | *(74050)* | *(73920)* | *(73880)* | *(73830)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **15.8** | **12.8** | **12.8** | **10.8** | **10.8** | **9.30** | **7.70** | **7.70** | **6.26** | **5.28** | **4.56** | **3.80** | **3.10** | — | 4D170 |
| ***(kW)*** | ***(11.8)*** | ***(9.56)*** | ***(9.56)*** | ***(8.03)*** | ***(8.03)*** | ***(6.92)*** | ***(5.74)*** | ***(5.74)*** | ***(4.67)*** | ***(3.94)*** | ***(3.40)*** | ***(2.83)*** | ***(2.31)*** | — | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 11825 | 14050 | 11825 | 14050 | 11825 | 11825 | 14050 | 11825 | 11825 | 11825 | 11825 | 11825 | 11825 | — | |
| *(N)* | *(52600)* | *(62500)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | — | |
| Solid Shaft OHL lbs | 16270 | 16540 | 16690 | 16670 | 16650 | 16620 | 16610 | 16600 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(72360)* | *(73560)* | *(74230)* | *(74140)* | *(74050)* | *(73920)* | *(73880)* | *(73830)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **16.1** | **14.2** | **13.0** | **11.9** | **10.9** | **9.40** | **8.50** | **7.80** | **6.36** | **5.35** | **4.63** | **3.85** | **3.14** | — | 4D175 |
| ***(kW)*** | ***(12.0)*** | ***(10.6)*** | ***(9.70)*** | ***(8.91)*** | ***(8.15)*** | ***(7.03)*** | ***(6.37)*** | ***(5.82)*** | ***(4.74)*** | ***(3.99)*** | ***(3.45)*** | ***(2.87)*** | ***(2.34)*** | — | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 16270 | 16540 | 16690 | 16670 | 16650 | 16620 | 16610 | 16600 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(72360)* | *(73560)* | *(74230)* | *(74140)* | *(74050)* | *(73920)* | *(73880)* | *(73830)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |

Selection Tables

Sumitomo Drive Technologies Cyclo® BBB4

# Frame Size Selection Tables 720 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

| Output RPM | 65.5 | 55.4 | 51.4 | 45.0 | 40.0 | 34.3 | 32.7 | 28.8 | 25.7 | 20.6 | 18.5 | 15.7 | 13.6 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **11** | **13** | **14** | **16** | **18** | **21** | **22** | **25** | **28** | **35** | **39** | **46** | **53** | |
| **Input Power HP** | **55.1** | **55.1** | **55.1** | **55.1** | **54.2** | **41.4** | **36.9** | **36.9** | **32.7** | **27.2** | **24.8** | **21.1** | **18.2** | 4D180 |
| ***(kW)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(40.4)*** | ***(30.9)*** | ***(27.5)*** | ***(27.5)*** | ***(24.4)*** | ***(20.3)*** | ***(18.5)*** | ***(15.7)*** | ***(13.6)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62305 | 71160 | 76470 | 70275 | 66635 | 72930 | 73980 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7040)* | *(8040)* | *(8640)* | *(7940)* | *(7530)* | *(8240)* | *(8360)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9755 | 9755 | 9730 | 9600 | 9600 | 10990 | 11600 | 11555 | 12185 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(43400)* | *(43400)* | *(43300)* | *(42700)* | *(42700)* | *(48900)* | *(51600)* | *(51400)* | *(54200)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 7940 | 8740 | 9100 | 9760 | 10440 | 11250 | 11530 | 12320 | 13110 | 14420 | 14890 | 15490 | 15930 | |
| *(N)* | *(35310)* | *(38870)* | *(40470)* | *(43410)* | *(46430)* | *(50040)* | *(51280)* | *(54790)* | *(58310)* | *(64140)* | *(66230)* | *(68890)* | *(70850)* | |
| **Input Power HP** | **55.1** | **55.1** | **55.1** | **55.1** | **54.2** | **42.1** | **37.4** | **37.4** | **33.3** | **27.2** | **24.8** | **21.1** | **18.2** | 4D185 |
| ***(kW)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(40.4)*** | ***(31.4)*** | ***(27.9)*** | ***(27.9)*** | ***(24.8)*** | ***(20.3)*** | ***(18.5)*** | ***(15.7)*** | ***(13.6)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62305 | 71160 | 76470 | 71335 | 67620 | 73990 | 75140 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7040)* | *(8040)* | *(8640)* | *(8060)* | *(7640)* | *(8360)* | *(8490)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9755 | 9755 | 9730 | 9595 | 9595 | 10900 | 11510 | 11465 | 12095 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(43400)* | *(43400)* | *(43300)* | *(42700)* | *(42700)* | *(48500)* | *(51200)* | *(51000)* | *(53800)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 7940 | 8740 | 9100 | 9760 | 10440 | 11250 | 11530 | 12320 | 13110 | 14420 | 14890 | 15490 | 15930 | |
| *(N)* | *(35310)* | *(38870)* | *(40470)* | *(43410)* | *(46430)* | *(50040)* | *(51280)* | *(54790)* | *(58310)* | *(64140)* | *(66230)* | *(68890)* | *(70850)* | |
| **Input Power HP** | **41.4** | **41.4** | **41.4** | **41.4** | **41.4** | **33.0** | **38.5** | **38.5** | **33.7** | **24.5** | **24.5** | **20.7** | **18.0** | 4E170 |
| ***(kW)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(24.6)*** | ***(28.7)*** | ***(28.7)*** | ***(25.1)*** | ***(18.3)*** | ***(18.3)*** | ***(15.4)*** | ***(13.4)*** | |
| Output Torque in•lbs | 35130 | 42830 | 46810 | 53540 | 58495 | 55840 | 69555 | 76015 | 76015 | 69555 | 76015 | 75925 | 76015 | |
| *(N•m)* | *(3970)* | *(4840)* | *(5290)* | *(6050)* | *(6610)* | *(6310)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 14770 | 15265 | 15485 | 15755 | 15935 | 17265 | 16635 | 16790 | 17715 | 19805 | 19940 | 19960 | 19940 | |
| *(N)* | *(65700)* | *(67900)* | *(68900)* | *(70100)* | *(70900)* | *(76800)* | *(74000)* | *(74700)* | *(78800)* | *(88100)* | *(88700)* | *(88800)* | *(88700)* | |
| Solid Shaft OHL lbs | 11630 | 12660 | 13130 | 14010 | 14880 | 15910 | 16270 | 17300 | 18320 | 20030 | 20430 | 20820 | 21110 | |
| *(N)* | *(51730)* | *(56310)* | *(58400)* | *(62310)* | *(66180)* | *(70760)* | *(72360)* | *(76950)* | *(81480)* | *(89090)* | *(90870)* | *(92600)* | *(93890)* | |
| **Input Power HP** | **41.4** | **41.4** | **41.4** | **41.4** | **41.4** | **33.0** | **41.4** | **41.4** | **34.6** | **30.4** | **28.0** | **23.7** | **20.5** | 4E175 |
| ***(kW)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(30.9)*** | ***(24.6)*** | ***(30.9)*** | ***(30.9)*** | ***(25.8)*** | ***(22.7)*** | ***(20.9)*** | ***(17.7)*** | ***(15.3)*** | |
| Output Torque in•lbs | 35130 | 42830 | 46810 | 53540 | 58495 | 55840 | 74955 | 81945 | 78230 | 86545 | 86990 | 86990 | 86990 | |
| *(N•m)* | *(3970)* | *(4840)* | *(5290)* | *(6050)* | *(6610)* | *(6310)* | *(8470)* | *(9260)* | *(8840)* | *(9780)* | *(9830)* | *(9830)* | *(9830)* | |
| Hollow Shaft OHL lbs | 14770 | 15265 | 15485 | 15755 | 15935 | 17265 | 16250 | 16365 | 17555 | 18545 | 19240 | 19400 | 19400 | |
| *(N)* | *(65700)* | *(67900)* | *(68900)* | *(70100)* | *(70900)* | *(76800)* | *(72300)* | *(72800)* | *(78100)* | *(82500)* | *(85600)* | *(86300)* | *(86300)* | |
| Solid Shaft OHL lbs | 11630 | 12660 | 13130 | 14010 | 14880 | 15910 | 16270 | 17300 | 18320 | 20030 | 20430 | 20820 | 21110 | |
| *(N)* | *(51730)* | *(56310)* | *(58400)* | *(62310)* | *(66180)* | *(70760)* | *(72360)* | *(76950)* | *(81480)* | *(89090)* | *(90870)* | *(92600)* | *(93890)* | |
| **Input Power HP** | **55.1** | **55.1** | **55.1** | **55.1** | **55.1** | **41.4** | **36.9** | **36.9** | **32.7** | **36.1** | **33.0** | **27.9** | **24.3** | 4E180 |
| ***(kW)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(30.9)*** | ***(27.5)*** | ***(27.5)*** | ***(24.4)*** | ***(26.9)*** | ***(24.6)*** | ***(20.8)*** | ***(18.1)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62300 | 71150 | 77875 | 70265 | 66635 | 72920 | 73980 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7040)* | *(8040)* | *(8800)* | *(7940)* | *(7530)* | *(8240)* | *(8360)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 13915 | 14230 | 14340 | 14455 | 14520 | 16205 | 16880 | 17015 | 17850 | 17400 | 18095 | 18430 | 18430 | |
| *(N)* | *(61900)* | *(63300)* | *(63800)* | *(64300)* | *(64600)* | *(72100)* | *(75100)* | *(75700)* | *(79400)* | *(77400)* | *(80500)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 11630 | 12660 | 13130 | 14010 | 14880 | 15910 | 16270 | 17300 | 18320 | 20030 | 20430 | 20820 | 21110 | |
| *(N)* | *(51730)* | *(56310)* | *(58400)* | *(62310)* | *(66180)* | *(70760)* | *(72360)* | *(76950)* | *(81480)* | *(89090)* | *(90870)* | *(92600)* | *(93890)* | |
| **Input Power HP** | **55.1** | **55.1** | **55.1** | **55.1** | **55.1** | **42.1** | **37.4** | **37.4** | **33.3** | **36.1** | **33.0** | **27.9** | **24.3** | 4E185 |
| ***(kW)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(31.4)*** | ***(27.9)*** | ***(27.9)*** | ***(24.8)*** | ***(26.9)*** | ***(24.6)*** | ***(20.8)*** | ***(18.1)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62300 | 71150 | 77875 | 71325 | 67610 | 73980 | 75130 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7040)* | *(8040)* | *(8800)* | *(8060)* | *(7640)* | *(8360)* | *(8490)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 13915 | 14230 | 14340 | 14455 | 14520 | 16115 | 16815 | 16950 | 17760 | 17400 | 18095 | 18430 | 18430 | |
| *(N)* | *(61900)* | *(63300)* | *(63800)* | *(64300)* | *(64600)* | *(71700)* | *(74800)* | *(75400)* | *(79000)* | *(77400)* | *(80500)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 11630 | 12660 | 13130 | 14010 | 14880 | 15910 | 16270 | 17300 | 18320 | 20030 | 20430 | 20820 | 21110 | |
| *(N)* | *(51730)* | *(56310)* | *(58400)* | *(62310)* | *(66180)* | *(70760)* | *(72360)* | *(76950)* | *(81480)* | *(89090)* | *(90870)* | *(92600)* | *(93890)* | |

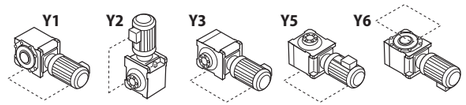




Speed Reducers

Frame Size Selection Tables 720 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

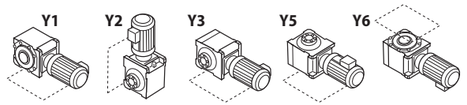
| Output RPM | 12.0 | 10.7 | 9.73 | 9.00 | 8.18 | 7.06 | 6.43 | 5.85 | 4.77 | 4.02 | 3.48 | 2.89 | 2.36 | 1.73 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **60** | **67** | **74** | **80** | **88** | **102** | **112** | **123** | **151** | **179** | **207** | **249** | **305** | **417** | |
| **Input Power HP** | **16.1** | **14.2** | **13.0** | **11.9** | **10.9** | **9.40** | **8.50** | **7.80** | **6.36** | **5.35** | **4.63** | **3.85** | **3.14** | **—** | 4D180 |
| ***(kW)*** | ***(12.0)*** | ***(10.6)*** | ***(9.70)*** | ***(8.91)*** | ***(8.15)*** | ***(7.03)*** | ***(6.37)*** | ***(5.82)*** | ***(4.74)*** | ***(3.99)*** | ***(3.45)*** | ***(2.87)*** | ***(2.34)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 16270 | 16540 | 16690 | 16670 | 16650 | 16620 | 16610 | 16600 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(72360)* | *(73560)* | *(74230)* | *(74140)* | *(74050)* | *(73920)* | *(73880)* | *(73830)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **16.1** | **14.2** | **13.0** | **11.9** | **10.9** | **9.40** | **8.50** | **7.80** | **6.36** | **5.35** | **4.63** | **3.85** | **3.14** | **—** | 4D185 |
| ***(kW)*** | ***(12.0)*** | ***(10.6)*** | ***(9.70)*** | ***(8.91)*** | ***(8.15)*** | ***(7.03)*** | ***(6.37)*** | ***(5.82)*** | ***(4.74)*** | ***(3.99)*** | ***(3.45)*** | ***(2.87)*** | ***(2.34)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 16270 | 16540 | 16690 | 16670 | 16650 | 16620 | 16610 | 16600 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(72360)* | *(73560)* | *(74230)* | *(74140)* | *(74050)* | *(73920)* | *(73880)* | *(73830)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **15.8** | **12.8** | **12.8** | **10.8** | **10.8** | **9.30** | **7.70** | **7.70** | **6.26** | **5.28** | **4.56** | **3.80** | **3.10** | **—** | 4E170 |
| ***(kW)*** | ***(11.8)*** | ***(9.56)*** | ***(9.56)*** | ***(8.03)*** | ***(8.03)*** | ***(6.92)*** | ***(5.74)*** | ***(5.74)*** | ***(4.67)*** | ***(3.94)*** | ***(3.40)*** | ***(2.83)*** | ***(2.31)*** | **—** | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 19940 | 20275 | 19940 | 20275 | 19940 | 19940 | 20275 | 19940 | 19940 | 19940 | 19940 | 19940 | 19940 | — | |
| *(N)* | *(88700)* | *(90200)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | — | |
| Solid Shaft OHL lbs | 21330 | 21500 | 21620 | 21670 | 21720 | 21790 | 21830 | 21860 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(94870)* | *(95630)* | *(96160)* | *(96380)* | *(96610)* | *(96920)* | *(97090)* | *(97230)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **18.1** | **16.0** | **14.6** | **13.4** | **12.3** | **10.6** | **9.60** | **9.60** | **7.79** | **6.57** | **5.69** | **4.72** | **3.85** | **—** | 4E175 |
| ***(kW)*** | ***(13.5)*** | ***(11.9)*** | ***(10.9)*** | ***(10.0)*** | ***(9.19)*** | ***(7.92)*** | ***(7.14)*** | ***(7.14)*** | ***(5.81)*** | ***(4.90)*** | ***(4.24)*** | ***(3.52)*** | ***(2.87)*** | **—** | |
| Output Torque in•lbs | 86990 | 86545 | 86990 | 86545 | 86990 | 86990 | 86545 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | — | |
| *(N•m)* | *(9830)* | *(9780)* | *(9830)* | *(9780)* | *(9830)* | *(9830)* | *(9780)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | — | |
| Hollow Shaft OHL lbs | 19400 | 19420 | 19400 | 19420 | 19400 | 19400 | 19420 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | — | |
| *(N)* | *(86300)* | *(86400)* | *(86300)* | *(86400)* | *(86300)* | *(86300)* | *(86400)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | — | |
| Solid Shaft OHL lbs | 21330 | 21500 | 21620 | 21670 | 21720 | 21790 | 21830 | 21860 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(94870)* | *(95630)* | *(96160)* | *(96380)* | *(96610)* | *(96920)* | *(97090)* | *(97230)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **21.3** | **18.9** | **17.3** | **16.0** | **14.5** | **12.5** | **11.4** | **10.4** | **8.40** | **7.12** | **6.16** | **5.12** | **4.18** | **—** | 4E180 |
| ***(kW)*** | ***(15.9)*** | ***(14.1)*** | ***(12.9)*** | ***(11.9)*** | ***(10.8)*** | ***(9.4)*** | ***(8.47)*** | ***(7.74)*** | ***(6.30)*** | ***(5.31)*** | ***(4.59)*** | ***(3.82)*** | ***(3.12)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21330 | 21500 | 21620 | 21670 | 21720 | 21790 | 21830 | 21860 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(94870)* | *(95630)* | *(96160)* | *(96380)* | *(96610)* | *(96920)* | *(97090)* | *(97230)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **21.3** | **18.9** | **17.3** | **16.0** | **14.5** | **12.5** | **11.4** | **10.4** | **8.40** | **7.12** | **6.16** | **5.12** | **4.18** | **—** | 4E185 |
| ***(kW)*** | ***(15.9)*** | ***(14.1)*** | ***(12.9)*** | ***(11.9)*** | ***(10.8)*** | ***(9.35)*** | ***(8.47)*** | ***(7.74)*** | ***(6.30)*** | ***(5.31)*** | ***(4.59)*** | ***(3.82)*** | ***(3.12)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21330 | 21500 | 21620 | 21670 | 21720 | 21790 | 21830 | 21860 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(94870)* | *(95630)* | *(96160)* | *(96380)* | *(96610)* | *(96920)* | *(97090)* | *(97230)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |

Speed Reducers

Selection Tables

# Frame Size Selection Tables 720 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



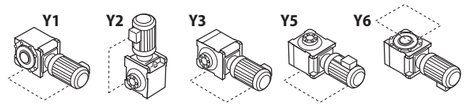

Dimensions on pages 2.156 - 2.166

| Output RPM | 65.5 | 55.4 | 51.4 | 45.0 | 40.0 | 34.3 | 32.7 | 28.8 | 25.7 | 20.6 | 18.5 | 15.7 | 13.6 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **88.6** | **88.0** | **81.0** | **77.9** | **71.7** | **51.9** | **45.7** | **45.7** | **40.6** | **36.1** | **33.0** | **27.9** | **24.3** | 4E190 |
| ***(kW)*** | ***(66.1)*** | ***(65.6)*** | ***(60.4)*** | ***(58.1)*** | ***(53.5)*** | ***(38.7)*** | ***(34.1)*** | ***(34.1)*** | ***(30.3)*** | ***(26.9)*** | ***(24.6)*** | ***(20.8)*** | ***(18.1)*** | |
| Output Torque in•lbs | 75140 | 91160 | 91160 | 100895 | 101780 | 87975 | 82655 | 90275 | 92045 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(8490)* | *(10300)* | *(10300)* | *(11400)* | *(11500)* | *(9940)* | *(9340)* | *(10200)* | *(10400)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 11845 | 11755 | 12205 | 12295 | 12790 | 14905 | 15690 | 15735 | 16545 | 17400 | 18095 | 18430 | 18430 | |
| *(N)* | *(52700)* | *(52300)* | *(54300)* | *(54700)* | *(56900)* | *(66300)* | *(69800)* | *(70000)* | *(73600)* | *(77400)* | *(80500)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 11630 | 12660 | 13130 | 14010 | 14880 | 15910 | 16270 | 17300 | 18320 | 20030 | 20430 | 20820 | 21110 | |
| *(N)* | *(51730)* | *(56310)* | *(58400)* | *(62310)* | *(66180)* | *(70760)* | *(72360)* | *(76950)* | *(81480)* | *(89090)* | *(90870)* | *(92600)* | *(93890)* | |
| **Input Power HP** | **88.6** | **88.0** | **81.0** | **77.9** | **71.7** | **52.8** | **46.7** | **46.7** | **41.4** | **36.1** | **33.0** | **27.9** | **24.3** | 4E195 |
| ***(kW)*** | ***(66.1)*** | ***(65.6)*** | ***(60.4)*** | ***(58.1)*** | ***(53.5)*** | ***(39.4)*** | ***(34.8)*** | ***(34.8)*** | ***(30.9)*** | ***(26.9)*** | ***(24.6)*** | ***(20.8)*** | ***(18.1)*** | |
| Output Torque in•lbs | 75140 | 91160 | 91160 | 100895 | 101780 | 89390 | 84335 | 92045 | 93815 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(8490)* | *(10300)* | *(10300)* | *(11400)* | *(11500)* | *(10100)* | *(9530)* | *(10400)* | *(10600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 11845 | 11755 | 12205 | 12295 | 12790 | 14790 | 15575 | 15600 | 16410 | 17400 | 18095 | 18430 | 18430 | |
| *(N)* | *(52700)* | *(52300)* | *(54300)* | *(54700)* | *(56900)* | *(65800)* | *(69300)* | *(69400)* | *(73000)* | *(77400)* | *(80500)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 11630 | 12660 | 13130 | 14010 | 14880 | 15910 | 16270 | 17300 | 18320 | 20030 | 20430 | 20820 | 21110 | |
| *(N)* | *(51730)* | *(56310)* | *(58400)* | *(62310)* | *(66180)* | *(70760)* | *(72360)* | *(76950)* | *(81480)* | *(89090)* | *(90870)* | *(92600)* | *(93890)* | |
| **Input Power HP** | **55.1** | **55.1** | **55.1** | **55.1** | **55.1** | **41.4** | **36.9** | **36.9** | **32.7** | **39.3** | **39.3** | **33.3** | **28.8** | 4F180 |
| ***(kW)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(30.9)*** | ***(27.5)*** | ***(27.5)*** | ***(24.4)*** | ***(29.3)*** | ***(29.3)*** | ***(24.8)*** | ***(21.5)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62300 | 71150 | 77875 | 70265 | 66635 | 72920 | 73980 | 111500 | 122120 | 122120 | 122120 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7040)* | *(8040)* | *(8800)* | *(7940)* | *(7530)* | *(8240)* | *(8360)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | |
| Hollow Shaft OHL lbs | 25625 | 26750 | 27200 | 27875 | 28325 | 29225 | 29225 | 29000 | 29000 | 27425 | 26975 | 26975 | 26975 | |
| *(N)* | *(114000)* | *(119000)* | *(121000)* | *(124000)* | *(126000)* | *(130000)* | *(130000)* | *(129000)* | *(129000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | |
| Solid Shaft OHL lbs | 20600 | 22300 | 23060 | 24490 | 26000 | 27700 | 28140 | 28900 | 28930 | 28960 | 28970 | 28970 | 28970 | |
| *(N)* | *(91620)* | *(99190)* | *(102570)* | *(108930)* | *(115640)* | *(123200)* | *(125160)* | *(128540)* | *(128680)* | *(128810)* | *(128850)* | *(128850)* | *(128850)* | |
| **Input Power HP** | **55.1** | **55.1** | **55.1** | **55.1** | **55.1** | **42.1** | **37.4** | **37.4** | **33.3** | **46.5** | **46.5** | **40.1** | **31.5** | 4F185 |
| ***(kW)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(41.1)*** | ***(31.4)*** | ***(27.9)*** | ***(27.9)*** | ***(24.8)*** | ***(34.7)*** | ***(34.7)*** | ***(29.9)*** | ***(23.5)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62300 | 71150 | 77875 | 71325 | 67610 | 73980 | 75130 | 131855 | 144245 | 146900 | 133625 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7040)* | *(8040)* | *(8800)* | *(8060)* | *(7640)* | *(8360)* | *(8490)* | *(14900)* | *(16300)* | *(16600)* | *(15100)* | |
| Hollow Shaft OHL lbs | 25625 | 26750 | 27200 | 27875 | 28325 | 29000 | 29225 | 29000 | 29000 | 26525 | 25850 | 25850 | 26300 | |
| *(N)* | *(114000)* | *(119000)* | *(121000)* | *(124000)* | *(126000)* | *(129000)* | *(130000)* | *(129000)* | *(129000)* | *(118000)* | *(115000)* | *(115000)* | *(117000)* | |
| Solid Shaft OHL lbs | 20600 | 22300 | 23060 | 24490 | 26000 | 27700 | 28140 | 28900 | 28930 | 28960 | 28970 | 28970 | 28970 | |
| *(N)* | *(91620)* | *(99190)* | *(102570)* | *(108930)* | *(115640)* | *(123200)* | *(125160)* | *(128540)* | *(128680)* | *(128810)* | *(128850)* | *(128850)* | *(128850)* | |
| **Input Power HP** | **88.6** | **90.5** | **90.5** | **83.3** | **83.3** | **51.9** | **45.7** | **45.7** | **40.6** | **56.1** | **51.2** | **43.3** | **37.5** | 4F190 |
| ***(kW)*** | ***(66.1)*** | ***(67.5)*** | ***(67.5)*** | ***(62.1)*** | ***(62.1)*** | ***(38.7)*** | ***(34.1)*** | ***(34.1)*** | ***(30.3)*** | ***(41.8)*** | ***(38.2)*** | ***(32.3)*** | ***(28.0)*** | |
| Output Torque in•lbs | 75130 | 93815 | 102665 | 107975 | 117715 | 87965 | 82655 | 90265 | 92035 | 159290 | 159290 | 159290 | 159290 | |
| *(N•m)* | *(8490)* | *(10600)* | *(11600)* | *(12200)* | *(13300)* | *(9940)* | *(9340)* | *(10200)* | *(10400)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | |
| Hollow Shaft OHL lbs | 23825 | 24275 | 24500 | 25400 | 25625 | 28325 | 28550 | 28325 | 28100 | 25175 | 25175 | 25175 | 25175 | |
| *(N)* | *(106000)* | *(108000)* | *(109000)* | *(113000)* | *(114000)* | *(126000)* | *(127000)* | *(126000)* | *(125000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 20600 | 22300 | 23060 | 24490 | 26000 | 27700 | 28140 | 28900 | 28930 | 28960 | 28970 | 28970 | 28970 | |
| *(N)* | *(91620)* | *(99190)* | *(102570)* | *(108930)* | *(115640)* | *(123200)* | *(125160)* | *(128540)* | *(128680)* | *(128810)* | *(128850)* | *(128850)* | *(128850)* | |
| **Input Power HP** | **88.6** | **90.5** | **90.5** | **83.3** | **83.3** | **52.8** | **46.7** | **46.7** | **41.4** | **56.1** | **51.2** | **43.3** | **37.5** | 4F195 |
| ***(kW)*** | ***(66.1)*** | ***(67.5)*** | ***(67.5)*** | ***(62.1)*** | ***(62.1)*** | ***(39.4)*** | ***(34.8)*** | ***(34.8)*** | ***(30.9)*** | ***(41.8)*** | ***(38.2)*** | ***(32.3)*** | ***(28.0)*** | |
| Output Torque in•lbs | 75130 | 93815 | 102665 | 107975 | 117715 | 89380 | 84335 | 92035 | 93805 | 159290 | 159290 | 159290 | 159290 | |
| *(N•m)* | *(8490)* | *(10600)* | *(11600)* | *(122000* | *(13300)* | *(10100)* | *(9530)* | *(10400)* | *(10600)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | |
| Hollow Shaft OHL lbs | 23825 | 24275 | 24500 | 25400 | 25625 | 28325 | 28550 | 28100 | 28100 | 25175 | 25175 | 25175 | 25175 | |
| *(N)* | *(106000)* | *(108000)* | *(109000)* | *(113000)* | *(114000)* | *(126000)* | *(127000)* | *(125000)* | *(125000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 20600 | 22300 | 23060 | 24490 | 26000 | 27700 | 28140 | 28900 | 28930 | 28960 | 28970 | 28970 | 28970 | |
| *(N)* | *(91620)* | *(99190)* | *(102570)* | *(108930)* | *(115640)* | *(123200)* | *(125160)* | *(128540)* | *(128680)* | *(128810)* | *(128850)* | *(128850)* | *(128850)* | |





Frame Size Selection Tables 720 RPM



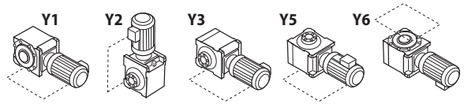

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 12.0 | 10.7 | 9.73 | 9.00 | 8.18 | 7.06 | 6.43 | 5.85 | 4.77 | 4.02 | 3.48 | 2.89 | 2.36 | 1.73 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **21.3** | **189** | **17.3** | **16.0** | **14.5** | **12.5** | **11.4** | **10.4** | **8.40** | **7.12** | **6.16** | **5.12** | **4.18** | **—** | 4E190 |
| ***(kW)*** | ***(15.9)*** | ***(14.1)*** | ***(12.9)*** | ***(11.9)*** | ***(10.8)*** | ***(9.40)*** | ***(8.47)*** | ***(7.74)*** | ***(6.30)*** | ***(5.31)*** | ***(4.59)*** | ***(3.82)*** | ***(3.12)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21330 | 21500 | 21620 | 21670 | 21720 | 21790 | 21830 | 21860 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(94870)* | *(95630)* | *(96160)* | *(96380)* | *(96610)* | *(96920)* | *(97090)* | *(97230)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **21.3** | **18.9** | **17.3** | **16.0** | **14.5** | **12.5** | **11.4** | **10.4** | **8.40** | **7.12** | **6.16** | **5.12** | **4.18** | **—** | 4E195 |
| ***(kW)*** | ***(15.9)*** | ***(14.1)*** | ***(12.9)*** | ***(11.9)*** | ***(10.8)*** | ***(9.35)*** | ***(8.47)*** | ***(7.74)*** | ***(6.30)*** | ***(5.31)*** | ***(4.59)*** | ***(3.82)*** | ***(3.12)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21330 | 21500 | 21620 | 21670 | 21720 | 21790 | 21830 | 21860 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(94870)* | *(95630)* | *(96160)* | *(96380)* | *(96610)* | *(96920)* | *(97090)* | *(97230)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **25.5** | **20.5** | **20.5** | **17.3** | **17.3** | **14.9** | **12.3** | **12.3** | **10.0** | **8.40** | **7.31** | **6.07** | **4.96** | **—** | 4F180 |
| ***(kW)*** | ***(19.0)*** | ***(15.3)*** | ***(15.3)*** | ***(12.9)*** | ***(12.9)*** | ***(11.1)*** | ***(9.19)*** | ***(9.19)*** | ***(7.49)*** | ***(6.30)*** | ***(5.45)*** | ***(4.53)*** | ***(3.70)*** | **—** | |
| Output Torque in•lbs | 122120 | 111500 | 122120 | 111500 | 122120 | 122120 | 111500 | 122120 | 122120 | 122120 | 122120 | 122120 | 122120 | — | |
| *(N•m)* | *(13800)* | *(12600)* | *(13800)* | *(12600)* | *(13800)* | *(13800)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | — | |
| Hollow Shaft OHL lbs | 26975 | 27425 | 26975 | 27425 | 26975 | 26975 | 27425 | 26975 | 26975 | 26975 | 26975 | 26975 | 26975 | — | |
| *(N)* | *(120000)* | *(122000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 29000 | 29080 | 29170 | 29290 | 29370 | 29430 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128990)* | *(129340)* | *(129740)* | *(130280)* | *(130630)* | *(130900)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **30.0** | **25.3** | **25.3** | **21.3** | **21.3** | **18.4** | **15.2** | **15.2** | **12.4** | **10.4** | **9.00** | **6.77** | **6.12** | **—** | 4F185 |
| ***(kW)*** | ***(22.4)*** | ***(18.9)*** | ***(18.9)*** | ***(15.9)*** | ***(15.9)*** | ***(13.7)*** | ***(11.3)*** | ***(11.3)*** | ***(9.23)*** | ***(7.78)*** | ***(6.73)*** | ***(5.05)*** | ***(4.56)*** | **—** | |
| Output Torque in•lbs | 144245 | 137165 | 150440 | 138050 | 150440 | 150440 | 137165 | 149555 | 150440 | 150440 | 150440 | 135395 | 150440 | — | |
| *(N•m)* | *(16300)* | *(15500)* | *(17000)* | *(15600)* | *(17000)* | *(17000)* | *(15500)* | *(16900)* | *(17000)* | *(17000)* | *(17000)* | *(15300)* | *(17000)* | — | |
| Hollow Shaft OHL lbs | 25850 | 26300 | 25625 | 26300 | 25625 | 25625 | 26300 | 25625 | 25625 | 25625 | 25625 | 26300 | 25625 | — | |
| *(N)* | *(115000)* | *(117000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 29000 | 29080 | 29170 | 29290 | 29370 | 29430 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128990)* | *(129340)* | *(129740)* | *(130280)* | *(130630)* | *(130900)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **33.1** | **29.4** | **26.8** | **24.7** | **22.5** | **19.4** | **17.6** | **16.1** | **13.1** | **11.1** | **9.60** | **7.94** | **6.48** | **—** | 4F190 |
| ***(kW)*** | ***(24.7)*** | ***(21.9)*** | ***(20.0)*** | ***(18.4)*** | ***(16.8)*** | ***(14.5)*** | ***(13.1)*** | ***(12.0)*** | ***(9.78)*** | ***(8.25)*** | ***(7.13)*** | ***(5.92)*** | ***(4.83)*** | **—** | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 29000 | 29080 | 29170 | 29290 | 29370 | 29430 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128990)* | *(129340)* | *(129740)* | *(130280)* | *(130630)* | *(130900)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **33.1** | **29.4** | **26.8** | **24.7** | **22.5** | **19.4** | **17.6** | **16.1** | **13.1** | **11.1** | **9.60** | **7.94** | **6.48** | **—** | 4F195 |
| ***(kW)*** | ***(24.7)*** | ***(21.9)*** | ***(20.0)*** | ***(18.4)*** | ***(16.8)*** | ***(14.5)*** | ***(13.1)*** | ***(12.0)*** | ***(9.78)*** | ***(8.25)*** | ***(7.13)*** | ***(5.92)*** | ***(4.83)*** | **—** | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 28970 | 28970 | 29000 | 29080 | 29170 | 29290 | 29370 | 29430 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128850)* | *(128850)* | *(128990)* | *(129340)* | *(129740)* | *(130280)* | *(130630)* | *(130900)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |

# Frame Size Selection Tables 580 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



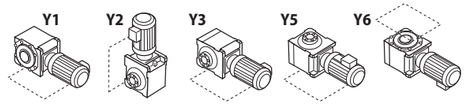

Dimensions on pages 2.156 - 2.166

| Output RPM | 52.7 | 44.6 | 41.4 | 36.3 | 32.2 | 27.6 | 26.4 | 23.2 | 20.7 | 16.6 | 14.9 | 12.6 | 10.9 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **2.44** | **2.44** | **2.44** | **2.44** | **2.44** | **2.44** | — | — | **2.49** | **1.94** | **1.94** | **1.65** | **1.43** | 4A100 |
| ***(kW)*** | ***(1.82)*** | ***(1.82)*** | ***(1.82)*** | ***(1.82)*** | ***(1.82)*** | ***(1.82)*** | — | — | ***(1.86)*** | ***(1.45)*** | ***(1.45)*** | ***(1.23)*** | ***(1.07)*** | |
| Output Torque in•lbs | 2565 | 3120 | 3415 | 3910 | 4270 | 5130 | — | — | 7015 | 6865 | 7510 | 7510 | 7510 | |
| *(N•m)* | *(290)* | *(353)* | *(386)* | *(442)* | *(483)* | *(580)* | — | — | *(793)* | *(776)* | *(849)* | *(849)* | *(849)* | |
| Hollow Shaft OHL lbs | 5035 | 5280 | 5415 | 5575 | 5685 | 5665 | — | — | 5215 | 5260 | 5055 | 5055 | 5055 | |
| *(N)* | *(22400)* | *(23500)* | *(24100)* | *(24800)* | *(25300)* | *(25200)* | — | — | *(23200)* | *(23400)* | *(22500)* | *(22500)* | *(22500)* | |
| Solid Shaft OHL lbs | 4260 | 4510 | 4530 | 4570 | 4580 | 4580 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(18940)* | *(20060)* | *(20140)* | *(20320)* | *(20370)* | *(20370)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **2.44** | **2.44** | **2.44** | **2.44** | **2.44** | **2.44** | **—** | **—** | **2.49** | **2.40** | **2.40** | **1.98** | **1.72** | 4A105 |
| ***(kW)*** | ***(1.82)*** | ***(1.82)*** | ***(1.82)*** | ***(1.82)*** | ***(1.82)*** | ***(1.82)*** | **—** | **—** | ***(1.86)*** | ***(1.79)*** | ***(1.79)*** | ***(1.48)*** | ***(1.28)*** | |
| Output Torque in•lbs | 2565 | 3120 | 3415 | 3910 | 4270 | 5130 | — | — | 7015 | 8450 | 9290 | 9025 | 9025 | |
| *(N•m)* | *(290)* | *(353)* | *(386)* | *(442)* | *(483)* | *(580)* | — | — | *(793)* | *(955)* | *(1050)* | *(1020)* | *(1020)* | |
| Hollow Shaft OHL lbs | 5035 | 5280 | 5415 | 5575 | 5685 | 5665 | — | — | 5215 | 4740 | 4405 | 4515 | 4515 | |
| *(N)* | *(22400)* | *(23500)* | *(24100)* | *(24800)* | *(25300)* | *(25200)* | — | — | *(23200)* | *(21100)* | *(19600)* | *(20100)* | *(20100)* | |
| Solid Shaft OHL lbs | 4260 | 4510 | 4530 | 4570 | 4580 | 4580 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(18940)* | *(20060)* | *(20140)* | *(20320)* | *(20370)* | *(20370)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **2.76** | **—** | **—** | **3.50** | **2.80** | **2.80** | **2.37** | **2.05** | 4A110 |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(2.06)*** | **—** | **—** | ***(2.61)*** | ***(2.09)*** | ***(2.09)*** | ***(1.77)*** | ***(1.53)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5810 | — | — | 9820 | 9910 | 10795 | 10795 | 10795 | |
| *(N•m)* | — | — | — | — | — | *(657)* | — | — | *(1110)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5530 | — | — | 3550 | 4090 | 3550 | 3550 | 3550 | |
| *(N)* | — | — | — | — | — | *(24600)* | — | — | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4580 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(20370)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **2.76** | **—** | **—** | **3.50** | **3.23** | **2.96** | **2.51** | **2.17** | 4A115 |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(2.06)*** | **—** | **—** | ***(2.61)*** | ***(2.41)*** | ***(2.21)*** | ***(1.87)*** | ***(1.62)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5810 | — | — | 9820 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | — | — | — | — | — | *(657)* | — | — | *(1110)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5530 | — | — | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | — | — | — | — | — | *(24600)* | — | — | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4580 | — | — | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(20370)* | — | — | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **7.86** | **7.86** | **7.86** | **7.12** | **6.52** | **5.23** | **5.08** | **4.65** | **4.06** | **3.23** | **2.96** | **2.51** | **2.17** | 4A120 |
| ***(kW)*** | ***(5.86)*** | ***(5.86)*** | ***(5.86)*** | ***(5.31)*** | ***(4.86)*** | ***(3.90)*** | ***(3.79)*** | ***(3.47)*** | ***(3.03)*** | ***(2.41)*** | ***(2.21)*** | ***(1.87)*** | ***(1.62)*** | |
| Output Torque in•lbs | 8265 | 10085 | 11060 | 11415 | 11415 | 10970 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(934)* | *(1140)* | *(1250)* | *(1290)* | *(1290)* | *(1240)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 4245 | 4000 | 3415 | 3120 | 3120 | 3415 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(18900)* | *(17800)* | *(15200)* | *(13900)* | *(13900)* | *(15200)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 4260 | 4510 | 4530 | 4570 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(18940)* | *(20060)* | *(20140)* | *(20320)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **7.86** | **7.86** | **7.86** | **7.12** | **6.52** | **5.23** | **5.08** | **4.65** | **4.06** | **3.23** | **2.96** | **2.51** | **2.17** | 4A125 |
| ***(kW)*** | ***(5.86)*** | ***(5.86)*** | ***(5.86)*** | ***(5.31)*** | ***(4.86)*** | ***(3.90)*** | ***(3.79)*** | ***(3.47)*** | ***(3.03)*** | ***(2.41)*** | ***(2.21)*** | ***(1.87)*** | ***(1.62)*** | |
| Output Torque in•lbs | 8265 | 10085 | 11060 | 11415 | 11415 | 10970 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(934)* | *(1140)* | *(1250)* | *(1290)* | *(1290)* | *(1240)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 4245 | 4000 | 3415 | 3120 | 3120 | 3415 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(18900)* | *(17800)* | *(15200)* | *(13900)* | *(13900)* | *(15200)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 4260 | 4510 | 4530 | 4570 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(18940)* | *(20060)* | *(20140)* | *(20320)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |





# Frame Size Selection Tables 580 RPM



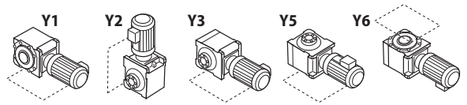

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 9.67 | 8.66 | 7.84 | 7.25 | 6.59 | 5.69 | 5.18 | 4.72 | 3.84 | 3.24 | 2.80 | 2.33 | 1.90 | 1.39 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **1.26** | **1.02** | **1.02** | **0.860** | **0.860** | **0.740** | **0.610** | **0.610** | **0.500** | **0.420** | **0.363** | **0.302** | **0.247** | **0.180** | 4A100 |
| ***(kW)*** | ***(0.94)*** | ***(0.761)*** | ***(0.761)*** | ***(0.639)*** | ***(0.639)*** | ***(0.551)*** | ***(0.457)*** | ***(0.457)*** | ***(0.372)*** | ***(0.313)*** | ***(0.271)*** | ***(0.225)*** | ***(0.184)*** | ***(0.134)*** | |
| Output Torque in•lbs | 7510 | 6865 | 7510 | 6865 | 7510 | 7510 | 6865 | 7510 | 7510 | 7510 | 7510 | 7510 | 7510 | 7510 | |
| *(N•m)* | *(849)* | *(776)* | *(849)* | *(776)* | *(849)* | *(849)* | *(776)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | |
| Hollow Shaft OHL lbs | 5055 | 5260 | 5055 | 5260 | 5055 | 5055 | 5260 | 5055 | 5055 | 5055 | 5055 | 5055 | 5055 | 5055 | |
| *(N)* | *(22500)* | *(23400)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | |
| Solid Shaft OHL lbs | 4570 | 4560 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **1.52** | **1.22** | **1.22** | **1.03** | **1.03** | **0.89** | **0.730** | **0.730** | **0.600** | **0.499** | **0.430** | **0.319** | **0.295** | **0.186** | 4A105 |
| ***(kW)*** | ***(1.13)*** | ***(0.913)*** | ***(0.913)*** | ***(0.767)*** | ***(0.767)*** | ***(0.661)*** | ***(0.548)*** | ***(0.548)*** | ***(0.446)*** | ***(0.372)*** | ***(0.321)*** | ***(0.238)*** | ***(0.220)*** | ***(0.139)*** | |
| Output Torque in•lbs | 9025 | 8245 | 9025 | 8245 | 9025 | 9025 | 8245 | 9025 | 9025 | 8935 | 8935 | 7935 | 9025 | 7765 | |
| *(N•m)* | *(1020)* | *(932)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(1010)* | *(1010)* | *(897)* | *(1020)* | *(878)* | |
| Hollow Shaft OHL lbs | 4515 | 4810 | 4515 | 4810 | 4515 | 4515 | 4810 | 4515 | 4515 | 4540 | 4560 | 4920 | 4515 | 4990 | |
| *(N)* | *(20100)* | *(21400)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(20200)* | *(20300)* | *(21900)* | *(20100)* | *(22200)* | |
| Solid Shaft OHL lbs | 4570 | 4560 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **1.81** | **1.48** | **1.48** | **1.24** | **1.24** | **1.06** | **0.880** | **0.880** | **0.720** | **0.600** | **0.520** | **0.434** | **0.355** | **—** | 4A110 |
| ***(kW)*** | ***(1.35)*** | ***(1.10)*** | ***(1.10)*** | ***(0.921)*** | ***(0.921)*** | ***(0.794)*** | ***(0.658)*** | ***(0.658)*** | ***(0.535)*** | ***(0.451)*** | ***(0.390)*** | ***(0.324)*** | ***(0.265)*** | **—** | |
| Output Torque in•lbs | 10795 | 9910 | 10795 | 9910 | 10795 | 10795 | 9910 | 10795 | 10795 | 10795 | 10795 | 10795 | 10795 | — | |
| *(N•m)* | *(1220)* | *(1120)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | — | |
| Hollow Shaft OHL lbs | 3550 | 4090 | 3550 | 4090 | 3550 | 3550 | 4090 | 3550 | 3550 | 3550 | 3550 | 3550 | 3550 | — | |
| *(N)* | *(15800)* | *(18200)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | — | |
| Solid Shaft OHL lbs | 4570 | 4560 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **1.92** | **1.69** | **1.56** | **1.42** | **1.30** | **1.12** | **1.02** | **0.930** | **0.760** | **0.640** | **0.550** | **0.460** | **0.374** | **—** | 4A115 |
| ***(kW)*** | ***(1.43)*** | ***(1.26)*** | ***(1.16)*** | ***(1.06)*** | ***(0.971)*** | ***(0.837)*** | ***(0.759)*** | ***(0.694)*** | ***(0.565)*** | ***(0.476)*** | ***(0.411)*** | ***(0.342)*** | ***(0.279)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4570 | 4560 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **1.92** | **1.69** | **1.56** | **1.42** | **1.30** | **1.12** | **1.02** | **0.930** | **0.760** | **0.640** | **0.550** | **0.460** | **0.374** | **—** | 4A120 |
| ***(kW)*** | ***(1.43)*** | ***(1.26)*** | ***(1.16)*** | ***(1.06)*** | ***(0.971)*** | ***(0.837)*** | ***(0.759)*** | ***(0.694)*** | ***(0.565)*** | ***(0.476)*** | ***(0.411)*** | ***(0.342)*** | ***(0.279)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4570 | 4560 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **1.92** | **1.69** | **1.56** | **1.42** | **1.30** | **1.12** | **1.02** | **0.930** | **0.760** | **0.640** | **0.550** | **0.460** | **0.374** | **—** | 4A125 |
| ***(kW)*** | ***(1.43)*** | ***(1.26)*** | ***(1.16)*** | ***(1.06)*** | ***(0.971)*** | ***(0.837)*** | ***(0.759)*** | ***(0.694)*** | ***(0.565)*** | ***(0.476)*** | ***(0.411)*** | ***(0.342)*** | ***(0.279)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4570 | 4560 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |

# Frame Size Selection Tables 580 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



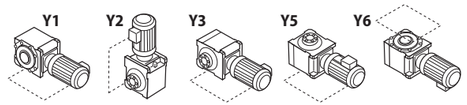

Dimensions on pages 2.156 - 2.166

| Output RPM | 52.7 | 44.6 | 41.4 | 36.3 | 32.2 | 27.6 | 26.4 | 23.2 | 20.7 | 16.6 | 14.9 | 12.6 | 10.9 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **10.8** | **8.90** | **8.10** | **7.10** | **6.52** | **5.43** | **5.08** | **4.65** | **4.06** | **3.23** | **2.96** | **2.51** | **2.17** | 4A140 |
| ***(kW)*** | ***(8.09)*** | ***(6.64)*** | ***(6.07)*** | ***(5.31)*** | ***(4.86)*** | ***(4.05)*** | ***(3.79)*** | ***(3.47)*** | ***(3.03)*** | ***(2.41)*** | ***(2.21)*** | ***(1.87)*** | ***(1.62)*** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 4260 | 4510 | 4530 | 4570 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(18940)* | *(20060)* | *(20140)* | *(20320)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **10.8** | **8.90** | **8.10** | **7.10** | **6.52** | **5.43** | **5.08** | **4.65** | **4.06** | **3.23** | **2.96** | **2.51** | **2.17** | 4A145 |
| ***(kW)*** | ***(8.09)*** | ***(6.64)*** | ***(6.07)*** | ***(5.31)*** | ***(4.86)*** | ***(4.05)*** | ***(3.79)*** | ***(3.47)*** | ***(3.03)*** | ***(2.41)*** | ***(2.21)*** | ***(1.87)*** | ***(1.62)*** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 4260 | 4510 | 4530 | 4570 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | |
| *(N)* | *(18940)* | *(20060)* | *(20140)* | *(20320)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | |
| **Input Power HP** | **7.86** | **7.86** | **7.86** | **7.86** | **7.86** | **5.23** | **5.34** | **5.34** | **5.36** | **4.09** | **4.09** | **3.46** | **3.00** | 4B120 |
| ***(kW)*** | ***(5.86)*** | ***(5.86)*** | ***(5.86)*** | ***(5.86)*** | ***(5.86)*** | ***(3.90)*** | ***(3.98)*** | ***(3.98)*** | ***(4.00)*** | ***(3.05)*** | ***(3.05)*** | ***(2.58)*** | ***(2.24)*** | |
| Output Torque in•lbs | 8265 | 10085 | 11060 | 12565 | 13805 | 10970 | 12035 | 13095 | 15040 | 14420 | 15750 | 15750 | 15750 | |
| *(N•m)* | *(934)* | *(1140)* | *(1250)* | *(1420)* | *(1560)* | *(1240)* | *(1360)* | *(1480)* | *(1700)* | *(1630)* | *(1780)* | *(1780)* | *(1780)* | |
| Hollow Shaft OHL lbs | 6380 | 6605 | 6740 | 6875 | 6990 | 7755 | 7820 | 7955 | 8135 | 8565 | 8250 | 8250 | 8250 | |
| *(N)* | *(28400)* | *(29400)* | *(30000)* | *(30600)* | *(31100)* | *(34500)* | *(34800)* | *(35400)* | *(36200)* | *(38100)* | *(36700)* | *(36700)* | *(36700)* | |
| Solid Shaft OHL lbs | 4730 | 5140 | 5360 | 5710 | 6010 | 6490 | 6630 | 6970 | 7240 | 7420 | 7470 | 7540 | 7600 | |
| *(N)* | *(21030)* | *(22860)* | *(23840)* | *(25390)* | *(26730)* | *(28860)* | *(29490)* | *(31000)* | *(32200)* | *(33000)* | *(33220)* | *(33530)* | *(33800)* | |
| **Input Power HP** | **7.86** | **7.86** | **7.86** | **7.86** | **7.86** | **5.23** | **5.34** | **5.34** | **5.36** | **4.65** | **4.65** | **4.16** | **3.61** | 4B125 |
| ***(kW)*** | ***(5.86)*** | ***(5.86)*** | ***(5.86)*** | ***(5.86)*** | ***(5.86)*** | ***(3.90)*** | ***(3.98)*** | ***(3.98)*** | ***(4.00)*** | ***(3.47)*** | ***(3.47)*** | ***(3.10)*** | ***(2.69)*** | |
| Output Torque in•lbs | 8265 | 10085 | 11060 | 12565 | 13805 | 10970 | 12035 | 13095 | 15040 | 16370 | 17960 | 18935 | 18935 | |
| *(N•m)* | *(934)* | *(1140)* | *(1250)* | *(1420)* | *(1560)* | *(1240)* | *(1360)* | *(1480)* | *(1700)* | *(1850)* | *(2030)* | *(2140)* | *(2140)* | |
| Hollow Shaft OHL lbs | 6380 | 6605 | 6740 | 6875 | 6990 | 7755 | 7820 | 7955 | 8135 | 8090 | 7640 | 7325 | 7325 | |
| *(N)* | *(28400)* | *(29400)* | *(30000)* | *(30600)* | *(31100)* | *(34500)* | *(34800)* | *(35400)* | *(36200)* | *(36000)* | *(34000)* | *(32600)* | *(32600)* | |
| Solid Shaft OHL lbs | 4730 | 5140 | 5360 | 5710 | 6010 | 6490 | 6630 | 6970 | 7240 | 7420 | 7470 | 7540 | 7600 | |
| *(N)* | *(21030)* | *(22860)* | *(23840)* | *(25390)* | *(26730)* | *(28860)* | *(29490)* | *(31000)* | *(32200)* | *(33000)* | *(33220)* | *(33530)* | *(33800)* | |
| **Input Power HP** | **12.3** | **12.3** | **12.3** | **12.3** | **12.3** | **10.2** | **10.1** | **9.3** | **8.1** | **6.45** | **5.90** | **4.99** | **4.32** | 4B140 |
| ***(kW)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(7.64)*** | ***(7.56)*** | ***(6.91)*** | ***(6.05)*** | ***(4.81)*** | ***(4.40)*** | ***(3.72)*** | ***(3.22)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5865 | 6000 | 6065 | 6110 | 6155 | 6290 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(26100)* | *(26700)* | *(27000)* | *(27200)* | *(27400)* | *(28000)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 4730 | 5140 | 5360 | 5710 | 6010 | 6490 | 6630 | 6970 | 7240 | 7420 | 7470 | 7540 | 7600 | |
| *(N)* | *(21030)* | *(22860)* | *(23840)* | *(25390)* | *(26730)* | *(28860)* | *(29490)* | *(31000)* | *(32200)* | *(33000)* | *(33220)* | *(33530)* | *(33800)* | |
| **Input Power HP** | **12.3** | **12.3** | **12.3** | **12.3** | **12.3** | **10.2** | **10.1** | **9.30** | **8.10** | **6.45** | **5.90** | **4.99** | **4.32** | 4B145 |
| ***(kW)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(7.64)*** | ***(7.56)*** | ***(6.91)*** | ***(6.05)*** | ***(4.81)*** | ***(4.40)*** | ***(3.72)*** | ***(3.22)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5865 | 6000 | 6065 | 6110 | 6155 | 6290 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(26100)* | *(26700)* | *(27000)* | *(27200)* | *(27400)* | *(28000)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 4730 | 5140 | 5360 | 5710 | 6010 | 6490 | 6630 | 6970 | 7240 | 7420 | 7470 | 7540 | 7600 | |
| *(N)* | *(21030)* | *(22860)* | *(23840)* | *(25390)* | *(26730)* | *(28860)* | *(29490)* | *(31000)* | *(32200)* | *(33000)* | *(33220)* | *(33530)* | *(33800)* | |





# Frame Size Selection Tables 580 RPM



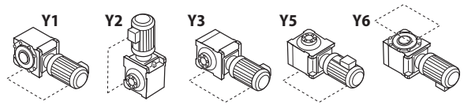

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 9.67 | 8.66 | 7.84 | 7.25 | 6.59 | 5.69 | 5.18 | 4.72 | 3.84 | 3.24 | 2.80 | 2.33 | 1.90 | 1.39 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **1.92** | **1.69** | **1.56** | **1.42** | **1.30** | **1.12** | **1.02** | **0.931** | **0.758** | **0.638** | **0.551** | **0.459** | **0.374** | **—** | 4A140 |
| ***(kW)*** | ***(1.43)*** | ***(1.26)*** | ***(1.16)*** | ***(1.06)*** | ***(0.971)*** | ***(0.837)*** | ***(0.759)*** | ***(0.694)*** | ***(0.565)*** | ***(0.476)*** | ***(0.411)*** | ***(0.342)*** | ***(0.279)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4570 | 4560 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **1.92** | **1.69** | **1.56** | **1.42** | **1.30** | **1.12** | **1.02** | **0.930** | **0.760** | **0.638** | **0.551** | **0.459** | **0.374** | **—** | 4A145 |
| ***(kW)*** | ***(1.43)*** | ***(1.26)*** | ***(1.16)*** | ***(1.06)*** | ***(0.971)*** | ***(0.837)*** | ***(0.759)*** | ***(0.694)*** | ***(0.565)*** | ***(0.476)*** | ***(0.411)*** | ***(0.342)*** | ***(0.279)*** | **—** | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4570 | 4560 | 4560 | 4550 | 4550 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20320)* | *(20280)* | *(20280)* | *(20230)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **2.63** | **2.13** | **2.13** | **1.80** | **1.80** | **1.54** | **1.29** | **1.29** | **1.05** | **0.880** | **0.760** | **0.634** | **0.518** | **—** | 4B120 |
| ***(kW)*** | ***(1.96)*** | ***(1.59)*** | ***(1.59)*** | ***(1.34)*** | ***(1.34)*** | ***(1.15)*** | ***(0.959)*** | ***(0.959)*** | ***(0.781)*** | ***(0.658)*** | ***(0.569)*** | ***(0.473)*** | ***(0.386)*** | **—** | |
| Output Torque in•lbs | 15660 | 14335 | 15660 | 14420 | 15750 | 15660 | 14420 | 15750 | 15750 | 15750 | 15750 | 15750 | 15750 | — | |
| *(N•m)* | *(1770)* | *(1620)* | *(1770)* | *(1630)* | *(1780)* | *(1770)* | *(1630)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | — | |
| Hollow Shaft OHL lbs | 8295 | 8585 | 8270 | 8565 | 8250 | 8295 | 8565 | 8250 | 8250 | 8250 | 8250 | 8250 | 8250 | — | |
| *(N)* | *(36900)* | *(38200)* | *(36800)* | *(38100)* | *(36700)* | *(36900)* | *(38100)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | — | |
| Solid Shaft OHL lbs | 7590 | 7490 | 7400 | 7350 | 7280 | 7190 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33760)* | *(33310)* | *(32910)* | *(32690)* | *(32380)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **3.18** | **2.57** | **2.57** | **2.16** | **2.16** | **1.86** | **1.54** | **1.54** | **1.26** | **1.06** | **0.920** | **0.710** | **0.621** | **—** | 4B125 |
| ***(kW)*** | ***(2.37)*** | ***(1.92)*** | ***(1.92)*** | ***(1.61)*** | ***(1.61)*** | ***(1.39)*** | ***(1.15)*** | ***(1.15)*** | ***(0.937)*** | ***(0.790)*** | ***(0.683)*** | ***(0.533)*** | ***(0.463)*** | **—** | |
| Output Torque in•lbs | 18935 | 17345 | 18935 | 17345 | 18935 | 18935 | 17345 | 18935 | 18935 | 18935 | 18935 | 17785 | 18935 | — | |
| *(N•m)* | *(2140)* | *(1960)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2010)* | *(2140)* | — | |
| Hollow Shaft OHL lbs | 7325 | 7845 | 7325 | 7845 | 7325 | 7325 | 7845 | 7325 | 7325 | 7325 | 7325 | 7685 | 7325 | — | |
| *(N)* | *(32600)* | *(34900)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(32600)* | *(32600)* | *(34200)* | *(32600)* | — | |
| Solid Shaft OHL lbs | 7590 | 7490 | 7400 | 7350 | 7280 | 7190 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33760)* | *(33310)* | *(32910)* | *(32690)* | *(32380)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **3.82** | **3.38** | **3.08** | **2.84** | **2.59** | **2.24** | **2.02** | **1.85** | **1.50** | **1.27** | **1.10** | **0.910** | **0.750** | **—** | 4B140 |
| ***(kW)*** | ***(2.85)*** | ***(2.52)*** | ***(2.30)*** | ***(2.12)*** | ***(1.93)*** | ***(1.67)*** | ***(1.51)*** | ***(1.38)*** | ***(1.12)*** | ***(0.948)*** | ***(0.820)*** | ***(0.681)*** | ***(0.556)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7590 | 7490 | 7400 | 7350 | 7280 | 7190 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33760)* | *(33310)* | *(32910)* | *(32690)* | *(32380)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **3.82** | **3.38** | **3.08** | **2.84** | **2.59** | **2.24** | **2.02** | **1.85** | **1.50** | **1.27** | **1.10** | **0.910** | **0.750** | **—** | 4B145 |
| ***(kW)*** | ***(2.85)*** | ***(2.52)*** | ***(2.30)*** | ***(2.12)*** | ***(1.93)*** | ***(1.67)*** | ***(1.51)*** | ***(1.38)*** | ***(1.12)*** | ***(0.948)*** | ***(0.820)*** | ***(0.681)*** | ***(0.556)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7590 | 7490 | 7400 | 7350 | 7280 | 7190 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33760)* | *(33310)* | *(32910)* | *(32690)* | *(32380)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |

# Frame Size Selection Tables 580 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



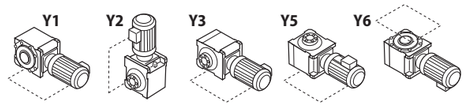

Dimensions on pages 2.156 - 2.166

| Output RPM | 52.7 | 44.6 | 41.4 | 36.3 | 32.2 | 27.6 | 26.4 | 23.2 | 20.7 | 16.6 | 14.9 | 12.6 | 10.9 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **15.6** | **15.6** | **15.6** | **14.2** | **13.0** | **10.8** | **10.1** | **9.27** | **8.11** | **6.45** | **5.90** | **4.99** | **4.32** | 4B160 |
| ***(kW)*** | ***(11.6)*** | ***(11.6)*** | ***(11.6)*** | ***(10.6)*** | ***(9.67)*** | ***(8.06)*** | ***(7.56)*** | ***(6.91)*** | ***(6.05)*** | ***(4.81)*** | ***(4.40)*** | ***(3.72)*** | ***(3.22)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5505 | 5550 | 5575 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(24500)* | *(24700)* | *(24800)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 4730 | 5140 | 5360 | 5710 | 6010 | 6490 | 6630 | 6970 | 7240 | 7420 | 7470 | 7540 | 7600 | |
| *(N)* | *(21030)* | *(22860)* | *(23840)* | *(25390)* | *(26730)* | *(28860)* | *(29490)* | *(31000)* | *(32200)* | *(33000)* | *(33220)* | *(33530)* | *(33800)* | |
| **Input Power HP** | **15.6** | **15.6** | **15.6** | **14.2** | **13.0** | **10.8** | **10.1** | **9.27** | **8.11** | **6.45** | **5.90** | **4.99** | **4.32** | 4B165 |
| ***(kW)*** | ***(11.6)*** | ***(11.6)*** | ***(11.6)*** | ***(10.6)*** | ***(9.67)*** | ***(8.06)*** | ***(7.56)*** | ***(6.91)*** | ***(6.05)*** | ***(4.81)*** | ***(4.40)*** | ***(3.72)*** | ***(3.22)*** | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5505 | 5550 | 5575 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(24500)* | *(24700)* | *(24800)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 4730 | 5140 | 5360 | 5710 | 6010 | 6490 | 6630 | 6970 | 7240 | 7420 | 7470 | 7540 | 7600 | |
| *(N)* | *(21030)* | *(22860)* | *(23840)* | *(25390)* | *(26730)* | *(28860)* | *(29490)* | *(31000)* | *(32200)* | *(33000)* | *(33220)* | *(33530)* | *(33800)* | |
| **Input Power HP** | **12.3** | **12.3** | **12.3** | **12.3** | **12.3** | **10.2** | **12.1** | **12.1** | **10.5** | **9.55** | **9.55** | **8.07** | **7.00** | 4C140 |
| ***(kW)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(7.64)*** | ***(9.00)*** | ***(9.00)*** | ***(7.80)*** | ***(7.12)*** | ***(7.12)*** | ***(6.02)*** | ***(5.22)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 27075 | 29645 | 29380 | 33625 | 36810 | 36810 | 36810 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(3060)* | *(3350)* | *(3320)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | |
| Hollow Shaft OHL lbs | 8765 | 9100 | 9260 | 9460 | 9595 | 10250 | 9955 | 10070 | 10630 | 11150 | 11260 | 12025 | 12160 | |
| *(N)* | *(39000)* | *(40500)* | *(41200)* | *(42100)* | *(42700)* | *(45600)* | *(44300)* | *(44800)* | *(47300)* | *(49600)* | *(50100)* | *(53500)* | *(54100)* | |
| Solid Shaft OHL lbs | 6290 | 6870 | 7170 | 7670 | 8090 | 8810 | 9040 | 9590 | 10030 | 11070 | 11530 | 12140 | 12580 | |
| *(N)* | *(27970)* | *(30550)* | *(31890)* | *(34110)* | *(35980)* | *(39180)* | *(40200)* | *(42650)* | *(44610)* | *(49230)* | *(51280)* | *(53990)* | *(55950)* | |
| **Input Power HP** | **12.3** | **12.3** | **12.3** | **12.3** | **12.3** | **10.2** | **12.1** | **12.1** | **10.5** | **10.1** | **10.1** | **9.03** | **7.76** | 4C145 |
| ***(kW)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(9.17)*** | ***(7.64)*** | ***(9.00)*** | ***(9.00)*** | ***(7.80)*** | ***(7.51)*** | ***(7.51)*** | ***(6.73)*** | ***(5.79)*** | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 27075 | 29645 | 29380 | 35485 | 38845 | 41150 | 40795 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(3060)* | *(3350)* | *(3320)* | *(4010)* | *(4390)* | *(4650)* | *(4610)* | |
| Hollow Shaft OHL lbs | 8765 | 9100 | 9260 | 9460 | 9595 | 10250 | 9955 | 10070 | 10630 | 10970 | 11080 | 10945 | 11060 | |
| *(N)* | *(39000)* | *(40500)* | *(41200)* | *(42100)* | *(42700)* | *(45600)* | *(44300)* | *(44800)* | *(47300)* | *(48800)* | *(49300)* | *(48700)* | *(49200)* | |
| Solid Shaft OHL lbs | 6290 | 6870 | 7170 | 7670 | 8090 | 8810 | 9040 | 9590 | 10030 | 11070 | 11530 | 12140 | 12580 | |
| *(N)* | *(27970)* | *(30550)* | *(31890)* | *(34110)* | *(35980)* | *(39180)* | *(40200)* | *(42650)* | *(44610)* | *(49230)* | *(51280)* | *(53990)* | *(55950)* | |
| **Input Power HP** | **27.5** | **27.5** | **27.5** | **27.5** | **25.9** | **18.9** | **19.3** | **18.5** | **16.2** | **12.9** | **11.8** | **10.0** | **8.6** | 4C160 |
| ***(kW)*** | ***(20.5)*** | ***(20.5)*** | ***(20.5)*** | ***(20.5)*** | ***(19.3)*** | ***(14.1)*** | ***(14.4)*** | ***(13.8)*** | ***(12.1)*** | ***(9.62)*** | ***(8.79)*** | ***(7.44)*** | ***(6.45)*** | |
| Output Torque in•lbs | 28845 | 35220 | 38495 | 43980 | 45485 | 39820 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3260)* | *(3980)* | *(4350)* | *(4970)* | *(5140)* | *(4500)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 7260 | 7235 | 7235 | 7145 | 7325 | 8520 | 8405 | 8565 | 9100 | 9415 | 9415 | 9415 | 9415 | |
| *(N)* | *(32300)* | *(32200)* | *(32200)* | *(31800)* | *(32600)* | *(37900)* | *(37400)* | *(38100)* | *(40500)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 6290 | 6870 | 7170 | 7670 | 8090 | 8810 | 9040 | 9590 | 10030 | 11070 | 11530 | 12140 | 12580 | |
| *(N)* | *(27970)* | *(30550)* | *(31890)* | *(34110)* | *(35980)* | *(39180)* | *(40200)* | *(42650)* | *(44610)* | *(49230)* | *(51280)* | *(53990)* | *(55950)* | |
| **Input Power HP** | **27.5** | **27.5** | **27.5** | **27.5** | **25.9** | **18.9** | **19.3** | **18.5** | **16.2** | **12.9** | **11.8** | **10.0** | **8.65** | 4C165 |
| ***(kW)*** | ***(20.5)*** | ***(20.5)*** | ***(20.5)*** | ***(20.5)*** | ***(19.3)*** | ***(14.1)*** | ***(14.4)*** | ***(13.8)*** | ***(12.1)*** | ***(9.62)*** | ***(8.79)*** | ***(7.44)*** | ***(6.45)*** | |
| Output Torque in•lbs | 28845 | 35220 | 38495 | 43980 | 45485 | 39820 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3260)* | *(3980)* | *(4350)* | *(4970)* | *(5140)* | *(4500)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 7260 | 7235 | 7235 | 7145 | 7325 | 8520 | 8405 | 8565 | 9100 | 9415 | 9415 | 9415 | 9415 | |
| *(N)* | *(32300)* | *(32200)* | *(32200)* | *(31800)* | *(32600)* | *(37900)* | *(37400)* | *(38100)* | *(40500)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 6290 | 6870 | 7170 | 7670 | 8090 | 8810 | 9040 | 9590 | 10030 | 11070 | 11530 | 12140 | 12580 | |
| *(N)* | *(27970)* | *(30550)* | *(31890)* | *(34110)* | *(35980)* | *(39180)* | *(40200)* | *(42650)* | *(44610)* | *(49230)* | *(51280)* | *(53990)* | *(55950)* | |





# Frame Size Selection Tables 580 RPM



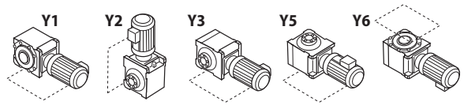

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 9.67 | 8.66 | 7.84 | 7.25 | 6.59 | 5.69 | 5.18 | 4.72 | 3.84 | 3.24 | 2.80 | 2.33 | 1.90 | 1.39 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **3.82** | **3.38** | **3.08** | **2.84** | **2.59** | **2.24** | **2.02** | **1.85** | **1.50** | **1.27** | **1.10** | **0.913** | **0.746** | **—** | 4B160 |
| ***(kW)*** | ***(2.85)*** | ***(2.52)*** | ***(2.30)*** | ***(2.12)*** | ***(1.93)*** | ***(1.67)*** | ***(1.51)*** | ***(1.38)*** | ***(1.12)*** | ***(0.948)*** | ***(0.820)*** | ***(0.681)*** | ***(0.556)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7590 | 7490 | 7400 | 7350 | 7280 | 7190 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33760)* | *(33310)* | *(32910)* | *(32690)* | *(32380)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **3.82** | **3.38** | **3.08** | **2.84** | **2.59** | **2.24** | **2.02** | **1.85** | **1.50** | **1.27** | **1.10** | **0.913** | **0.746** | **—** | 4B165 |
| ***(kW)*** | ***(2.85)*** | ***(2.52)*** | ***(2.30)*** | ***(2.12)*** | ***(1.93)*** | ***(1.67)*** | ***(1.51)*** | ***(1.38)*** | ***(1.12)*** | ***(0.948)*** | ***(0.820)*** | ***(0.681)*** | ***(0.556)*** | **—** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7590 | 7490 | 7400 | 7350 | 7280 | 7190 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(33760)* | *(33310)* | *(32910)* | *(32690)* | *(32380)* | *(31980)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | **6.18** | **5.00** | **5.00** | **4.20** | **4.20** | **3.62** | **3.00** | **3.00** | **2.44** | **2.07** | **1.78** | **1.48** | **1.21** | **—** | 4C140 |
| ***(kW)*** | ***(4.61)*** | ***(3.73)*** | ***(3.73)*** | ***(3.13)*** | ***(3.13)*** | ***(2.70)*** | ***(2.24)*** | ***(2.24)*** | ***(1.82)*** | ***(1.54)*** | ***(1.33)*** | ***(1.10)*** | ***(0.900)*** | **—** | |
| Output Torque in•lbs | 36810 | 33625 | 36810 | 33625 | 36810 | 36810 | 33625 | 36810 | 36810 | 36810 | 36810 | 36810 | 36810 | — | |
| *(N•m)* | *(4160)* | *(3800)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | — | |
| Hollow Shaft OHL lbs | 12160 | 12900 | 12160 | 12900 | 12160 | 12160 | 12900 | 12160 | 12160 | 12160 | 12160 | 12160 | 12160 | — | |
| *(N)* | *(54100)* | *(57400)* | *(54100)* | *(57400)* | *(54100)* | *(54100)* | *(57400)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | — | |
| Solid Shaft OHL lbs | 12820 | 12760 | 12710 | 12680 | 12640 | 12580 | 12560 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(57020)* | *(56750)* | *(56530)* | *(56400)* | *(56220)* | *(55950)* | *(55860)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **6.91** | **5.46** | **5.46** | **4.69** | **4.69** | **4.05** | **3.35** | **3.35** | **2.74** | **2.31** | **1.98** | **1.60** | **1.23** | **—** | 4C145 |
| ***(kW)*** | ***(5.15)*** | ***(4.07)*** | ***(4.07)*** | ***(3.50)*** | ***(3.50)*** | ***(3.02)*** | ***(2.50)*** | ***(2.50)*** | ***(2.04)*** | ***(1.72)*** | ***(1.48)*** | ***(1.19)*** | ***(0.917)*** | **—** | |
| Output Torque in•lbs | 41150 | 36810 | 40265 | 37610 | 41150 | 41150 | 37610 | 41150 | 41150 | 41150 | 41150 | 39820 | 37520 | — | |
| *(N•m)* | *(4650)* | *(4160)* | *(4550)* | *(4250)* | *(4650)* | *(4650)* | *(4250)* | *(4650)* | *(4650)* | *(4650)* | *(4650)* | *(4500)* | *(4240)* | — | |
| Hollow Shaft OHL lbs | 10945 | 12180 | 11240 | 11955 | 10945 | 10945 | 11955 | 10945 | 10945 | 10945 | 10945 | 11375 | 11980 | — | |
| *(N)* | *(48700)* | *(54200)* | *(50000)* | *(53200)* | *(48700)* | *(48700)* | *(53200)* | *(48700)* | *(48700)* | *(48700)* | *(48700)* | *(50600)* | *(53300)* | — | |
| Solid Shaft OHL lbs | 12820 | 12760 | 12710 | 12680 | 12640 | 12580 | 12560 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(57020)* | *(56750)* | *(56530)* | *(56400)* | *(56220)* | *(55950)* | *(55860)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **7.63** | **6.76** | **6.18** | **5.67** | **5.19** | **4.48** | **4.05** | **3.70** | **3.02** | **2.55** | **2.20** | **1.82** | **1.49** | **—** | 4C160 |
| ***(kW)*** | ***(5.69)*** | ***(5.04)*** | ***(4.61)*** | ***(4.23)*** | ***(3.87)*** | ***(3.34)*** | ***(3.02)*** | ***(2.76)*** | ***(2.25)*** | ***(1.90)*** | ***(1.64)*** | ***(1.36)*** | ***(1.11)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12820 | 12760 | 12710 | 12680 | 12640 | 12580 | 12560 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(57020)* | *(56750)* | *(56530)* | *(56400)* | *(56220)* | *(55950)* | *(55860)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **7.63** | **6.76** | **6.18** | **5.67** | **5.19** | **4.48** | **4.05** | **3.70** | **3.02** | **2.55** | **2.20** | **1.82** | **1.49** | **—** | 4C165 |
| ***(kW)*** | ***(5.69)*** | ***(5.04)*** | ***(4.61)*** | ***(4.23)*** | ***(3.87)*** | ***(3.34)*** | ***(3.02)*** | ***(2.76)*** | ***(2.25)*** | ***(1.90)*** | ***(1.64)*** | ***(1.36)*** | ***(1.11)*** | **—** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12820 | 12760 | 12710 | 12680 | 12640 | 12580 | 12560 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(57020)* | *(56750)* | *(56530)* | *(56400)* | *(56220)* | *(55950)* | *(55860)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |

# Frame Size Selection Tables 580 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

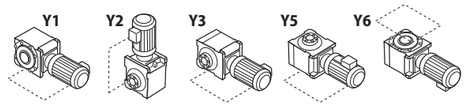
| Output RPM | 52.7 | 44.6 | 41.4 | 36.3 | 32.2 | 27.6 | 26.4 | 23.2 | 20.7 | 16.6 | 14.9 | 12.6 | 10.9 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **33.4** | **33.4** | **31.0** | **28.4** | **25.1** | **19.3** | **19.3** | **18.5** | **16.2** | **12.9** | **11.8** | **10.0** | **8.60** | |
| ***(kW)*** | ***(24.9)*** | ***(24.9)*** | ***(23.1)*** | ***(21.2)*** | ***(18.7)*** | ***(14.4)*** | ***(14.4)*** | ***(13.8)*** | ***(12.1)*** | ***(9.62)*** | ***(8.79)*** | ***(7.44)*** | ***(6.45)*** | |
| Output Torque in•lbs | 35135 | 42835 | 43365 | 45490 | 43900 | 40615 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3970)* | *(4840)* | *(4900)* | *(5140)* | *(4960)* | *(4590)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6650 | 6540 | 6785 | 7010 | 7485 | 8450 | 8430 | 8565 | 9100 | 9415 | 9415 | 9415 | 9415 | |
| *(N)* | *(29600)* | *(29100)* | *(30200)* | *(31200)* | *(33300)* | *(37600)* | *(37500)* | *(38100)* | *(40500)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 6930 | 6810 | 7070 | 7305 | 7800 | 8810 | 9040 | 9590 | 10030 | 11070 | 11530 | 12140 | 12580 | |
| *(N)* | *(30830)* | *(30310)* | *(31460)* | *(32510)* | *(34700)* | *(39180)* | *(40200)* | *(42650)* | *(44610)* | *(49230)* | *(51280)* | *(53990)* | *(55950)* | |
| **Input Power HP** | **33.4** | **33.4** | **31.0** | **28.4** | **25.1** | **19.3** | **19.3** | **18.5** | **16.2** | **12.9** | **11.8** | **10.0** | **8.60** | |
| ***(kW)*** | ***(24.9)*** | ***(24.9)*** | ***(23.1)*** | ***(21.2)*** | ***(18.7)*** | ***(14.4)*** | ***(14.4)*** | ***(13.8)*** | ***(12.1)*** | ***(9.62)*** | ***(8.79)*** | ***(7.44)*** | ***(6.45)*** | |
| Output Torque in•lbs | 35135 | 42835 | 43365 | 45490 | 43900 | 40615 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3970)* | *(4840)* | *(4900)* | *(5140)* | *(4960)* | *(4590)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 6650 | 6540 | 6785 | 7010 | 7485 | 8450 | 8430 | 8565 | 9100 | 9415 | 9415 | 9415 | 9415 | |
| *(N)* | *(29600)* | *(29100)* | *(30200)* | *(31200)* | *(33300)* | *(37600)* | *(37500)* | *(38100)* | *(40500)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 6930 | 6810 | 7070 | 7305 | 7800 | 8810 | 9040 | 9590 | 10030 | 11070 | 11530 | 12140 | 12580 | |
| *(N)* | *(30830)* | *(30310)* | *(31460)* | *(32510)* | *(34700)* | *(39180)* | *(40200)* | *(42650)* | *(44610)* | *(49230)* | *(51280)* | *(53990)* | *(55950)* | |
| **Input Power HP** | — | — | — | — | — | **18.9** | **21.5** | **21.5** | **18.8** | **13.7** | **13.7** | **11.6** | **10.0** | |
| ***(kW)*** | — | — | — | — | — | ***(14.1)*** | ***(16.0)*** | ***(16.0)*** | ***(14.0)*** | ***(10.2)*** | ***(10.2)*** | ***(8.63)*** | ***(7.48)*** | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 48230 | 52740 | 52740 | 48230 | 52740 | 52740 | 52740 | |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(5450)* | *(5960)* | *(5960)* | *(5450)* | *(5960)* | *(5960)* | *(5960)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 14545 | 14205 | 14340 | 15105 | 16815 | 17060 | 17915 | 17915 | |
| *(N)* | — | — | — | — | — | *(64700)* | *(63200)* | *(63800)* | *(67200)* | *(74800)* | *(75900)* | *(79700)* | *(79700)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 12620 | 12940 | 13750 | 14380 | 15300 | 15660 | 16140 | 16490 | |
| *(N)* | — | — | — | — | — | *(56130)* | *(57550)* | *(61160)* | *(63960)* | *(68050)* | *(69650)* | *(71790)* | *(73340)* | |
| **Input Power HP** | — | — | — | — | — | **18.9** | **22.1** | **22.1** | **20.0** | **16.4** | **16.4** | **13.8** | **12.0** | |
| ***(kW)*** | — | — | — | — | — | ***(14.1)*** | ***(16.5)*** | ***(16.5)*** | ***(14.9)*** | ***(12.2)*** | ***(12.2)*** | ***(10.3)*** | ***(8.95)*** | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 49645 | 54335 | 56105 | 57695 | 63095 | 63095 | 63095 | |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(5610)* | *(6140)* | *(6340)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 14545 | 14070 | 14230 | 14835 | 16050 | 15755 | 15755 | 15755 | |
| *(N)* | — | — | — | — | — | *(64700)* | *(62600)* | *(63300)* | *(66000)* | *(71400)* | *(70100)* | *(70100)* | *(70100)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 12620 | 12940 | 13750 | 14380 | 15300 | 15660 | 16140 | 16490 | |
| *(N)* | — | — | — | — | — | *(56130)* | *(57550)* | *(61160)* | *(63960)* | *(68050)* | *(69650)* | *(71790)* | *(73340)* | |
| **Input Power HP** | **33.4** | **33.4** | **33.4** | **33.4** | **33.4** | **26.6** | **31.0** | **31.0** | **27.1** | **19.7** | **19.7** | **16.6** | **14.5** | |
| ***(kW)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(19.8)*** | ***(23.1)*** | ***(23.1)*** | ***(20.2)*** | ***(14.7)*** | ***(14.7)*** | ***(12.4)*** | ***(10.8)*** | |
| Output Torque in•lbs | 35130 | 42830 | 46810 | 53540 | 58580 | 55840 | 69555 | 76015 | 76015 | 69555 | 76015 | 75925 | 76015 | |
| *(N•m)* | *(3970)* | *(4840)* | *(5290)* | *(6050)* | *(6620)* | *(6310)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 11600 | 11870 | 11960 | 12050 | 12095 | 13260 | 12475 | 11825 | 11825 | 14050 | 11825 | 11865 | 11825 | |
| *(N)* | *(51600)* | *(52800)* | *(53200)* | *(53600)* | *(53800)* | *(59000)* | *(55500)* | *(52600)* | *(52600)* | *(62500)* | *(52600)* | *(52800)* | *(52600)* | |
| Solid Shaft OHL lbs | 8980 | 9810 | 10240 | 10950 | 11570 | 12620 | 12940 | 13750 | 14380 | 15300 | 15660 | 16140 | 16490 | |
| *(N)* | *(39940)* | *(43630)* | *(45540)* | *(48700)* | *(51460)* | *(56130)* | *(57550)* | *(61160)* | *(63960)* | *(68050)* | *(69650)* | *(71790)* | *(73340)* | |
| **Input Power HP** | **33.4** | **33.4** | **33.4** | **33.4** | **33.4** | **26.6** | **33.4** | **31.4** | **27.5** | **21.9** | **20.0** | **16.9** | **14.6** | |
| ***(kW)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(19.8)*** | ***(24.9)*** | ***(23.4)*** | ***(20.5)*** | ***(16.3)*** | ***(14.9)*** | ***(12.6)*** | ***(10.9)*** | |
| Output Torque in•lbs | 35130 | 42830 | 46810 | 53540 | 58580 | 55840 | 74955 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(3970)* | *(4840)* | *(5290)* | *(6050)* | *(6620)* | *(6310)* | *(8470)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 11600 | 11870 | 11960 | 12050 | 12095 | 13260 | 12025 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(51600)* | *(52800)* | *(53200)* | *(53600)* | *(53800)* | *(59000)* | *(53500)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 8980 | 9810 | 10240 | 10950 | 11570 | 12620 | 12940 | 13750 | 14380 | 15300 | 15660 | 16140 | 16490 | |
| *(N)* | *(39940)* | *(43630)* | *(45540)* | *(48700)* | *(51460)* | *(56130)* | *(57550)* | *(61160)* | *(63960)* | *(68050)* | *(69650)* | *(71790)* | *(73340)* | |





Speed Reducers

Frame Size Selection Tables 580 RPM




Single Reduction
Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

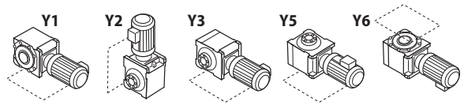
| Output RPM | 9.67 | 8.66 | 7.84 | 7.25 | 6.59 | 5.69 | 5.18 | 4.72 | 3.84 | 3.24 | 2.80 | 2.33 | 1.90 | 1.39 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **7.63** | **6.76** | **6.18** | **5.67** | **5.19** | **4.48** | **4.05** | **3.70** | **3.02** | **2.55** | **2.20** | **1.82** | **1.49** | — | |
| ***(kW)*** | ***(5.69)*** | ***(5.04)*** | ***(4.61)*** | ***(4.23)*** | ***(3.87)*** | ***(3.34)*** | ***(3.02)*** | ***(2.76)*** | ***(2.25)*** | ***(1.90)*** | ***(1.64)*** | ***(1.36)*** | ***(1.11)*** | — | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12820 | 12760 | 12710 | 12680 | 12640 | 12580 | 12560 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(57020)* | *(56750)* | *(56530)* | *(56400)* | *(56220)* | *(55950)* | *(55860)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **7.63** | **6.80** | **6.18** | **5.67** | **5.19** | **4.48** | **4.05** | **3.70** | **3.02** | **2.55** | **2.20** | **1.82** | **1.49** | — | |
| ***(kW)*** | ***(5.69)*** | ***(5.04)*** | ***(4.61)*** | ***(4.23)*** | ***(3.87)*** | ***(3.34)*** | ***(3.02)*** | ***(2.76)*** | ***(2.25)*** | ***(1.90)*** | ***(1.64)*** | ***(1.36)*** | ***(1.11)*** | — | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12820 | 12760 | 12710 | 12680 | 12640 | 12580 | 12560 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(57020)* | *(56750)* | *(56530)* | *(56400)* | *(56220)* | *(55950)* | *(55860)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | **8.85** | **7.16** | **7.16** | **6.02** | **6.02** | **5.19** | **4.30** | **4.30** | **3.46** | **2.95** | **2.55** | **2.12** | **1.73** | — | |
| ***(kW)*** | ***(6.60)*** | ***(5.34)*** | ***(5.34)*** | ***(4.49)*** | ***(4.49)*** | ***(3.87)*** | ***(3.21)*** | ***(3.21)*** | ***(2.58)*** | ***(2.20)*** | ***(1.90)*** | ***(1.58)*** | ***(1.29)*** | — | |
| Output Torque in•lbs | 52740 | 48230 | 52740 | 48230 | 52740 | 52740 | 48230 | 52740 | 52120 | 52740 | 52740 | 52740 | 52740 | — | |
| *(N•m)* | *(5960)* | *(5450)* | *(5960)* | *(5450)* | *(5960)* | *(5960)* | *(5450)* | *(5960)* | *(5890)* | *(5960)* | *(5960)* | *(5960)* | *(5960)* | — | |
| Hollow Shaft OHL lbs | 17915 | 18680 | 17915 | 18680 | 17915 | 17915 | 18680 | 17915 | 18025 | 17915 | 17915 | 17915 | 17915 | — | |
| *(N)* | *(79700)* | *(83100)* | *(79700)* | *(83100)* | *(79700)* | *(79700)* | *(83100)* | *(79700)* | *(80200)* | *(79700)* | *(79700)* | *(79700)* | *(79700)* | — | |
| Solid Shaft OHL lbs | 16690 | 16660 | 16640 | 16630 | 16610 | 16590 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(74230)* | *(74100)* | *(74010)* | *(73970)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **10.6** | **8.60** | **8.60** | **7.20** | **7.20** | **6.21** | **5.15** | **5.15** | **4.18** | **3.53** | **3.06** | **2.53** | **2.02** | — | |
| ***(kW)*** | ***(7.90)*** | ***(6.39)*** | ***(6.39)*** | ***(5.37)*** | ***(5.37)*** | ***(4.63)*** | ***(3.84)*** | ***(3.84)*** | ***(3.12)*** | ***(2.63)*** | ***(2.28)*** | ***(1.89)*** | ***(1.51)*** | — | |
| Output Torque in•lbs | 63095 | 57695 | 63095 | 57695 | 63095 | 63095 | 57695 | 63095 | 63095 | 63095 | 63095 | 63095 | 61680 | — | |
| *(N•m)* | *(7130)* | *(6520)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(6970)* | — | |
| Hollow Shaft OHL lbs | 15755 | 16970 | 15755 | 16970 | 15755 | 15755 | 16970 | 15755 | 15755 | 15755 | 15755 | 15755 | 16115 | — | |
| *(N)* | *(70100)* | *(75500)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(71700)* | — | |
| Solid Shaft OHL lbs | 16690 | 16660 | 16640 | 16630 | 16610 | 16590 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(74230)* | *(74100)* | *(74010)* | *(73970)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **12.8** | **10.3** | **10.3** | **8.70** | **8.70** | **7.50** | **6.20** | **6.20** | **5.04** | **4.25** | **3.67** | **3.06** | **2.49** | — | |
| ***(kW)*** | ***(9.51)*** | ***(7.70)*** | ***(7.70)*** | ***(6.47)*** | ***(6.47)*** | ***(5.58)*** | ***(4.62)*** | ***(4.62)*** | ***(3.76)*** | ***(3.17)*** | ***(2.74)*** | ***(2.28)*** | ***(1.86)*** | — | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 11825 | 14050 | 11825 | 14050 | 11825 | 11825 | 14050 | 11825 | 11825 | 11825 | 11825 | 11825 | 11825 | — | |
| *(N)* | *(52600)* | *(62500)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | — | |
| Solid Shaft OHL lbs | 16690 | 16660 | 16640 | 16630 | 16610 | 16590 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(74230)* | *(74100)* | *(74010)* | *(73970)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **12.9** | **11.5** | **10.5** | **9.60** | **8.80** | **7.60** | **6.90** | **6.29** | **5.12** | **4.32** | **3.73** | **3.10** | **2.53** | — | |
| ***(kW)*** | ***(9.65)*** | ***(8.55)*** | ***(7.81)*** | ***(7.18)*** | ***(6.56)*** | ***(5.66)*** | ***(5.13)*** | ***(4.69)*** | ***(3.82)*** | ***(3.22)*** | ***(2.78)*** | ***(2.31)*** | ***(1.89)*** | — | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 16690 | 16660 | 16640 | 16630 | 16610 | 16590 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(74230)* | *(74100)* | *(74010)* | *(73970)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |

Speed Reducers

Selection Tables

# Frame Size Selection Tables 580 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

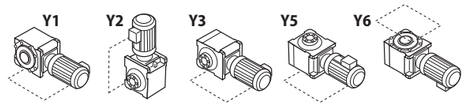



Dimensions on pages 2.156 - 2.166

| Output RPM | 52.7 | 44.6 | 41.4 | 36.3 | 32.2 | 27.6 | 26.4 | 23.2 | 20.7 | 16.6 | 14.9 | 12.6 | 10.9 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **44.4** | **44.4** | **44.4** | **44.4** | **44.0** | **33.4** | **29.6** | **29.6** | **26.4** | **21.9** | **20.0** | **16.9** | **14.6** | 4D180 |
| ***(kW)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(32.8)*** | ***(24.9)*** | ***(22.1)*** | ***(22.1)*** | ***(19.7)*** | ***(16.3)*** | ***(14.9)*** | ***(12.6)*** | ***(10.9)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62210 | 71150 | 77165 | 70265 | 66545 | 72740 | 74070 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7030)* | *(8040)* | *(8720)* | *(7940)* | *(7520)* | *(8220)* | *(8370)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 10655 | 10720 | 10720 | 10630 | 10610 | 12095 | 12745 | 12720 | 12565 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(47400)* | *(47700)* | *(47700)* | *(47300)* | *(47200)* | *(53800)* | *(56700)* | *(56600)* | *(55900)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 8980 | 9810 | 10240 | 10950 | 11570 | 12620 | 12940 | 13750 | 14380 | 15300 | 15660 | 16140 | 16490 | |
| *(N)* | *(39940)* | *(43630)* | *(45540)* | *(48700)* | *(51460)* | *(56130)* | *(57550)* | *(61160)* | *(63960)* | *(68050)* | *(69650)* | *(71790)* | *(73340)* | |
| **Input Power HP** | **44.4** | **44.4** | **44.4** | **44.4** | **44.0** | **33.9** | **30.2** | **30.2** | **26.8** | **21.9** | **20.0** | **16.9** | **14.6** | 4D185 |
| ***(kW)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(32.8)*** | ***(25.3)*** | ***(22.5)*** | ***(22.5)*** | ***(20.0)*** | ***(16.3)*** | ***(14.9)*** | ***(12.6)*** | ***(10.9)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62210 | 71150 | 77165 | 71415 | 67695 | 74070 | 75220 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7030)* | *(8040)* | *(8720)* | *(8070)* | *(7650)* | *(8370)* | *(8500)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 10655 | 10720 | 10720 | 10630 | 10610 | 12005 | 12655 | 12585 | 12160 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(47400)* | *(47700)* | *(4700)* | *(47300)* | *(47200)* | *(53400)* | *(56300)* | *(56000)* | *(54100)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 8980 | 9810 | 10240 | 10950 | 11570 | 12620 | 12940 | 13750 | 14380 | 15300 | 15660 | 16140 | 16490 | |
| *(N)* | *(39940)* | *(43630)* | *(45540)* | *(48700)* | *(51460)* | *(56130)* | *(57550)* | *(61160)* | *(63960)* | *(68050)* | *(69650)* | *(71790)* | *(73340)* | |
| **Input Power HP** | **33.4** | **33.4** | **33.4** | **33.4** | **33.4** | **26.6** | **31.0** | **31.0** | **27.1** | **19.7** | **19.7** | **16.6** | **14.5** | 4E170 |
| ***(kW)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(19.8)*** | ***(23.1)*** | ***(23.1)*** | ***(20.2)*** | ***(14.7)*** | ***(14.7)*** | ***(12.4)*** | ***(10.8)*** | |
| Output Torque in•lbs | 35130 | 42830 | 46810 | 53540 | 58580 | 55840 | 69555 | 76015 | 76015 | 69555 | 76015 | 75925 | 76015 | |
| *(N•m)* | *(3970)* | *(4840)* | *(5290)* | *(6050)* | *(6620)* | *(6310)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 15935 | 16500 | 16745 | 17085 | 17285 | 18700 | 18095 | 18295 | 19265 | 20275 | 19940 | 19960 | 19940 | |
| *(N)* | *(70900)* | *(73400)* | *(74500)* | *(76000)* | *(76900)* | *(83200)* | *(80500)* | *(81400)* | *(85700)* | *(90200)* | *(88700)* | *(88800)* | *(88700)* | |
| Solid Shaft OHL lbs | 12970 | 14070 | 14630 | 15530 | 16320 | 17690 | 18110 | 19160 | 19980 | 20690 | 20930 | 21240 | 21470 | |
| *(N)* | *(57690)* | *(62580)* | *(65070)* | *(69070)* | *(72590)* | *(78680)* | *(80550)* | *(85220)* | *(88870)* | *(92020)* | *(93090)* | *(94470)* | *(95490)* | |
| **Input Power HP** | **33.4** | **33.4** | **33.4** | **33.4** | **33.4** | **26.6** | **33.4** | **33.4** | **27.9** | **24.5** | **22.5** | **19.0** | **16.5** | 4E175 |
| ***(kW)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(24.9)*** | ***(19.8)*** | ***(24.9)*** | ***(24.9)*** | ***(20.8)*** | ***(18.3)*** | ***(16.8)*** | ***(14.2)*** | ***(12.3)*** | |
| Output Torque in•lbs | 35130 | 42830 | 46810 | 53540 | 58580 | 55840 | 74955 | 81945 | 78230 | 86545 | 86990 | 86990 | 86990 | |
| *(N•m)* | *(3970)* | *(4840)* | *(5290)* | *(6050)* | *(6620)* | *(6310)* | *(8470)* | *(9260)* | *(8840)* | *(9780)* | *(9830)* | *(9830)* | *(9830)* | |
| Hollow Shaft OHL lbs | 15935 | 16500 | 16745 | 17085 | 17285 | 18700 | 17715 | 17845 | 19105 | 19420 | 19400 | 19400 | 19400 | |
| *(N)* | *(70900)* | *(73400)* | *(74500)* | *(76000)* | *(76900)* | *(83200)* | *(78800)* | *(79400)* | *(85000)* | *(86400)* | *(86300)* | *(86300)* | *(86300)* | |
| Solid Shaft OHL lbs | 12970 | 14070 | 14630 | 15530 | 16320 | 17690 | 18110 | 19160 | 19980 | 20690 | 20930 | 21240 | 21470 | |
| *(N)* | *(57690)* | *(62580)* | *(65070)* | *(69070)* | *(72590)* | *(78680)* | *(80550)* | *(85220)* | *(88870)* | *(92020)* | *(93090)* | *(94470)* | *(95490)* | |
| **Input Power HP** | **44.4** | **44.4** | **44.4** | **44.4** | **44.4** | **33.4** | **29.6** | **29.6** | **26.4** | **29.1** | **26.6** | **22.5** | **19.6** | 4E180 |
| ***(kW)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(24.9)*** | ***(22.1)*** | ***(22.1)*** | ***(19.7)*** | ***(21.7)*** | ***(19.8)*** | ***(16.8)*** | ***(14.6)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62210 | 71150 | 77785 | 70265 | 66545 | 72740 | 74070 | 102655 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7030)* | *(8040)* | *(8790)* | *(7940)* | *(7520)* | *(8220)* | *(8370)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 15085 | 15465 | 15620 | 15780 | 15870 | 17625 | 18340 | 18520 | 19420 | 18430 | 18430 | 18430 | 18430 | |
| *(N)* | *(67100)* | *(68800)* | *(69500)* | *(70200)* | *(70600)* | *(78400)* | *(81600)* | *(82400)* | *(86400)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 12970 | 14070 | 14630 | 15530 | 16320 | 17690 | 18110 | 19160 | 19980 | 20690 | 20930 | 21240 | 21470 | |
| *(N)* | *(57690)* | *(62580)* | *(65070)* | *(69070)* | *(72590)* | *(78680)* | *(80550)* | *(85220)* | *(88870)* | *(92020)* | *(93090)* | *(94470)* | *(95490)* | |
| **Input Power HP** | **44.4** | **44.4** | **44.4** | **44.4** | **44.4** | **33.9** | **30.2** | **30.2** | **26.8** | **29.1** | **26.6** | **22.5** | **19.6** | 4E185 |
| ***(kW)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(25.3)*** | ***(22.5)*** | ***(22.5)*** | ***(20.0)*** | ***(21.7)*** | ***(19.8)*** | ***(16.8)*** | ***(14.6)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62210 | 71150 | 77785 | 71425 | 67705 | 74080 | 75230 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7030)* | *(8040)* | *(8790)* | *(8070)* | *(7650)* | *(8370)* | *(8500)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 15085 | 15465 | 15620 | 15780 | 15870 | 17555 | 18275 | 18430 | 19330 | 18430 | 18430 | 18430 | 18430 | |
| *(N)* | *(67100)* | *(68800)* | *(69500)* | *(70200)* | *(70600)* | *(78100)* | *(81300)* | *(82000)* | *(86000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 12970 | 14070 | 14630 | 15530 | 16320 | 17690 | 18110 | 19160 | 19980 | 20690 | 20930 | 21240 | 21470 | |
| *(N)* | *(57690)* | *(62580)* | *(65070)* | *(69070)* | *(72590)* | *(78680)* | *(80550)* | *(85220)* | *(88870)* | *(92020)* | *(93090)* | *(94470)* | *(95490)* | |



Frame Size Selection Tables 580 RPM



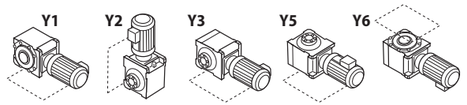

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 9.67 | 8.66 | 7.84 | 7.25 | 6.59 | 5.69 | 5.18 | 4.72 | 3.84 | 3.24 | 2.80 | 2.33 | 1.90 | 1.39 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **12.9** | **11.5** | **10.5** | **9.60** | **8.80** | **7.60** | **6.90** | **6.29** | **5.12** | **4.32** | **3.73** | **3.10** | **2.53** | **—** | 4D180 |
| ***(kW)*** | ***(9.65)*** | ***(8.55)*** | ***(7.81)*** | ***(7.18)*** | ***(6.56)*** | ***(5.66)*** | ***(5.13)*** | ***(4.69)*** | ***(3.82)*** | ***(3.22)*** | ***(2.78)*** | ***(2.31)*** | ***(1.89)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 16690 | 16660 | 16640 | 16630 | 16610 | 16590 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(74230)* | *(74100)* | *(74010)* | *(73970)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **12.9** | **11.5** | **10.5** | **9.60** | **8.80** | **7.60** | **6.90** | **6.29** | **5.12** | **4.32** | **3.73** | **3.10** | **2.53** | **—** | 4D185 |
| ***(kW)*** | ***(9.65)*** | ***(8.55)*** | ***(7.81)*** | ***(7.18)*** | ***(6.56)*** | ***(5.66)*** | ***(5.13)*** | ***(4.69)*** | ***(3.82)*** | ***(3.22)*** | ***(2.78)*** | ***(2.31)*** | ***(1.89)*** | **—** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 16690 | 16660 | 16640 | 16630 | 16610 | 16590 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(74230)* | *(74100)* | *(74010)* | *(73970)* | *(73880)* | *(73790)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | **12.8** | **10.3** | **10.3** | **8.70** | **8.70** | **7.50** | **6.20** | **6.20** | **5.04** | **4.25** | **3.67** | **3.06** | **2.49** | **—** | 4E170 |
| ***(kW)*** | ***(9.51)*** | ***(7.70)*** | ***(7.70)*** | ***(6.47)*** | ***(6.47)*** | ***(5.58)*** | ***(4.62)*** | ***(4.62)*** | ***(3.76)*** | ***(3.17)*** | ***(2.74)*** | ***(2.28)*** | ***(1.86)*** | **—** | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 19940 | 20275 | 19940 | 20275 | 19940 | 19940 | 20275 | 19940 | 19940 | 19940 | 19940 | 19940 | 19940 | — | |
| *(N)* | *(88700)* | *(90200)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | — | |
| Solid Shaft OHL lbs | 21630 | 21690 | 21740 | 21780 | 21820 | 21870 | 21900 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(96210)* | *(96470)* | *(96690)* | *(96870)* | *(97050)* | *(97270)* | *(97410)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **14.6** | **12.9** | **11.8** | **10.8** | **9.90** | **8.60** | **7.70** | **7.70** | **6.28** | **5.30** | **4.57** | **3.81** | **3.10** | **—** | 4E175 |
| ***(kW)*** | ***(10.9)*** | ***(9.59)*** | ***(8.81)*** | ***(8.06)*** | ***(7.40)*** | ***(6.38)*** | ***(5.75)*** | ***(5.75)*** | ***(4.68)*** | ***(3.95)*** | ***(3.41)*** | ***(2.84)*** | ***(2.31)*** | **—** | |
| Output Torque in•lbs | 86990 | 86545 | 86990 | 86545 | 86990 | 86990 | 86545 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | — | |
| *(N•m)* | *(9830)* | *(9780)* | *(9830)* | *(9780)* | *(9830)* | *(9830)* | *(9780)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | — | |
| Hollow Shaft OHL lbs | 19400 | 19420 | 19400 | 19420 | 19400 | 19400 | 19420 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | — | |
| *(N)* | *(86300)* | *(86400)* | *(86300)* | *(86400)* | *(86300)* | *(86300)* | *(86400)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | — | |
| Solid Shaft OHL lbs | 21630 | 21690 | 21740 | 21780 | 21820 | 21870 | 21900 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(96210)* | *(96470)* | *(96690)* | *(96870)* | *(97050)* | *(97270)* | *(97410)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **17.2** | **15.3** | **13.9** | **12.8** | **11.7** | **10.1** | **9.10** | **8.40** | **6.80** | **5.74** | **4.96** | **4.12** | **3.37** | **—** | 4E180 |
| ***(kW)*** | ***(12.8)*** | ***(11.4)*** | ***(10.4)*** | ***(9.60)*** | ***(8.70)*** | ***(7.50)*** | ***(6.82)*** | ***(6.24)*** | ***(5.08)*** | ***(4.28)*** | ***(3.70)*** | ***(3.07)*** | ***(2.51)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21630 | 21690 | 21740 | 21780 | 21820 | 21870 | 21900 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(96210)* | *(96470)* | *(96690)* | *(96870)* | *(97050)* | *(97270)* | *(97410)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **17.2** | **15.3** | **13.9** | **12.8** | **11.7** | **10.1** | **9.10** | **8.40** | **6.80** | **5.74** | **4.96** | **4.12** | **3.37** | **—** | 4E185 |
| ***(kW)*** | ***(12.8)*** | ***(11.4)*** | ***(10.4)*** | ***(9.60)*** | ***(8.70)*** | ***(7.50)*** | ***(6.82)*** | ***(6.24)*** | ***(5.08)*** | ***(4.28)*** | ***(3.70)*** | ***(3.07)*** | ***(2.51)*** | **—** | |
| Output Torque in•lbs | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21630 | 21690 | 21740 | 21780 | 21820 | 21870 | 21900 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(96210)* | *(96470)* | *(96690)* | *(96870)* | *(97050)* | *(97270)* | *(97410)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |

# Frame Size Selection Tables 580 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

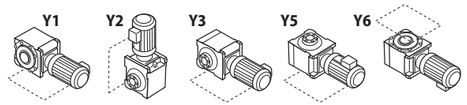



Dimensions on pages 2.156 - 2.166

| Output RPM | 52.7 | 44.6 | 41.4 | 36.3 | 32.2 | 27.6 | 26.4 | 23.2 | 20.7 | 16.6 | 14.9 | 12.6 | 10.9 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | **73.0** | **73.0** | **69.6** | **64.1** | **58.6** | **42.6** | **37.5** | **37.5** | **33.4** | **29.1** | **26.6** | **22.5** | **19.6** | |
| ***(kW)*** | ***(54.4)*** | ***(54.4)*** | ***(51.9)*** | ***(47.8)*** | ***(43.7)*** | ***(31.8)*** | ***(28.0)*** | ***(28.0)*** | ***(24.9)*** | ***(21.7)*** | ***(19.8)*** | ***(16.8)*** | ***(14.6)*** | |
| Output Torque in•lbs | 76735 | 93815 | 97355 | 102665 | 102665 | 87710 | 82750 | 90275 | 92045 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(8670)* | *(10600)* | *(11000)* | *(11600)* | *(11600)* | *(9910)* | *(9350)* | *(10200)* | *(10400)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | **4E190** |
| Hollow Shaft OHL lbs | 12880 | 12790 | 13015 | 13465 | 14050 | 16340 | 17150 | 17240 | 18095 | 18430 | 18430 | 18430 | 18430 | |
| *(N)* | *(57300)* | *(56900)* | *(57900)* | *(59900)* | *(62500)* | *(72700)* | *(76300)* | *(76700)* | *(80500)* | *(82000)* | *(82000)* | *(820000* | *(82000)* | |
| Solid Shaft OHL lbs | 12970 | 14070 | 14630 | 15530 | 16320 | 17690 | 18110 | 19160 | 19980 | 20690 | 20930 | 21240 | 21470 | |
| *(N)* | *(57690)* | *(62580)* | *(65070)* | *(69070)* | *(72590)* | *(78680)* | *(80550)* | *(85220)* | *(88870)* | *(92020)* | *(93090)* | *(94470)* | *(95490)* | |
| **Input Power HP** | **73.0** | **73.0** | **69.6** | **64.1** | **58.6** | **42.6** | **37.5** | **37.5** | **33.4** | **29.1** | **26.6** | **22.5** | **19.6** | |
| ***(kW)*** | ***(54.4)*** | ***(54.4)*** | ***(51.9)*** | ***(47.8)*** | ***(43.7)*** | ***(31.8)*** | ***(28.0)*** | ***(28.0)*** | ***(24.9)*** | ***(21.7)*** | ***(19.8)*** | ***(16.8)*** | ***(14.6)*** | |
| Output Torque in•lbs | 76735 | 93815 | 97355 | 102665 | 102665 | 89390 | 84255 | 92045 | 93815 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(8670)* | *(10600)* | *(11000)* | *(11600)* | *(11600)* | *(10100)* | *(9520)* | *(10400)* | *(10600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | **4E195** |
| Hollow Shaft OHL lbs | 12880 | 12790 | 13015 | 13465 | 14050 | 16230 | 17040 | 17105 | 17960 | 18430 | 18430 | 18430 | 18430 | |
| *(N)* | *(57300)* | *(56900)* | *(57900)* | *(59900)* | *(62500)* | *(72200)* | *(75800)* | *(76100)* | *(79900)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 12970 | 14070 | 14630 | 15530 | 16320 | 17690 | 18110 | 19160 | 19980 | 20690 | 20930 | 21240 | 21470 | |
| *(N)* | *(57690)* | *(62580)* | *(65070)* | *(69070)* | *(72590)* | *(78680)* | *(80550)* | *(85220)* | *(88870)* | *(92020)* | *(93090)* | *(94470)* | *(95490)* | |
| **Input Power HP** | **44.4** | **44.4** | **44.4** | **44.4** | **44.4** | **33.4** | **29.6** | **29.6** | **26.4** | **31.6** | **31.6** | **26.8** | **23.2** | |
| ***(kW)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(24.9)*** | ***(22.1)*** | ***(22.1)*** | ***(19.7)*** | ***(23.6)*** | ***(23.6)*** | ***(20.0)*** | ***(17.3)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62210 | 71150 | 77785 | 70265 | 66545 | 72740 | 74070 | 111500 | 122120 | 122120 | 122120 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7030)* | *(8040)* | *(8790)* | *(7940)* | *(7520)* | *(8220)* | *(8370)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | **4F180** |
| Hollow Shaft OHL lbs | 27650 | 28775 | 29225 | 29000 | 28775 | 29225 | 29225 | 29000 | 29000 | 27425 | 26975 | 26975 | 26975 | |
| *(N)* | *(123000)* | *(128000)* | *(130000)* | *(129000)* | *(128000)* | *(130000)* | *(130000)* | *(129000)* | *(129000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | |
| Solid Shaft OHL lbs | 22810 | 24600 | 25560 | 27130 | 28200 | 28910 | 28920 | 28940 | 28960 | 28970 | 28970 | 28970 | 28970 | |
| *(N)* | *(101450)* | *(109420)* | *(113690)* | *(120670)* | *(125430)* | *(128590)* | *(128630)* | *(128720)* | *(128810)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | |
| **Input Power HP** | **44.4** | **44.4** | **44.4** | **44.4** | **44.4** | **33.9** | **30.2** | **30.2** | **26.8** | **37.4** | **37.4** | **32.3** | **26.7** | |
| ***(kW)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(33.1)*** | ***(25.3)*** | ***(22.5)*** | ***(22.5)*** | ***(20.0)*** | ***(27.9)*** | ***(27.9)*** | ***(24.1)*** | ***(19.9)*** | |
| Output Torque in•lbs | 46725 | 56900 | 62210 | 71150 | 77785 | 71415 | 67695 | 74070 | 75220 | 131855 | 144245 | 146900 | 140705 | |
| *(N•m)* | *(5280)* | *(6430)* | *(7030)* | *(8040)* | *(8790)* | *(8070)* | *(7650)* | *(8370)* | *(8500)* | *(14900)* | *(16300)* | *(16600)* | *(15900)* | **4F185** |
| Hollow Shaft OHL lbs | 27650 | 28775 | 29225 | 29000 | 28775 | 29000 | 29225 | 29000 | 29000 | 26525 | 25850 | 25850 | 26075 | |
| *(N)* | *(123000)* | *(128000)* | *(130000)* | *(129000)* | *(128000)* | *(129000)* | *(130000)* | *(129000)* | *(129000)* | *(118000)* | *(115000)* | *(115000)* | *(116000)* | |
| Solid Shaft OHL lbs | 22810 | 24600 | 25560 | 27130 | 28200 | 28910 | 28920 | 28940 | 28960 | 28970 | 28970 | 28970 | 28970 | |
| *(N)* | *(101450)* | *(109420)* | *(113690)* | *(120670)* | *(125430)* | *(128590)* | *(128630)* | *(128720)* | *(128810)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | |
| **Input Power HP** | **73.0** | **73.0** | **73.0** | **71.6** | **71.6** | **41.7** | **36.9** | **36.9** | **32.7** | **45.2** | **41.3** | **35.0** | **30.3** | |
| ***(kW)*** | ***(54.4)*** | ***(54.4)*** | ***(54.4)*** | ***(53.4)*** | ***(53.4)*** | ***(31.1)*** | ***(27.5)*** | ***(27.5)*** | ***(24.4)*** | ***(33.7)*** | ***(30.8)*** | ***(26.1)*** | ***(22.6)*** | |
| Output Torque in•lbs | 76735 | 93815 | 102665 | 115060 | 125680 | 87695 | 82740 | 90265 | 92035 | 159290 | 159290 | 159290 | 159290 | |
| *(N•m)* | *(8670)* | *(10600)* | *(11600)* | *(13000)* | *(14200)* | *(9910)* | *(9350)* | *(10200)* | *(10400)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | **4F190** |
| Hollow Shaft OHL lbs | 25625 | 26300 | 26750 | 27200 | 26750 | 28325 | 28550 | 28325 | 28100 | 25175 | 25175 | 25175 | 25175 | |
| *(N)* | *(114000)* | *(117000)* | *(119000)* | *(121000)* | *(119000)* | *(126000)* | *(127000)* | *(126000)* | *(125000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 22810 | 24600 | 25560 | 27130 | 28200 | 28910 | 28920 | 28940 | 28960 | 28970 | 28970 | 28970 | 28970 | |
| *(N)* | *(101450)* | *(109420)* | *(113690)* | *(120670)* | *(125430)* | *(128590)* | *(128630)* | *(128720)* | *(128810)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | |
| **Input Power HP** | **73.0** | **73.0** | **73.0** | **71.6** | **71.6** | **42.6** | **37.5** | **37.5** | **33.4** | **45.2** | **41.3** | **35.0** | **30.3** | |
| ***(kW)*** | ***(54.4)*** | ***(54.4)*** | ***(54.4)*** | ***(53.4)*** | ***(53.4)*** | ***(31.8)*** | ***(28.0)*** | ***(28.0)*** | ***(24.9)*** | ***(33.7)*** | ***(30.8)*** | ***(26.1)*** | ***(22.6)*** | |
| Output Torque in•lbs | 76735 | 93815 | 102665 | 115060 | 125680 | 89380 | 84245 | 92035 | 93805 | 159290 | 159290 | 159290 | 159290 | |
| *(N•m)* | *(8670)* | *(10600)* | *(11600)* | *(13000)* | *(14200)* | *(10100)* | *(9520)* | *(10400)* | *(10600)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | **4F195** |
| Hollow Shaft OHL lbs | 25625 | 26300 | 26750 | 27200 | 26750 | 28325 | 28550 | 28100 | 28100 | 25175 | 25175 | 25175 | 25175 | |
| *(N)* | *(114000)* | *(117000)* | *(119000)* | *(121000)* | *(119000)* | *(126000)* | *(127000)* | *(125000)* | *(125000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 22810 | 24600 | 25560 | 27130 | 28200 | 28910 | 28920 | 28940 | 28960 | 28970 | 28970 | 28970 | 28970 | |
| *(N)* | *(101450)* | *(109420)* | *(113690)* | *(120670)* | *(125430)* | *(128590)* | *(128630)* | *(128720)* | *(128810)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | |



# Frame Size Selection Tables 580 RPM



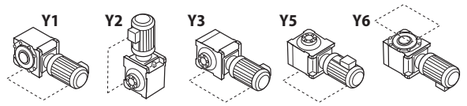

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 9.67 | 8.66 | 7.84 | 7.25 | 6.59 | 5.69 | 5.18 | 4.72 | 3.84 | 3.24 | 2.80 | 2.33 | 1.90 | 1.39 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **17.2** | **15.3** | **13.9** | **12.8** | **11.7** | **10.4** | **9.10** | **8.40** | **6.80** | **5.74** | **4.96** | **4.12** | **3.37** | **—** | |
| ***(kW)*** | ***(12.8)*** | ***(11.4)*** | ***(10.4)*** | ***(9.55)*** | ***(8.73)*** | ***(7.53)*** | ***(6.82)*** | ***(6.24)*** | ***(5.08)*** | ***(4.28)*** | ***(3.70)*** | ***(3.07)*** | ***(2.51)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | **4E190** |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21630 | 21690 | 21740 | 21780 | 21820 | 21870 | 21900 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(96210)* | *(96470)* | *(96690)* | *(96870)* | *(97050)* | *(97270)* | *(97410)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **17.2** | **15.3** | **13.9** | **12.8** | **11.7** | **10.1** | **9.10** | **8.40** | **6.80** | **5.74** | **4.96** | **4.12** | **3.37** | **—** | |
| ***(kW)*** | ***(12.8)*** | ***(11.4)*** | ***(10.4)*** | ***(9.55)*** | ***(8.73)*** | ***(7.53)*** | ***(6.82)*** | ***(6.24)*** | ***(5.08)*** | ***(4.28)*** | ***(3.70)*** | ***(3.07)*** | ***(2.51)*** | **—** | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | **4E195** |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21630 | 21690 | 21740 | 21780 | 21820 | 21870 | 21900 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(96210)* | *(96470)* | *(96690)* | *(96870)* | *(97050)* | *(97270)* | *(97410)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | **20.5** | **16.5** | **16.5** | **13.9** | **13.9** | **12.0** | **9.90** | **9.90** | **8.10** | **6.80** | **5.89** | **4.89** | **4.00** | **—** | |
| ***(kW)*** | ***(15.3)*** | ***(12.3)*** | ***(12.3)*** | ***(10.4)*** | ***(10.4)*** | ***(8.93)*** | ***(7.40)*** | ***(7.40)*** | ***(6.03)*** | ***(5.08)*** | ***(4.39)*** | ***(3.65)*** | ***(2.98)*** | **—** | |
| Output Torque in•lbs | 122120 | 110620 | 121235 | 111500 | 122120 | 122120 | 111500 | 122120 | 122120 | 122120 | 122120 | 122120 | 122120 | — | |
| *(N•m)* | *(13800)* | *(12500)* | *(13700)* | *(12600)* | *(13800)* | *(13800)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | *(13800)* | — | **4F180** |
| Hollow Shaft OHL lbs | 26975 | 27425 | 26975 | 27425 | 26975 | 26975 | 27425 | 26975 | 26975 | 26975 | 26975 | 26975 | 26975 | — | |
| *(N)* | *(120000)* | *(122000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | — | |
| Solid Shaft OHL lbs | 29000 | 29120 | 29210 | 29270 | 29350 | 29450 | 29510 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128990)* | *(129520)* | *(129920)* | *(130190)* | *(130540)* | *(130990)* | *(131260)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **25.2** | **20.4** | **20.4** | **17.2** | **17.2** | **14.8** | **12.2** | **12.2** | **10.0** | **8.40** | **7.30** | **5.44** | **4.92** | **—** | |
| ***(kW)*** | ***(18.8)*** | ***(15.2)*** | ***(15.2)*** | ***(12.8)*** | ***(12.8)*** | ***(11.0)*** | ***(9.13)*** | ***(9.13)*** | ***(7.43)*** | ***(6.27)*** | ***(5.42)*** | ***(4.06)*** | ***(3.67)*** | **—** | |
| Output Torque in•lbs | 150440 | 137165 | 150440 | 137165 | 150440 | 149555 | 137165 | 150440 | 150440 | 150440 | 150440 | 135395 | 150440 | — | |
| *(N•m)* | *(17000)* | *(15500)* | *(17000)* | *(15500)* | *(17000)* | *(16900)* | *(15500)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(15300)* | *(17000)* | — | **4F185** |
| Hollow Shaft OHL lbs | 25625 | 26300 | 25625 | 26300 | 25625 | 25625 | 26300 | 25625 | 25625 | 25625 | 25625 | 26300 | 25625 | — | |
| *(N)* | *(114000)* | *(117000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | — | |
| Solid Shaft OHL lbs | 29000 | 29120 | 29210 | 29270 | 29350 | 29450 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128990)* | *(129520)* | *(129920)* | *(130190)* | *(130540)* | *(130990)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **26.7** | **23.6** | **21.6** | **19.8** | **18.2** | **15.7** | **14.2** | **13.0** | **10.6** | **8.90** | **7.70** | **6.40** | **5.22** | **—** | |
| ***(kW)*** | ***(19.9)*** | ***(17.6)*** | ***(16.1)*** | ***(14.8)*** | ***(13.6)*** | ***(11.7)*** | ***(10.6)*** | ***(9.68)*** | ***(7.88)*** | ***(6.64)*** | ***(5.740*** | ***(4.77)*** | ***(3.89)*** | **—** | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | **4F190** |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 29000 | 29120 | 29210 | 29270 | 29350 | 29450 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128990)* | *(129520)* | *(129920)* | *(130190)* | *(130540)* | *(130990)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | **26.7** | **23.6** | **21.6** | **19.8** | **18.2** | **15.7** | **14.2** | **13.0** | **10.6** | **8.90** | **7.70** | **6.40** | **5.22** | **—** | |
| ***(kW)*** | ***(19.9)*** | ***(17.6)*** | ***(16.1)*** | ***(14.8)*** | ***(13.6)*** | ***(11.7)*** | ***(10.6)*** | ***(9.68)*** | ***(7.88)*** | ***(6.64)*** | ***(5.74)*** | ***(4.77)*** | ***(3.89)*** | **—** | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | **4F195** |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 29000 | 29120 | 29210 | 29270 | 29350 | 29450 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(128990)* | *(129520)* | *(129920)* | *(130190)* | *(130540)* | *(130990)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |

# Frame Size Selection Tables 50 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

| Output RPM | 4.55 | 3.85 | 3.57 | 3.13 | 2.78 | 2.38 | 2.27 | 2.00 | 1.79 | 1.43 | 1.28 | 1.09 | 0.943 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A100 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 2565 | 3120 | 3415 | 3910 | 4270 | 5130 | — | — | 7510 | 6865 | 7510 | 7510 | 7510 | |
| *(N•m)* | *(290)* | *(353)* | *(386)* | *(442)* | *(483)* | *(580)* | — | — | *(849)* | *(776)* | *(849)* | *(849)* | *(849)* | |
| Hollow Shaft OHL lbs | 6020 | 5975 | 5930 | 5865 | 5820 | 5665 | — | — | 5055 | 5260 | 5055 | 5055 | 5055 | |
| *(N)* | *(26800)* | *(26600)* | *(26400)* | *(26100)* | *(25900)* | *(25200)* | — | — | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(22500)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | — | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | — | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A105 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 2565 | 3120 | 3415 | 3910 | 4270 | 5130 | — | — | 8300 | 8450 | 9290 | 9025 | 9025 | |
| *(N•m)* | *(290)* | *(353)* | *(386)* | *(442)* | *(483)* | *(580)* | — | — | *(938)* | *(955)* | *(1050)* | *(1020)* | *(1020)* | |
| Hollow Shaft OHL lbs | 6020 | 5975 | 5930 | 5865 | 5820 | 5665 | — | — | 4785 | 4740 | 4405 | 4515 | 4515 | |
| *(N)* | *(26800)* | *(26600)* | *(26400)* | *(26100)* | *(25900)* | *(25200)* | — | — | *(21300)* | *(21100)* | *(19600)* | *(20100)* | *(20100)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | — | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | — | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A110 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 5810 | — | — | 10795 | 9910 | 10795 | 10795 | 10795 | |
| *(N•m)* | — | — | — | — | — | *(657)* | — | — | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5530 | — | — | 3550 | 4090 | 3550 | 3550 | 3550 | |
| *(N)* | — | — | — | — | — | *(24600)* | — | — | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4540 | — | — | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | — | — | — | — | — | *(20190)* | — | — | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A115 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 5810 | — | — | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | — | — | — | — | — | *(657)* | — | — | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5530 | — | — | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | — | — | — | — | — | *(24600)* | — | — | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4540 | — | — | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | — | — | — | — | — | *(20190)* | — | — | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A120 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 8265 | 10085 | 11060 | 11415 | 11415 | 10970 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(934)* | *(1140)* | *(1250)* | *(1290)* | *(1290)* | *(1240)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 4810 | 4000 | 3415 | 3120 | 3120 | 3415 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(21400)* | *(17800)* | *(15200)* | *(13900)* | *(13900)* | *(15200)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A125 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 8265 | 10085 | 11060 | 11415 | 11415 | 10970 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(934)* | *(1140)* | *(1250)* | *(1290)* | *(1290)* | *(1240)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 4810 | 4000 | 3415 | 3120 | 3120 | 3415 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(21400)* | *(17800)* | *(15200)* | *(13900)* | *(13900)* | *(15200)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |



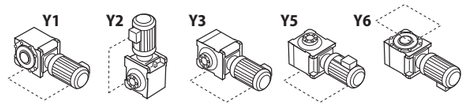






Speed Reducers

Frame Size Selection Tables 50 RPM




Single Reduction
Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 0.833 | 0.746 | 0.676 | 0.625 | 0.568 | 0.490 | 0.446 | 0.407 | 0.331 | 0.279 | 0.242 | 0.201 | 0.164 | 0.120 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A100 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 7510 | 6865 | 7510 | 6865 | 7510 | 7510 | 6865 | 7510 | 7510 | 7510 | 7510 | 7510 | 7510 | 7510 | |
| *(N•m)* | *(849)* | *(776)* | *(849)* | *(776)* | *(849)* | *(849)* | *(776)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | *(849)* | |
| Hollow Shaft OHL lbs | 5055 | 5260 | 5055 | 5260 | 5055 | 5055 | 5260 | 5055 | 5055 | 5055 | 5055 | 5055 | 5055 | 5055 | |
| *(N)* | *(22500)* | *(23400)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(23400)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | *(22500)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A105 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 9025 | 8245 | 9025 | 8245 | 9025 | 9025 | 8245 | 9025 | 9025 | 8935 | 8935 | 7935 | 9025 | 7765 | |
| *(N•m)* | *(1020)* | *(932)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(932)* | *(1020)* | *(1020)* | *(1010)* | *(1010)* | *(897)* | *(1020)* | *(878)* | |
| Hollow Shaft OHL lbs | 4515 | 4810 | 4515 | 4810 | 4515 | 4515 | 4810 | 4515 | 4515 | 4540 | 4560 | 4920 | 4515 | 4990 | |
| *(N)* | *(20100)* | *(21400)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(21400)* | *(20100)* | *(20100)* | *(20200)* | *(20300)* | *(21900)* | *(20100)* | *(22200)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A110 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 10795 | 9910 | 10795 | 9910 | 10795 | 10795 | 9910 | 10795 | 10795 | 10795 | 10795 | 10795 | 10795 | — | |
| *(N•m)* | *(1220)* | *(1120)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1120)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | *(1220)* | — | |
| Hollow Shaft OHL lbs | 3550 | 4090 | 3550 | 4090 | 3550 | 3550 | 4090 | 3550 | 3550 | 3550 | 3550 | 3550 | 3550 | — | |
| *(N)* | *(15800)* | *(18200)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(18200)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | *(15800)* | — | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A115 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A120 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A125 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |

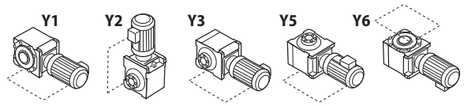
Speed Reducers

Selection Tables

Sumitomo Drive Technologies Cyclo® BBB4

# Frame Size Selection Tables 50 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions




Dimensions on pages 2.156 - 2.166

| Output RPM | 4.55 | 3.85 | 3.57 | 3.13 | 2.78 | 2.38 | 2.27 | 2.00 | 1.79 | 1.43 | 1.28 | 1.09 | 0.943 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A145 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B120 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 8265 | 10085 | 11060 | 12565 | 13805 | 10970 | 14245 | 15575 | 15750 | 14420 | 15750 | 15750 | 15750 | |
| *(N•m)* | *(934)* | *(1140)* | *(1250)* | *(1420)* | *(1560)* | *(1240)* | *(1610)* | *(1760)* | *(1780)* | *(1630)* | *(1780)* | *(1780)* | *(1780)* | |
| Hollow Shaft OHL lbs | 9595 | 9350 | 9215 | 8945 | 8720 | 9215 | 8610 | 8295 | 8250 | 8565 | 8250 | 8250 | 8250 | |
| *(N)* | *(42700)* | *(41600)* | *(41000)* | *(39800)* | *(38800)* | *(41000)* | *(38300)* | *(36900)* | *(36700)* | *(38100)* | *(36700)* | *(36700)* | *(36700)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B125 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 8265 | 10085 | 11060 | 12565 | 13805 | 10970 | 14245 | 15575 | 17255 | 17075 | 18670 | 18935 | 18935 | |
| *(N•m)* | *(934)* | *(1140)* | *(1250)* | *(1420)* | *(1560)* | *(1240)* | *(1610)* | *(1760)* | *(1950)* | *(1930)* | *(2110)* | *(2140)* | *(2140)* | |
| Hollow Shaft OHL lbs | 9595 | 9350 | 9215 | 8945 | 8720 | 9215 | 8610 | 8295 | 7845 | 7890 | 7395 | 7325 | 7325 | |
| *(N)* | *(42700)* | *(41600)* | *(41000)* | *(39800)* | *(38800)* | *(41000)* | *(38300)* | *(36900)* | *(34900)* | *(35100)* | *(32900)* | *(32600)* | *(32600)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 8875 | 8250 | 7845 | 7055 | 6290 | 6290 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(39500)* | *(36700)* | *(34900)* | *(31400)* | *(28000)* | *(28000)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B145 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 8875 | 8250 | 7845 | 7055 | 6290 | 6290 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(39500)* | *(36700)* | *(34900)* | *(31400)* | *(28000)* | *(28000)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |

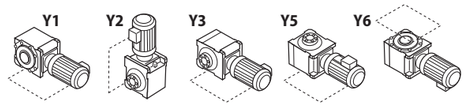




Speed Reducers

Frame Size Selection Tables 50 RPM

Single Reduction
Y1, Y2, Y3, Y5, Y6 Mounting Positions

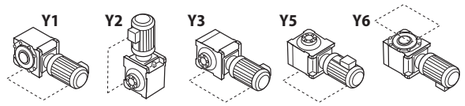



Dimensions on pages 2.156 - 2.166

| Output RPM | 0.833 | 0.746 | 0.676 | 0.625 | 0.568 | 0.490 | 0.446 | 0.407 | 0.331 | 0.279 | 0.242 | 0.201 | 0.164 | 0.120 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A145 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B120 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 15660 | 14335 | 15660 | 14420 | 15750 | 15660 | 14420 | 15750 | 15750 | 15750 | 15750 | 15750 | 15750 | — | |
| *(N•m)* | *(1770)* | *(1620)* | *(1770)* | *(1630)* | *(1780)* | *(1770)* | *(1630)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | *(1780)* | — | |
| Hollow Shaft OHL lbs | 8295 | 8585 | 8270 | 8565 | 8250 | 8295 | 8565 | 8250 | 8250 | 8250 | 8250 | 8250 | 8250 | — | |
| *(N)* | *(36900)* | *(38200)* | *(36800)* | *(38100)* | *(36700)* | *(36900)* | *(38100)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | *(36700)* | — | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B125 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 18935 | 17345 | 18935 | 17345 | 18935 | 18935 | 17345 | 18935 | 18935 | 18935 | 18935 | 17785 | 18935 | — | |
| *(N•m)* | *(2140)* | *(1960)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(1960)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2010)* | *(2140)* | — | |
| Hollow Shaft OHL lbs | 7325 | 7845 | 7325 | 7845 | 7325 | 7325 | 7845 | 7325 | 7325 | 7325 | 7325 | 7685 | 7325 | — | |
| *(N)* | *(32600)* | *(34900)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(32600)* | *(32600)* | *(34200)* | *(32600)* | — | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B145 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |

# Frame Size Selection Tables 50 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

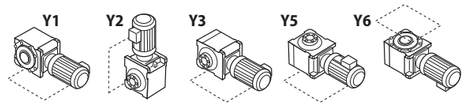



Dimensions on pages 2.156 - 2.166

| Output RPM | 4.55 | 3.85 | 3.57 | 3.13 | 2.78 | 2.38 | 2.27 | 2.00 | 1.79 | 1.43 | 1.28 | 1.09 | 0.943 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 8090 | 6965 | 6180 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(36000)* | *(31000)* | *(27500)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B165 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 16370 | 19910 | 21855 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(1850)* | *(2250)* | *(2470)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 8090 | 6965 | 6180 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | |
| *(N)* | *(36000)* | *(31000)* | *(27500)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 27610 | 30175 | 34510 | 33625 | 36810 | 36810 | 36810 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(3120)* | *(3410)* | *(3900)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | |
| Hollow Shaft OHL lbs | 15710 | 15485 | 15350 | 15105 | 14900 | 14900 | 14050 | 13600 | 12720 | 12900 | 12160 | 12160 | 12160 | |
| *(N)* | *(69900)* | *(68900)* | *(68300)* | *(67200)* | *(66300)* | *(66300)* | *(62500)* | *(60500)* | *(56600)* | *(57400)* | *(54100)* | *(54100)* | *(54100)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C145 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 12920 | 15750 | 17255 | 19730 | 21590 | 21590 | 27610 | 30175 | 34510 | 35485 | 38845 | 41150 | 40795 | |
| *(N•m)* | *(1460)* | *(1780)* | *(1950)* | *(2230)* | *(2440)* | *(2440)* | *(3120)* | *(3410)* | *(3900)* | *(4010)* | *(4390)* | *(4650)* | *(4610)* | |
| Hollow Shaft OHL lbs | 15710 | 15485 | 15350 | 15105 | 14900 | 14900 | 14050 | 13600 | 12720 | 12475 | 11645 | 10945 | 11060 | |
| *(N)* | *(69900)* | *(68900)* | *(68300)* | *(67200)* | *(66300)* | *(66300)* | *(62500)* | *(60500)* | *(56600)* | *(55500)* | *(51800)* | *(48700)* | *(49200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 28845 | 35220 | 38495 | 43980 | 45485 | 39820 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3260)* | *(3980)* | *(4350)* | *(4970)* | *(5140)* | *(4500)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 13825 | 12565 | 11735 | 10000 | 9415 | 11350 | 10225 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | |
| *(N)* | *(61500)* | *(55900)* | *(52200)* | *(44500)* | *(41900)* | *(50500)* | *(45500)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C165 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 28845 | 35220 | 38495 | 43980 | 45485 | 39820 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3260)* | *(3980)* | *(4350)* | *(4970)* | *(5140)* | *(4500)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 13825 | 12565 | 11735 | 10000 | 9415 | 11350 | 10225 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | |
| *(N)* | *(61500)* | *(55900)* | *(52200)* | *(44500)* | *(41900)* | *(50500)* | *(45500)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |



# Frame Size Selection Tables 50 RPM



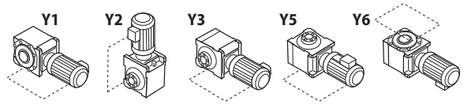

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 0.833 | 0.746 | 0.676 | 0.625 | 0.568 | 0.490 | 0.446 | 0.407 | 0.331 | 0.279 | 0.242 | 0.201 | 0.164 | 0.120 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B165 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 36810 | 33625 | 36810 | 33625 | 36810 | 36810 | 33625 | 36810 | 36810 | 36810 | 36810 | 36810 | 36810 | — | |
| *(N•m)* | *(4160)* | *(3800)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(3800)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | *(4160)* | — | |
| Hollow Shaft OHL lbs | 12160 | 12900 | 12160 | 12900 | 12160 | 12160 | 12900 | 12160 | 12160 | 12160 | 12160 | 12160 | 12160 | — | |
| *(N)* | *(54100)* | *(57400)* | *(54100)* | *(57400)* | *(54100)* | *(54100)* | *(57400)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | *(54100)* | — | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C145 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 41150 | 36810 | 40265 | 37610 | 41150 | 41150 | 37610 | 41150 | 41150 | 41150 | 41150 | 39820 | 37520 | — | |
| *(N•m)* | *(4650)* | *(4160)* | *(4550)* | *(4250)* | *(4650)* | *(4650)* | *(4250)* | *(4650)* | *(4650)* | *(4650)* | *(4650)* | *(4500)* | *(4240)* | — | |
| Hollow Shaft OHL lbs | 10945 | 12180 | 11240 | 11955 | 10945 | 10945 | 11955 | 10945 | 10945 | 10945 | 10945 | 11375 | 11980 | — | |
| *(N)* | *(48700)* | *(54200)* | *(50000)* | *(53200)* | *(48700)* | *(48700)* | *(53200)* | *(48700)* | *(48700)* | *(48700)* | *(48700)* | *(50600)* | *(53300)* | — | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C165 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |

# Frame Size Selection Tables 50 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

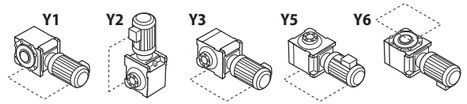



Dimensions on pages 2.156 - 2.166

| Output RPM | 4.55 | 3.85 | 3.57 | 3.13 | 2.78 | 2.38 | 2.27 | 2.00 | 1.79 | 1.43 | 1.28 | 1.09 | 0.943 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 35225 | 45925 | 43365 | 45490 | 43900 | 40615 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3980)* | *(4850)* | *(4900)* | *(5140)* | *(4960)* | *(4590)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 12565 | 10405 | 10225 | 9415 | 10025 | 11125 | 10250 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | |
| *(N)* | *(55900)* | *(46300)* | *(45500)* | *(41900)* | *(44600)* | *(49500)* | *(45600)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C175 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 35225 | 42925 | 43365 | 45490 | 43900 | 40615 | 43360 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3980)* | *(4850)* | *(4900)* | *(5140)* | *(4960)* | *(4590)* | *(4900)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 12565 | 10405 | 10225 | 9415 | 10025 | 11125 | 10250 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | |
| *(N)* | *(55900)* | *(46300)* | *(45500)* | *(41900)* | *(44600)* | *(49500)* | *(45600)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 48230 | 52740 | 52740 | 48230 | 52740 | 52740 | 52740 | |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(5450)* | *(5960)* | *(5960)* | *(5450)* | *(5960)* | *(5960)* | *(5960)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 19825 | 18680 | 17915 | 17915 | 18680 | 17915 | 17915 | 17915 | |
| *(N)* | — | — | — | — | — | *(88200)* | *(83100)* | *(79700)* | *(79700)* | *(83100)* | *(79700)* | *(79700)* | *(79700)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | — | — | — | — | — | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D165 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 39820 | 49645 | 54335 | 56105 | 57695 | 63095 | 63095 | 63095 | |
| *(N•m)* | — | — | — | — | — | *(4500)* | *(5610)* | *(6140)* | *(6340)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 19825 | 18430 | 17625 | 17285 | 16970 | 15755 | 15755 | 15755 | |
| *(N)* | — | — | — | — | — | *(88200)* | *(82000)* | *(78400)* | *(76900)* | *(75500)* | *(70100)* | *(70100)* | *(70100)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | — | — | — | — | — | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 35220 | 42920 | 46900 | 53625 | 58670 | 55840 | 69555 | 76015 | 76015 | 69555 | 76015 | 75925 | 76015 | |
| *(N•m)* | *(3980)* | *(4850)* | *(5300)* | *(6060)* | *(6630)* | *(6310)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 20365 | 19445 | 18880 | 17780 | 16790 | 17355 | 14050 | 11825 | 11825 | 14050 | 11825 | 11865 | 11825 | |
| *(N)* | *(90600)* | *(86500)* | *(84000)* | *(79100)* | *(74700)* | *(77200)* | *(62500)* | *(52600)* | *(52600)* | *(62500)* | *(52600)* | *(52800)* | *(52600)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D175 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 35220 | 42920 | 46900 | 53625 | 58670 | 55840 | 74955 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(3980)* | *(4850)* | *(5300)* | *(6060)* | *(6630)* | *(6310)* | *(8470)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 20365 | 19445 | 18880 | 17780 | 16790 | 17355 | 12250 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(90600)* | *(86500)* | *(84000)* | *(79100)* | *(74700)* | *(77200)* | *(54500)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |



# Frame Size Selection Tables 50 RPM



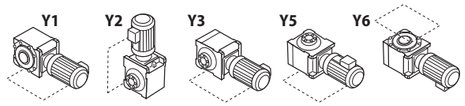

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 0.833 | 0.746 | 0.676 | 0.625 | 0.568 | 0.490 | 0.446 | 0.407 | 0.331 | 0.279 | 0.242 | 0.201 | 0.164 | 0.120 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C175 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | — | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | — | |
| Hollow Shaft OHL lbs | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 52740 | 48230 | 52740 | 48230 | 52740 | 52740 | 48230 | 52740 | 52120 | 52740 | 52740 | 52740 | 52740 | — | |
| *(N•m)* | *(5960)* | *(5450)* | *(5960)* | *(5450)* | *(5960)* | *(5960)* | *(5450)* | *(5960)* | *(5890)* | *(5960)* | *(5960)* | *(5960)* | *(5960)* | — | |
| Hollow Shaft OHL lbs | 17915 | 18680 | 17915 | 18680 | 17915 | 17915 | 18680 | 17915 | 18025 | 17915 | 17915 | 17915 | 17915 | — | |
| *(N)* | *(79700)* | *(83100)* | *(79700)* | *(83100)* | *(79700)* | *(79700)* | *(83100)* | *(79700)* | *(80200)* | *(79700)* | *(79700)* | *(79700)* | *(79700)* | — | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D165 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 63095 | 57695 | 63095 | 57695 | 63095 | 63095 | 57695 | 63095 | 63095 | 63095 | 63095 | 63095 | 61680 | — | |
| *(N•m)* | *(7130)* | *(6520)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(6520)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(7130)* | *(6970)* | — | |
| Hollow Shaft OHL lbs | 15755 | 16970 | 15755 | 16970 | 15755 | 15755 | 16970 | 15755 | 15755 | 15755 | 15755 | 15755 | 16115 | — | |
| *(N)* | *(70100)* | *(75500)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(75500)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(71700)* | — | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 11825 | 14050 | 11825 | 14050 | 11825 | 11825 | 14050 | 11825 | 11825 | 11825 | 11825 | 11825 | 11825 | — | |
| *(N)* | *(52600)* | *(62500)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(62500)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | *(52600)* | — | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D175 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |

# Frame Size Selection Tables 50 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

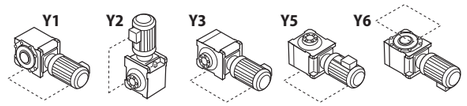



Dimensions on pages 2.156 - 2.166

| Output RPM | 4.55 | 3.85 | 3.57 | 3.13 | 2.78 | 2.38 | 2.27 | 2.00 | 1.79 | 1.43 | 1.28 | 1.09 | 0.943 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 46635 | 56810 | 62210 | 71060 | 77175 | 70350 | 66635 | 72920 | 74155 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(5270)* | *(6420)* | *(7030)* | *(8030)* | *(8720)* | *(7950)* | *(7530)* | *(8240)* | *(8380)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 18905 | 17130 | 15960 | 13530 | 11375 | 13800 | 14855 | 12970 | 12565 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(84100)* | *(76200)* | *(71000)* | *(60200)* | *(50600)* | *(61400)* | *(66100)* | *(57700)* | *(55900)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 46635 | 56810 | 62210 | 71060 | 77175 | 71325 | 67695 | 74070 | 75040 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(5270)* | *(6420)* | *(7030)* | *(8030)* | *(8720)* | *(8060)* | *(7650)* | *(8370)* | *(8480)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 18905 | 17130 | 15960 | 13530 | 11375 | 13465 | 14565 | 12585 | 12160 | 11375 | 11375 | 11375 | 11375 | |
| *(N)* | *(84100)* | *(76200)* | *(71000)* | *(60200)* | *(50600)* | *(59900)* | *(64800)* | *(56000)* | *(54100)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 35220 | 42920 | 46900 | 53625 | 58670 | 55840 | 69555 | 76015 | 76015 | 69555 | 76015 | 75925 | 76015 | |
| *(N•m)* | *(3980)* | *(4850)* | *(5300)* | *(6060)* | *(6630)* | *(6310)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8580)* | *(8590)* | |
| Hollow Shaft OHL lbs | 22030 | 21625 | 21420 | 21085 | 20835 | 20970 | 20275 | 19940 | 19940 | 20275 | 19940 | 19960 | 19940 | |
| *(N)* | *(98000)* | *(96200)* | *(95300)* | *(93800)* | *(92700)* | *(93300)* | *(90200)* | *(88700)* | *(88700)* | *(90200)* | *(88700)* | *(88800)* | *(88700)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E175 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 35220 | 42920 | 46900 | 53625 | 58670 | 55840 | 74955 | 81945 | 78230 | 86545 | 86990 | 86990 | 86990 | |
| *(N•m)* | *(3980)* | *(4850)* | *(5300)* | *(6060)* | *(6630)* | *(6310)* | *(8470)* | *(9260)* | *(8840)* | *(9780)* | *(9830)* | *(9830)* | *(9830)* | |
| Hollow Shaft OHL lbs | 22030 | 21420 | 21085 | 20840 | 20835 | 20970 | 20005 | 19645 | 19850 | 19420 | 19400 | 19400 | 19400 | |
| *(N)* | *(98000)* | *(95300)* | *(93800)* | *(92700)* | *(92700)* | *(93300)* | *(89000)* | *(87400)* | *(88300)* | *(86400)* | *(86300)* | *(86300)* | *(86300)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 46635 | 56810 | 62210 | 71060 | 77695 | 70350 | 66635 | 72920 | 74155 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5270)* | *(6420)* | *(7030)* | *(8030)* | *(8780)* | *(7950)* | *(7530)* | *(8240)* | *(8380)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 21445 | 20925 | 20660 | 20210 | 19870 | 20230 | 20435 | 20120 | 20050 | 18430 | 18430 | 18430 | 18430 | |
| *(N)* | *(95400)* | *(93100)* | *(91900)* | *(89900)* | *(88400)* | *(90000)* | *(90900)* | *(89500)* | *(89200)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 46635 | 56810 | 62210 | 71060 | 77695 | 71325 | 67695 | 74070 | 75040 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(5270)* | *(6420)* | *(7030)* | *(8030)* | *(8780)* | *(8060)* | *(7650)* | *(8370)* | *(8480)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 21445 | 20925 | 20660 | 20210 | 19870 | 20185 | 20365 | 20050 | 20005 | 18430 | 18430 | 18430 | 18430 | |
| *(N)* | *(95400)* | *(93100)* | *(91900)* | *(89900)* | *(88400)* | *(89800)* | *(90600)* | *(89200)* | *(89000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |



# Frame Size Selection Tables 50 RPM



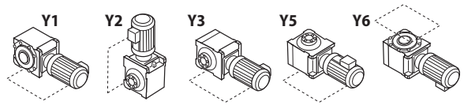

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 0.833 | 0.746 | 0.676 | 0.625 | 0.568 | 0.490 | 0.446 | 0.407 | 0.331 | 0.279 | 0.242 | 0.201 | 0.164 | 0.120 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | |
| Hollow Shaft OHL lbs | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 76015 | 69555 | 76015 | 69555 | 76015 | 76015 | 69555 | 76015 | 76015 | 76015 | 76015 | 76015 | 76015 | — | |
| *(N•m)* | *(8590)* | *(7860)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(7860)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | *(8590)* | — | |
| Hollow Shaft OHL lbs | 19940 | 20275 | 19940 | 20275 | 19940 | 19940 | 20275 | 19940 | 19940 | 19940 | 19940 | 19940 | 19940 | — | |
| *(N)* | *(88700)* | *(90200)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(90200)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | *(88700)* | — | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E175 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 86990 | 86545 | 86990 | 86545 | 86990 | 86990 | 86545 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | — | |
| *(N•m)* | *(9830)* | *(9780)* | *(9830)* | *(9780)* | *(9830)* | *(9830)* | *(9780)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | — | |
| Hollow Shaft OHL lbs | 19400 | 19420 | 19400 | 19420 | 19400 | 19400 | 19420 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | — | |
| *(N)* | *(86300)* | *(86400)* | *(86300)* | *(86400)* | *(86300)* | *(86300)* | *(86400)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | — | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |

# Frame Size Selection Tables 50 RPM

## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions



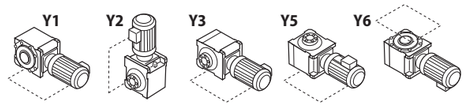

Dimensions on pages 2.156 - 2.166

| Output RPM | 4.55 | 3.85 | 3.57 | 3.13 | 2.78 | 2.38 | 2.27 | 2.00 | 1.79 | 1.43 | 1.28 | 1.09 | 0.943 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 76735 | 93815 | 102665 | 102665 | 102665 | 88065 | 82740 | 90275 | 92045 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(8760)* | *(10600)* | *(11600)* | *(11600)* | *(11600)* | *(9950)* | *(9350)* | *(10200)* | *(10400)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 19915 | 19060 | 18520 | 18430 | 18430 | 19330 | 19600 | 19220 | 19130 | 18430 | 18430 | 18430 | 18430 | |
| *(N)* | *(88600)* | *(84800)* | *(82400)* | *(82000)* | *(82000)* | *(86000)* | *(87200)* | *(85500)* | *(85100)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E195 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 76735 | 93815 | 102665 | 102665 | 102665 | 89390 | 84510 | 92045 | 93815 | 102665 | 102665 | 102665 | 102665 | |
| *(N•m)* | *(8670)* | *(10600)* | *(11600)* | *(11600)* | *(11600)* | *(10100)* | *(9550)* | *(10400)* | *(10600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 19915 | 19060 | 18520 | 18430 | 18430 | 19265 | 19510 | 19130 | 19040 | 18430 | 18430 | 18430 | 18430 | |
| *(N)* | *(88600)* | *(84800)* | *(82400)* | *(82000)* | *(82000)* | *(85700)* | *(86800)* | *(85100)* | *(84700)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 46635 | 56810 | 62210 | 71060 | 77695 | 70350 | 66635 | 72920 | 74155 | 111500 | 122120 | 122120 | 122120 | |
| *(N•m)* | *(5270)* | *(6420)* | *(7030)* | *(8030)* | *(8780)* | *(7950)* | *(7530)* | *(8240)* | *(8380)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | |
| Hollow Shaft OHL lbs | 30120 | 29670 | 29450 | 29000 | 28775 | 29225 | 29225 | 29000 | 29000 | 27425 | 26975 | 26975 | 26975 | |
| *(N)* | *(134000)* | *(132000)* | *(131000)* | *(129000)* | *(128000)* | *(130000)* | *(130000)* | *(129000)* | *(129000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 46635 | 56810 | 62210 | 71060 | 77695 | 71325 | 67695 | 74070 | 75040 | 131855 | 144245 | 147785 | 147785 | |
| *(N•m)* | *(5270)* | *(6420)* | *(7030)* | *(8030)* | *(8780)* | *(8060)* | *(7650)* | *(8370)* | *(8480)* | *(14900)* | *(16300)* | *(16700)* | *(16700)* | |
| Hollow Shaft OHL lbs | 30120 | 29670 | 29450 | 29000 | 28775 | 29000 | 29225 | 29000 | 29000 | 26525 | 25850 | 25850 | 25850 | |
| *(N)* | *(134000)* | *(132000)* | *(131000)* | *(129000)* | *(128000)* | *(129000)* | *(130000)* | *(129000)* | *(129000)* | *(118000)* | *(115000)* | *(115000)* | *(115000)* | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 76735 | 93815 | 102665 | 116830 | 128335 | 88050 | 82740 | 90265 | 92035 | 159290 | 159290 | 159290 | 159290 | |
| *(N•m)* | *(8670)* | *(10600)* | *(11600)* | *(13200)* | *(14500)* | *(9950)* | *(9350)* | *(10200)* | *(10400)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | |
| Hollow Shaft OHL lbs | 28775 | 28100 | 27650 | 27200 | 26525 | 28325 | 28550 | 28325 | 28100 | 25175 | 25175 | 25175 | 25175 | |
| *(N)* | *(128000)* | *(125000)* | *(123000)* | *(121000)* | *(118000)* | *(126000)* | *(127000)* | *(126000)* | *(125000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F195 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 76735 | 93815 | 102665 | 116830 | 128335 | 89380 | 84510 | 92035 | 93805 | 159290 | 159290 | 159290 | 159290 | |
| *(N•m)* | *(8670)* | *(10600)* | *(11600)* | *(13200)* | *(14500)* | *(10100)* | *(9550)* | *(10400)* | *(10600)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | |
| Hollow Shaft OHL lbs | 28775 | 28100 | 27650 | 27200 | 26525 | 28325 | 28550 | 28100 | 28100 | 25175 | 25175 | 25175 | 25175 | |
| *(N)* | *(128000)* | *(125000)* | *(123000)* | *(121000)* | *(118000)* | *(126000)* | *(127000)* | *(125000)* | *(125000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | |



Speed Reducers

# Frame Size Selection Tables 50 RPM




## Single Reduction
## Y1, Y2, Y3, Y5, Y6 Mounting Positions

Dimensions on pages 2.156 - 2.166

| Output RPM | 0.833 | 0.746 | 0.676 | 0.625 | 0.568 | 0.490 | 0.446 | 0.407 | 0.331 | 0.279 | 0.242 | 0.201 | 0.164 | 0.120 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E195 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | 102665 | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | |
| Hollow Shaft OHL lbs | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 122120 | 110620 | 121235 | 111500 | 122120 | 122120 | 111500 | 122120 | 122120 | 122120 | 121235 | 121235 | 122120 | — | |
| *(N•m)* | *(13800)* | *(12500)* | *(13700)* | *(12600)* | *(13800)* | *(13800)* | *(12600)* | *(13800)* | *(13800)* | *(13800)* | *(13700)* | *(13700)* | *(13800)* | — | |
| Hollow Shaft OHL lbs | 26975 | 27425 | 26975 | 27425 | 26975 | 26975 | 27425 | 26975 | 26975 | 26975 | 26975 | 26975 | 26975 | — | |
| *(N)* | *(120000)* | *(122000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(122000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | *(120000)* | — | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 150440 | 137165 | 150440 | 137165 | 149555 | 150440 | 137165 | 150440 | 150440 | 150440 | 150440 | 135395 | 150440 | — | |
| *(N•m)* | *(17000)* | *(15500)* | *(17000)* | *(15500)* | *(16900)* | *(17000)* | *(15500)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(15300)* | *(17000)* | — | |
| Hollow Shaft OHL lbs | 25625 | 26300 | 25625 | 26300 | 25625 | 25625 | 26300 | 25625 | 25625 | 25625 | 25625 | 26300 | 25625 | — | |
| *(N)* | *(114000)* | *(117000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | *(114000)* | *(114000)* | *(114000)* | *(117000)* | *(114000)* | — | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F195 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | 159290 | — | |
| *(N•m)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | *(18000)* | — | |
| Hollow Shaft OHL lbs | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | 25175 | — | |
| *(N)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | *(112000)* | — | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | — | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | |

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

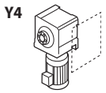
| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | **3.15** | — | — | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | |
| ***(kW)*** | — | — | — | — | — | ***(2.35)*** | — | — | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | |
| Output Torque in•lbs | — | — | — | — | — | 2195 | — | — | 2927 | 3658 | 4076 | 4808 | 5540 | |
| *(N•m)* | — | — | — | — | — | *(248)* | — | — | *(331)* | *(413)* | *(461)* | *(543)* | *(626)* | **4A100** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4470 | — | — | 4785 | 5055 | 5170 | 5350 | 5530 | |
| *(N)* | — | — | — | — | — | *(19900)* | — | — | *(21300)* | *(22500)* | *(23000)* | *(23800)* | *(24600)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3480 | — | — | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | — | — | — | — | — | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |
| **Input Power HP** | — | — | — | — | — | **4.26** | — | — | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | |
| ***(kW)*** | — | — | — | — | — | ***(3.18)*** | — | — | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | |
| Output Torque in•lbs | — | — | — | — | — | 2973 | — | — | 3964 | 4955 | 5522 | 6513 | 7504 | |
| *(N•m)* | — | — | — | — | — | *(336)* | — | — | *(448)* | *(560)* | *(624)* | *(736)* | *(848)* | **4A105** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4360 | — | — | 4650 | 4875 | 4965 | 5125 | 5100 | |
| *(N)* | — | — | — | — | — | *(19400)* | — | — | *(20700)* | *(21700)* | *(22100)* | *(22800)* | *(22700)* | |
| Solid Shaft OH lbs | — | — | — | — | — | 3480 | — | — | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | — | — | — | — | — | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |
| **Input Power HP** | — | — | — | — | — | **4.76** | — | — | **4.76** | **4.76** | **4.76** | **4.76** | **4.76** | |
| ***(kW)*** | — | — | — | — | — | ***(3.55)*** | — | — | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | |
| Output Torque in•lbs | — | — | — | — | — | 3319 | — | — | 4425 | 5531 | 6164 | 7271 | 8378 | |
| *(N•m)* | — | — | — | — | — | *(375)* | — | — | *(500)* | *(625)* | *(696)* | *(822)* | *(947)* | **4A110** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4315 | — | — | 4585 | 4785 | 4875 | 5010 | 4785 | |
| *(N)* | — | — | — | — | — | *(19200)* | — | — | *(20400)* | *(21300)* | *(21700)* | *(22300)* | *(21300)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3480 | — | — | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | — | — | — | — | — | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |
| **Input Power HP** | — | — | — | — | — | **5.26** | — | — | **5.26** | **5.26** | **5.26** | **5.23** | **5.23** | |
| ***(kW)*** | — | — | — | — | — | ***(3.92)*** | — | — | ***(3.92)*** | ***(3.92)*** | ***(3.92)*** | ***(3.90)*** | ***(3.90)*** | |
| Output Torque in•lbs | — | — | — | — | — | 3664 | — | — | 4886 | 6107 | 6805 | 7988 | 9204 | |
| *(N•m)* | — | — | — | — | — | *(414)* | — | — | *(552)* | *(690)* | *(769)* | *(903)* | *(1040)* | **4A115** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4270 | — | — | 4515 | 4720 | 4785 | 4920 | 4470 | |
| *(N)* | — | — | — | — | — | *(19000)* | — | — | *(20100)* | *(21000)* | *(21300)* | *(21900)* | *(19900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3480 | — | — | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | — | — | — | — | — | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |
| **Input Power HP** | — | — | — | — | — | **6.80** | — | — | **6.80** | **6.80** | **6.80** | — | — | |
| ***(kW)*** | — | — | — | — | — | ***(5.07)*** | — | — | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 4741 | — | — | 6321 | 7902 | 8805 | — | — | |
| *(N•m)* | — | — | — | — | — | *(536)* | — | — | *(714)* | *(893)* | *(995)* | — | — | **4A120** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 3930 | — | — | 4065 | 4470 | 4515 | — | — | |
| *(N)* | — | — | — | — | — | *(17500)* | — | — | *(18100)* | *(19900)* | *(20100)* | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3480 | — | — | 3980 | 4350 | 4510 | — | — | |
| *(N)* | — | — | — | — | — | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | — | — | |
| **Input Power HP** | — | — | — | — | — | **7.80** | — | — | **9.31** | **7.94** | **7.41** | **6.27** | **5.43** | |
| ***(kW)*** | — | — | — | — | — | ***(5.81)*** | — | — | ***(6.95)*** | ***(5.92)*** | ***(5.52)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5437 | — | — | 8660 | 9226 | 9593 | 9574 | 9560 | |
| *(N•m)* | — | — | — | — | — | *(614)* | — | — | *(978)* | *(1042)* | *(1084)* | *(1082)* | *(1080)* | **4A125** |
| Hollow Shaft OHL lbs | — | — | — | — | — | 3795 | — | — | 3910 | 4270 | 4315 | 4315 | 4315 | |
| *(N)* | — | — | — | — | — | *(16900)* | — | — | *(17400)* | *(19000)* | *(19200)* | *(19200)* | *(19200)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3480 | — | — | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | — | — | — | — | — | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.





Frame Size Selection Tables 60 Hz, 1750 RPM




Single Reduction
Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **2.66** | **2.58** | **2.58** | **1.70** | **1.70** | **1.62** | **1.31** | **1.31** | **1.05** | **0.751** | **0.692** | **0.584** | **0.581** | **0.282** | |
| ***(kW)*** | ***(1.99)*** | ***(1.93)*** | ***(1.93)*** | ***(1.27)*** | ***(1.27)*** | ***(1.21)*** | ***(0.975)*** | ***(0.975)*** | ***(0.780)*** | ***(0.560)*** | ***(0.516)*** | ***(0.436)*** | ***(0.433)*** | ***(0.210)*** | |
| Output Torque in•lbs | 5305 | 5744 | 6344 | 4523 | 4975 | 5496 | 4862 | 5340 | 5245 | 4464 | 4756 | 4832 | 5884 | 3899 | |
| *(N•m)* | *(599)* | *(649)* | *(717)* | *(511)* | *(562)* | *(621)* | *(549)* | *(603)* | *(593)* | *(504)* | *(537)* | *(546)* | *(665)* | *(441)* | **4A100** |
| Hollow Shaft OHL lbs | 5640 | 5530 | 5415 | 5775 | 5710 | 5595 | 5730 | 5640 | 5640 | 5800 | 5755 | 5730 | 5505 | 5890 | |
| *(N)* | *(25100)* | *(24600)* | *(24100)* | *(25700)* | *(25400)* | *(24900)* | *(25500)* | *(25100)* | *(25100)* | *(25800)* | *(25600)* | *(25500)* | *(24500)* | *(26200)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **3.29** | **3.13** | **3.13** | **2.24** | **2.24** | **2.13** | **1.61** | **1.61** | **1.45** | **1.04** | **0.950** | **0.753** | **0.758** | **0.384** | |
| ***(kW)*** | ***(2.46)*** | ***(2.34)*** | ***(2.34)*** | ***(1.67)*** | ***(1.67)*** | ***(1.59)*** | ***(1.20)*** | ***(1.20)*** | ***(1.08)*** | ***(0.776)*** | ***(0.708)*** | ***(0.561)*** | ***(0.565)*** | ***(0.286)*** | |
| Output Torque in•lbs | 6562 | 6968 | 7696 | 5959 | 6554 | 7221 | 5975 | 6561 | 7295 | 6186 | 6528 | 6222 | 7675 | 5316 | |
| *(N•m)* | *(742)* | *(787)* | *(870)* | *(673)* | *(741)* | *(816)* | *(675)* | *(741)* | *(824)* | *(699)* | *(738)* | *(703)* | *(867)* | *(601)* | **4A105** |
| Hollow Shaft OHL lbs | 5350 | 5235 | 5035 | 5485 | 5350 | 5170 | 5485 | 5350 | 5145 | 5440 | 5350 | 5440 | 5010 | 5640 | |
| *(N)* | *(23800)* | *(23300)* | *(22400)* | *(24400)* | *(23800)* | *(23000)* | *(24400)* | *(23800)* | *(22900)* | *(24200)* | *(23800)* | *(24200)* | *(22300)* | *(25100)* | |
| Solid Shaft OH lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **4.26** | **3.65** | **3.65** | **2.57** | **2.57** | **2.55** | **2.02** | **2.02** | **1.74** | **1.27** | **1.15** | **0.897** | **0.887** | — | |
| ***(kW)*** | ***(3.18)*** | ***(2.72)*** | ***(2.72)*** | ***(1.91)*** | ***(1.91)*** | ***(1.90)*** | ***(1.50)*** | ***(1.50)*** | ***(1.30)*** | ***(0.944)*** | ***(0.859)*** | ***(0.669)*** | ***(0.661)*** | — | |
| Output Torque in•lbs | 8491 | 8126 | 8975 | 6816 | 7497 | 8649 | 7496 | 8233 | 8741 | 7520 | 7919 | 7416 | 8981 | — | |
| *(N•m)* | *(959)* | *(918)* | *(1014)* | *(770)* | *(847)* | *(977)* | *(847)* | *(930)* | *(988)* | *(850)* | *(895)* | *(838)* | *(1015)* | — | **4A110** |
| Hollow Shaft OHL lbs | 4740 | 4855 | 4560 | 5280 | 5080 | 4675 | 5080 | 4830 | 4630 | 5080 | 4945 | 5100 | 4540 | — | |
| *(N)* | *(21100)* | *(21600)* | *(20300)* | *(23500)* | *(22600)* | *(20800)* | *(22600)* | *(21500)* | *(20600)* | *(22600)* | *(22000)* | *(22700)* | *(20200)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | — | |
| **Input Power HP** | **4.79** | **4.17** | **3.88** | **2.98** | **2.98** | **2.81** | **2.42** | **2.33** | **1.90** | **1.49** | **1.35** | **1.02** | **0.937** | — | |
| ***(kW)*** | ***(3.57)*** | ***(3.11)*** | ***(2.89)*** | ***(2.22)*** | ***(2.22)*** | ***(2.10)*** | ***(1.81)*** | ***(1.74)*** | ***(1.41)*** | ***(1.11)*** | ***(1.01)*** | ***(0.758)*** | ***(0.698)*** | — | |
| Output Torque in•lbs | 9550 | 9284 | 9535 | 7915 | 8707 | 9517 | 9018 | 9509 | 9502 | 8855 | 9309 | 8399 | 9486 | — | |
| *(N•m)* | *(1079)* | *(1049)* | *(1077)* | *(894)* | *(984)* | *(1075)* | *(1019)* | *(1074)* | *(1074)* | *(1001)* | *(1052)* | *(949)* | *(1072)* | — | **4A115** |
| Hollow Shaft OHL lbs | 4315 | 4380 | 4315 | 4945 | 4650 | 4315 | 4515 | 4315 | 4315 | 4585 | 4380 | 4765 | 4315 | — | |
| *(N)* | *(19200)* | *(19500)* | *(19200)* | *(22000)* | *(20700)* | *(19200)* | *(20100)* | *(19200)* | *(19200)* | *(20400)* | *(19500)* | *(21200)* | *(19200)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | **4A120** |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.56** | **3.26** | **2.81** | **2.55** | **2.33** | **1.90** | **1.60** | **1.38** | **1.15** | **0.937** | — | |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.10)*** | ***(1.90)*** | ***(1.74)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.856)*** | ***(0.698)*** | — | |
| Output Torque in•lbs | 9550 | 9442 | 9535 | 9470 | 9524 | 9517 | 9470 | 9509 | 9502 | 9497 | 9493 | 9489 | 9486 | — | |
| *(N•m)* | *(1079)* | *(1067)* | *(1077)* | *(1070)* | *(1076)* | *(1075)* | *(1070)* | *(1074)* | *(1074)* | *(1073)* | *(1073)* | *(1072)* | *(1072)* | — | **4A125** |
| Hollow Shaft OHL lbs | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | — | |
| *(N)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | — | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

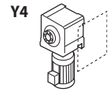
| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **13.6** | — | — | **10.2** | **8.10** | **7.41** | **6.27** | **5.43** | 4A145 |
| ***(kW)*** | — | — | — | — | — | ***(10.1)*** | — | — | ***(7.60)*** | ***(6.04)*** | ***(5.52)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | — | — | — | — | — | 9470 | — | — | 9470 | 9416 | 9593 | 9574 | 9560 | |
| *(N•m)* | — | — | — | — | — | *(1070)* | — | — | *(1070)* | *(1064)* | *(1084)* | *(1082)* | *(1080)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 3460 | — | — | 3885 | 4245 | 4315 | 4315 | 4315 | |
| *(N)* | — | — | — | — | — | *(15400)* | — | — | *(17300)* | *(18900)* | *(19200)* | *(19200)* | *(19200)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3480 | — | — | 3980 | 4350 | 4510 | 4550 | 4580 | |
| *(N)* | — | — | — | — | — | *(15470)* | — | — | *(17700)* | *(19340)* | *(20060)* | *(20230)* | *(20370)* | |
| **Input Power HP** | — | — | — | — | — | **6.80** | — | — | **6.80** | **6.80** | **6.80** | **6.80** | **6.80** | 4B120 |
| ***(kW)*** | — | — | — | — | — | ***(5.07)*** | — | — | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | |
| Output Torque in•lbs | — | — | — | — | — | 4741 | — | — | 6321 | 7902 | 8805 | 10385 | 11965 | |
| *(N•m)* | — | — | — | — | — | *(536)* | — | — | *(714)* | *(893)* | *(995)* | *(1173)* | *(1352)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5775 | — | — | 6135 | 6630 | 6765 | 6990 | 7170 | |
| *(N)* | — | — | — | — | — | *(25700)* | — | — | *(27300)* | *(29500)* | *(30100)* | *(31100)* | *(31900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3670 | — | — | 4320 | 4860 | 5120 | 5590 | 5970 | |
| *(N)* | — | — | — | — | — | *(16320)* | — | — | *(19210)* | *(21610)* | *(22770)* | *(24860)* | *(26550)* | |
| **Input Power HP** | — | — | — | — | — | **7.80** | — | — | **9.31** | **7.94** | **7.94** | **7.94** | **7.94** | 4B125 |
| ***(kW)*** | — | — | — | — | — | ***(5.81)*** | — | — | ***(6.95)*** | ***(5.92)*** | ***(5.92)*** | ***(5.92)*** | ***(5.92)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5437 | — | — | 8660 | 9226 | 10281 | 12126 | 13971 | |
| *(N•m)* | — | — | — | — | — | *(614)* | — | — | *(978)* | *(1042)* | *(1162)* | *(1370)* | *(1579)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5665 | — | — | 6000 | 6495 | 6605 | 6810 | 6965 | |
| *(N)* | — | — | — | — | — | *(25200)* | — | — | *(26700)* | *(28900)* | *(29400)* | *(30300)* | *(31000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3670 | — | — | 4320 | 4860 | 5120 | 5590 | 5970 | |
| *(N)* | — | — | — | — | — | *(16320)* | — | — | *(19210)* | *(21610)* | *(22770)* | *(24860)* | *(26550)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **14.9** | — | — | **14.9** | **14.9** | **14.7** | **10.2** | **10.2** | 4B145 |
| ***(kW)*** | — | — | — | — | — | ***(11.1)*** | — | — | ***(11.1)*** | ***(11.1)*** | ***(11.0)*** | ***(7.58)*** | ***(7.58)*** | |
| Output Torque in•lbs | — | — | — | — | — | 10389 | — | — | 13852 | 17315 | 19096 | 15516 | 17877 | |
| *(N•m)* | — | — | — | — | — | *(1174)* | — | — | *(1565)* | *(1956)* | *(2158)* | *(1753)* | *(2020)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5100 | — | — | 4965 | 5460 | 5665 | 6065 | 6425 | |
| *(N)* | — | — | — | — | — | *(22700)* | — | — | *(22100)* | *(24300)* | *(25200)* | *(27000)* | *(28600)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3670 | — | — | 4320 | 4860 | 5120 | 5590 | 5970 | |
| *(N)* | — | — | — | — | — | *(16320)* | — | — | *(19210)* | *(21610)* | *(22770)* | *(24860)* | *(26550)* | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.





Frame Size Selection Tables 60 Hz, 1750 RPM




Single Reduction
Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.56** | **3.26** | **2.81** | **2.55** | **2.33** | **1.90** | **1.60** | **1.38** | **1.15** | **0.937** | — | 4A145 |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.10)*** | ***(1.90)*** | ***(1.74)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.856)*** | ***(0.698)*** | — | |
| Output Torque in•lbs | 9550 | 9442 | 9535 | 9470 | 9524 | 9517 | 9470 | 9509 | 9502 | 9497 | 9493 | 9489 | 9486 | — | |
| *(N•m)* | *(1079)* | *(1067)* | *(1077)* | *(1070)* | *(1076)* | *(1075)* | *(1070)* | *(1074)* | *(1074)* | *(1073)* | *(1073)* | *(1072)* | *(1072)* | — | |
| Hollow Shaft OHL lbs | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | 4315 | — | |
| *(N)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | *(19200)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | — | |
| **Input Power HP** | **6.80** | **5.31** | **5.31** | **4.14** | **4.14** | **4.02** | **3.34** | **3.34** | **2.57** | **2.30** | **1.75** | **1.28** | **1.27** | — | 4B120 |
| ***(kW)*** | ***(5.07)*** | ***(3.96)*** | ***(3.96)*** | ***(3.09)*** | ***(3.09)*** | ***(2.99)*** | ***(2.49)*** | ***(2.49)*** | ***(1.91)*** | ***(1.72)*** | ***(1.30)*** | ***(0.957)*** | ***(0.944)*** | — | |
| Output Torque in•lbs | 13545 | 11817 | 13051 | 11003 | 12104 | 13601 | 12438 | 13659 | 12869 | 13685 | 12028 | 10608 | 12818 | — | |
| *(N•m)* | *(1530)* | *(1335)* | *(1475)* | *(1243)* | *(1368)* | *(1537)* | *(1405)* | *(1543)* | *(1454)* | *(1546)* | *(1359)* | *(1199)* | *(1448)* | — | |
| Hollow Shaft OHL lbs | 7325 | 7820 | 7955 | 8405 | 8565 | 8765 | 8965 | 8745 | 8900 | 8745 | 9055 | 9280 | 8900 | — | |
| *(N)* | *(32600)* | *(34800)* | *(35400)* | *(37400)* | *(38100)* | *(39000)* | *(39900)* | *(38900)* | *(39600)* | *(38900)* | *(40300)* | *(41300)* | *(39600)* | — | |
| Solid Shaft OHL lbs | 6330 | 6650 | 6920 | 7110 | 7320 | 7400 | 7450 | 7490 | 7580 | 7600 | 7470 | 7320 | 7190 | — | |
| *(N)* | *(28150)* | *(29570)* | *(30780)* | *(31620)* | *(32550)* | *(32910)* | *(33130)* | *(33310)* | *(33710)* | *(33800)* | *(33220)* | *(32550)* | *(31980)* | — | |
| **Input Power HP** | **7.59** | **6.55** | **6.55** | **5.30** | **5.30** | **5.05** | **4.26** | **4.26** | **3.19** | **3.06** | **2.17** | **1.61** | **1.52** | — | 4B125 |
| ***(kW)*** | ***(5.66)*** | ***(4.88)*** | ***(4.88)*** | ***(3.96)*** | ***(3.96)*** | ***(3.77)*** | ***(3.18)*** | ***(3.18)*** | ***(2.38)*** | ***(2.28)*** | ***(1.62)*** | ***(1.20)*** | ***(1.13)*** | — | |
| Output Torque in•lbs | 15118 | 14573 | 16095 | 14091 | 15500 | 17111 | 15857 | 17415 | 16009 | 18159 | 14932 | 13283 | 15349 | — | |
| *(N•m)* | *(1708)* | *(1646)* | *(1818)* | *(1592)* | *(1751)* | *(1933)* | *(1792)* | *(1968)* | *(1809)* | *(2052)* | *(1687)* | *(1501)* | *(1734)* | — | |
| Hollow Shaft OHL lbs | 7170 | 7530 | 7640 | 8070 | 8205 | 7910 | 8225 | 7820 | 8205 | 7595 | 8475 | 8810 | 8360 | — | |
| *(N)* | *(31900)* | *(33500)* | *(34000)* | *(35900)* | *(36500)* | *(35200)* | *(36600)* | *(34800)* | *(36500)* | *(33800)* | *(37700)* | *(39200)* | *(37200)* | — | |
| Solid Shaft OHL lbs | 6330 | 6650 | 6920 | 7110 | 7320 | 7400 | 7450 | 7490 | 7580 | 7600 | 7470 | 7320 | 7190 | — | |
| *(N)* | *(28150)* | *(29570)* | *(30780)* | *(31620)* | *(32550)* | *(32910)* | *(33130)* | *(33310)* | *(33710)* | *(33800)* | *(33220)* | *(32550)* | *(31980)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **7.45** | **7.45** | **7.45** | **7.10** | **6.49** | **5.01** | **5.01** | **4.63** | **2.98** | **2.98** | **2.75** | **2.03** | **1.86** | — | 4B145 |
| ***(kW)*** | ***(5.56)*** | ***(5.56)*** | ***(5.56)*** | ***(5.29)*** | ***(4.84)*** | ***(3.74)*** | ***(3.74)*** | ***(3.46)*** | ***(2.22)*** | ***(2.22)*** | ***(2.05)*** | ***(1.52)*** | ***(1.39)*** | — | |
| Output Torque in•lbs | 14841 | 16573 | 18304 | 18852 | 18959 | 16973 | 18637 | 18929 | 14940 | 17711 | 18897 | 16798 | 18883 | — | |
| *(N•m)* | *(1677)* | *(1872)* | *(2068)* | *(2130)* | *(2142)* | *(1918)* | *(2106)* | *(2139)* | *(1688)* | *(2001)* | *(2135)* | *(1898)* | *(2133)* | — | |
| Hollow Shaft OHL lbs | 6740 | 7055 | 7325 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | — | |
| *(N)* | *(30000)* | *(31400)* | *(32600)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | — | |
| Solid Shaft OHL lbs | 6330 | 6650 | 6920 | 7110 | 7320 | 7400 | 7450 | 7490 | 7580 | 7600 | 7470 | 7320 | 7190 | — | |
| *(N)* | *(28150)* | *(29570)* | *(30780)* | *(31620)* | *(32550)* | *(32910)* | *(33130)* | *(33310)* | *(33710)* | *(33800)* | *(33220)* | *(32550)* | *(31980)* | — | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

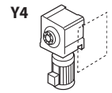
| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **27.0** | — | — | **20.3** | **16.1** | **14.7** | **12.5** | **10.8** | 4B165 |
| ***(kW)*** | — | — | — | — | — | ***(20.2)*** | — | — | ***(15.1)*** | ***(12.0)*** | ***(11.0)*** | ***(9.30)*** | ***(8.06)*** | |
| Output Torque in•lbs | — | — | — | — | — | 18852 | — | — | 18852 | 18745 | 19096 | 19059 | 19031 | |
| *(N•m)* | — | — | — | — | — | *(2130)* | — | — | *(2130)* | *(2118)* | *(2158)* | *(2153)* | *(2150)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4380 | — | — | 4965 | 5460 | 5665 | 6065 | 6425 | |
| *(N)* | — | — | — | — | — | *(19500)* | — | — | *(22100)* | *(24300)* | *(25200)* | *(27000)* | *(28600)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3670 | — | — | 4320 | 4860 | 5120 | 5590 | 5970 | |
| *(N)* | — | — | — | — | — | *(16320)* | — | — | *(19210)* | *(21610)* | *(22770)* | *(24860)* | *(26550)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **14.9** | — | — | **14.9** | **14.9** | **14.9** | **10.2** | **10.2** | 4C145 |
| ***(kW)*** | — | — | — | — | — | ***(11.1)*** | — | — | ***(11.1)*** | ***(11.1)*** | ***(11.1)*** | ***(7.58)*** | ***(7.58)*** | |
| Output Torque in•lbs | — | — | — | — | — | 10389 | — | — | 13852 | 17315 | 19294 | 15516 | 17877 | |
| *(N•m)* | — | — | — | — | — | *(1174)* | — | — | *(1565)* | *(1956)* | *(2180)* | *(1753)* | *(2020)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 7485 | — | — | 7845 | 8045 | 8475 | 8250 | 8405 | |
| *(N)* | — | — | — | — | — | *(33300)* | — | — | *(34900)* | *(35800)* | *(37700)* | *(36700)* | *(37400)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4820 | — | — | 5720 | 6460 | 6850 | 7500 | 8030 | |
| *(N)* | — | — | — | — | — | *(21430)* | — | — | *(25440)* | *(28730)* | *(30460)* | *(33360)* | *(35710)* | |
| **Input Power HP** | — | — | — | — | — | **33.9** | — | — | — | — | — | — | — | 4C160 |
| ***(kW)*** | — | — | — | — | — | ***(25.3)*** | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 23658 | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | *(2673)* | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 6585 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(29300)* | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4820 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(21430)* | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **40.2** | — | — | **20.3** | **20.3** | **20.3** | **14.9** | **14.9** | 4C165 |
| ***(kW)*** | — | — | — | — | — | ***(30.0)*** | — | — | ***(15.2)*** | ***(15.2)*** | ***(15.2)*** | ***(11.1)*** | ***(11.1)*** | |
| Output Torque in•lbs | — | — | — | — | — | 28053 | — | — | 18889 | 23611 | 26309 | 22757 | 26220 | |
| *(N•m)* | — | — | — | — | — | *(3170)* | — | — | *(2134)* | *(2668)* | *(2973)* | *(2571)* | *(2962)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 6180 | — | — | 6785 | 6720 | 7010 | 7575 | 8045 | |
| *(N)* | — | — | — | — | — | *(27500)* | — | — | *(30200)* | *(29900)* | *(31200)* | *(33700)* | *(35800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4820 | — | — | 5720 | 6460 | 6850 | 7500 | 8030 | |
| *(N)* | — | — | — | — | — | *(21430)* | — | — | *(25440)* | *(28730)* | *(30460)* | *(33360)* | *(35710)* | |

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Frame Size Selection Tables 60 Hz, 1750 RPM




Single Reduction
Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **19010** | **18796** | **18980** | **18852** | **18959** | **18945** | **18852** | **18929** | **18914** | **18904** | **18897** | **18890** | **18883** | — | 4B165 |
| ***(kW)*** | ***(2148)*** | ***(2124)*** | ***(2144)*** | ***(2130)*** | ***(2142)*** | ***(2140)*** | ***(2130)*** | ***(2139)*** | ***(2137)*** | ***(2136)*** | ***(2135)*** | ***(2134)*** | ***(2133)*** | — | |
| Output Torque in•lbs | 19010 | 18796 | 18980 | 18852 | 18959 | 18945 | 18852 | 18929 | 18914 | 18904 | 18897 | 18890 | 18883 | — | |
| *(N•m)* | *(2148)* | *(2124)* | *(2144)* | *(2130)* | *(2142)* | *(2140)* | *(2130)* | *(2139)* | *(2137)* | *(2136)* | *(2135)* | *(2134)* | *(2133)* | — | |
| Hollow Shaft OHL lbs | 6740 | 7055 | 7325 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | 7350 | — | |
| *(N)* | *(30000)* | *(31400)* | *(32600)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | *(32700)* | — | |
| Solid Shaft OHL lbs | 6330 | 6650 | 6920 | 7110 | 7320 | 7400 | 7450 | 7490 | 7580 | 7600 | 7470 | 7320 | 7190 | — | |
| *(N)* | *(28150)* | *(29570)* | *(30780)* | *(31620)* | *(32550)* | *(32910)* | *(33130)* | *(33310)* | *(33710)* | *(33800)* | *(33220)* | *(32550)* | *(31980)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **7.45** | **7.45** | **7.45** | **7.45** | **7.45** | **5.01** | **5.01** | **5.01** | **2.98** | **2.98** | **2.98** | **2.03** | **2.03** | — | 4C145 |
| ***(kW)*** | ***(5.56)*** | ***(5.56)*** | ***(5.56)*** | ***(5.56)*** | ***(5.56)*** | ***(3.74)*** | ***(3.74)*** | ***(3.74)*** | ***(2.22)*** | ***(2.22)*** | ***(2.22)*** | ***(1.52)*** | ***(1.52)*** | — | |
| Output Torque in•lbs | 14841 | 16573 | 18304 | 19788 | 21767 | 16973 | 18637 | 20467 | 14940 | 17711 | 20481 | 16798 | 20575 | — | |
| *(N•m)* | *(1677)* | *(1872)* | *(2068)* | *(2236)* | *(2459)* | *(1918)* | *(2106)* | *(2313)* | *(1688)* | *(2001)* | *(2314)* | *(1898)* | *(2325)* | — | |
| Hollow Shaft OHL lbs | 9055 | 9395 | 9460 | 10495 | 11015 | 10945 | 11015 | 11420 | 12340 | 12925 | 12925 | 12945 | 12925 | — | |
| *(N)* | *(40300)* | *(41800)* | *(42100)* | *(46700)* | *(49000)* | *(48700)* | *(49000)* | *(50800)* | *(54900)* | *(57500)* | *(57500)* | *(57600)* | *(57500)* | — | |
| Solid Shaft OHL lbs | 8540 | 9080 | 9510 | 9830 | 10190 | 10920 | 11330 | 11700 | 12410 | 12820 | 12750 | 12660 | 12590 | — | |
| *(N)* | *(37980)* | *(40380)* | *(42300)* | *(43720)* | *(45320)* | *(48570)* | *(50390)* | *(52040)* | *(55190)* | *(57020)* | *(56710)* | *(56310)* | *(56000)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **14.9** | **10.2** | **10.2** | **10.2** | **10.2** | **10.2** | **10.1** | **9.27** | **5.01** | **5.01** | **5.01** | **2.98** | **2.98** | — | 4C165 |
| ***(kW)*** | ***(11.1)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.56)*** | ***(6.91)*** | ***(3.74)*** | ***(3.74)*** | ***(3.74)*** | ***(2.22)*** | ***(2.22)*** | — | |
| Output Torque in•lbs | 29682 | 22599 | 24960 | 26984 | 29682 | 34405 | 37703 | 37857 | 25127 | 29786 | 34445 | 24636 | 30177 | — | |
| *(N•m)* | *(3354)* | *(2553)* | *(2820)* | *(3049)* | *(3354)* | *(3887)* | *(4260)* | *(4277)* | *(2839)* | *(3365)* | *(3892)* | *(2784)* | *(3410)* | — | |
| Hollow Shaft OHL lbs | 8495 | 8920 | 9280 | 9595 | 9980 | 10585 | 10990 | 11420 | 11935 | 11935 | 11935 | 11935 | 11935 | — | |
| *(N)* | *(37800)* | *(39700)* | *(41300)* | *(42700)* | *(44400)* | *(47100)* | *(48900)* | *(50800)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | — | |
| Solid Shaft OHL lbs | 8540 | 9080 | 9510 | 9830 | 10190 | 10920 | 11330 | 11700 | 12410 | 12820 | 12750 | 12660 | 12590 | — | |
| *(N)* | *(37980)* | *(40380)* | *(42300)* | *(43720)* | *(45320)* | *(48570)* | *(50390)* | *(52040)* | *(55190)* | *(57020)* | *(56710)* | *(56310)* | *(56000)* | — | |

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# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

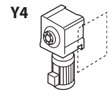
| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | **45.5** | — | — | — | — | — | — | — | 4C170 |
| ***(kW)*** | — | — | — | — | — | ***(33.9)*** | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 31700 | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | *(3582)* | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5820 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(25900)* | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4820 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(21430)* | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **48.3** | — | — | **40.6** | **19.1** | **19.1** | **19.1** | **16.1** | 4C175 |
| ***(kW)*** | — | — | — | — | — | ***(36.0)*** | — | — | ***(30.2)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | 33663 | — | — | 37703 | 22198 | 24735 | 29175 | 28267 | |
| *(N•m)* | — | — | — | — | — | *(3803)* | — | — | *(4260)* | *(2508)* | *(2795)* | *(3296)* | *(3194)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5640 | — | — | 6045 | 6720 | 7010 | 7575 | 8045 | |
| *(N)* | — | — | — | — | — | *(25900)* | — | — | *(26900)* | *(29900)* | *(31200)* | *(33700)* | *(35800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4820 | — | — | 5720 | 6460 | 6850 | 7500 | 8030 | |
| *(N)* | — | — | — | — | — | *(21430)* | — | — | *(25440)* | *(28730)* | *(30460)* | *(33360)* | *(35710)* | |
| **Input Power HP** | — | — | — | — | — | **33.9** | — | — | — | — | — | — | — | 4D160 |
| ***(kW)*** | — | — | — | — | — | ***(25.3)*** | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 23658 | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | *(2673)* | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 10835 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(48200)* | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 6830 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(30370)* | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **40.2** | — | — | **20.3** | **20.3** | **20.3** | **14.9** | **14.9** | 4D165 |
| ***(kW)*** | — | — | — | — | — | ***(30.0)*** | — | — | ***(15.2)*** | ***(15.2)*** | ***(15.2)*** | ***(11.1)*** | ***(11.1)*** | |
| Output Torque in•lbs | — | — | — | — | — | 28053 | — | — | 18889 | 23611 | 26309 | 22757 | 26220 | |
| *(N•m)* | — | — | — | — | — | *(3170)* | — | — | *(2134)* | *(2668)* | *(2973)* | *(2571)* | *(2963)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 10495 | — | — | 11485 | 11825 | 11980 | 12385 | 12520 | |
| *(N)* | — | — | — | — | — | *(46700)* | — | — | *(51100)* | *(52600)* | *(53300)* | *(55100)* | *(55700)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 6830 | — | — | 8140 | 9230 | 9770 | 10710 | 11480 | |
| *(N)* | — | — | — | — | — | *(30370)* | — | — | *(36200)* | *(41050)* | *(43450)* | *(47630)* | *(51060)* | |
| **Input Power HP** | — | — | — | — | — | **45.5** | — | — | — | — | — | — | — | 4D170 |
| ***(kW)*** | — | — | — | — | — | ***(33.9)*** | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 31700 | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | *(3582)* | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 10205 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(45400)* | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 6830 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(30370)* | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **49.6** | — | — | **49.6** | **19.1** | **19.1** | **19.1** | **16.1** | 4D175 |
| ***(kW)*** | — | — | — | — | — | ***(37.0)*** | — | — | ***(37.0)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | 34598 | — | — | 46131 | 22198 | 24735 | 29175 | 28267 | |
| *(N•m)* | — | — | — | — | — | *(3909)* | — | — | *(5213)* | *(2508)* | *(2795)* | *(3297)* | *(3194)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 9955 | — | — | 10180 | 11060 | 11125 | 11170 | 11645 | |
| *(N)* | — | — | — | — | — | *(44300)* | — | — | *(45300)* | *(49200)* | *(49500)* | *(49700)* | *(51800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 6830 | — | — | 8140 | 9230 | 9770 | 10710 | 11480 | |
| *(N)* | — | — | — | — | — | *(30370)* | — | — | *(36200)* | *(41050)* | *(43450)* | *(47630)* | *(51060)* | |

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Frame Size Selection Tables 60 Hz, 1750 RPM




Single Reduction
Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **13.0** | **13.0** | **13.0** | **14.2** | **13.0** | **11.2** | **10.1** | **9.27** | **7.54** | **6.36** | **5.50** | **4.57** | **3.73** | — | 4C175 |
| ***(kW)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(10.6)*** | ***(9.68)*** | ***(8.34)*** | ***(7.56)*** | ***(6.91)*** | ***(5.63)*** | ***(4.74)*** | ***(4.10)*** | ***(3.41)*** | ***(2.78)*** | — | |
| Output Torque in•lbs | 25946 | 28973 | 32000 | 37703 | 37919 | 37889 | 37703 | 37857 | 37829 | 37809 | 37795 | 37779 | 37765 | — | |
| *(N•m)* | *(2932)* | *(3274)* | *(3616)* | *(4260)* | *(4284)* | *(4281)* | *(4260)* | *(4277)* | *(4274)* | *(4272)* | *(4270)* | *(4268)* | *(4267)* | — | |
| Hollow Shaft OHL lbs | 8495 | 8920 | 9280 | 9595 | 9980 | 10585 | 10990 | 11420 | 11935 | 11935 | 11935 | 11935 | 11935 | — | |
| *(N)* | *(37800)* | *(39700)* | *(41300)* | *(42700)* | *(44400)* | *(47100)* | *(48900)* | *(50800)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | *(53100)* | — | |
| Solid Shaft OHL lbs | 8540 | 9080 | 9510 | 9830 | 10190 | 10920 | 11330 | 11700 | 12410 | 12820 | 12750 | 12660 | 12590 | — | |
| *(N)* | *(37980)* | *(40380)* | *(42300)* | *(43720)* | *(45320)* | *(48570)* | *(50390)* | *(52040)* | *(55190)* | *(57020)* | *(56710)* | *(56310)* | *(56000)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **14.9** | **10.2** | **10.2** | **10.2** | **10.2** | **10.2** | **10.2** | **10.2** | **5.01** | **5.01** | **5.01** | **2.98** | **2.98** | — | 4D165 |
| ***(kW)*** | ***(11.1)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(3.74)*** | ***(3.74)*** | ***(3.74)*** | ***(2.22)*** | ***(2.22)*** | — | |
| Output Torque in•lbs | 29682 | 22599 | 24960 | 26984 | 29682 | 34405 | 37778 | 41488 | 25127 | 29786 | 34445 | 24636 | 30177 | — | |
| *(N•m)* | *(3354)* | *(2554)* | *(2820)* | *(3049)* | *(3354)* | *(3888)* | *(4269)* | *(4688)* | *(2839)* | *(3366)* | *(3892)* | *(2784)* | *(3410)* | — | |
| Hollow Shaft OHL lbs | 13395 | 14185 | 14340 | 14700 | 14835 | 16295 | 16455 | 15960 | 17870 | 16500 | 17890 | 15915 | 17915 | — | |
| *(N)* | *(59600)* | *(63100)* | *(63800)* | *(65400)* | *(66000)* | *(72500)* | *(73200)* | *(71000)* | *(79500)* | *(73400)* | *(79600)* | *(70800)* | *(79700)* | — | |
| Solid Shaft OHL lbs | 12230 | 13000 | 13630 | 14090 | 14590 | 15170 | 15500 | 15790 | 16360 | 16690 | 16660 | 16620 | 16590 | — | |
| *(N)* | *(54390)* | *(57820)* | *(60620)* | *(62670)* | *(64890)* | *(67470)* | *(68940)* | *(70230)* | *(72760)* | *(74230)* | *(74100)* | *(73920)* | *(73790)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **13.0** | **13.0** | **13.0** | **14.9** | **14.9** | **14.9** | **10.2** | **10.2** | **10.2** | **7.45** | **7.45** | **5.01** | **5.01** | — | 4D175 |
| ***(kW)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(11.1)*** | ***(11.1)*** | ***(11.1)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(5.56)*** | ***(5.56)*** | ***(3.74)*** | ***(3.74)*** | — | |
| Output Torque in•lbs | 25946 | 28973 | 32000 | 39577 | 43534 | 50460 | 37778 | 41488 | 50932 | 44276 | 51202 | 41434 | 50753 | — | |
| *(N•m)* | *(2932)* | *(3274)* | *(3616)* | *(4472)* | *(4919)* | *(5702)* | *(4269)* | *(4688)* | *(5755)* | *(5003)* | *(5786)* | *(4682)* | *(5735)* | — | |
| Hollow Shaft OHL lbs | 12295 | 12900 | 13420 | 13870 | 14410 | 15305 | 15555 | 15555 | 15555 | 15555 | 15555 | 15555 | 15555 | — | |
| *(N)* | *(54700)* | *(57400)* | *(59700)* | *(61700)* | *(64100)* | *(68100)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | *(69200)* | — | |
| Solid Shaft OHL lbs | 12230 | 13000 | 13630 | 14090 | 14590 | 15170 | 15500 | 15790 | 16360 | 16690 | 16660 | 16620 | 16590 | — | |
| *(N)* | *(54390)* | *(57820)* | *(60620)* | *(62670)* | *(64890)* | *(67470)* | *(68940)* | *(70230)* | *(72760)* | *(74230)* | *(74100)* | *(73920)* | *(73790)* | — | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

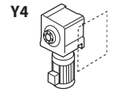
| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | **26.0** | **26.0** | **26.0** | **19.1** | 4D185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | ***(19.4)*** | ***(19.4)*** | ***(19.4)*** | ***(14.2)*** | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | 30271 | 33730 | 39784 | 33615 | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | *(3420)* | *(3811)* | *(4495)* | *(3798)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 8945 | 9215 | 9685 | 10115 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(39800)* | *(41000)* | *(43100)* | *(45000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 9230 | 9770 | 10710 | 11480 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(41050)* | *(43450)* | *(47630)* | *(51060)* | |
| **Input Power HP** | — | — | — | — | — | **45.5** | — | — | — | — | — | — | — | 4E170 |
| ***(kW)*** | — | — | — | — | — | ***(33.9)*** | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 31700 | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | *(3582)* | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 14025 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(62400)* | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 10220 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(45450)* | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **49.6** | — | — | **49.6** | **19.1** | **19.1** | **19.1** | **16.1** | 4E175 |
| ***(kW)*** | — | — | — | — | — | ***(37.0)*** | — | — | ***(37.0)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | 34598 | — | — | 46131 | 22198 | 24735 | 29175 | 28267 | |
| *(N•m)* | — | — | — | — | — | *(3909)* | — | — | *(5213)* | *(2508)* | *(2795)* | *(3297)* | *(3194)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 13825 | — | — | 14455 | 15620 | 15845 | 16160 | 16365 | |
| *(N)* | — | — | — | — | — | *(61500)* | — | — | *(64300)* | *(69500)* | *(70500)* | *(71900)* | *(72800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 10220 | — | — | 11890 | 13300 | 14030 | 15220 | 16200 | |
| *(N)* | — | — | — | — | — | *(45450)* | — | — | *(52880)* | *(59150)* | *(62400)* | *(67690)* | *(72050)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | **26.0** | **26.0** | **26.0** | **19.1** | 4E185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | ***(19.4)*** | ***(19.4)*** | ***(19.4)*** | ***(14.2)*** | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | 30271 | 33730 | 39784 | 33615 | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | *(3420)* | *(3811)* | *(4495)* | *(3798)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 13530 | 13440 | 13845 | 14590 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(60200)* | *(59800)* | *(61600)* | *(64900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 13300 | 14030 | 15220 | 16200 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(59150)* | *(62400)* | *(67690)* | *(72050)* | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.





Frame Size Selection Tables 60 Hz, 1750 RPM




Single Reduction
Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **19.1** | **19.1** | **19.1** | **16.1** | **16.1** | **13.0** | **13.0** | **13.0** | **9.55** | **6.51** | **10.16** | **7.45** | **7.45** | — | 4D185 |
| ***(kW)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | ***(12.0)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(7.12)*** | ***(4.86)*** | ***(7.58)*** | ***(5.56)*** | ***(5.56)*** | — | |
| Output Torque in•lbs | 38054 | 42494 | 46934 | 42667 | 46934 | 44109 | 48433 | 53190 | 47885 | 38703 | 69821 | 61591 | 75443 | — | |
| *(N•m)* | *(4300)* | *(4802)* | *(5303)* | *(4821)* | *(5303)* | *(4984)* | *(5473)* | *(6010)* | *(5411)* | *(4373)* | *(7889)* | *(6960)* | *(8525)* | — | |
| Hollow Shaft OHL lbs | 10495 | 10855 | 11195 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(46700)* | *(48300)* | *(49800)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 12230 | 13000 | 13630 | 14090 | 14590 | 15170 | 15500 | 15790 | 16360 | 16690 | 16660 | 16620 | 16590 | — | |
| *(N)* | *(54390)* | *(57820)* | *(60620)* | *(62670)* | *(64890)* | *(67470)* | *(68940)* | *(70230)* | *(72760)* | *(74230)* | *(74100)* | *(73920)* | *(73790)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **13.0** | **13.0** | **13.0** | **14.9** | **14.9** | **14.9** | **10.2** | **10.2** | **10.2** | **7.45** | **7.45** | **5.01** | **5.01** | — | 4E175 |
| ***(kW)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(11.1)*** | ***(11.1)*** | ***(11.1)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(5.56)*** | ***(5.56)*** | ***(3.74)*** | ***(3.74)*** | — | |
| Output Torque in•lbs | 25946 | 28973 | 32000 | 39577 | 43534 | 50460 | 37778 | 41488 | 50932 | 44276 | 51202 | 41434 | 50753 | — | |
| *(N•m)* | *(2932)* | *(3274)* | *(3616)* | *(4472)* | *(4919)* | *(5702)* | *(4269)* | *(4688)* | *(5755)* | *(5003)* | *(5786)* | *(4682)* | *(5735)* | — | |
| Hollow Shaft OHL lbs | 17690 | 17890 | 18545 | 19310 | 19825 | 20140 | 19985 | 19625 | 19960 | 19490 | 19940 | 19805 | 19940 | — | |
| *(N)* | *(78700)* | *(79600)* | *(82500)* | *(85900)* | *(88200)* | *(89600)* | *(88900)* | *(87300)* | *(88800)* | *(86700)* | *(88700)* | *(88100)* | *(88700)* | — | |
| Solid Shaft OHL lbs | 17180 | 18190 | 19010 | 19590 | 20230 | 20610 | 20820 | 21020 | 21380 | 21620 | 21700 | 21790 | 21870 | — | |
| *(N)* | *(76410)* | *(80900)* | *(84550)* | *(87130)* | *(89980)* | *(91670)* | *(92600)* | *(93490)* | *(95090)* | *(96160)* | *(96520)* | *(96920)* | *(97270)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **19.1** | **19.1** | **19.1** | **16.1** | **16.1** | **13.0** | **13.0** | **13.0** | **9.6** | **6.51** | **10.16** | **7.45** | **7.45** | — | 4E185 |
| ***(kW)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | ***(12.0)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(7.12)*** | ***(4.86)*** | ***(7.58)*** | ***(5.56)*** | ***(5.56)*** | — | |
| Output Torque in•lbs | 38054 | 42494 | 46934 | 42667 | 46934 | 44109 | 48433 | 53190 | 47885 | 38703 | 69821 | 61591 | 75443 | — | |
| *(N•m)* | *(4300)* | *(4802)* | *(5303)* | *(4821)* | *(5303)* | *(4984)* | *(5473)* | *(6010)* | *(5411)* | *(4373)* | *(7889)* | *(6960)* | *(8525)* | — | |
| Hollow Shaft OHL lbs | 15395 | 16320 | 16860 | 17580 | 18140 | 19285 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(68500)* | *(72600)* | *(75000)* | *(78200)* | *(80700)* | *(85800)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 17180 | 18190 | 19010 | 19590 | 20230 | 20610 | 20820 | 21020 | 21380 | 21620 | 21700 | 21790 | 21870 | — | |
| *(N)* | *(76410)* | *(80900)* | *(84550)* | *(87130)* | *(89980)* | *(91670)* | *(92600)* | *(93490)* | *(95090)* | *(96160)* | *(96520)* | *(96920)* | *(97270)* | — | |

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# Frame Size Selection Tables 60 Hz, 1750 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

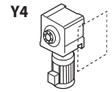
| Output RPM | 159 | 135 | 125 | 109 | 97.2 | 83.3 | 79.5 | 70.0 | 62.5 | 50.0 | 44.9 | 38.0 | 33.0 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | **32.1** | **32.1** | **32.1** | **32.1** | 4E195 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | ***(24.0)*** | ***(24.0)*** | ***(24.0)*** | ***(24.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | 37334 | 41600 | 49067 | 56534 | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | *(4219)* | *(4701)* | *(5544)* | *(6388)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 12855 | 13215 | 13915 | 14590 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(57200)* | *(58800)* | *(61900)* | *(64900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 13300 | 14030 | 15220 | 16200 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(59150)* | *(62400)* | *(67690)* | *(72050)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | **26.0** | **26.0** | **26.0** | **19.1** | 4F185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | ***(19.4)*** | ***(19.4)*** | ***(19.4)*** | ***(14.2)*** | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | 30271 | 33730 | 39784 | 33615 | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | *(3420)* | *(3811)* | *(4495)* | *(3798)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 26975 | 27425 | 28100 | 28325 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(120000)* | *(122000)* | *(125000)* | *(126000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 23340 | 24520 | 26590 | 28060 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(103810)* | *(109060)* | *(118270)* | *(124810)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | **32.1** | **32.1** | **32.1** | **32.1** | 4F195 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | ***(24.0)*** | ***(24.0)*** | ***(24.0)*** | ***(24.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | 37334 | 41600 | 49067 | 56534 | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | *(4219)* | *(4701)* | *(5544)* | *(6388)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 25850 | 26300 | 26750 | 26525 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(115000)* | *(117000)* | *(119000)* | *(118000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 23340 | 24520 | 26590 | 28060 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(103810)* | *(109060)* | *(118270)* | *(124810)* | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.





Frame Size Selection Tables 60 Hz, 1750 RPM




Single Reduction
Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 29.2 | 26.1 | 23.6 | 21.9 | 19.9 | 17.2 | 15.6 | 14.2 | 11.6 | 9.78 | 8.45 | 7.03 | 5.74 | 4.20 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **32.1** | **19.1** | **19.1** | **19.1** | **19.1** | **19.1** | **16.1** | **16.1** | **13.0** | **9.55** | **9.55** | **6.51** | **6.51** | — | 4E195 |
| ***(kW)*** | ***(24.0)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | ***(12.0)*** | ***(9.71)*** | ***(7.12)*** | ***(7.12)*** | ***(4.86)*** | ***(4.86)*** | — | |
| Output Torque in•lbs | 64001 | 42494 | 46934 | 50739 | 55813 | 64693 | 59734 | 65601 | 65298 | 56765 | 65644 | 53838 | 65947 | — | |
| *(N•m)* | *(7232)* | *(4802)* | *(5303)* | *(5733)* | *(6307)* | *(7310)* | *(6750)* | *(7413)* | *(7378)* | *(6414)* | *(7417)* | *(6084)* | *(7452)* | — | |
| Hollow Shaft OHL lbs | 15395 | 16320 | 16860 | 17580 | 18140 | 19285 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(68500)* | *(72600)* | *(75000)* | *(78200)* | *(80700)* | *(85800)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 17180 | 18190 | 19010 | 19590 | 20230 | 20610 | 20820 | 21020 | 21380 | 21620 | 21700 | 21790 | 21870 | — | |
| *(N)* | *(76410)* | *(80900)* | *(84550)* | *(87130)* | *(89980)* | *(91670)* | *(92600)* | *(93490)* | *(95090)* | *(96160)* | *(96520)* | *(96920)* | *(97270)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **19.1** | **19.1** | **19.1** | **16.1** | **16.1** | **13.0** | **13.0** | **13.0** | **9.55** | **6.51** | **10.2** | **7.45** | **7.45** | — | 4F185 |
| ***(kW)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | ***(12.0)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(7.12)*** | ***(4.86)*** | ***(7.58)*** | ***(5.56)*** | ***(5.56)*** | — | |
| Output Torque in•lbs | 38054 | 42494 | 46934 | 42667 | 46934 | 44109 | 48433 | 53190 | 47885 | 38703 | 69821 | 61591 | 75443 | — | |
| *(N•m)* | *(4300)* | *(4802)* | *(5303)* | *(4821)* | *(5303)* | *(4984)* | *(5473)* | *(6010)* | *(5411)* | *(4373)* | *(7889)* | *(6960)* | *(8525)* | — | |
| Hollow Shaft OHL lbs | 27650 | 27200 | 26750 | 27425 | 27200 | 27425 | 27200 | 26750 | 26750 | 26975 | 27425 | 27425 | 27200 | — | |
| *(N)* | *(123000)* | *(121000)* | *(119000)* | *(122000)* | *(121000)* | *(122000)* | *(121000)* | *(119000)* | *(119000)* | *(120000)* | *(122000)* | *(122000)* | *(121000)* | — | |
| Solid Shaft OHL lbs | 28900 | 28920 | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28990 | 29140 | 29300 | 29440 | — | |
| *(N)* | *(128540)* | *(128630)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128940)* | *(129610)* | *(130320)* | *(130940)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **32.1** | **19.1** | **19.1** | **19.1** | **19.1** | **19.1** | **16.1** | **16.1** | **13.0** | **9.55** | **9.55** | **6.51** | **6.51** | — | 4F195 |
| ***(kW)*** | ***(24.0)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | ***(12.0)*** | ***(9.71)*** | ***(7.12)*** | ***(7.12)*** | ***(4.86)*** | ***(4.86)*** | — | |
| Output Torque in•lbs | 64001 | 42494 | 46934 | 50739 | 55813 | 64693 | 59734 | 65601 | 65298 | 56765 | 65644 | 53838 | 65947 | — | |
| *(N•m)* | *(7232)* | *(4802)* | *(5303)* | *(5733)* | *(6307)* | *(7310)* | *(6750)* | *(7413)* | *(7378)* | *(6414)* | *(7417)* | *(6084)* | *(7452)* | — | |
| Hollow Shaft OHL lbs | 25850 | 25850 | 25400 | 25850 | 25400 | 25400 | 25625 | 25400 | 25400 | 25400 | 25400 | 25400 | 25400 | — | |
| *(N)* | *(115000)* | *(115000)* | *(113000)* | *(115000)* | *(113000)* | *(113000)* | *(114000)* | *(113000)* | *(113000)* | *(113000)* | *(113000)* | *(113000)* | *(113000)* | — | |
| Solid Shaft OHL lbs | 28900 | 28920 | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28990 | 29140 | 29300 | 29440 | — | |
| *(N)* | *(128540)* | *(128630)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128940)* | *(129610)* | *(130320)* | *(130940)* | — | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

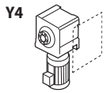
| Output RPM | 131.8 | 111.5 | 103.6 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | **3.15** | — | — | **3.15** | **3.15** | **3.15** | **3.15** | **3.15** | 4A100 |
| ***(kW)*** | — | — | — | — | — | ***(2.35)*** | — | — | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | ***(2.35)*** | |
| Output Torque in•lbs | — | — | — | — | — | 2649 | — | — | 3532 | 4415 | 4920 | 5803 | 6686 | |
| *(N•m)* | — | — | — | — | — | *(299)* | — | — | *(399)* | *(499)* | *(556)* | *(656)* | *(755)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4675 | — | — | 5010 | 5280 | 5370 | 5550 | 5325 | |
| *(N)* | — | — | — | — | — | *(20800)* | — | — | *(22300)* | *(23500)* | *(23900)* | *(24700)* | *(23700)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3800 | — | — | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | |
| **Input Power HP** | — | — | — | — | — | **4.26** | — | — | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | 4A105 |
| ***(kW)*** | — | — | — | — | — | ***(3.18)*** | — | — | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | |
| Output Torque in•lbs | — | — | — | — | — | 3588 | — | — | 4784 | 5981 | 6664 | 7860 | 9056 | |
| *(N•m)* | — | — | — | — | — | *(405)* | — | — | *(541)* | *(676)* | *(753)* | *(888)* | *(1023)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4540 | — | — | 4830 | 5055 | 5145 | 4990 | 4515 | |
| *(N)* | — | — | — | — | — | *(20200)* | — | — | *(21500)* | *(22500)* | *(22900)* | *(22200)* | *(20100)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3800 | — | — | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | |
| **Input Power HP** | — | — | — | — | — | **4.76** | — | — | **4.76** | **4.76** | **4.76** | **4.76** | **4.76** | 4A110 |
| ***(kW)*** | — | — | — | — | — | ***(3.55)*** | — | — | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | ***(3.55)*** | |
| Output Torque in•lbs | — | — | — | — | — | 4005 | — | — | 5341 | 6676 | 7439 | 8776 | 10111 | |
| *(N•m)* | — | — | — | — | — | *(453)* | — | — | *(603)* | *(754)* | *(840)* | *(992)* | *(1142)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4495 | — | — | 4765 | 4965 | 5035 | 4650 | 4020 | |
| *(N)* | — | — | — | — | — | *(20000)* | — | — | *(21200)* | *(22100)* | *(22400)* | *(20700)* | *(17900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3800 | — | — | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | |
| **Input Power HP** | — | — | — | — | — | **5.26** | — | — | **5.26** | **5.26** | **5.26** | **5.23** | **5.23** | 4A115 |
| ***(kW)*** | — | — | — | — | — | ***(3.92)*** | — | — | ***(3.92)*** | ***(3.92)*** | ***(3.92)*** | ***(3.90)*** | ***(3.90)*** | |
| Output Torque in•lbs | — | — | — | — | — | 4423 | — | — | 5897 | 7371 | 8213 | 9641 | 11108 | |
| *(N•m)* | — | — | — | — | — | *(500)* | — | — | *(666)* | *(833)* | *(928)* | *(1089)* | *(1255)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4425 | — | — | 4695 | 4855 | 4855 | 4270 | 3435 | |
| *(N)* | — | — | — | — | — | *(19700)* | — | — | *(20900)* | *(21600)* | *(21600)* | *(19000)* | *(15300)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3800 | — | — | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | |
| **Input Power HP** | — | — | — | — | — | **6.80** | — | — | **6.80** | **6.80** | **6.80** | — | — | 4A120 |
| ***(kW)*** | — | — | — | — | — | ***(5.07)*** | — | — | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 5722 | — | — | 7629 | 9536 | 10626 | — | — | |
| *(N•m)* | — | — | — | — | — | *(646)* | — | — | *(862)* | *(1077)* | *(1201)* | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4020 | — | — | 4110 | 4245 | 3750 | — | — | |
| *(N)* | — | — | — | — | — | *(17900)* | — | — | *(18300)* | *(18900)* | *(16700)* | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3800 | — | — | 4290 | 4530 | 4560 | — | — | |
| *(N)* | — | — | — | — | — | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | — | — | |
| **Input Power HP** | — | — | — | — | — | **9.34** | — | — | **9.31** | **7.94** | **7.40** | **6.26** | **5.43** | 4A125 |
| ***(kW)*** | — | — | — | — | — | ***(6.96)*** | — | — | ***(6.95)*** | ***(5.92)*** | ***(5.52)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | — | — | — | — | — | 7858 | — | — | 10452 | 11135 | 11565 | 11543 | 11526 | |
| *(N•m)* | — | — | — | — | — | *(888)* | — | — | *(1181)* | *(1258)* | *(1307)* | *(1304)* | *(1302)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 3885 | — | — | 3210 | 3280 | 3120 | 3120 | 3120 | |
| *(N)* | — | — | — | — | — | *(17300)* | — | — | *(14300)* | *(14600)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3800 | — | — | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.





Frame Size Selection Tables 50 Hz, 1450 RPM




Single Reduction
Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.48 | 14.22 | 12.95 | 11.79 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | **2.66** | **2.55** | **2.55** | **1.70** | **1.70** | **1.62** | **1.31** | **1.31** | **1.05** | **0.751** | **0.692** | **0.584** | **0.581** | **0.282** | 4A100 |
| ***(kW)*** | ***(1.99)*** | ***(1.90)*** | ***(1.90)*** | ***(1.27)*** | ***(1.27)*** | ***(1.21)*** | ***(0.975)*** | ***(0.975)*** | ***(0.780)*** | ***(0.560)*** | ***(0.516)*** | ***(0.436)*** | ***(0.433)*** | ***(0.210)*** | |
| Output Torque in•lbs | 6403 | 6851 | 7567 | 5458 | 6004 | 6633 | 5869 | 6445 | 6330 | 5387 | 5740 | 5831 | 7101 | 4706 | |
| *(N•m)* | *(723)* | *(774)* | *(855)* | *(617)* | *(678)* | *(749)* | *(663)* | *(728)* | *(715)* | *(609)* | *(649)* | *(659)* | *(802)* | *(532)* | |
| Hollow Shaft OHL lbs | 5395 | 5260 | 5055 | 5595 | 5485 | 5325 | 5505 | 5370 | 5415 | 5620 | 5550 | 5530 | 5190 | 5755 | |
| *(N)* | *(24000)* | *(23400)* | *(22500)* | *(24900)* | *(24400)* | *(23700)* | *(24500)* | *(23900)* | *(24100)* | *(25000)* | *(24700)* | *(24600)* | *(23100)* | *(25600)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **3.29** | **3.06** | **3.06** | **2.24** | **2.24** | **2.13** | **1.61** | **1.61** | **1.45** | **1.04** | **0.913** | **0.678** | **0.674** | **0.384** | 4A105 |
| ***(kW)*** | ***(2.46)*** | ***(2.28)*** | ***(2.28)*** | ***(1.67)*** | ***(1.67)*** | ***(1.59)*** | ***(1.20)*** | ***(1.20)*** | ***(1.08)*** | ***(0.776)*** | ***(0.681)*** | ***(0.506)*** | ***(0.503)*** | ***(0.286)*** | |
| Output Torque in•lbs | 7920 | 8221 | 9080 | 7191 | 7910 | 8715 | 7211 | 7919 | 8804 | 7465 | 7572 | 6765 | 8242 | 6416 | |
| *(N•m)* | *(895)* | *(929)* | *(1026)* | *(813)* | *(894)* | *(985)* | *(815)* | *(895)* | *(995)* | *(844)* | *(856)* | *(764)* | *(931)* | *(725)* | |
| Hollow Shaft OHL lbs | 4945 | 4810 | 4515 | 5170 | 4945 | 4650 | 5170 | 4945 | 4605 | 5080 | 5055 | 5305 | 4830 | 5395 | |
| *(N)* | *(22000)* | *(21400)* | *(20100)* | *(23000)* | *(22000)* | *(20700)* | *(23000)* | *(22000)* | *(20500)* | *(22600)* | *(22500)* | *(23600)* | *(21500)* | *(24000)* | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | 4540 | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **4.26** | **3.65** | **3.65** | **2.57** | **2.57** | **2.55** | **2.02** | **2.02** | **1.74** | **1.27** | **1.15** | **0.897** | **0.887** | — | 4A110 |
| ***(kW)*** | ***(3.18)*** | ***(2.72)*** | ***(2.72)*** | ***(1.91)*** | ***(1.91)*** | ***(1.90)*** | ***(1.50)*** | ***(1.50)*** | ***(1.300)*** | ***(0.944)*** | ***(0.859)*** | ***(0.669)*** | ***(0.661)*** | — | |
| Output Torque in•lbs | 10248 | 9807 | 10832 | 8226 | 9049 | 10438 | 9047 | 9936 | 10549 | 9076 | 9557 | 8950 | 10839 | — | |
| *(N•m)* | *(1158)* | *(1108)* | *(1224)* | *(929)* | *(1022)* | *(1179)* | *(1022)* | *(1123)* | *(1192)* | *(1025)* | *(1080)* | *(1011)* | *(1225)* | — | |
| Hollow Shaft OHL lbs | 3955 | 4110 | 3595 | 4830 | 4515 | 3820 | 4495 | 4090 | 3750 | 4495 | 4270 | 4540 | 3550 | — | |
| *(N)* | *(17600)* | *(18300)* | *(16000)* | *(21500)* | *(20100)* | *(17000)* | *(20000)* | *(18200)* | *(16700)* | *(20000)* | *(19000)* | *(20200)* | *(15800)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | | |
| **Input Power HP** | **4.79** | **4.17** | **3.88** | **2.98** | **2.98** | **2.81** | **2.42** | **2.33** | **1.89** | **1.49** | **1.35** | **1.02** | **0.936** | — | 4A115 |
| ***(kW)*** | ***(3.57)*** | ***(3.11)*** | ***(2.89)*** | ***(2.22)*** | ***(2.22)*** | ***(2.09)*** | ***(1.81)*** | ***(1.73)*** | ***(1.41)*** | ***(1.11)*** | ***(1.01)*** | ***(0.758)*** | ***(0.698)*** | — | |
| Output Torque in•lbs | 11513 | 11204 | 11495 | 9553 | 10508 | 11473 | 10884 | 11464 | 11455 | 10687 | 11236 | 10136 | 11436 | — | |
| *(N•m)* | *(1301)* | *(1266)* | *(1299)* | *(1079)* | *(1187)* | *(1296)* | *(1230)* | *(1295)* | *(1294)* | *(1208)* | *(1269)* | *(1145)* | *(1292)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3255 | 3120 | 4270 | 3775 | 3120 | 3505 | 3120 | 3120 | 3660 | 3280 | 3975 | 3120 | — | |
| *(N)* | *(13900)* | *(14500)* | *(13900)* | *(19000)* | *(16800)* | *(13900)* | *(15600)* | *(13900)* | *(13900)* | *(16300)* | *(14600)* | *(17700)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A120 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.56** | **3.26** | **2.81** | **2.54** | **2.33** | **1.89** | **1.60** | **1.38** | **1.15** | **0.936** | — | 4A125 |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.09)*** | ***(1.90)*** | ***(1.73)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.855)*** | ***(0.698)*** | — | |
| Output Torque in•lbs | 11513 | 11383 | 11495 | 11417 | 11482 | 11473 | 11417 | 11464 | 11455 | 11449 | 11445 | 11440 | 11436 | — | |
| *(N•m)* | *(1301)* | *(1286)* | *(1299)* | *(1290)* | *(1297)* | *(1296)* | *(1290)* | *(1295)* | *(1294)* | *(1294)* | *(1293)* | *(1293)* | *(1292)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | — | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

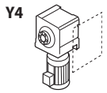
| Output RPM | 131.8 | 111.5 | 103.6 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **13.6** | — | — | **10.2** | **8.09** | **7.40** | **6.26** | **5.43** | 4A145 |
| ***(kW)*** | — | — | — | — | — | ***(10.1)*** | — | — | ***(7.59)*** | ***(6.04)*** | ***(5.52)*** | ***(4.67)*** | ***(4.05)*** | |
| Output Torque in•lbs | — | — | — | — | — | 11417 | — | — | 11417 | 11352 | 11565 | 11543 | 11526 | |
| *(N•m)* | — | — | — | — | — | *(1290)* | — | — | *(1290)* | *(1283)* | *(1307)* | *(1304)* | *(1302)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 3120 | — | — | 3120 | 3120 | 3120 | 3120 | 3120 | |
| *(N)* | — | — | — | — | — | *(13900)* | — | — | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 3800 | — | — | 4290 | 4530 | 4560 | 4580 | 4580 | |
| *(N)* | — | — | — | — | — | *(16900)* | — | — | *(19080)* | *(20140)* | *(20280)* | *(20370)* | *(20370)* | |
| **Input Power HP** | — | — | — | — | — | **6.80** | — | — | **6.80** | **6.80** | **6.80** | **6.80** | **6.80** | 4B120 |
| ***(kW)*** | — | — | — | — | — | ***(5.07)*** | — | — | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | ***(5.07)*** | |
| Output Torque in•lbs | — | — | — | — | — | 5722 | — | — | 7629 | 9536 | 10626 | 12533 | 14441 | |
| *(N•m)* | — | — | — | — | — | *(646)* | — | — | *(862)* | *(1077)* | *(1201)* | *(1416)* | *(1632)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 6000 | — | — | 6335 | 6900 | 7010 | 7235 | 7415 | |
| *(N)* | — | — | — | — | — | *(26700)* | — | — | *(28200)* | *(30700)* | *(31200)* | *(32200)* | *(33000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4100 | — | — | 4780 | 5360 | 5650 | 6100 | 6520 | |
| *(N)* | — | — | — | — | — | *(18230)* | — | — | *(21260)* | *(23840)* | *(25130)* | *(27130)* | *(29000)* | |
| **Input Power HP** | — | — | — | — | — | **9.34** | — | — | **9.31** | **7.94** | **7.94** | **7.94** | **7.94** | 4B125 |
| ***(kW)*** | — | — | — | — | — | ***(6.96)*** | — | — | ***(6.95)*** | ***(5.92)*** | ***(5.92)*** | ***(5.92)*** | ***(5.92)*** | |
| Output Torque in•lbs | — | — | — | — | — | 7858 | — | — | 10452 | 11135 | 12408 | 14635 | 16862 | |
| *(N•m)* | — | — | — | — | — | *(888)* | — | — | *(1181)* | *(1258)* | *(1402)* | *(1653)* | *(1905)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5890 | — | — | 6180 | 6720 | 6830 | 7010 | 7145 | |
| *(N)* | — | — | — | — | — | *(26200)* | — | — | *(27500)* | *(29900)* | *(30400)* | *(31200)* | *(31800)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4100 | — | — | 4780 | 5360 | 5650 | 6100 | 6520 | |
| *(N)* | — | — | — | — | — | *(18230)* | — | — | *(21260)* | *(23840)* | *(25130)* | *(27130)* | *(29000)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **14.9** | — | — | **14.9** | **14.9** | **14.7** | **10.2** | **10.2** | 4B145 |
| (kW) | — | — | — | — | — | (11.1) | — | — | (11.1) | (11.1) | (11.0) | (7.58) | (7.58) | |
| Output Torque in•lbs | — | — | — | — | — | 12538 | — | — | 16718 | 20897 | 23041 | 18726 | 21576 | |
| *(N•m)* | — | — | — | — | — | *(1417)* | — | — | *(1889)* | *(2361)* | *(2603)* | *(2116)* | *(2438)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4945 | — | — | 4965 | 5460 | 5710 | 5710 | 5710 | |
| *(N)* | — | — | — | — | — | *(22000)* | — | — | *(22100)* | *(24300)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4100 | — | — | 4780 | 5360 | 5650 | 6100 | 6520 | |
| *(N)* | — | — | — | — | — | *(18230)* | — | — | *(21260)* | *(23840)* | *(25130)* | *(27130)* | *(29000)* | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.





Frame Size Selection Tables 50 Hz, 1450 RPM




Single Reduction
Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.48 | 14.22 | 12.95 | 11.79 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4A140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **4.79** | **4.24** | **3.88** | **3.56** | **3.26** | **2.81** | **2.54** | **2.33** | **1.89** | **1.60** | **1.38** | **1.15** | **0.936** | — | 4A145 |
| ***(kW)*** | ***(3.57)*** | ***(3.16)*** | ***(2.89)*** | ***(2.66)*** | ***(2.43)*** | ***(2.09)*** | ***(1.90)*** | ***(1.73)*** | ***(1.41)*** | ***(1.19)*** | ***(1.03)*** | ***(0.855)*** | ***(0.698)*** | — | |
| Output Torque in•lbs | 11513 | 11383 | 11495 | 11417 | 11482 | 11473 | 11417 | 11464 | 11455 | 11449 | 11445 | 11440 | 11436 | — | |
| *(N•m)* | *(1301)* | *(1286)* | *(1299)* | *(1290)* | *(1297)* | *(1296)* | *(1290)* | *(1295)* | *(1294)* | *(1294)* | *(1293)* | *(1293)* | *(1292)* | — | |
| Hollow Shaft OHL lbs | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | 3120 | — | |
| *(N)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | *(13900)* | — | |
| Solid Shaft OHL lbs | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4580 | 4570 | 4560 | 4550 | 4540 | 4540 | — | |
| *(N)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20370)* | *(20320)* | *(20280)* | *(20230)* | *(20190)* | *(20190)* | — | |
| **Input Power HP** | **6.56** | **5.31** | **5.31** | **4.14** | **4.14** | **3.84** | **3.18** | **3.18** | **2.57** | **2.19** | **1.75** | **1.28** | **1.27** | — | 4B120 |
| ***(kW)*** | ***(4.89)*** | ***(3.96)*** | ***(3.96)*** | ***(3.09)*** | ***(3.09)*** | ***(2.87)*** | ***(2.37)*** | ***(2.37)*** | ***(1.91)*** | ***(1.63)*** | ***(1.30)*** | ***(0.957)*** | ***(0.944)*** | — | |
| Output Torque in•lbs | 15763 | 14250 | 15738 | 13280 | 14608 | 15709 | 14292 | 15696 | 15532 | 15676 | 14517 | 12803 | 15471 | — | |
| *(N•m)* | *(1781)* | *(1610)* | *(1778)* | *(1500)* | *(1650)* | *(1775)* | *(1615)* | *(1773)* | *(1755)* | *(1771)* | *(1640)* | *(1447)* | *(1748)* | — | |
| Hollow Shaft OHL lbs | 7595 | 8090 | 8205 | 8720 | 8540 | 8295 | 8610 | 8295 | 8315 | 8295 | 8565 | 8900 | 8340 | — | |
| *(N)* | *(33800)* | *(36000)* | *(36500)* | *(38800)* | *(38000)* | *(36900)* | *(38300)* | *(36900)* | *(37000)* | *(36900)* | *(38100)* | *(39600)* | *(37100)* | — | |
| Solid Shaft OHL lbs | 6870 | 7140 | 7330 | 7370 | 7420 | 7490 | 7530 | 7570 | 7580 | 7430 | 7320 | 7200 | 7120 | — | |
| *(N)* | *(30550)* | *(31750)* | *(32600)* | *(32780)* | *(33000)* | *(33310)* | *(33490)* | *(33670)* | *(33710)* | *(33040)* | *(32550)* | *(32020)* | *(31660)* | — | |
| **Input Power HP** | **7.59** | **6.43** | **6.43** | **5.30** | **5.30** | **4.66** | **3.86** | **3.86** | **3.14** | **2.65** | **2.17** | **1.53** | **1.38** | — | 4B125 |
| ***(kW)*** | ***(5.66)*** | ***(4.79)*** | ***(4.79)*** | ***(3.96)*** | ***(3.96)*** | ***(3.47)*** | ***(2.88)*** | ***(2.88)*** | ***(2.34)*** | ***(1.97)*** | ***(1.62)*** | ***(1.14)*** | ***(1.03)*** | — | |
| Output Torque in•lbs | 18246 | 17264 | 19068 | 17006 | 18707 | 19032 | 17305 | 19004 | 19002 | 18980 | 18021 | 15228 | 16823 | — | |
| *(N•m)* | *(2061)* | *(1951)* | *(2154)* | *(1921)* | *(2114)* | *(2150)* | *(1955)* | *(2147)* | *(2147)* | *(2144)* | *(2036)* | *(1721)* | *(1901)* | — | |
| Hollow Shaft OHL lbs | 7350 | 7755 | 7325 | 7935 | 7440 | 7325 | 7845 | 7325 | 7325 | 7325 | 7640 | 8385 | 7980 | — | |
| *(N)* | *(32700)* | *(34500)* | *(32600)* | *(35300)* | *(33100)* | *(32600)* | *(34900)* | *(32600)* | *(32600)* | *(32600)* | *(34000)* | *(37300)* | *(35500)* | — | |
| Solid Shaft OHL lbs | 6870 | 7140 | 7330 | 7370 | 7420 | 7490 | 7530 | 7570 | 7580 | 7430 | 7320 | 7200 | 7120 | — | |
| *(N)* | *(30550)* | *(31750)* | *(32600)* | *(32780)* | *(33000)* | *(33310)* | *(33490)* | *(33670)* | *(33710)* | *(33040)* | *(32550)* | *(32020)* | *(31660)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **7.45** | **7.45** | **7.45** | **7.09** | **6.49** | **5.01** | **5.01** | **4.63** | **2.98** | **2.98** | **2.75** | **2.03** | **1.86** | — | 4B145 |
| ***(kW)*** | ***(5.56)*** | ***(5.56)*** | ***(5.56)*** | ***(5.29)*** | ***(4.84)*** | ***(3.74)*** | ***(3.74)*** | ***(3.46)*** | ***(2.22)*** | ***(2.22)*** | ***(2.05)*** | ***(1.52)*** | ***(1.39)*** | — | |
| Output Torque in•lbs | 17912 | 20002 | 22091 | 22746 | 22876 | 20485 | 22493 | 22839 | 18031 | 21375 | 22801 | 20273 | 22783 | — | |
| *(N•m)* | *(2024)* | *(2260)* | *(2496)* | *(2570)* | *(2585)* | *(2314)* | *(2541)* | *(2580)* | *(2037)* | *(2415)* | *(2576)* | *(2291)* | *(2574)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 6870 | 7140 | 7330 | 7370 | 7420 | 7490 | 7530 | 7570 | 7580 | 7430 | 7320 | 7200 | 7120 | — | |
| *(N)* | *(30550)* | *(31750)* | *(32600)* | *(32780)* | *(33000)* | *(33310)* | *(33490)* | *(33670)* | *(33710)* | *(33040)* | *(32550)* | *(32020)* | *(31660)* | — | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

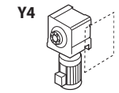
| Output RPM | 131.8 | 111.5 | 103.6 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **27.0** | — | — | **20.3** | **16.1** | **14.7** | **12.5** | **10.8** | 4B165 |
| ***(kW)*** | — | — | — | — | — | ***(20.2)*** | — | — | ***(15.1)*** | ***(12.0)*** | ***(11.0)*** | ***(9.30)*** | ***(8.06)*** | |
| Output Torque in•lbs | — | — | — | — | — | 22746 | — | — | 22746 | 22617 | 23041 | 22996 | 22963 | |
| *(N•m)* | — | — | — | — | — | *(2570)* | — | — | *(2570)* | *(2555)* | *(2603)* | *(2598)* | *(2594)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 4335 | — | — | 4965 | 5460 | 5710 | 5710 | 5710 | |
| *(N)* | — | — | — | — | — | *(19300)* | — | — | *(22100)* | *(24300)* | *(25400)* | *(25400)* | *(25400)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 4100 | — | — | 4780 | 5360 | 5650 | 6100 | 6520 | |
| *(N)* | — | — | — | — | — | *(18230)* | — | — | *(21260)* | *(23840)* | *(25130)* | *(27130)* | *(29000)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **14.9** | — | — | **14.9** | **14.9** | **14.9** | **10.2** | **10.2** | 4C145 |
| ***(kW)*** | — | — | — | — | — | ***(11.1)*** | — | — | ***(11.1)*** | ***(11.1)*** | ***(11.1)*** | ***(7.58)*** | ***(7.58)*** | |
| Output Torque in•lbs | — | — | — | — | — | 12538 | — | — | 16718 | 20897 | 23285 | 18726 | 21576 | |
| *(N•m)* | — | — | — | — | — | *(1417)* | — | — | *(1889)* | *(2361)* | *(2631)* | *(2116)* | *(2438)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 7730 | — | — | 8025 | 8180 | 8250 | 8295 | 8430 | |
| *(N)* | — | — | — | — | — | *(34400)* | — | — | *(35700)* | *(36400)* | *(36700)* | *(36900)* | *(37500)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 5400 | — | — | 6250 | 7170 | 7580 | 8210 | 8860 | |
| *(N)* | — | — | — | — | — | *(24010)* | — | — | *(27800)* | *(31890)* | *(33710)* | *(36510)* | *(39400)* | |
| **Input Power HP** | — | — | — | — | — | **33.9** | — | — | — | — | — | — | — | 4C160 |
| ***(kW)*** | — | — | — | — | — | ***(25.3)*** | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 28553 | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | *(3226)* | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 6630 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(29500)* | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 5400 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(24010)* | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **40.2** | — | — | **20.3** | **20.3** | **20.3** | **14.9** | **14.9** | 4C165 |
| ***(kW)*** | — | — | — | — | — | ***(30.0)*** | — | — | ***(15.2)*** | ***(15.2)*** | ***(15.2)*** | ***(11.1)*** | ***(11.1)*** | |
| Output Torque in•lbs | — | — | — | — | — | 33857 | — | — | 22797 | 28496 | 31753 | 27465 | 31644 | |
| *(N•m)* | — | — | — | — | — | *(3825)* | — | — | *(2576)* | *(3220)* | *(3588)* | *(3103)* | *(3575)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 6135 | — | — | 6765 | 6560 | 6900 | 7485 | 8000 | |
| *(N)* | — | — | — | — | — | *(27300)* | — | — | *(30100)* | *(29200)* | *(30700)* | *(33300)* | *(35600)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 5400 | — | — | 6250 | 7170 | 7580 | 8210 | 8860 | |
| *(N)* | — | — | — | — | — | *(24010)* | — | — | *(27800)* | *(31890)* | *(33710)* | *(36510)* | *(39400)* | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.





Frame Size Selection Tables 50 Hz, 1450 RPM




Single Reduction
Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.48 | 14.22 | 12.95 | 11.79 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4B160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **9.54** | **8.45** | **7.72** | **7.09** | **6.49** | **5.59** | **5.07** | **4.63** | **3.77** | **3.18** | **2.75** | **2.28** | **1.86** | — | 4B165 |
| ***(kW)*** | ***(7.11)*** | ***(6.30)*** | ***(5.76)*** | ***(5.29)*** | ***(4.84)*** | ***(4.17)*** | ***(3.78)*** | ***(3.46)*** | ***(2.81)*** | ***(2.37)*** | ***(2.05)*** | ***(1.70)*** | ***(1.39)*** | — | |
| Output Torque in•lbs | 22937 | 22678 | 22901 | 22746 | 22876 | 22858 | 22746 | 22839 | 22821 | 22810 | 22801 | 22792 | 22783 | — | |
| *(N•m)* | *(2592)* | *(2562)* | *(2587)* | *(2570)* | *(2585)* | *(2583)* | *(2570)* | *(2580)* | *(2578)* | *(2577)* | *(2576)* | *(2575)* | *(2574)* | — | |
| Hollow Shaft OHL lbs | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | 5710 | — | |
| *(N)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | *(25400)* | — | |
| Solid Shaft OHL lbs | 6870 | 7140 | 7330 | 7370 | 7420 | 7490 | 7530 | 7570 | 7580 | 7430 | 7320 | 7200 | 7120 | — | |
| *(N)* | *(30550)* | *(31750)* | *(32600)* | *(32780)* | *(33000)* | *(33310)* | *(33490)* | *(33670)* | *(33710)* | *(33040)* | *(32550)* | *(32020)* | *(31660)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C140 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **7.45** | **7.45** | **7.45** | **7.45** | **7.45** | **5.01** | **5.01** | **5.01** | **2.98** | **2.98** | **2.98** | **2.03** | **2.03** | — | 4C145 |
| ***(kW)*** | ***(5.56)*** | ***(5.56)*** | ***(5.56)*** | ***(5.56)*** | ***(5.56)*** | ***(3.74)*** | ***(3.74)*** | ***(3.74)*** | ***(2.22)*** | ***(2.22)*** | ***(2.22)*** | ***(1.52)*** | ***(1.52)*** | — | |
| Output Torque in•lbs | 17912 | 20002 | 22091 | 23882 | 26271 | 20485 | 22493 | 24702 | 18031 | 21375 | 24718 | 20273 | 24832 | — | |
| *(N•m)* | *(2024)* | *(2260)* | *(2496)* | *(2698)* | *(2968)* | *(2314)* | *(2541)* | *(2791)* | *(2037)* | *(2415)* | *(2793)* | *(2291)* | *(2806)* | — | |
| Hollow Shaft OHL lbs | 9125 | 9980 | 10045 | 10720 | 10810 | 10970 | 11845 | 10945 | 11910 | 12495 | 12540 | 12610 | 12540 | — | |
| *(N)* | *(40600)* | *(44400)* | *(44700)* | *(47700)* | *(48100)* | *(48800)* | *(52700)* | *(48700)* | *(53000)* | *(55600)* | *(55800)* | *(56100)* | *(55800)* | — | |
| Solid Shaft OHL lbs | 9420 | 9870 | 10260 | 10660 | 11100 | 11710 | 12050 | 12360 | 12810 | 12720 | 12660 | 12590 | 12550 | — | |
| *(N)* | *(41900)* | *(43900)* | *(45630)* | *(47410)* | *(49370)* | *(52080)* | *(53590)* | *(54970)* | *(56970)* | *(56570)* | *(56310)* | *(56000)* | *(55820)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **14.9** | **10.2** | **10.2** | **10.2** | **10.2** | **10.2** | **10.1** | **9.27** | **5.01** | **5.01** | **5.01** | **2.98** | **2.98** | — | 4C165 |
| ***(kW)*** | ***(11.1)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.56)*** | ***(6.91)*** | ***(3.74)*** | ***(3.74)*** | ***(3.74)*** | ***(2.22)*** | ***(2.22)*** | — | |
| Output Torque in•lbs | 35824 | 27275 | 30124 | 32567 | 35824 | 41523 | 45492 | 45678 | 30325 | 35948 | 41572 | 29734 | 36421 | — | |
| *(N•m)* | *(4048)* | *(3082)* | *(3404)* | *(3680)* | *(4048)* | *(4691)* | *(5140)* | *(5161)* | *(3426)* | *(4062)* | *(4697)* | *(3359)* | *(4115)* | — | |
| Hollow Shaft OHL lbs | 8450 | 8900 | 9305 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(37600)* | *(39600)* | *(41400)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 9420 | 9870 | 10260 | 10660 | 11100 | 11710 | 12050 | 12360 | 12810 | 12720 | 12660 | 12590 | 12550 | — | |
| *(N)* | *(41900)* | *(43900)* | *(45630)* | *(47410)* | *(49370)* | *(52080)* | *(53590)* | *(54970)* | *(56970)* | *(56570)* | *(56310)* | *(56000)* | *(55820)* | — | |

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# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

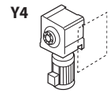
| Output RPM | 131.8 | 111.5 | 103.6 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | **45.5** | — | — | — | — | — | — | — | 4C170 |
| ***(kW)*** | — | — | — | — | — | ***(33.9)*** | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 38258 | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | *(4323)* | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5710 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(25400)* | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 5400 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(24010)* | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **48.3** | — | — | **39.4** | **19.1** | **19.1** | **19.1** | **16.1** | 4C175 |
| ***(kW)*** | — | — | — | — | — | ***(36.0)*** | — | — | ***(29.4)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | 40628 | — | — | 44239 | 26791 | 29853 | 35211 | 34115 | |
| *(N•m)* | — | — | — | — | — | *(4590)* | — | — | *(4998)* | *(3027)* | *(3373)* | *(3978)* | *(3855)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 5505 | — | — | 6000 | 6560 | 6900 | 7485 | 8000 | |
| *(N)* | — | — | — | — | — | *(25400)* | — | — | *(26700)* | *(29200)* | *(30700)* | *(33300)* | *(35600)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 5400 | — | — | 6250 | 7170 | 7580 | 8210 | 8860 | |
| *(N)* | — | — | — | — | — | *(24010)* | — | — | *(27800)* | *(31890)* | *(33710)* | *(36510)* | *(39400)* | |
| **Input Power HP** | — | — | — | — | — | **33.9** | — | — | — | — | — | — | — | 4D160 |
| ***(kW)*** | — | — | — | — | — | ***(25.3)*** | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 28553 | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | *(3226)* | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 11195 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(49800)* | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 7690 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(34200)* | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **40.2** | — | — | **20.3** | **20.3** | **20.3** | **14.9** | **14.9** | 4D165 |
| ***(kW)*** | — | — | — | — | — | ***(30.0)*** | — | — | ***(15.2)*** | ***(15.2)*** | ***(15.2)*** | ***(11.1)*** | ***(11.1)*** | |
| Output Torque in•lbs | — | — | — | — | — | 33857 | — | — | 22797 | 28496 | 31753 | 27465 | 31644 | |
| *(N•m)* | — | — | — | — | — | *(3826)* | — | — | *(2576)* | *(3220)* | *(3588)* | *(3103)* | *(3576)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 10765 | — | — | 11800 | 12070 | 12180 | 12565 | 12675 | |
| *(N)* | — | — | — | — | — | *(47900)* | — | — | *(52500)* | *(53700)* | *(54200)* | *(55900)* | *(56400)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 7690 | — | — | 9060 | 10240 | 10830 | 11740 | 12690 | |
| *(N)* | — | — | — | — | — | *(34200)* | — | — | *(40290)* | *(45540)* | *(48170)* | *(52210)* | *(56440)* | |
| **Input Power HP** | — | — | — | — | — | **45.5** | — | — | — | — | — | — | — | 4D170 |
| ***(kW)*** | — | — | — | — | — | ***(33.9)*** | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 38258 | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | *(4323)* | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 10405 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(46300)* | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 7690 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(34200)* | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **49.6** | — | — | **49.6** | **19.1** | **19.1** | **19.1** | **16.1** | 4D175 |
| ***(kW)*** | — | — | — | — | — | ***(37.0)*** | — | — | ***(37.0)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | 41757 | — | — | 55676 | 26791 | 29853 | 35211 | 34115 | |
| *(N•m)* | — | — | — | — | — | *(4718)* | — | — | *(6291)* | *(3027)* | *(3373)* | *(3979)* | *(3855)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 10135 | — | — | 10225 | 11125 | 11170 | 11080 | 11375 | |
| *(N)* | — | — | — | — | — | *(45100)* | — | — | *(45500)* | *(49500)* | *(49700)* | *(49300)* | *(50600)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 7690 | — | — | 9060 | 10240 | 10830 | 11740 | 12690 | |
| *(N)* | — | — | — | — | — | *(34200)* | — | — | *(40290)* | *(45540)* | *(48170)* | *(52210)* | *(56440)* | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.





Frame Size Selection Tables 50 Hz, 1450 RPM




Single Reduction
Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.48 | 14.22 | 12.95 | 11.79 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4C170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **13.0** | **13.0** | **13.0** | **14.2** | **13.0** | **11.2** | **10.1** | **9.27** | **7.54** | **6.36** | **5.50** | **4.57** | **3.73** | — | 4C175 |
| ***(kW)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(10.58)*** | ***(9.67)*** | ***(8.34)*** | ***(7.56)*** | ***(6.91)*** | ***(5.62)*** | ***(4.74)*** | ***(4.10)*** | ***(3.41)*** | ***(2.78)*** | — | |
| Output Torque in•lbs | 31314 | 34968 | 38621 | 45492 | 45752 | 45716 | 45492 | 45678 | 45643 | 45619 | 45602 | 45583 | 45567 | — | |
| *(N•m)* | *(3538)* | *(3951)* | *(4364)* | *(5140)* | *(5169)* | *(5165)* | *(5140)* | *(5161)* | *(5157)* | *(5154)* | *(5152)* | *(5150)* | *(5148)* | — | |
| Hollow Shaft OHL lbs | 8450 | 8900 | 9305 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | 9415 | — | |
| *(N)* | *(37600)* | *(39600)* | *(41400)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | *(41900)* | — | |
| Solid Shaft OHL lbs | 9420 | 9870 | 10260 | 10660 | 11100 | 11710 | 12050 | 12360 | 12810 | 12720 | 12660 | 12590 | 12550 | — | |
| *(N)* | *(41900)* | *(43900)* | *(45630)* | *(47410)* | *(49370)* | *(52080)* | *(53590)* | *(54970)* | *(56970)* | *(56570)* | *(56310)* | *(56000)* | *(55820)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D160 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **14.9** | **10.2** | **10.2** | **10.2** | **10.2** | **10.2** | **10.2** | **10.2** | **5.01** | **5.01** | **5.01** | **2.98** | **2.98** | — | 4D165 |
| ***(kW)*** | ***(11.1)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(3.74)*** | ***(3.74)*** | ***(3.74)*** | ***(2.22)*** | ***(2.22)*** | — | |
| Output Torque in•lbs | 35824 | 27275 | 30124 | 32567 | 35824 | 41523 | 45594 | 50072 | 30325 | 35948 | 41572 | 29734 | 36421 | — | |
| *(N•m)* | *(4048)* | *(3082)* | *(3404)* | *(3680)* | *(4048)* | *(4692)* | *(5152)* | *(5658)* | *(3427)* | *(4062)* | *(4697)* | *(3360)* | *(4115)* | — | |
| Hollow Shaft OHL lbs | 13600 | 14455 | 14565 | 15465 | 15620 | 15960 | 16970 | 15755 | 15755 | 15755 | 15755 | 15755 | 16115 | — | |
| *(N)* | *(60500)* | *(64300)* | *(64800)* | *(68800)* | *(69500)* | *(71000)* | *(75500)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(70100)* | *(71700)* | — | |
| Solid Shaft OHL lbs | 13500 | 14150 | 14650 | 14960 | 15320 | 15800 | 16070 | 16310 | 16690 | 16650 | 16620 | 16590 | 16580 | — | |
| *(N)* | *(60040)* | *(62930)* | *(65160)* | *(66540)* | *(68140)* | *(70270)* | *(71470)* | *(72540)* | *(74230)* | *(74050)* | *(73920)* | *(73790)* | *(73740)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **13.0** | **13.0** | **13.0** | **14.9** | **14.9** | **14.9** | **10.2** | **10.2** | **10.2** | **7.45** | **7.45** | **5.01** | **5.01** | — | 4D175 |
| ***(kW)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(11.1)*** | ***(11.1)*** | ***(11.1)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(5.56)*** | ***(5.56)*** | ***(3.74)*** | ***(3.74)*** | — | |
| Output Torque in•lbs | 31314 | 34968 | 38621 | 47765 | 52541 | 60900 | 45594 | 50072 | 61470 | 53437 | 61796 | 50007 | 61253 | — | |
| *(N•m)* | *(3538)* | *(3951)* | *(4364)* | *(5397)* | *(5937)* | *(6881)* | *(5152)* | *(5658)* | *(6946)* | *(6038)* | *(6983)* | *(5651)* | *(6921)* | — | |
| Hollow Shaft OHL lbs | 11485 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(51100)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 13500 | 14150 | 14650 | 14960 | 15320 | 15800 | 16070 | 16310 | 16690 | 16650 | 16620 | 16590 | 16580 | — | |
| *(N)* | *(60040)* | *(62930)* | *(65160)* | *(66540)* | *(68140)* | *(70270)* | *(71470)* | *(72540)* | *(74230)* | *(74050)* | *(73920)* | *(73790)* | *(73740)* | — | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

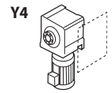
| Output RPM | 131.8 | 111.5 | 103.6 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | **26.0** | **26.0** | **26.0** | **19.1** | 4D185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | ***(19.4)*** | ***(19.4)*** | ***(19.4)*** | ***(14.2)*** | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | 36533 | 40709 | 48015 | 40570 | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | *(4128)* | *(4600)* | *(5426)* | *(4584)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 9460 | 9755 | 10250 | 10700 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(42100)* | *(43400)* | *(45600)* | *(47600)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 10240 | 10830 | 11740 | 12690 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(45540)* | *(48170)* | *(52210)* | *(56440)* | |
| **Input Power HP** | — | — | — | — | — | **45.5** | — | — | — | — | — | — | — | 4E170 |
| ***(kW)*** | — | — | — | — | — | ***(33.9)*** | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | 38258 | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | *(4323)* | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 14500 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(64500)* | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | 11310 | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | *(50300)* | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **49.6** | — | — | **49.6** | **19.1** | **19.1** | **19.1** | **16.1** | 4E175 |
| ***(kW)*** | — | — | — | — | — | ***(37.0)*** | — | — | ***(37.0)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | 41757 | — | — | 55676 | 26791 | 29853 | 35211 | 34115 | |
| *(N•m)* | — | — | — | — | — | *(4718)* | — | — | *(6291)* | *(3027)* | *(3373)* | *(3979)* | *(3855)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 14250 | — | — | 14790 | 16005 | 16185 | 16430 | 16565 | |
| *(N)* | — | — | — | — | — | *(63400)* | — | — | *(65800)* | *(71200)* | *(72000)* | *(73100)* | *(73700)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 11310 | — | — | 13080 | 14630 | 15370 | 16550 | 17780 | |
| *(N)* | — | — | — | — | — | *(50300)* | — | — | *(58170)* | *(65070)* | *(68360)* | *(73610)* | *(79080)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | **26.0** | **26.0** | **26.0** | **19.1** | 4E185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | ***(19.4)*** | ***(19.4)*** | ***(19.4)*** | ***(14.2)*** | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | 36533 | 40709 | 48015 | 40570 | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | *(4128)* | *(4600)* | *(5426)* | *(4584)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 13530 | 13935 | 14880 | 15825 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(60200)* | *(62000)* | *(66200)* | *(70400)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 14630 | 15370 | 16550 | 17780 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(65070)* | *(68360)* | *(73610)* | *(79080)* | |

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# Frame Size Selection Tables 50 Hz, 1450 RPM




## Single Reduction
## Y4 Mounting Position[1]

Dimensions on pages 2.156–2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.48 | 14.22 | 12.95 | 11.79 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **19.1** | **19.1** | **19.1** | **16.1** | **16.1** | **13.0** | **13.0** | **13.0** | **9.55** | **6.51** | **9.33** | **7.45** | **6.32** | — | 4D185 |
| ***(kW)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | ***(12.0)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(7.12)*** | ***(4.86)*** | ***(6.95)*** | ***(5.56)*** | ***(4.72)*** | — | |
| Output Torque in•lbs | 45928 | 51286 | 56644 | 51495 | 56644 | 53234 | 58454 | 64194 | 57792 | 46711 | 77364 | 74334 | 77304 | — | |
| *(N•m)* | *(5190)* | *(5795)* | *(6401)* | *(5819)* | *(6401)* | *(6015)* | *(6605)* | *(7254)* | *(6530)* | *(5278)* | *(8742)* | *(8399)* | *(8735)* | — | |
| Hollow Shaft OHL lbs | 11125 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | 11375 | — | |
| *(N)* | *(49500)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | *(50600)* | — | |
| Solid Shaft OHL lbs | 13500 | 14150 | 14650 | 14960 | 15320 | 15800 | 16070 | 16310 | 16690 | 16650 | 16620 | 16590 | 16580 | — | |
| *(N)* | *(60040)* | *(62930)* | *(65160)* | *(66540)* | *(68140)* | *(70270)* | *(71470)* | *(72540)* | *(74230)* | *(74050)* | *(73920)* | *(73790)* | *(73740)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E170 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **13.0** | **13.0** | **13.0** | **14.9** | **14.9** | **14.9** | **10.2** | **10.2** | **10.2** | **7.45** | **7.45** | **5.01** | **5.01** | — | 4E175 |
| ***(kW)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(11.1)*** | ***(11.1)*** | ***(11.1)*** | ***(7.58)*** | ***(7.58)*** | ***(7.58)*** | ***(5.56)*** | ***(5.56)*** | ***(3.74)*** | ***(3.74)*** | — | |
| Output Torque in•lbs | 31314 | 34968 | 38621 | 47765 | 52541 | 60900 | 45594 | 50072 | 61470 | 53437 | 61796 | 50007 | 61253 | — | |
| *(N•m)* | *(3538)* | *(3951)* | *(4364)* | *(5397)* | *(5937)* | *(6881)* | *(5152)* | *(5658)* | *(6946)* | *(6038)* | *(6983)* | *(5651)* | *(6921)* | — | |
| Hollow Shaft OHL lbs | 18025 | 18250 | 18835 | 19555 | 19400 | 19400 | 19420 | 18995 | 19175 | 18995 | 19150 | 19085 | 19150 | — | |
| *(N)* | *(80200)* | *(81200)* | *(83800)* | *(87000)* | *(86300)* | *(86300)* | *(86400)* | *(84500)* | *(85300)* | *(84500)* | *(85200)* | *(84900)* | *(85200)* | — | |
| Solid Shaft OHL lbs | 18840 | 19670 | 20270 | 20480 | 20700 | 21020 | 21200 | 21360 | 21630 | 21720 | 21790 | 21860 | 21920 | — | |
| *(N)* | *(83800)* | *(87490)* | *(90160)* | *(91090)* | *(92070)* | *(93490)* | *(94290)* | *(95000)* | *(96210)* | *(96610)* | *(96920)* | *(97230)* | *(97500)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **19.1** | **19.1** | **19.1** | **16.1** | **16.1** | **13.0** | **13.0** | **13.0** | **9.55** | **6.51** | **10.16** | **7.45** | **7.45** | — | 4E185 |
| ***(kW)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | ***(12.0)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(7.12)*** | ***(4.86)*** | ***(7.58)*** | ***(5.56)*** | ***(5.56)*** | — | |
| Output Torque in•lbs | 45928 | 51286 | 56644 | 51495 | 56644 | 53234 | 58454 | 64194 | 57792 | 46711 | 84267 | 74334 | 91052 | — | |
| *(N•m)* | *(5190)* | *(5795)* | *(6401)* | *(5819)* | *(6401)* | *(6015)* | *(6605)* | *(7254)* | *(6530)* | *(5278)* | *(9522)* | *(8399)* | *(10288)* | — | |
| Hollow Shaft OHL lbs | 16700 | 17670 | 18250 | 18995 | 19400 | 19400 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(74300)* | *(78600)* | *(81200)* | *(84500)* | *(86300)* | *(86300)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 18840 | 19670 | 20270 | 20480 | 20700 | 21020 | 21200 | 21360 | 21630 | 21720 | 21790 | 21860 | 21920 | — | |
| *(N)* | *(83800)* | *(87490)* | *(90160)* | *(91090)* | *(92070)* | *(93490)* | *(94290)* | *(95000)* | *(96210)* | *(96610)* | *(96920)* | *(97230)* | *(97500)* | — | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.





Speed Reducers

Selection Tables

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y4 Mounting Position[1]




Dimensions on pages 2.156–2.166

| Output RPM | 131.8 | 111.5 | 103.6 | 90.6 | 80.6 | 69.0 | 65.9 | 58.0 | 51.8 | 41.4 | 37.2 | 31.5 | 27.4 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | **32.1** | **32.1** | **32.1** | **32.1** | 4E195 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | ***(24.0)*** | ***(24.0)*** | ***(24.0)*** | ***(24.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | 45058 | 50207 | 59219 | 68231 | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | *(5091)* | *(5673)* | *(6691)* | *(7710)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 13600 | 14005 | 14880 | 15825 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(60500)* | *(62300)* | *(66200)* | *(70400)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 14630 | 15370 | 16550 | 17780 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(65070)* | *(68360)* | *(73610)* | *(79080)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | **26.0** | **26.0** | **26.0** | **19.1** | 4F185 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | ***(19.4)*** | ***(19.4)*** | ***(19.4)*** | ***(14.2)*** | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | 36533 | 40709 | 48015 | 40570 | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | *(4128)* | *(4600)* | *(5426)* | *(4584)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 27875 | 28100 | 27425 | 27425 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(124000)* | *(125000)* | *(122000)* | *(122000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 25560 | 26850 | 28470 | 28910 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(113690)* | *(119420)* | *(126630)* | *(128590)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | **32.1** | **32.1** | **32.1** | **32.1** | 4F195 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | ***(24.0)*** | ***(24.0)*** | ***(24.0)*** | ***(24.0)*** | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | 45058 | 50207 | 59219 | 68231 | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | *(5091)* | *(5673)* | *(6691)* | *(7710)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 26525 | 26975 | 26300 | 25400 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(118000)* | *(120000)* | *(117000)* | *(113000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | 25560 | 26850 | 28470 | 28910 | |
| *(N)* | — | — | — | — | — | — | — | — | — | *(113690)* | *(119420)* | *(126630)* | *(128590)* | |

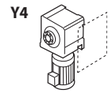
**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.





Frame Size Selection Tables 50 Hz, 1450 RPM

## Single Reduction
## Y4 Mounting Position[1]



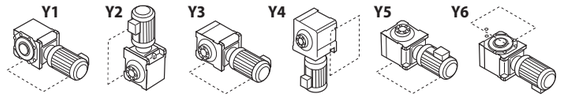

Dimensions on pages 2.156–2.166

| Output RPM | 24.2 | 21.6 | 19.6 | 18.1 | 16.48 | 14.22 | 12.95 | 11.79 | 9.60 | 8.10 | 7.00 | 5.82 | 4.75 | 3.48 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **32.1** | **19.1** | **19.1** | **19.1** | **19.1** | **19.1** | **16.1** | **16.1** | **13.0** | **9.55** | **9.55** | **6.51** | **6.51** | — | 4E195 |
| ***(kW)*** | ***(24.0)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | ***(12.0)*** | ***(9.71)*** | ***(7.12)*** | ***(7.12)*** | ***(4.86)*** | ***(4.86)*** | — | |
| Output Torque in•lbs | 77242 | 51286 | 56644 | 61237 | 67361 | 78077 | 72093 | 79173 | 78808 | 68509 | 79225 | 64977 | 79591 | — | |
| *(N•m)* | *(8728)* | *(5795)* | *(6401)* | *(6920)* | *(7611)* | *(8822)* | *(8146)* | *(8946)* | *(8905)* | *(7741)* | *(8952)* | *(7342)* | *(8993)* | — | |
| Hollow Shaft OHL lbs | 16700 | 17670 | 18250 | 18995 | 19400 | 19400 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | 18430 | — | |
| *(N)* | *(74300)* | *(78600)* | *(81200)* | *(84500)* | *(86300)* | *(86300)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | *(82000)* | — | |
| Solid Shaft OHL lbs | 18840 | 19670 | 20270 | 20480 | 20700 | 21020 | 21200 | 21360 | 21630 | 21720 | 21790 | 21860 | 21920 | — | |
| *(N)* | *(83800)* | *(87490)* | *(90160)* | *(91090)* | *(92070)* | *(93490)* | *(94290)* | *(95000)* | *(96210)* | *(96610)* | *(96920)* | *(97230)* | *(97500)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F180 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **19.1** | **19.1** | **19.1** | **16.1** | **16.1** | **13.0** | **13.0** | **13.0** | **9.55** | **6.51** | **10.2** | **7.45** | **7.45** | — | 4F185 |
| ***(kW)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | ***(12.0)*** | ***(9.71)*** | ***(9.71)*** | ***(9.71)*** | ***(7.12)*** | ***(4.86)*** | ***(7.58)*** | ***(5.56)*** | ***(5.56)*** | — | |
| Output Torque in•lbs | 45928 | 51286 | 56644 | 51495 | 56644 | 53234 | 58454 | 64194 | 57792 | 46711 | 84267 | 74334 | 91052 | — | |
| *(N•m)* | *(5190)* | *(5795)* | *(6401)* | *(5819)* | *(6401)* | *(6015)* | *(6605)* | *(7254)* | *(6530)* | *(5278)* | *(9522)* | *(8399)* | *(10288)* | — | |
| Hollow Shaft OHL lbs | 26975 | 26300 | 25625 | 26525 | 26075 | 26525 | 26300 | 25625 | 25625 | 25850 | 26300 | 26525 | 26075 | — | |
| *(N)* | *(120000)* | *(117000)* | *(114000)* | *(118000)* | *(116000)* | *(118000)* | *(117000)* | *(114000)* | *(114000)* | *(115000)* | *(117000)* | *(118000)* | *(116000)* | — | |
| Solid Shaft OHL lbs | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 29010 | 29180 | 29300 | 29430 | 29530 | — | |
| *(N)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129030)* | *(129790)* | *(130320)* | *(130900)* | *(131340)* | — | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F190 |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **32.1** | **19.1** | **19.1** | **19.1** | **19.1** | **19.1** | **16.1** | **16.1** | **13.0** | **9.55** | **9.55** | **6.51** | **6.51** | — | 4F195 |
| ***(kW)*** | ***(24.0)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(14.2)*** | ***(12.0)*** | ***(12.0)*** | ***(9.71)*** | ***(7.12)*** | ***(7.12)*** | ***(4.86)*** | ***(4.86)*** | — | |
| Output Torque in•lbs | 77242 | 51286 | 56644 | 61237 | 67361 | 78077 | 72093 | 79173 | 78808 | 68509 | 79225 | 64977 | 79591 | — | |
| *(N•m)* | *(8728)* | *(5795)* | *(6401)* | *(6920)* | *(7611)* | *(8822)* | *(8146)* | *(8946)* | *(8905)* | *(7741)* | *(8952)* | *(7342)* | *(8993)* | — | |
| Hollow Shaft OHL lbs | 25400 | 25175 | 25400 | 25175 | 25400 | 25400 | 25175 | 25400 | 25400 | 25400 | 25400 | 25400 | 25400 | — | |
| *(N)* | *(113000)* | *(112000)* | *(113000)* | *(112000)* | *(113000)* | *(113000)* | *(112000)* | *(113000)* | *(113000)* | *(113000)* | *(113000)* | *(113000)* | *(113000)* | — | |
| Solid Shaft OHL lbs | 28940 | 28950 | 28970 | 28970 | 28970 | 28970 | 28970 | 28970 | 29010 | 29180 | 29300 | 29430 | 29530 | — | |
| *(N)* | *(128720)* | *(128760)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(128850)* | *(129030)* | *(129790)* | *(130320)* | *(130900)* | *(131340)* | — | |

**Note: [1]** Please visit Sumitomo's Product Configurator at www.sumitomodrive.com/Configurator for Y4 ratings not listed in the table.

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 4.81 | 4.13 | 3.49 | 3.03 | 2.56 | 2.16 | 1.83 | 1.57 | 1.33 | 1.06 | 0.89 | 0.77 | 0.68 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| **Input Power HP** ***(kW)*** | **0.546** ***(0.407)*** | **0.546** ***(0.407)*** | **0.546** ***(0.407)*** | **0.496** ***(0.37)*** | **0.420** ***(0.313)*** | **0.354** ***(0.264)*** | **0.300** ***(0.224)*** | **0.256** ***(0.191)*** | **0.217** ***(0.162)*** | **0.173** ***(0.129)*** | **0.146** ***(0.109)*** | 0.134 *(0.100)* | 0.134 *(0.100)* | 4A10DA |
| Output Torque in•lbs *(N•m)* | 6255 *(707)* | 7280 *(823)* | 8610 *(973)* | 9025 *(1020)* | 9025 *(1020)* | 9025 *(1020)* | 9025 *(1020)* | 9025 *(1020)* | 9025 *(1020)* | 9025 *(1020)* | 9025 *(1020)* | 8935 *(1010)* | 9025 *(1020)* | |
| Hollow Shaft OHL lbs *(N)* | 5325 *(23700)* | 5010 *(22300)* | 4495 *(20000)* | 4270 *(19000)* | 4270 *(19000)* | 4270 *(19000)* | 4270 *(19000)* | 4270 *(19000)* | 4270 *(19000)* | 4270 *(19000)* | 4270 *(19000)* | 4335 *(19300)* | 4270 *(19000)* | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | |
| **Input Power HP** ***(kW)*** | **0.546** ***(0.407)*** | **0.546** ***(0.407)*** | **0.546** ***(0.407)*** | **0.546** ***(0.407)*** | **0.531** ***(0.396)*** | **0.448** ***(0.334)*** | **0.380** ***(0.283)*** | **0.325** ***(0.242)*** | **0.275** ***(0.205)*** | **0.219** ***(0.163)*** | **0.185** ***(0.138)*** | **0.160** ***(0.119)*** | **0.142** ***(0.106)*** | 4A12DA |
| Output Torque in•lbs *(N•m)* | 6255 *(707)* | 7280 *(823)* | 8610 *(973)* | 9910 *(1120)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | |
| Hollow Shaft OHL lbs *(N)* | 5325 *(23700)* | 5010 *(22300)* | 4495 *(20000)* | 3775 *(16800)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | |
| **Input Power HP** ***(kW)*** | **0.995** ***(0.742)*** | **0.856** ***(0.638)*** | **0.724** ***(0.540)*** | **0.628** ***(0.468)*** | **0.531** ***(0.396)*** | **0.448** ***(0.334)*** | **0.380** ***(0.283)*** | **0.325** ***(0.242)*** | **0.275** ***(0.205)*** | **0.219** ***(0.163)*** | **0.185** ***(0.138)*** | **0.160** ***(0.119)*** | **0.142** ***(0.106)*** | 4A12DB |
| Output Torque in•lbs *(N•m)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | |
| Hollow Shaft OHL lbs *(N)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | |
| **Input Power HP** ***(kW)*** | **0.546** ***(0.407)*** | **0.546** ***(0.407)*** | **0.546** ***(0.407)*** | **0.546** ***(0.407)*** | **0.531** ***(0.396)*** | **0.448** ***(0.334)*** | **0.380** ***(0.283)*** | **0.325** ***(0.242)*** | **0.275** ***(0.205)*** | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 4A14DA |
| Output Torque in•lbs *(N•m)* | 6255 *(707)* | 7280 *(823)* | 8610 *(973)* | 9910 *(1120)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | |
| Hollow Shaft OHL lbs *(N)* | 5325 *(23700)* | 5010 *(22300)* | 4495 *(20000)* | 3775 *(16800)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | |
| **Input Power HP** ***(kW)*** | **0.995** ***(0.742)*** | **0.856** ***(0.638)*** | **0.724** ***(0.540)*** | **0.628** ***(0.468)*** | **0.531** ***(0.396)*** | **0.448** ***(0.334)*** | **0.380** ***(0.283)*** | **0.325** ***(0.242)*** | **0.275** ***(0.205)*** | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 4A14DB |
| Output Torque in•lbs *(N•m)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | |
| Hollow Shaft OHL lbs *(N)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | |
| **Input Power HP** ***(kW)*** | **0.995** ***(0.742)*** | **0.856** ***(0.638)*** | **0.724** ***(0.540)*** | **0.628** ***(0.468)*** | **0.531** ***(0.396)*** | **0.448** ***(0.334)*** | **0.380** ***(0.283)*** | **0.325** ***(0.242)*** | **0.275** ***(0.205)*** | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 4A14DC |
| Output Torque in•lbs *(N•m)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | |
| Hollow Shaft OHL lbs *(N)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | |

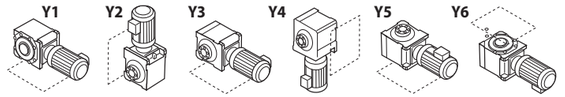
**Note:** The motor Input Powers listed in **GRAY** are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 60 Hz, 1750 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



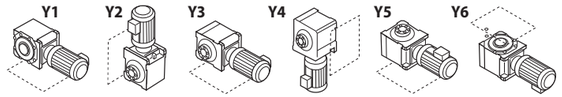

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.59 | 0.50 | 0.40 | 0.34 | 0.27 | 0.24 | 0.20 | 0.16 | 0.14 | 0.11 | 0.10 | 0.08 | 0.07 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| **Input Power HP** ***(kW)*** | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | — — | — — | 4A10DA |
| Output Torque in•lbs *(N•m)* | 9025 *(1020)* | 8935 *(1010)* | 9025 *(1020)* | 9025 *(1020)* | 9025 *(1020)* | 8935 *(1010)* | 8935 *(1010)* | 9025 *(1020)* | 8935 *(1010)* | 9025 *(1020)* | 9025 *(1020)* | — — | — — | |
| Hollow Shaft OHL lbs *(N)* | 4270 *(19000)* | 4335 *(19300)* | 4270 *(19000)* | 4270 *(19000)* | 4270 *(19000)* | 4335 *(19300)* | 4335 *(19300)* | 4270 *(19000)* | 4335 *(19300)* | 4270 *(19000)* | 4270 *(19000)* | — — | — — | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | — — | — — | |
| **Input Power HP** ***(kW)*** | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | — — | — — | 4A12DA |
| Output Torque in•lbs *(N•m)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | — — | — — | |
| Hollow Shaft OHL lbs *(N)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | — — | — — | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | — — | — — | |
| **Input Power HP** ***(kW)*** | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 0.134 *(0.100)* | 4A12DB |
| Output Torque in•lbs *(N•m)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | |
| Hollow Shaft OHL lbs *(N)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | |
| **Input Power HP** ***(kW)*** | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | — — | — — | 4A14DA |
| Output Torque in•lbs *(N•m)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | — — | — — | |
| Hollow Shaft OHL lbs *(N)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | — — | — — | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | — — | — — | |
| **Input Power HP** ***(kW)*** | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 4A14DB |
| Output Torque in•lbs *(N•m)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | |
| Hollow Shaft OHL lbs *(N)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | |
| **Input Power HP** ***(kW)*** | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 0.268 *(0.200)* | 4A14DC |
| Output Torque in•lbs *(N•m)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | 11415 *(1290)* | |
| Hollow Shaft OHL lbs *(N)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | 2585 *(11500)* | |
| Solid Shaft OHL lbs *(N)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | 4540 *(20190)* | |

**Note:** The motor Input Powers listed in **GRAY** are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 4.81 | 4.13 | 3.49 | 3.03 | 2.56 | 2.16 | 1.83 | 1.57 | 1.33 | 1.06 | 0.89 | 0.77 | 0.68 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| **Input Power HP** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.539** | **0.456** | **0.363** | **0.307** | **0.266** | **0.235** | 4B12DA |
| ***(kW)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.402)*** | ***(0.340)*** | ***(0.271)*** | ***(0.229)*** | ***(0.198)*** | ***(0.175)*** | |
| Output Torque in•lbs | 6255 | 7280 | 8610 | 9910 | 11765 | 13890 | 16460 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | |
| *(N•m)* | *(707)* | *(823)* | *(973)* | *(1120)* | *(1330)* | *(1570)* | *(1860)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | |
| Hollow Shaft OHL lbs | 9755 | 9640 | 9485 | 9305 | 8990 | 8520 | 7845 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | |
| *(N)* | *(43400)* | *(42900)* | *(42200)* | *(41400)* | *(40000)* | *(37900)* | *(34900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **1.65** | **1.41** | **1.20** | **1.04** | **0.882** | **0.744** | **0.630** | **0.539** | **0.456** | **0.363** | **0.307** | **0.266** | **0.235** | 4B12DB |
| ***(kW)*** | ***(1.23)*** | ***(1.05)*** | ***(0.897)*** | ***(0.777)*** | ***(0.658)*** | ***(0.555)*** | ***(0.470)*** | ***(0.402)*** | ***(0.340)*** | ***(0.271)*** | ***(0.229)*** | ***(0.198)*** | ***(0.175)*** | |
| Output Torque in•lbs | 18935 | 18760 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | |
| *(N•m)* | *(2140)* | *(2120)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | |
| Hollow Shaft OHL lbs | 6945 | 7035 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | |
| *(N)* | *(30900)* | *(31300)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.436** | **0.369** | **0.318** | **0.282** | 4B14DA |
| ***(kW)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.325)*** | ***(0.275)*** | ***(0.237)*** | ***(0.210)*** | |
| Output Torque in•lbs | 6255 | 7280 | 8610 | 9910 | 11765 | 13890 | 16460 | 19200 | 22650 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(707)* | *(823)* | *(973)* | *(1120)* | *(1330)* | *(1570)* | *(1860)* | *(2170)* | *(2560)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 9755 | 9640 | 9485 | 9305 | 8990 | 8520 | 7845 | 6855 | 5055 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(43400)* | *(42900)* | *(42200)* | *(41400)* | *(40000)* | *(37900)* | *(34900)* | *(30500)* | *(22500)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **1.98** | **1.70** | **1.45** | **1.25** | **1.06** | **0.893** | **0.755** | **0.646** | **0.547** | **0.436** | **0.369** | **0.318** | **0.282** | 4B14DB |
| ***(kW)*** | ***(1.48)*** | ***(1.27)*** | ***(1.08)*** | ***(0.932)*** | ***(0.789)*** | ***(0.666)*** | ***(0.563)*** | ***(0.482)*** | ***(0.408)*** | ***(0.325)*** | ***(0.275)*** | ***(0.237)*** | ***(0.210)*** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **1.98** | **1.70** | **1.45** | **1.25** | **1.06** | **0.893** | **0.755** | **0.646** | **0.547** | **0.436** | **0.369** | **0.318** | **0.282** | 4B14DC |
| ***(kW)*** | ***(1.48)*** | ***(1.27)*** | ***(1.08)*** | ***(0.932)*** | ***(0.789)*** | ***(0.666)*** | ***(0.563)*** | ***(0.482)*** | ***(0.408)*** | ***(0.325)*** | ***(0.275)*** | ***(0.237)*** | ***(0.210)*** | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **1.98** | **1.70** | **1.45** | **1.25** | **1.06** | **0.893** | **0.755** | **0.646** | **0.547** | 0.536 | 0.536 | 0.536 | 0.536 | 4B16DA |
| ***(kW)*** | ***(1.48)*** | ***(1.27)*** | ***(1.08)*** | ***(0.932)*** | ***(0.789)*** | ***(0.666)*** | ***(0.563)*** | ***(0.482)*** | ***(0.408)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |

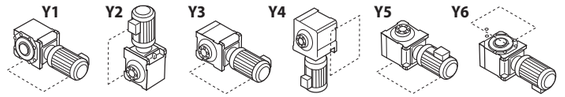
**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 60 Hz, 1750 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



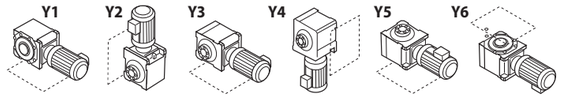

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.59 | 0.50 | 0.40 | 0.34 | 0.27 | 0.24 | 0.20 | 0.16 | 0.14 | 0.11 | 0.10 | 0.08 | 0.07 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| **Input Power HP** | **0.205** | **0.172** | **0.138** | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | — | — | 4B12DA |
| ***(kW)*** | ***(0.153)*** | ***(0.128)*** | ***(0.103)*** | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | — | — | |
| Output Torque in•lbs | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | — | — | |
| *(N•m)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | — | — | |
| Hollow Shaft OHL lbs | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | — | — | |
| *(N)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | — | — | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | — | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | — | |
| **Input Power HP** | **0.205** | **0.172** | **0.138** | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 4B12DB |
| ***(kW)*** | ***(0.153)*** | ***(0.128)*** | ***(0.103)*** | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | |
| Output Torque in•lbs | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | |
| *(N•m)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | |
| Hollow Shaft OHL lbs | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | |
| *(N)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | — | — | 4B14DA |
| ***(kW)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | — | — | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | — | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | — | — | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | — | — | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | — | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | — | |
| **Input Power HP** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4B14DB |
| ***(kW)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4B14DC |
| ***(kW)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4B16DA |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 4.81 | 4.13 | 3.49 | 3.03 | 2.56 | 2.16 | 1.83 | 1.57 | 1.33 | 1.06 | 0.89 | 0.77 | 0.68 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **364** | **424** | **501** | **578** | **683** | **809** | **956** | **1117** | **1320** | **1656** | **1957** | **2272** | **2559** | |
| **Input Power HP** | **1.98** | **1.70** | **1.45** | **1.25** | **1.06** | **0.893** | **0.755** | **0.646** | **0.547** | 0.536 | 0.536 | 0.536 | 0.536 | |
| ***(kW)*** | ***(1.48)*** | ***(1.27)*** | ***(1.08)*** | ***(0.932)*** | ***(0.789)*** | ***(0.666)*** | ***(0.563)*** | ***(0.482)*** | ***(0.408)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | **4B16DB** |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **1.98** | **1.70** | **1.45** | **1.25** | **1.06** | **0.893** | **0.755** | **0.646** | **0.547** | 0.536 | 0.536 | 0.536 | 0.536 | |
| ***(kW)*** | ***(1.48)*** | ***(1.27)*** | ***(1.08)*** | ***(0.932)*** | ***(0.789)*** | ***(0.666)*** | ***(0.563)*** | ***(0.482)*** | ***(0.408)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | **4B16DC** |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.512** | |
| ***(kW)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.382)*** | |
| Output Torque in•lbs | 6255 | 7280 | 8610 | 9910 | 11765 | 13890 | 16460 | 19200 | 22650 | 28495 | 33625 | 39025 | 41235 | |
| *(N•m)* | *(707)* | *(823)* | *(973)* | *(1120)* | *(1330)* | *(1570)* | *(1860)* | *(2170)* | *(2560)* | *(3220)* | *(3800)* | *(4410)* | *(4660)* | |
| Hollow Shaft OHL lbs | 16025 | 15980 | 15935 | 15845 | 15735 | 15575 | 15350 | 15060 | 14590 | 13645 | 12495 | 10945 | 10180 | |
| *(N)* | *(71300)* | *(71100)* | *(70900)* | *(70500)* | *(70000)* | *(69300)* | *(68300)* | *(67000)* | *(64900)* | *(60700)* | *(55600)* | *(48700)* | *(45300)* | **4C14DA** |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **2.04** | **2.04** | **2.04** | **2.04** | **1.90** | **1.58** | **1.34** | **1.17** | **0.992** | **0.791** | **0.669** | **0.577** | **0.512** | |
| ***(kW)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.42)*** | ***(1.18)*** | ***(0.998)*** | ***(0.874)*** | ***(0.740)*** | ***(0.590)*** | ***(0.499)*** | ***(0.430)*** | ***(0.382)*** | |
| Output Torque in•lbs | 23360 | 27075 | 32035 | 36990 | 40885 | 40265 | 40265 | 41235 | 41235 | 41235 | 41235 | 41235 | 41235 | |
| *(N•m)* | *(2640)* | *(3060)* | *(3620)* | *(4180)* | *(4620)* | *(4550)* | *(4550)* | *(4660)* | *(4660)* | *(4660)* | *(4660)* | *(4660)* | *(4660)* | |
| Hollow Shaft OHL lbs | 14500 | 13890 | 12880 | 11600 | 10315 | 10540 | 10540 | 10180 | 10180 | 10180 | 10180 | 10180 | 10180 | |
| *(N)* | *(64500)* | *(61800)* | *(57300)* | *(51600)* | *(45900)* | *(46900)* | *(46900)* | *(45300)* | *(45300)* | *(45300)* | *(45300)* | *(45300)* | *(45300)* | **4C14DB** |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **3.59** | **2.91** | **2.61** | **2.25** | **1.90** | **1.58** | **1.34** | **1.17** | **0.992** | **0.791** | **0.669** | **0.577** | **0.512** | |
| ***(kW)*** | ***(2.68)*** | ***(2.17)*** | ***(1.95)*** | ***(1.68)*** | ***(1.42)*** | ***(1.18)*** | ***(0.998)*** | ***(0.874)*** | ***(0.740)*** | ***(0.590)*** | ***(0.499)*** | ***(0.430)*** | ***(0.382)*** | |
| Output Torque in•lbs | 41235 | 38935 | 41235 | 40885 | 40885 | 40265 | 40265 | 41235 | 41235 | 41235 | 41235 | 41235 | 41235 | |
| *(N•m)* | *(4660)* | *(4400)* | *(4660)* | *(4620)* | *(4620)* | *(4550)* | *(4550)* | *(4660)* | *(4660)* | *(4660)* | *(4660)* | *(4660)* | *(4660)* | |
| Hollow Shaft OHL lbs | 10180 | 11015 | 10180 | 10315 | 10315 | 10540 | 10540 | 10180 | 10180 | 10180 | 10180 | 10180 | 10180 | |
| *(N)* | *(45300)* | *(49000)* | *(45300)* | *(45900)* | *(45900)* | *(46900)* | *(46900)* | *(45300)* | *(45300)* | *(45300)* | *(45300)* | *(45300)* | *(45300)* | **4C14DC** |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **1.78** | **1.52** | **1.29** | **1.09** | **0.872** | **0.738** | **0.636** | **0.565** | |
| ***(kW)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.33)*** | ***(1.13)*** | ***(0.964)*** | ***(0.816)*** | ***(0.650)*** | ***(0.550)*** | ***(0.474)*** | ***(0.421)*** | |
| Output Torque in•lbs | 23360 | 27075 | 32035 | 36990 | 43715 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(2640)* | *(3060)* | *(3620)* | *(4180)* | *(4940)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 14500 | 13890 | 12880 | 11600 | 9190 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(64500)* | *(61800)* | *(57300)* | *(51600)* | *(40900)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | **4C16DA** |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |

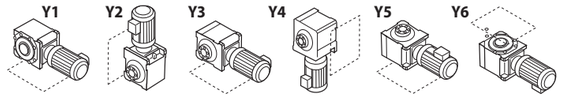
**Note:** The motor Input Powers listed in **GRAY** are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 60 Hz, 1750 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



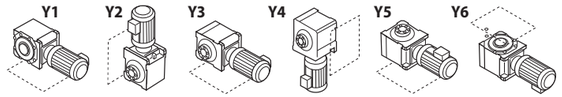

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.59 | 0.50 | 0.40 | 0.34 | 0.27 | 0.24 | 0.20 | 0.16 | 0.14 | 0.11 | 0.10 | 0.08 | 0.07 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **2944** | **3511** | **4365** | **5177** | **6472** | **7228** | **8880** | **10658** | **12184** | **15530** | **17966** | **21620** | **26492** | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | **4B16DB** |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | **4B16DC** |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **0.384** | **0.373** | **0.300** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | — | — | |
| ***(kW)*** | ***(0.286)*** | ***(0.278)*** | ***(0.224)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | — | — | |
| Output Torque in•lbs | 35575 | 41235 | 41235 | 37610 | 41235 | 41235 | 41235 | 37610 | 41235 | 37610 | 37610 | — | — | |
| *(N•m)* | *(4020)* | *(4660)* | *(4660)* | *(4250)* | *(4660)* | *(4660)* | *(4660)* | *(4250)* | *(4660)* | *(4250)* | *(4250)* | — | — | |
| Hollow Shaft OHL lbs | 11980 | 10180 | 10180 | 11420 | 10180 | 10180 | 10180 | 11420 | 10180 | 11420 | 11420 | — | — | |
| *(N)* | *(53300)* | *(45300)* | *(45300)* | *(50800)* | *(45300)* | *(45300)* | *(45300)* | *(50800)* | *(45300)* | *(50800)* | *(50800)* | — | — | **4C14DA** |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | — | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | — | — | |
| **Input Power HP** | **0.445** | **0.373** | **0.300** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | |
| ***(kW)*** | ***(0.332)*** | ***(0.278)*** | ***(0.224)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 41235 | 41235 | 41235 | 37610 | 41235 | 41235 | 41235 | 37610 | 41235 | 37610 | 37610 | 37610 | 37610 | |
| *(N•m)* | *(4660)* | *(4660)* | *(4660)* | *(4250)* | *(4660)* | *(4660)* | *(4660)* | *(4250)* | *(4660)* | *(4250)* | *(4250)* | *(4250)* | *(4250)* | |
| Hollow Shaft OHL lbs | 10180 | 10180 | 10180 | 11420 | 10180 | 10180 | 10180 | 11420 | 10180 | 11420 | 11420 | 11420 | 11420 | |
| *(N)* | *(45300)* | *(45300)* | *(45300)* | *(50800)* | *(45300)* | *(45300)* | *(45300)* | *(50800)* | *(45300)* | *(50800)* | *(50800)* | *(50800)* | *(50800)* | **4C14DB** |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **0.445** | **0.373** | **0.300** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | |
| ***(kW)*** | ***(0.332)*** | ***(0.278)*** | ***(0.224)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 41235 | 41235 | 41235 | 37610 | 41235 | 41235 | 41235 | 37610 | 41235 | 37610 | 37610 | 37610 | 37610 | |
| *(N•m)* | *(4660)* | *(4660)* | *(4660)* | *(4250)* | *(4660)* | *(4660)* | *(4660)* | *(4250)* | *(4660)* | *(4250)* | *(4250)* | *(4250)* | *(4250)* | |
| Hollow Shaft OHL lbs | 10180 | 10180 | 10180 | 11420 | 10180 | 10180 | 10180 | 11420 | 10180 | 11420 | 11420 | 11420 | 11420 | |
| *(N)* | *(45300)* | *(45300)* | *(45300)* | *(50800)* | *(45300)* | *(45300)* | *(45300)* | *(50800)* | *(45300)* | *(50800)* | *(50800)* | *(50800)* | *(50800)* | **4C14DC** |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | **4C16DA** |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |

**Note:** The motor Input Powers listed in **GRAY** are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 4.81 | 4.13 | 3.49 | 3.03 | 2.56 | 2.16 | 1.83 | 1.57 | 1.33 | 1.06 | 0.89 | 0.77 | 0.68 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **364** | **424** | **501** | **578** | **683** | **809** | **956** | **1117** | **1320** | **1656** | **1957** | **2272** | **2559** | |
| **Input Power HP** | **3.97** | **3.41** | **2.88** | **2.49** | **2.12** | **1.78** | **1.52** | **1.29** | **1.09** | **0.872** | **0.738** | **0.636** | **0.565** | 4C16DB |
| ***(kW)*** | ***(2.96)*** | ***(2.54)*** | ***(2.15)*** | ***(1.86)*** | ***(1.58)*** | ***(1.33)*** | ***(1.13)*** | ***(0.964)*** | ***(0.816)*** | ***(0.650)*** | ***(0.550)*** | ***(0.474)*** | ***(0.421)*** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **3.97** | **3.41** | **2.88** | **2.49** | **2.12** | **1.78** | **1.52** | **1.29** | **1.09** | **0.872** | **0.738** | **0.636** | **0.565** | 4C16DC |
| ***(kW)*** | ***(2.96)*** | ***(2.54)*** | ***(2.15)*** | ***(1.86)*** | ***(1.58)*** | ***(1.33)*** | ***(1.13)*** | ***(0.964)*** | ***(0.816)*** | ***(0.650)*** | ***(0.550)*** | ***(0.474)*** | ***(0.421)*** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **1.78** | **1.52** | **1.29** | **1.09** | **0.872** | **0.738** | **0.636** | **0.565** | 4C17DA |
| ***(kW)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.33)*** | ***(1.13)*** | ***(0.964)*** | ***(0.816)*** | ***(0.650)*** | ***(0.550)*** | ***(0.474)*** | ***(0.421)*** | |
| Output Torque in•lbs | 23360 | 27075 | 32035 | 36990 | 43715 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(2640)* | *(3060)* | *(3620)* | *(4180)* | *(4940)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 14500 | 13890 | 12880 | 11600 | 9190 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(64500)* | *(61800)* | *(57300)* | *(51600)* | *(40900)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **3.97** | **3.41** | **2.88** | **2.49** | **2.12** | **1.78** | **1.52** | **1.29** | **1.09** | **0.872** | **0.738** | **0.636** | **0.565** | 4C17DB |
| ***(kW)*** | ***(2.96)*** | ***(2.54)*** | ***(2.15)*** | ***(1.86)*** | ***(1.58)*** | ***(1.33)*** | ***(1.13)*** | ***(0.964)*** | ***(0.816)*** | ***(0.650)*** | ***(0.550)*** | ***(0.474)*** | ***(0.421)*** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **3.97** | **3.41** | **2.88** | **2.49** | **2.12** | **1.78** | **1.52** | **1.29** | **1.09** | **0.872** | **0.738** | **0.636** | **0.565** | 4C17DC |
| ***(kW)*** | ***(2.96)*** | ***(2.54)*** | ***(2.15)*** | ***(1.86)*** | ***(1.58)*** | ***(1.33)*** | ***(1.13)*** | ***(0.964)*** | ***(0.816)*** | ***(0.650)*** | ***(0.550)*** | ***(0.474)*** | ***(0.421)*** | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **1.80** | **1.52** | **1.21** | **1.03** | **0.884** | **0.784** | 4D16DA |
| ***(kW)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.34)*** | ***(1.13)*** | ***(0.904)*** | ***(0.765)*** | ***(0.659)*** | ***(0.585)*** | |
| Output Torque in•lbs | 23360 | 27075 | 32035 | 36990 | 43715 | 51770 | 61150 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | |
| *(N•m)* | *(2640)* | *(3060)* | *(3620)* | *(4180)* | *(4940)* | *(5850)* | *(6910)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | |
| Hollow Shaft OHL lbs | 21265 | 20970 | 20500 | 19940 | 18995 | 17600 | 15440 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | |
| *(N)* | *(94600)* | *(93300)* | *(91200)* | *(88700)* | *(84500)* | *(78300)* | *(68700)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |

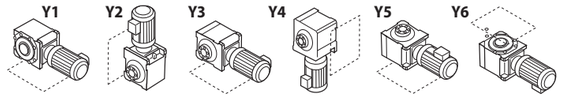
**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 60 Hz, 1750 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



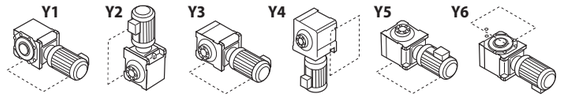

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.59 | 0.50 | 0.40 | 0.34 | 0.27 | 0.24 | 0.20 | 0.16 | 0.14 | 0.11 | 0.10 | 0.08 | 0.07 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **2944** | **3511** | **4365** | **5177** | **6472** | **7228** | **8880** | **10658** | **12184** | **15530** | **17966** | **21620** | **26492** | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C16DB |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C16DC |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C17DA |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C17DB |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C17DC |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **0.681** | **0.571** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D16DA |
| ***(kW)*** | ***(0.508)*** | ***(0.426)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 63270 | 63270 | 63270 | 61770 | 63270 | 63270 | 63270 | 61770 | 63270 | 61770 | 61770 | 61770 | 61770 | |
| *(N•m)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(6980)* | *(6980)* | *(6980)* | *(6980)* | |
| Hollow Shaft OHL lbs | 14855 | 14855 | 14855 | 15260 | 14855 | 14855 | 14855 | 15260 | 14855 | 15260 | 15260 | 15260 | 15260 | |
| *(N)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(67900)* | *(67900)* | *(67900)* | *(67900)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 4.81 | 4.13 | 3.49 | 3.03 | 2.56 | 2.16 | 1.83 | 1.57 | 1.33 | 1.06 | 0.89 | 0.77 | 0.68 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| **Input Power HP** | **4.26** | **4.26** | **4.01** | **3.47** | **2.94** | **2.48** | **2.11** | **1.80** | **1.52** | **1.21** | **1.03** | **0.884** | **0.784** | 4D16DB |
| ***(kW)*** | ***(3.18)*** | ***(3.18)*** | ***(2.99)*** | ***(2.59)*** | ***(2.19)*** | ***(1.85)*** | ***(1.57)*** | ***(1.34)*** | ***(1.13)*** | ***(0.904)*** | ***(0.765)*** | ***(0.659)*** | ***(0.585)*** | |
| Output Torque in•lbs | 48935 | 56900 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | |
| *(N•m)* | *(5530)* | *(6430)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | |
| Hollow Shaft OHL lbs | 18115 | 16500 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | |
| *(N)* | *(80600)* | *(73400)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **5.51** | **4.73** | **4.01** | **3.47** | **2.94** | **2.48** | **2.11** | **1.80** | **1.52** | **1.21** | **1.03** | **0.884** | **0.784** | 4D16DC |
| ***(kW)*** | ***(4.11)*** | ***(3.53)*** | ***(2.99)*** | ***(2.59)*** | ***(2.19)*** | ***(1.85)*** | ***(1.57)*** | ***(1.34)*** | ***(1.13)*** | ***(0.904)*** | ***(0.765)*** | ***(0.659)*** | ***(0.585)*** | |
| Output Torque in•lbs | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | |
| *(N•m)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | |
| Hollow Shaft OHL lbs | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | |
| *(N)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **1.85** | **1.48** | **1.25** | **1.08** | **0.957** | 4D17DA |
| ***(kW)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.38)*** | ***(1.10)*** | ***(0.933)*** | ***(0.804)*** | ***(0.714)*** | |
| Output Torque in•lbs | 23360 | 27075 | 32035 | 36990 | 43715 | 51770 | 61150 | 71680 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(2640)* | *(3060)* | *(3620)* | *(4180)* | *(4940)* | *(5850)* | *(6910)* | *(8100)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 21265 | 20970 | 20500 | 19940 | 18995 | 17600 | 15440 | 12115 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(94600)* | *(93300)* | *(91200)* | *(88700)* | *(84500)* | *(78300)* | *(68700)* | *(53900)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **4.26** | **4.26** | **4.26** | **4.24** | **3.59** | **3.03** | **2.56** | **2.20** | **1.85** | **1.48** | **1.25** | **1.08** | **0.957** | 4D17DB |
| ***(kW)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.16)*** | ***(2.68)*** | ***(2.26)*** | ***(1.91)*** | ***(1.64)*** | ***(1.38)*** | ***(1.10)*** | ***(0.933)*** | ***(0.804)*** | ***(0.714)*** | |
| Output Torque in•lbs | 48935 | 56900 | 67255 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(5530)* | *(6430)* | *(7600)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 18115 | 16500 | 13645 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(80600)* | *(73400)* | *(60700)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **6.73** | **5.78** | **4.89** | **4.24** | **3.59** | **3.03** | **2.56** | **2.20** | **1.85** | **1.48** | **1.25** | **1.08** | **0.957** | 4D17DC |
| ***(kW)*** | ***(5.02)*** | ***(4.31)*** | ***(3.65)*** | ***(3.16)*** | ***(2.68)*** | ***(2.26)*** | ***(1.91)*** | ***(1.64)*** | ***(1.38)*** | ***(1.10)*** | ***(0.933)*** | ***(0.804)*** | ***(0.714)*** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | — | — | — | — | — | **3.03** | **2.56** | **2.20** | **1.85** | **1.48** | **1.25** | **1.08** | **0.96** | 4D18DA |
| ***(kW)*** | — | — | — | — | — | ***(2.26)*** | ***(1.91)*** | ***(1.64)*** | ***(1.38)*** | ***(1.10)*** | ***(0.933)*** | ***(0.804)*** | ***(0.714)*** | |
| Output Torque in•lbs | — | — | — | — | — | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | — | — | — | — | — | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | — | — | — | — | — | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | — | — | — | — | — | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |

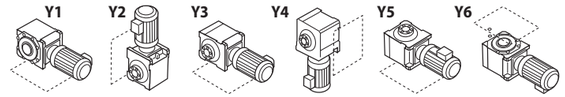
**Note:** The motor Input Powers listed in **GRAY** are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 60 Hz, 1750 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



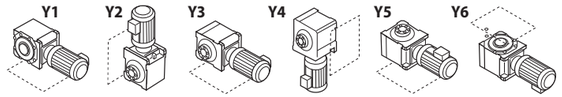

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.59 | 0.50 | 0.40 | 0.34 | 0.27 | 0.24 | 0.20 | 0.16 | 0.14 | 0.11 | 0.10 | 0.08 | 0.07 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| **Input Power HP** | **0.681** | **0.571** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D16DB |
| ***(kW)*** | ***(0.508)*** | ***(0.426)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 63270 | 63270 | 63270 | 61770 | 63270 | 63270 | 63270 | 61770 | 63270 | 61770 | 61770 | 61770 | 61770 | |
| *(N•m)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(6980)* | *(6980)* | *(6980)* | *(6980)* | |
| Hollow Shaft OHL lbs | 14855 | 14855 | 14855 | 15260 | 14855 | 14855 | 14855 | 15260 | 14855 | 15260 | 15260 | 15260 | 15260 | |
| *(N)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(67900)* | *(67900)* | *(67900)* | *(67900)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **0.681** | **0.571** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D16DC |
| ***(kW)*** | ***(0.508)*** | ***(0.426)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 63270 | 63270 | 63270 | 61770 | 63270 | 63270 | 63270 | 61770 | 63270 | 61770 | 61770 | 61770 | 61770 | |
| *(N•m)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(6980)* | *(6980)* | *(6980)* | *(6980)* | |
| Hollow Shaft OHL lbs | 14855 | 14855 | 14855 | 15260 | 14855 | 14855 | 14855 | 15260 | 14855 | 15260 | 15260 | 15260 | 15260 | |
| *(N)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(67900)* | *(67900)* | *(67900)* | *(67900)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **0.831** | **0.697** | **0.561** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D17DA |
| ***(kW)*** | ***(0.620)*** | ***(0.520)*** | ***(0.418)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **0.831** | **0.697** | **0.561** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D17DB |
| ***(kW)*** | ***(0.620)*** | ***(0.520)*** | ***(0.418)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **0.831** | **0.697** | **0.561** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D17DC |
| ***(kW)*** | ***(0.620)*** | ***(0.520)*** | ***(0.418)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 4D18DA |
| ***(kW)*** | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |

**Note:** The motor Input Powers listed in **GRAY** are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 4.81 | 4.13 | 3.49 | 3.03 | 2.56 | 2.16 | 1.83 | 1.57 | 1.33 | 1.06 | 0.89 | 0.77 | 0.68 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| **Input Power HP** | **6.73** | **5.78** | **4.89** | **4.24** | **3.59** | **3.03** | **2.56** | **2.20** | **1.85** | — | — | — | — | 4D18DB |
| ***(kW)*** | ***(5.02)*** | ***(4.31)*** | ***(3.65)*** | ***(3.16)*** | ***(2.68)*** | ***(2.26)*** | ***(1.91)*** | ***(1.64)*** | ***(1.38)*** | — | — | — | — | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | — | — | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | — | — | — | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | — | — | — | — | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | — | — | — | — | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | — | — | — | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | — | — | — | |
| **Input Power HP** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **1.81** | **1.54** | **1.32** | **1.17** | 4E17DA |
| ***(kW)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.35)*** | ***(1.15)*** | ***(0.987)*** | ***(0.876)*** | |
| Output Torque in•lbs | 23360 | 27075 | 32035 | 36990 | 43715 | 51770 | 61150 | 71680 | 84775 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(2640)* | *(3060)* | *(3620)* | *(4180)* | *(4940)* | *(5850)* | *(6910)* | *(8100)* | *(9580)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 22705 | 22435 | 22185 | 21940 | 21580 | 21175 | 20705 | 20165 | 19510 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(101000)* | *(99800)* | *(98700)* | *(97600)* | *(96000)* | *(94200)* | *(92100)* | *(89700)* | *(86800)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **4.26** | **4.26** | **4.26** | **4.26** | **4.26** | **3.71** | **3.15** | **2.70** | **2.28** | **1.81** | **1.54** | **1.32** | **1.17** | 4E17DB |
| ***(kW)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(2.77)*** | ***(2.35)*** | ***(2.01)*** | ***(1.70)*** | ***(1.35)*** | ***(1.15)*** | ***(0.987)*** | ***(0.876)*** | |
| Output Torque in•lbs | 48935 | 56900 | 67255 | 77610 | 92035 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(5530)* | *(6430)* | *(7600)* | *(8770)* | *(10400)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 21330 | 20925 | 20390 | 19870 | 19150 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(94900)* | *(93100)* | *(90700)* | *(88400)* | *(85200)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **8.26** | **7.09** | **6.01** | **5.20** | **4.40** | **3.71** | **3.15** | **2.70** | **2.28** | **1.81** | **1.54** | **1.32** | **1.17** | 4E17DC |
| ***(kW)*** | ***(6.16)*** | ***(5.29)*** | ***(4.48)*** | ***(3.88)*** | ***(3.28)*** | ***(2.77)*** | ***(2.35)*** | ***(2.01)*** | ***(1.70)*** | ***(1.35)*** | ***(1.15)*** | ***(0.987)*** | ***(0.876)*** | |
| Output Torque in•lbs | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | **4.02** | **3.41** | **2.92** | **2.47** | **1.97** | **1.66** | **1.43** | **1.27** | 4E18DA |
| ***(kW)*** | — | — | — | — | — | ***(3.00)*** | ***(2.54)*** | ***(2.18)*** | ***(1.84)*** | ***(1.47)*** | ***(1.24)*** | ***(1.07)*** | ***(0.95)*** | |
| Output Torque in•lbs | — | — | — | — | — | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | |
| *(N•m)* | — | — | — | — | — | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | |
| *(N)* | — | — | — | — | — | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | — | — | — | — | — | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **8.94** | **7.70** | **6.50** | **5.65** | **4.77** | **4.02** | **3.41** | **2.92** | **2.47** | — | — | — | — | 4E18DB |
| ***(kW)*** | ***(6.67)*** | ***(5.74)*** | ***(4.85)*** | ***(4.21)*** | ***(3.56)*** | ***(3.00)*** | ***(2.54)*** | ***(2.18)*** | ***(1.84)*** | — | — | — | — | |
| Output Torque in•lbs | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | — | — | — | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | — | — | — | |
| Hollow Shaft OHL lbs | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | — | — | — | — | |
| *(N)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | — | — | — | — | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | — | — | — | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | — | — | — | |

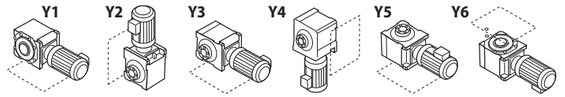
**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 60 Hz, 1750 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



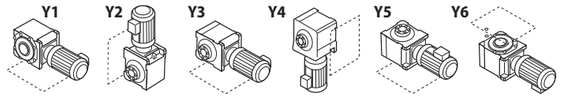

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.59 | 0.50 | 0.40 | 0.34 | 0.27 | 0.24 | 0.20 | 0.16 | 0.14 | 0.11 | 0.10 | 0.08 | 0.07 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D18DB |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **1.02** | **0.856** | **0.688** | **0.581** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4E17DA |
| ***(kW)*** | ***(0.761)*** | ***(0.638)*** | ***(0.513)*** | ***(0.433)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **1.02** | **0.856** | **0.688** | **0.581** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4E17DB |
| ***(kW)*** | ***(0.761)*** | ***(0.638)*** | ***(0.513)*** | ***(0.433)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **1.02** | **0.856** | **0.688** | **0.581** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4E17DC |
| ***(kW)*** | ***(0.761)*** | ***(0.638)*** | ***(0.513)*** | ***(0.433)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **1.11** | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 4E18DA |
| ***(kW)*** | ***(0.825)*** | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | |
| *(N)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E18DB |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 60 Hz, 1750 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 4.81 | 4.13 | 3.49 | 3.03 | 2.56 | 2.16 | 1.83 | 1.57 | 1.33 | 1.06 | 0.89 | 0.77 | 0.68 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **364** | **424** | **501** | **578** | **683** | **809** | **956** | **1117** | **1320** | **1656** | **1957** | **2272** | **2559** | |
| **Input Power HP** | — | — | — | — | **4.77** | **4.02** | **3.41** | **2.92** | **2.47** | **1.97** | **1.66** | **1.43** | **1.27** | 4E19DA |
| ***(kW)*** | — | — | — | — | ***(3.56)*** | ***(3.00)*** | ***(2.54)*** | ***(2.18)*** | ***(1.84)*** | ***(1.47)*** | ***(1.24)*** | ***(1.07)*** | ***(0.95)*** | |
| Output Torque in•lbs | — | — | — | — | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | |
| *(N•m)* | — | — | — | — | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | — | — | — | — | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | |
| *(N)* | — | — | — | — | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | |
| Solid Shaft OHL lbs | — | — | — | — | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | — | — | — | — | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **8.94** | **7.70** | **6.50** | **5.65** | **4.77** | **4.02** | **3.41** | **2.92** | — | — | — | — | — | 4E19DB |
| ***(kW)*** | ***(6.67)*** | ***(5.74)*** | ***(4.85)*** | ***(4.21)*** | ***(3.56)*** | ***(3.00)*** | ***(2.54)*** | ***(2.18)*** | — | — | — | — | — | |
| Output Torque in•lbs | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | — | — | — | — | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | — | — | — | — | |
| Hollow Shaft OHL lbs | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | — | — | — | — | — | |
| *(N)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | — | — | — | — | — | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | — | — | — | — | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **4.26** | **4.26** | **4.26** | **3.62** | **2.88** | **2.44** | **2.11** | **1.86** | 4F18DA |
| ***(kW)*** | — | — | — | — | — | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(2.70)*** | ***(2.15)*** | ***(1.82)*** | ***(1.57)*** | ***(1.39)*** | |
| Output Torque in•lbs | — | — | — | — | — | 108850 | 128315 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | |
| *(N•m)* | — | — | — | — | — | *(12300)* | *(14500)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 32145 | 32145 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | |
| *(N)* | — | — | — | — | — | *(143000)* | *(143000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 29530 | 29531 | 29532 | 29533 | 29534 | 29535 | 29536 | 29537 | |
| *(N)* | — | — | — | — | — | *(131340)* | *(131350)* | *(131350)* | *(131360)* | *(131360)* | *(131370)* | *(131370)* | *(131380)* | |
| **Input Power HP** | **12.9** | **10.8** | **9.36** | **8.14** | **6.89** | **5.91** | **5.00** | **4.28** | **3.62** | — | — | — | — | 4F18DB |
| ***(kW)*** | ***(9.60)*** | ***(8.09)*** | ***(6.98)*** | ***(6.07)*** | ***(5.14)*** | ***(4.41)*** | ***(3.73)*** | ***(3.19)*** | ***(2.70)*** | — | — | — | — | |
| Output Torque in•lbs | 147785 | 145130 | 147785 | 147785 | 147785 | 150440 | 150440 | 150440 | 150440 | — | — | — | — | |
| *(N•m)* | *(16700)* | *(16400)* | *(16700)* | *(16700)* | *(16700)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | — | — | — | — | |
| Hollow Shaft OHL lbs | 31245 | 31695 | 31245 | 31020 | 31020 | 30570 | 30570 | 30570 | 30570 | — | — | — | — | |
| *(N)* | *(139000)* | *(141000)* | *(139000)* | *(138000)* | *(138000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | — | — | — | — | |
| Solid Shaft OHL lbs | 29530 | 29531 | 29532 | 29533 | 29534 | 29535 | 29536 | 29537 | 29538 | — | — | — | — | |
| *(N)* | *(131340)* | *(131350)* | *(131350)* | *(131360)* | *(131360)* | *(131370)* | *(131370)* | *(131380)* | *(131380)* | — | — | — | — | |
| **Input Power HP** | — | — | — | — | **7.16** | **6.05** | **5.11** | **4.37** | **3.70** | **2.95** | **2.49** | **2.15** | **1.90** | 4F19DA |
| ***(kW)*** | — | — | — | — | ***(5.34)*** | ***(4.51)*** | ***(3.81)*** | ***(3.26)*** | ***(2.76)*** | ***(2.20)*** | ***(1.86)*** | ***(1.60)*** | ***(1.42)*** | |
| Output Torque in•lbs | — | — | — | — | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | |
| *(N•m)* | — | — | — | — | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | |
| Hollow Shaft OHL lbs | — | — | — | — | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | |
| *(N)* | — | — | — | — | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | |
| Solid Shaft OHL lbs | — | — | — | — | 29530 | 29531 | 29532 | 29533 | 29534 | 29535 | 29536 | 29537 | 29538 | |
| *(N)* | — | — | — | — | *(131340)* | *(131350)* | *(131350)* | *(131360)* | *(131360)* | *(131370)* | *(131370)* | *(131380)* | *(131380)* | |
| **Input Power HP** | **13.4** | **11.5** | **9.76** | **8.46** | **7.16** | **6.05** | **5.11** | **4.37** | — | — | — | — | — | 4F19DB |
| ***(kW)*** | ***(10.0)*** | ***(8.60)*** | ***(7.28)*** | ***(6.31)*** | ***(5.34)*** | ***(4.51)*** | ***(3.81)*** | ***(3.26)*** | — | — | — | — | — | |
| Output Torque in•lbs | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | — | — | — | — | — | |
| *(N•m)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | — | — | — | — | — | |
| Hollow Shaft OHL lbs | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | — | — | — | — | — | |
| *(N)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | — | — | — | — | — | |
| Solid Shaft OHL lbs | 29530 | 29531 | 29532 | 29533 | 29534 | 29535 | 29536 | 29537 | — | — | — | — | — | |
| *(N)* | *(131340)* | *(131350)* | *(131350)* | *(131360)* | *(131360)* | *(131370)* | *(131370)* | *(131380)* | — | — | — | — | — | |

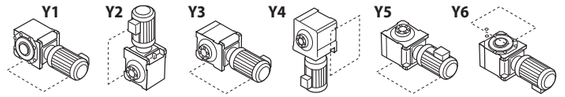
**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 60 Hz, 1750 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



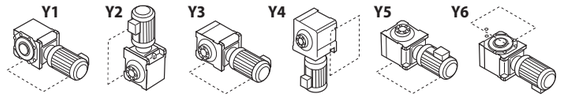

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.59 | 0.50 | 0.40 | 0.34 | 0.27 | 0.24 | 0.20 | 0.16 | 0.14 | 0.11 | 0.10 | 0.08 | 0.07 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ratio** | **2944** | **3511** | **4365** | **5177** | **6472** | **7228** | **8880** | **10658** | **12184** | **15530** | **17966** | **21620** | **26492** | |
| **Input Power HP** | **1.11** | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 4E19DA |
| ***(kW)*** | ***(0.825)*** | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | |
| Output Torque in•lbs | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | |
| *(N)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E19DB |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **1.62** | **1.35** | **1.09** | 1.01 | 1.01 | 1.01 | **0.538** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 4F18DA |
| ***(kW)*** | ***(1.21)*** | ***(1.01)*** | ***(0.816)*** | *(0.750)* | *(0.750)* | *(0.750)* | ***(0.401)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | |
| *(N•m)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | |
| Hollow Shaft OHL lbs | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | |
| *(N)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | |
| Solid Shaft OHL lbs | 29538 | 29539 | 29540 | 29541 | 29542 | 29543 | 29544 | 29545 | 29546 | 29547 | 29548 | 29549 | 29550 | |
| *(N)* | *(131380)* | *(131380)* | *(131390)* | *(131390)* | *(131400)* | *(131400)* | *(131410)* | *(131410)* | *(131420)* | *(131420)* | *(131420)* | *(131430)* | *(131430)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F18DB |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **1.66** | **1.39** | **1.12** | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 4F19DA |
| ***(kW)*** | ***(1.24)*** | ***(1.04)*** | ***(0.835)*** | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | |
| Output Torque in•lbs | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | |
| *(N•m)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | |
| Hollow Shaft OHL lbs | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | |
| *(N)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | |
| Solid Shaft OHL lbs | 29539 | 29540 | 29541 | 29542 | 29543 | 29544 | 29545 | 29546 | 29547 | 29548 | 29549 | 29550 | 29551 | |
| *(N)* | *(131380)* | *(131390)* | *(131390)* | *(131400)* | *(131400)* | *(131410)* | *(131410)* | *(131420)* | *(131420)* | *(131420)* | *(131430)* | *(131430)* | *(131440)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F19DB |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 3.98 | 3.42 | 2.89 | 2.51 | 2.12 | 1.79 | 1.52 | 1.30 | 1.10 | 0.88 | 0.74 | 0.64 | 0.57 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| **Input Power HP** | **0.546** | **0.546** | **0.475** | **0.412** | **0.349** | **0.294** | **0.248** | **0.213** | **0.180** | **0.143** | 0.134 | 0.134 | 0.134 | 4A10DA |
| ***(kW)*** | ***(0.407)*** | ***(0.407)*** | ***(0.354)*** | ***(0.307)*** | ***(0.260)*** | ***(0.219)*** | ***(0.185)*** | ***(0.159)*** | ***(0.134)*** | ***(0.107)*** | *(0.100)* | *(0.100)* | *(0.100)* | |
| Output Torque in•lbs | 7545 | 8785 | 9025 | 9025 | 9025 | 9025 | 9025 | 9025 | 9025 | 9025 | 9025 | 8935 | 9025 | |
| *(N•m)* | *(853)* | *(993)* | *(1020)* | *(1020)* | *(1020)* | *(1020)* | *(1020)* | *(1020)* | *(1020)* | *(1020)* | *(1020)* | *(1010)* | *(1020)* | |
| Hollow Shaft OHL lbs | 4920 | 4405 | 4270 | 4270 | 4270 | 4270 | 4270 | 4270 | 4270 | 4270 | 4270 | 4335 | 4270 | |
| *(N)* | *(21900)* | *(19600)* | *(19000)* | *(19000)* | *(19000)* | *(19000)* | *(19000)* | *(19000)* | *(19000)* | *(19000)* | *(19000)* | *(19300)* | *(19000)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **0.546** | **0.546** | **0.546** | **0.520** | **0.440** | **0.371** | **0.314** | **0.268** | **0.228** | **0.181** | **0.153** | 0.134 | 0.134 | 4A12DA |
| ***(kW)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.388)*** | ***(0.328)*** | ***(0.277)*** | ***(0.234)*** | ***(0.200)*** | ***(0.170)*** | ***(0.135)*** | ***(0.114)*** | *(0.100)* | *(0.100)* | |
| Output Torque in•lbs | 7545 | 8785 | 10350 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(853)* | *(993)* | *(1170)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 4920 | 4405 | 3460 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | |
| *(N)* | *(21900)* | *(19600)* | *(15400)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **0.825** | **0.709** | **0.599** | **0.520** | **0.440** | **0.371** | **0.314** | **0.268** | **0.228** | **0.181** | **0.153** | 0.134 | 0.134 | 4A12DB |
| ***(kW)*** | ***(0.615)*** | ***(0.529)*** | ***(0.447)*** | ***(0.388)*** | ***(0.328)*** | ***(0.277)*** | ***(0.234)*** | ***(0.200)*** | ***(0.170)*** | ***(0.135)*** | ***(0.114)*** | *(0.100)* | *(0.100)* | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | |
| *(N)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **0.546** | **0.546** | **0.546** | **0.520** | **0.440** | **0.371** | **0.314** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4A14DA |
| ***(kW)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.388)*** | ***(0.328)*** | ***(0.277)*** | ***(0.234)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 7545 | 8785 | 10350 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(853)* | *(993)* | *(1170)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 4920 | 4405 | 3460 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | |
| *(N)* | *(21900)* | *(19600)* | *(15400)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **0.825** | **0.709** | **0.599** | **0.520** | **0.440** | **0.371** | **0.314** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4A14DB |
| ***(kW)*** | ***(0.615)*** | ***(0.529)*** | ***(0.447)*** | ***(0.388)*** | ***(0.328)*** | ***(0.277)*** | ***(0.234)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | |
| *(N)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | **0.825** | **0.709** | **0.599** | **0.520** | **0.440** | **0.371** | **0.314** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4A14DC |
| ***(kW)*** | ***(0.615)*** | ***(0.529)*** | ***(0.447)*** | ***(0.388)*** | ***(0.328)*** | ***(0.277)*** | ***(0.234)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | |
| *(N)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |

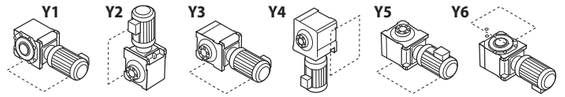
**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 50 Hz, 1450 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



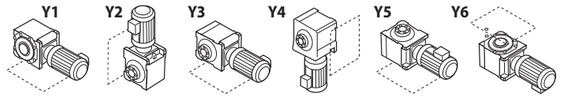

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.49 | 0.41 | 0.33 | 0.28 | 0.22 | 0.20 | 0.16 | 0.14 | 0.12 | 0.09 | 0.08 | 0.07 | 0.05 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| **Input Power HP** | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | — | — | 4A10DA |
| ***(kW)*** | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | — | — | |
| Output Torque in•lbs | 9025 | 8935 | 9025 | 9025 | 9025 | 8935 | 8935 | 9025 | 8935 | 9025 | 9025 | — | — | |
| *(N•m)* | *(1020)* | *(1010)* | *(1020)* | *(1020)* | *(1020)* | *(1010)* | *(1010)* | *(1020)* | *(1010)* | *(1020)* | *(1020)* | — | — | |
| Hollow Shaft OHL lbs | 4270 | 4335 | 4270 | 4270 | 4270 | 4335 | 4335 | 4270 | 4335 | 4270 | 4270 | — | — | |
| *(N)* | *(19000)* | *(19300)* | *(19000)* | *(19000)* | *(19000)* | *(19300)* | *(19300)* | *(19000)* | *(19300)* | *(19000)* | *(19000)* | — | — | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | — | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | — | |
| **Input Power HP** | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | — | — | 4A12DA |
| ***(kW)*** | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | — | | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | — | |
| Hollow Shaft OHL lbs | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | — | — | |
| *(N)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | — | — | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | — | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | — | |
| **Input Power HP** | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 4A12DB |
| ***(kW)*** | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | |
| *(N)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | — | — | 4A14DA |
| ***(kW)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | — | — | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | — | — | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | — | — | |
| Hollow Shaft OHL lbs | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | — | — | |
| *(N)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | — | — | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | — | — | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | — | — | |
| **Input Power HP** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4A14DB |
| ***(kW)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | |
| *(N)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |
| **Input Power HP** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4A14DC |
| ***(kW)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | 11415 | |
| *(N•m)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | *(1290)* | |
| Hollow Shaft OHL lbs | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | 2585 | |
| *(N)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | *(11500)* | |
| Solid Shaft OHL lbs | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | 4540 | |
| *(N)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | *(20190)* | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 3.98 | 3.42 | 2.89 | 2.51 | 2.12 | 1.79 | 1.52 | 1.30 | 1.10 | 0.88 | 0.74 | 0.64 | 0.57 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| **Input Power HP** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.522** | **0.447** | **0.378** | **0.302** | **0.255** | **0.220** | **0.194** | 4B12DA |
| ***(kW)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.389)*** | ***(0.333)*** | ***(0.282)*** | ***(0.225)*** | ***(0.190)*** | ***(0.164)*** | ***(0.145)*** | |
| Output Torque in•lbs | 7545 | 8785 | 10350 | 11945 | 14155 | 16810 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | |
| *(N•m)* | *(853)* | *(993)* | *(1170)* | *(1350)* | *(1600)* | *(1900)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | |
| Hollow Shaft OHL lbs | 9620 | 9460 | 9215 | 8945 | 8450 | 7730 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | |
| *(N)* | *(42800)* | *(42100)* | *(41000)* | *(39800)* | *(37600)* | *(34400)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **1.37** | **1.16** | **1.00** | **0.860** | **0.731** | **0.617** | **0.522** | **0.447** | **0.378** | **0.302** | **0.255** | **0.220** | **0.194** | 4B12DB |
| ***(kW)*** | ***(1.02)*** | ***(0.867)*** | ***(0.743)*** | ***(0.644)*** | ***(0.545)*** | ***(0.460)*** | ***(0.389)*** | ***(0.333)*** | ***(0.282)*** | ***(0.225)*** | ***(0.190)*** | ***(0.164)*** | ***(0.145)*** | |
| Output Torque in•lbs | 18935 | 18760 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | |
| *(N•m)* | *(2140)* | *(2120)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | |
| Hollow Shaft OHL lbs | 6945 | 7035 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | |
| *(N)* | *(30900)* | *(31300)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.546** | **0.535** | **0.453** | **0.361** | **0.306** | 0.268 | 0.268 | 4B14DA |
| ***(kW)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.407)*** | ***(0.399)*** | ***(0.338)*** | ***(0.269)*** | ***(0.228)*** | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 7545 | 8785 | 10350 | 11945 | 14155 | 16810 | 19820 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(853)* | *(993)* | *(1170)* | *(1350)* | *(1600)* | *(1900)* | *(2240)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 9620 | 9460 | 9215 | 8945 | 8450 | 7730 | 6585 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(42800)* | *(42100)* | *(41000)* | *(39800)* | *(37600)* | *(34400)* | *(29300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **1.65** | **1.41** | **1.19** | **1.04** | **0.880** | **0.740** | **0.626** | **0.535** | **0.453** | **0.361** | **0.306** | 0.268 | 0.268 | 4B14DB |
| ***(kW)*** | ***(1.23)*** | ***(1.05)*** | ***(0.891)*** | ***(0.772)*** | ***(0.653)*** | ***(0.552)*** | ***(0.467)*** | ***(0.399)*** | ***(0.338)*** | ***(0.269)*** | ***(0.228)*** | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **1.65** | **1.41** | **1.19** | **1.04** | **0.880** | **0.740** | **0.626** | **0.535** | **0.453** | **0.361** | **0.306** | 0.268 | 0.268 | 4B14DC |
| ***(kW)*** | ***(1.23)*** | ***(1.05)*** | ***(0.891)*** | ***(0.772)*** | ***(0.653)*** | ***(0.552)*** | ***(0.467)*** | ***(0.399)*** | ***(0.338)*** | ***(0.269)*** | ***(0.228)*** | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | **1.65** | **1.41** | **1.19** | **1.04** | **0.880** | **0.740** | **0.626** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 4B16DA |
| ***(kW)*** | ***(1.23)*** | ***(1.05)*** | ***(0.891)*** | ***(0.772)*** | ***(0.653)*** | ***(0.552)*** | ***(0.467)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |

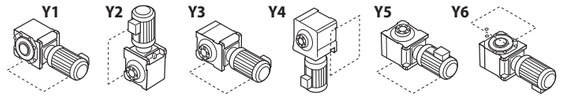
**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 50 Hz, 1450 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



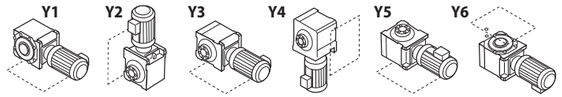

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.49 | 0.41 | 0.33 | 0.28 | 0.22 | 0.20 | 0.16 | 0.14 | 0.12 | 0.09 | 0.08 | 0.07 | 0.05 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| **Input Power HP** | **0.169** | **0.142** | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | — | — | 4B12DA |
| ***(kW)*** | ***(0.126)*** | ***(0.106)*** | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | — | — | |
| Output Torque in•lbs | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | — | — | |
| *(N•m)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | — | — | |
| Hollow Shaft OHL lbs | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | — | — | |
| *(N)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | — | — | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | — | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | — | |
| **Input Power HP** | **0.169** | **0.142** | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 0.134 | 4B12DB |
| ***(kW)*** | ***(0.126)*** | ***(0.106)*** | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | *(0.100)* | |
| Output Torque in•lbs | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | 18935 | |
| *(N•m)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | *(2140)* | |
| Hollow Shaft OHL lbs | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | 6945 | |
| *(N)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | *(30900)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | — | — | 4B14DA |
| ***(kW)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | — | — | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | — | — | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | — | — | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | — | — | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | — | — | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | — | — | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | — | — | |
| **Input Power HP** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4B14DB |
| ***(kW)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4B14DC |
| ***(kW)*** | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4B16DA |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| *(N•m)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | *(2570)* | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| *(N)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | *(22300)* | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| *(N)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | *(31660)* | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 3.98 | 3.42 | 2.89 | 2.51 | 2.12 | 1.79 | 1.52 | 1.30 | 1.10 | 0.88 | 0.74 | 0.64 | 0.57 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| Input Power HP | 1.65 | 1.41 | 1.19 | 1.04 | 0.880 | 0.740 | 0.626 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 4B16DB |
| (kW) | (1.23) | (1.05) | (0.891) | (0.772) | (0.653) | (0.552) | (0.467) | (0.400) | (0.400) | (0.400) | (0.400) | (0.400) | (0.400) | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| (N•m) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| (N) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| (N) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | |
| Input Power HP | 1.65 | 1.41 | 1.19 | 1.04 | 0.880 | 0.740 | 0.626 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 4B16DC |
| (kW) | (1.23) | (1.05) | (0.891) | (0.772) | (0.653) | (0.552) | (0.467) | (0.400) | (0.400) | (0.400) | (0.400) | (0.400) | (0.400) | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| (N•m) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| (N) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| (N) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | |
| Input Power HP | 0.546 | 0.546 | 0.546 | 0.546 | 0.546 | 0.546 | 0.546 | 0.546 | 0.546 | 0.546 | 0.546 | 0.477 | 0.424 | 4C14DA |
| (kW) | (0.407) | (0.407) | (0.407) | (0.407) | (0.407) | (0.407) | (0.407) | (0.407) | (0.407) | (0.407) | (0.407) | (0.356) | (0.316) | |
| Output Torque in•lbs | 7545 | 8785 | 10350 | 11945 | 14155 | 16810 | 19820 | 23185 | 27345 | 34335 | 40615 | 41235 | 41235 | |
| (N•m) | (853) | (993) | (1170) | (1350) | (1600) | (1900) | (2240) | (2620) | (3090) | (3880) | (4590) | (4660) | (4660) | |
| Hollow Shaft OHL lbs | 15980 | 15915 | 15825 | 15735 | 15555 | 15305 | 14970 | 14520 | 13845 | 12315 | 10430 | 10180 | 10180 | |
| (N) | (71100) | (70800) | (70400) | (70000) | (69200) | (68100) | (66600) | (64600) | (61600) | (54800) | (46400) | (45300) | (45300) | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| (N) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | |
| Input Power HP | 2.04 | 2.04 | 2.04 | 1.86 | 1.57 | 1.31 | 1.11 | 0.970 | 0.822 | 0.656 | 0.554 | 0.477 | 0.424 | 4C14DB |
| (kW) | (1.52) | (1.52) | (1.52) | (1.39) | (1.17) | (0.977) | (0.827) | (0.725) | (0.613) | (0.489) | (0.413) | (0.356) | (0.316) | |
| Output Torque in•lbs | 28230 | 32830 | 38670 | 40885 | 40885 | 40265 | 40265 | 41235 | 41235 | 41235 | 41235 | 41235 | 41235 | |
| (N•m) | (3190) | (3710) | (4370) | (4620) | (4620) | (4550) | (4550) | (4660) | (4660) | (4660) | (4660) | (4660) | (4660) | |
| Hollow Shaft OHL lbs | 13690 | 12720 | 11080 | 10315 | 10315 | 10540 | 10540 | 10180 | 10180 | 10180 | 10180 | 10180 | 10180 | |
| (N) | (60900) | (56600) | (49300) | (45900) | (45900) | (46900) | (46900) | (45300) | (45300) | (45300) | (45300) | (45300) | (45300) | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| (N) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | |
| Input Power HP | 2.98 | 2.41 | 2.17 | 1.86 | 1.57 | 1.31 | 1.11 | 0.970 | 0.822 | 0.656 | 0.554 | 0.477 | 0.424 | 4C14DC |
| (kW) | (2.22) | (1.80) | (1.62) | (1.39) | (1.17) | (0.977) | (0.827) | (0.725) | (0.613) | (0.489) | (0.413) | (0.356) | (0.316) | |
| Output Torque in•lbs | 41235 | 38935 | 41235 | 40885 | 40885 | 40265 | 40265 | 41235 | 41235 | 41235 | 41235 | 41235 | 41235 | |
| (N•m) | (4660) | (4400) | (4660) | (4620) | (4620) | (4550) | (4550) | (4660) | (4660) | (4660) | (4660) | (4660) | (4660) | |
| Hollow Shaft OHL lbs | 10180 | 11015 | 10180 | 10315 | 10315 | 10540 | 10540 | 10180 | 10180 | 10180 | 10180 | 10180 | 10180 | |
| (N) | (45300) | (49000) | (45300) | (45900) | (45900) | (46900) | (46900) | (45300) | (45300) | (45300) | (45300) | (45300) | (45300) | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| (N) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | |
| Input Power HP | 2.04 | 2.04 | 2.04 | 2.04 | 1.76 | 1.48 | 1.25 | 1.07 | 0.910 | 0.723 | 0.612 | 0.536 | 0.536 | 4C16DA |
| (kW) | (1.52) | (1.52) | (1.52) | (1.52) | (1.31) | (1.10) | (0.933) | (0.799) | (0.676) | (0.539) | (0.456) | (0.400) | (0.400) | |
| Output Torque in•lbs | 28230 | 32830 | 38670 | 44775 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| (N•m) | (3190) | (3710) | (4370) | (5060) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | |
| Hollow Shaft OHL lbs | 13690 | 12720 | 11080 | 8790 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| (N) | (60900) | (56600) | (49300) | (39100) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| (N) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | |

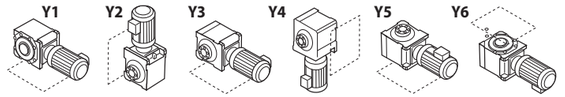
**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 50 Hz, 1450 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



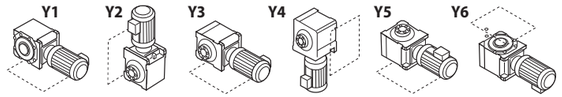

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.49 | 0.41 | 0.33 | 0.28 | 0.22 | 0.20 | 0.16 | 0.14 | 0.12 | 0.09 | 0.08 | 0.07 | 0.05 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| Input Power HP | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4B16DB |
| (kW) | (0.400) | (0.400) | (0.400) | (0.400) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| (N•m) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| (N) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| (N) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | |
| Input Power HP | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4B16DC |
| (kW) | (0.400) | (0.400) | (0.400) | (0.400) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | |
| Output Torque in•lbs | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | 22740 | |
| (N•m) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | (2570) | |
| Hollow Shaft OHL lbs | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | 5010 | |
| (N) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | (22300) | |
| Solid Shaft OHL lbs | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | 7120 | |
| (N) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | (31660) | |
| Input Power HP | 0.369 | 0.308 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | — | — | 4C14DA |
| (kW) | (0.275) | (0.230) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | — | — | |
| Output Torque in•lbs | 41235 | 41235 | 41235 | 37610 | 41235 | 41235 | 41235 | 37610 | 41235 | 37610 | 37610 | — | — | |
| (N•m) | (4660) | (4660) | (4660) | (4250) | (4660) | (4660) | (4660) | (4250) | (4660) | (4250) | (4250) | — | — | |
| Hollow Shaft OHL lbs | 10180 | 10180 | 10180 | 11420 | 10180 | 10180 | 10180 | 11420 | 10180 | 11420 | 11420 | — | — | |
| (N) | (45300) | (45300) | (45300) | (50800) | (45300) | (45300) | (45300) | (50800) | (45300) | (50800) | (50800) | — | — | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | — | — | |
| (N) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | — | — | |
| Input Power HP | 0.369 | 0.308 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C14DB |
| (kW) | (0.275) | (0.230) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | |
| Output Torque in•lbs | 41235 | 41235 | 41235 | 37610 | 41235 | 41235 | 41235 | 37610 | 41235 | 37610 | 37610 | 37610 | 37610 | |
| (N•m) | (4660) | (4660) | (4660) | (4250) | (4660) | (4660) | (4660) | (4250) | (4660) | (4250) | (4250) | (4250) | (4250) | |
| Hollow Shaft OHL lbs | 10180 | 10180 | 10180 | 11420 | 10180 | 10180 | 10180 | 11420 | 10180 | 11420 | 11420 | 11420 | 11420 | |
| (N) | (45300) | (45300) | (45300) | (50800) | (45300) | (45300) | (45300) | (50800) | (45300) | (50800) | (50800) | (50800) | (50800) | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| (N) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | |
| Input Power HP | 0.369 | 0.308 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C14DC |
| (kW) | (0.275) | (0.23) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | |
| Output Torque in•lbs | 41235 | 41235 | 41235 | 37610 | 41235 | 41235 | 41235 | 37610 | 41235 | 37610 | 37610 | 37610 | 37610 | |
| (N•m) | (4660) | (4660) | (4660) | (4250) | (4660) | (4660) | (4660) | (4250) | (4660) | (4250) | (4250) | (4250) | (4250) | |
| Hollow Shaft OHL lbs | 10180 | 10180 | 10180 | 11420 | 10180 | 10180 | 10180 | 11420 | 10180 | 11420 | 11420 | 11420 | 11420 | |
| (N) | (45300) | (45300) | (45300) | (50800) | (45300) | (45300) | (45300) | (50800) | (45300) | (50800) | (50800) | (50800) | (50800) | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| (N) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | |
| Input Power HP | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C16DA |
| (kW) | (0.400) | (0.400) | (0.400) | (0.400) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | (0.200) | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| (N•m) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | (5140) | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| (N) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | (37200) | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| (N) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | (55820) | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



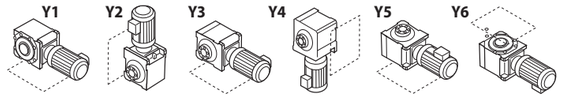

Dimensions on pages 2.168 - 2.177

| Output RPM | 3.98 | 3.42 | 2.89 | 2.51 | 2.12 | 1.79 | 1.52 | 1.30 | 1.10 | 0.88 | 0.74 | 0.64 | 0.57 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| **Input Power HP** | **3.29** | **2.83** | **2.39** | **2.07** | **1.76** | **1.48** | **1.25** | **1.07** | **0.910** | **0.723** | **0.612** | 0.536 | 0.536 | 4C16DB |
| ***(kW)*** | ***(2.45)*** | ***(2.11)*** | ***(1.78)*** | ***(1.54)*** | ***(1.31)*** | ***(1.10)*** | ***(0.933)*** | ***(0.799)*** | ***(0.676)*** | ***(0.539)*** | ***(0.456)*** | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **3.29** | **2.83** | **2.39** | **2.07** | **1.76** | **1.48** | **1.25** | **1.07** | **0.910** | **0.723** | **0.612** | 0.536 | 0.536 | 4C16DC |
| ***(kW)*** | ***(2.45)*** | ***(2.11)*** | ***(1.78)*** | ***(1.54)*** | ***(1.31)*** | ***(1.10)*** | ***(0.933)*** | ***(0.799)*** | ***(0.676)*** | ***(0.539)*** | ***(0.456)*** | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **2.04** | **2.04** | **2.04** | **2.04** | **1.76** | **1.48** | **1.25** | **1.07** | **0.910** | **0.723** | **0.612** | 0.536 | 0.536 | 4C17DA |
| ***(kW)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.31)*** | ***(1.10)*** | ***(0.933)*** | ***(0.799)*** | ***(0.676)*** | ***(0.539)*** | ***(0.456)*** | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 28230 | 32830 | 38670 | 44775 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(3190)* | *(3710)* | *(4370)* | *(5060)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 13690 | 12720 | 11080 | 8790 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(60900)* | *(56600)* | *(49300)* | *(39100)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **3.29** | **2.83** | **2.39** | **2.07** | **1.76** | **1.48** | **1.25** | **1.07** | **0.910** | **0.723** | **0.612** | 0.536 | 0.536 | 4C17DB |
| ***(kW)*** | ***(2.45)*** | ***(2.11)*** | ***(1.78)*** | ***(1.54)*** | ***(1.31)*** | ***(1.10)*** | ***(0.933)*** | ***(0.799)*** | ***(0.676)*** | ***(0.539)*** | ***(0.456)*** | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **3.29** | **2.83** | **2.39** | **2.07** | **1.76** | **1.48** | **1.25** | **1.07** | **0.910** | **0.723** | **0.612** | 0.536 | 0.536 | 4C17DC |
| ***(kW)*** | ***(2.45)*** | ***(2.11)*** | ***(1.78)*** | ***(1.54)*** | ***(1.31)*** | ***(1.10)*** | ***(0.933)*** | ***(0.799)*** | ***(0.676)*** | ***(0.539)*** | ***(0.456)*** | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **1.74** | **1.49** | **1.26** | **1.00** | **0.850** | **0.732** | **0.650** | 4D16DA |
| ***(kW)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.30)*** | ***(1.11)*** | ***(0.940)*** | ***(0.749)*** | ***(0.634)*** | ***(0.546)*** | ***(0.485)*** | |
| Output Torque in•lbs | 28230 | 32830 | 38670 | 44775 | 52740 | 62475 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | |
| *(N•m)* | *(3190)* | *(3710)* | *(4370)* | *(5060)* | *(5960)* | *(7060)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | |
| Hollow Shaft OHL lbs | 20880 | 20435 | 19715 | 18860 | 17400 | 15080 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | |
| *(N)* | *(92900)* | *(90900)* | *(87700)* | *(83900)* | *(77400)* | *(67100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.








## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions

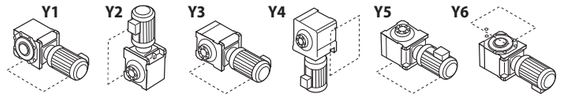
Dimensions on pages 2.168 - 2.177

| Output RPM | 0.49 | 0.41 | 0.33 | 0.28 | 0.22 | 0.20 | 0.16 | 0.14 | 0.12 | 0.09 | 0.08 | 0.07 | 0.05 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C16DB |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C16DC |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C17DA |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C17DB |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4C17DC |
| ***(kW)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | 45485 | |
| *(N•m)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | *(5140)* | |
| Hollow Shaft OHL lbs | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | 8360 | |
| *(N)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | *(37200)* | |
| Solid Shaft OHL lbs | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | 12550 | |
| *(N)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | *(55820)* | |
| **Input Power HP** | **0.565** | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D16DA |
| ***(kW)*** | ***(0.421)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 63270 | 63270 | 63270 | 61770 | 63270 | 63270 | 63270 | 61770 | 63270 | 61770 | 61770 | 61770 | 61770 | |
| *(N•m)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(6980)* | *(6980)* | *(6980)* | *(6980)* | |
| Hollow Shaft OHL lbs | 14855 | 14855 | 14855 | 15260 | 14855 | 14855 | 14855 | 15260 | 14855 | 15260 | 15260 | 15260 | 15260 | |
| *(N)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(67900)* | *(67900)* | *(67900)* | *(67900)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 3.98 | 3.42 | 2.89 | 2.51 | 2.12 | 1.79 | 1.52 | 1.30 | 1.10 | 0.88 | 0.74 | 0.64 | 0.57 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| **Input Power HP** | **4.26** | **3.93** | **3.33** | **2.88** | **2.44** | **2.05** | **1.74** | **1.49** | **1.26** | **1.00** | **0.850** | **0.732** | **0.650** | 4D16DB |
| ***(kW)*** | ***(3.18)*** | ***(2.93)*** | ***(2.48)*** | ***(2.15)*** | ***(1.82)*** | ***(1.53)*** | ***(1.30)*** | ***(1.11)*** | ***(0.940)*** | ***(0.749)*** | ***(0.634)*** | ***(0.546)*** | ***(0.485)*** | |
| Output Torque in•lbs | 59025 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | |
| *(N•m)* | *(6670)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | |
| Hollow Shaft OHL lbs | 15980 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | |
| *(N)* | *(71100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **4.57** | **3.93** | **3.33** | **2.88** | **2.44** | **2.05** | **1.74** | **1.49** | **1.26** | **1.00** | **0.850** | **0.732** | **0.650** | 4D16DC |
| ***(kW)*** | ***(3.41)*** | ***(2.93)*** | ***(2.48)*** | ***(2.15)*** | ***(1.82)*** | ***(1.53)*** | ***(1.30)*** | ***(1.11)*** | ***(0.940)*** | ***(0.749)*** | ***(0.634)*** | ***(0.546)*** | ***(0.485)*** | |
| Output Torque in•lbs | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | 63270 | |
| *(N•m)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | *(7150)* | |
| Hollow Shaft OHL lbs | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | 14855 | |
| *(N)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | *(66100)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **1.82** | **1.54** | **1.23** | **1.04** | **0.890** | **0.793** | 4D17DA |
| ***(kW)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.36)*** | ***(1.15)*** | ***(0.914)*** | ***(0.773)*** | ***(0.666)*** | ***(0.591)*** | |
| Output Torque in•lbs | 28230 | 32830 | 38670 | 44775 | 52740 | 62475 | 73805 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(3190)* | *(3710)* | *(4370)* | *(5060)* | *(5960)* | *(7060)* | *(8340)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 20880 | 20435 | 19715 | 18860 | 17400 | 15080 | 11125 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(92900)* | *(90900)* | *(87700)* | *(83900)* | *(77400)* | *(67100)* | *(49500)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **4.26** | **4.26** | **4.05** | **3.51** | **2.98** | **2.51** | **2.12** | **1.82** | **1.54** | **1.23** | **1.04** | **0.890** | **0.793** | 4D17DB |
| ***(kW)*** | ***(3.18)*** | ***(3.18)*** | ***(3.02)*** | ***(2.62)*** | ***(2.22)*** | ***(1.87)*** | ***(1.58)*** | ***(1.36)*** | ***(1.15)*** | ***(0.914)*** | ***(0.773)*** | ***(0.666)*** | ***(0.591)*** | |
| Output Torque in•lbs | 59025 | 68670 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(6670)* | *(7760)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 15980 | 13150 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(71100)* | *(58500)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **5.58** | **4.79** | **4.05** | **3.51** | **2.98** | **2.51** | **2.12** | **1.82** | **1.54** | **1.23** | **1.04** | **0.890** | **0.793** | 4D17DC |
| ***(kW)*** | ***(4.16)*** | ***(3.57)*** | ***(3.02)*** | ***(2.62)*** | ***(2.22)*** | ***(1.87)*** | ***(1.58)*** | ***(1.36)*** | ***(1.15)*** | ***(0.914)*** | ***(0.773)*** | ***(0.666)*** | ***(0.591)*** | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **—** | **—** | **—** | **—** | **—** | **2.51** | **2.12** | **1.82** | **1.54** | **1.23** | **1.04** | **1.01** | **1.01** | 4D18DA |
| ***(kW)*** | **—** | **—** | **—** | **—** | **—** | ***(1.87)*** | ***(1.58)*** | ***(1.36)*** | ***(1.15)*** | ***(0.914)*** | ***(0.773)*** | ***(0.750)*** | ***(0.750)*** | |
| Output Torque in•lbs | — | — | — | — | — | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | — | — | — | — | — | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | — | — | — | — | — | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | — | — | — | — | — | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |

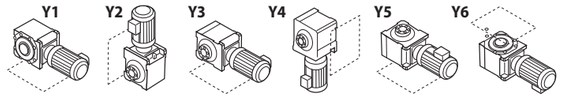
**Note:** The motor Input Powers listed in **GRAY** are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 50 Hz, 1450 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



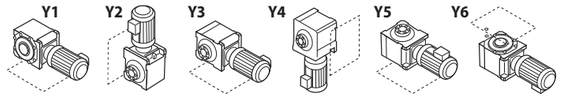

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.49 | 0.41 | 0.33 | 0.28 | 0.22 | 0.20 | 0.16 | 0.14 | 0.12 | 0.09 | 0.08 | 0.07 | 0.05 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| **Input Power HP** | **0.565** | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D16DB |
| ***(kW)*** | ***(0.421)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 63270 | 63270 | 63270 | 61770 | 63270 | 63270 | 63270 | 61770 | 63270 | 61770 | 61770 | 61770 | 61770 | |
| *(N•m)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(6980)* | *(6980)* | *(6980)* | *(6980)* | |
| Hollow Shaft OHL lbs | 14855 | 14855 | 14855 | 15260 | 14855 | 14855 | 14855 | 15260 | 14855 | 15260 | 15260 | 15260 | 15260 | |
| *(N)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(67900)* | *(67900)* | *(67900)* | *(67900)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **0.565** | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D16DC |
| ***(kW)*** | ***(0.421)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 63270 | 63270 | 63270 | 61770 | 63270 | 63270 | 63270 | 61770 | 63270 | 61770 | 61770 | 61770 | 61770 | |
| *(N•m)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(7150)* | *(7150)* | *(6980)* | *(7150)* | *(6980)* | *(6980)* | *(6980)* | *(6980)* | |
| Hollow Shaft OHL lbs | 14855 | 14855 | 14855 | 15260 | 14855 | 14855 | 14855 | 15260 | 14855 | 15260 | 15260 | 15260 | 15260 | |
| *(N)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(66100)* | *(66100)* | *(67900)* | *(66100)* | *(67900)* | *(67900)* | *(67900)* | *(67900)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **0.689** | **0.578** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D17DA |
| ***(kW)*** | ***(0.514)*** | ***(0.431)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **0.689** | **0.578** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4D17DB |
| ***(kW)*** | ***(0.514)*** | ***(0.431)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |
| **Input Power HP** | **1.01** | **1.01** | **1.01** | **1.01** | **1.01** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 4D17DC |
| ***(kW)*** | ***(0.750)*** | ***(0.750)*** | ***(0.750)*** | ***(0.750)*** | ***(0.750)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | |

**Note:** The motor Input Powers listed in **GRAY** are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 3.98 | 3.42 | 2.89 | 2.51 | 2.12 | 1.79 | 1.52 | 1.30 | 1.10 | 0.88 | 0.74 | 0.64 | 0.57 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| **Input Power HP** | **5.58** | **4.79** | **4.05** | **3.51** | **2.98** | **2.51** | **2.12** | **1.82** | **1.54** | — | — | — | — | 4D18DB |
| ***(kW)*** | ***(4.16)*** | ***(3.57)*** | ***(3.02)*** | ***(2.62)*** | ***(2.22)*** | ***(1.87)*** | ***(1.58)*** | ***(1.36)*** | ***(1.15)*** | — | — | — | — | |
| Output Torque in•lbs | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | 77165 | — | — | — | — | |
| *(N•m)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | *(8720)* | — | — | — | — | |
| Hollow Shaft OHL lbs | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | 9485 | — | — | — | — | |
| *(N)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | *(42200)* | — | — | — | — | |
| Solid Shaft OHL lbs | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | 16580 | — | — | — | — | |
| *(N)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | *(73740)* | — | — | — | — | |
| **Input Power HP** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **2.04** | **1.89** | **1.50** | **1.27** | **1.10** | **0.970** | 4E17DA |
| ***(kW)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.52)*** | ***(1.41)*** | ***(1.12)*** | ***(0.949)*** | ***(0.817)*** | ***(0.726)*** | |
| Output Torque in•lbs | 28230 | 32830 | 38670 | 44775 | 52740 | 62475 | 73805 | 86545 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(3190)* | *(3710)* | *(4370)* | *(5060)* | *(5960)* | *(7060)* | *(8340)* | *(9780)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 22365 | 22140 | 21850 | 21535 | 21130 | 20635 | 20050 | 19420 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(99500)* | *(98500)* | *(97200)* | *(95800)* | *(94000)* | *(91800)* | *(89200)* | *(86400)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **4.26** | **4.26** | **4.26** | **4.26** | **3.65** | **3.08** | **2.60** | **2.23** | **1.89** | **1.50** | **1.27** | **1.10** | **0.970** | 4E17DB |
| ***(kW)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(3.18)*** | ***(2.72)*** | ***(2.30)*** | ***(1.94)*** | ***(1.66)*** | ***(1.41)*** | ***(1.12)*** | ***(0.949)*** | ***(0.817)*** | ***(0.726)*** | |
| Output Torque in•lbs | 59025 | 68670 | 81150 | 93805 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(6670)* | *(7760)* | *(9170)* | *(10600)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 20815 | 20320 | 19690 | 19060 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(92600)* | *(90400)* | *(87600)* | *(84800)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **6.84** | **5.87** | **4.98** | **4.32** | **3.65** | **3.08** | **2.60** | **2.23** | **1.89** | **1.50** | **1.27** | **1.10** | **0.970** | 4E17DC |
| ***(kW)*** | ***(5.10)*** | ***(4.38)*** | ***(3.71)*** | ***(3.22)*** | ***(2.72)*** | ***(2.30)*** | ***(1.94)*** | ***(1.66)*** | ***(1.41)*** | ***(1.12)*** | ***(0.949)*** | ***(0.817)*** | ***(0.726)*** | |
| Output Torque in•lbs | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | **3.34** | **2.83** | **2.41** | **2.05** | **1.64** | **1.38** | **1.19** | **1.06** | 4E18DA |
| ***(kW)*** | — | — | — | — | — | ***(2.49)*** | ***(2.11)*** | ***(1.80)*** | ***(1.53)*** | ***(1.22)*** | ***(1.03)*** | ***(0.886)*** | ***(0.787)*** | |
| Output Torque in•lbs | — | — | — | — | — | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | |
| *(N•m)* | — | — | — | — | — | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | |
| *(N)* | — | — | — | — | — | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | — | — | — | — | — | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **7.42** | **6.37** | **5.39** | **4.68** | **3.96** | **3.34** | **2.83** | **2.41** | **2.05** | — | — | — | — | 4E18DB |
| ***(kW)*** | ***(5.53)*** | ***(4.75)*** | ***(4.02)*** | ***(3.49)*** | ***(2.95)*** | ***(2.49)*** | ***(2.11)*** | ***(1.80)*** | ***(1.53)*** | — | — | — | — | |
| Output Torque in•lbs | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | — | — | — | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | — | — | — | |
| Hollow Shaft OHL lbs | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | — | — | — | — | |
| *(N)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | — | — | — | — | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | — | — | — | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | — | — | — | |

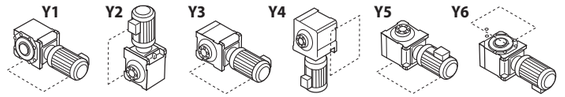
**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 50 Hz, 1450 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



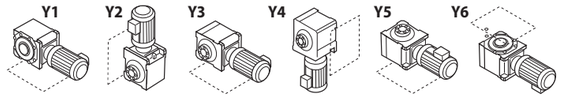

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.49 | 0.41 | 0.33 | 0.28 | 0.22 | 0.20 | 0.16 | 0.14 | 0.12 | 0.09 | 0.08 | 0.07 | 0.05 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4D18DB |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **0.850** | **0.709** | **0.570** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4E17DA |
| ***(kW)*** | ***(0.631)*** | ***(0.529)*** | ***(0.425)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **0.850** | **0.709** | **0.570** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4E17DB |
| ***(kW)*** | ***(0.631)*** | ***(0.529)*** | ***(0.425)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **0.850** | **0.709** | **0.570** | 0.536 | 0.536 | 0.536 | 0.536 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 0.268 | 4E17DC |
| ***(kW)*** | ***(0.631)*** | ***(0.529)*** | ***(0.425)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | *(0.200)* | |
| Output Torque in•lbs | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | 94690 | |
| *(N•m)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | *(10700)* | |
| Hollow Shaft OHL lbs | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | 18995 | |
| *(N)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | *(84500)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 0.540 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 4E18DA |
| ***(kW)*** | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | |
| *(N)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E18DB |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Frame Size Selection Tables 50 Hz, 1450 RPM

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions




Dimensions on pages 2.168 - 2.177

| Output RPM | 3.98 | 3.42 | 2.89 | 2.51 | 2.12 | 1.79 | 1.52 | 1.30 | 1.10 | 0.88 | 0.74 | 0.64 | 0.57 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | |
| **Input Power HP** | — | — | — | — | **3.96** | **3.34** | **2.83** | **2.41** | **2.05** | **1.64** | **1.38** | **1.19** | **1.06** | 4E19DA |
| ***(kW)*** | — | — | — | — | ***(2.95)*** | ***(2.49)*** | ***(2.11)*** | ***(1.80)*** | ***(1.53)*** | ***(1.22)*** | ***(1.03)*** | ***(0.886)*** | ***(0.787)*** | |
| Output Torque in•lbs | — | — | — | — | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | |
| *(N•m)* | — | — | — | — | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | — | — | — | — | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | |
| *(N)* | — | — | — | — | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | |
| Solid Shaft OHL lbs | — | — | — | — | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | — | — | — | — | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | **7.42** | **6.37** | **5.39** | **4.68** | **3.96** | **3.34** | **2.83** | — | — | — | — | — | — | 4E19DB |
| ***(kW)*** | ***(5.53)*** | ***(4.75)*** | ***(4.02)*** | ***(3.49)*** | ***(2.95)*** | ***(2.49)*** | ***(2.11)*** | — | — | — | — | — | — | |
| Output Torque in•lbs | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | — | — | — | — | — | — | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | — | — | — | — | — | — | |
| *(N)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | — | — | — | — | — | — | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | — | — | — | — | — | — | |
| **Input Power HP** | — | — | — | — | — | **4.26** | **4.14** | **3.54** | **3.00** | **2.39** | **2.02** | **1.74** | **1.54** | 4F18DA |
| ***(kW)*** | — | — | — | — | — | ***(3.18)*** | ***(3.09)*** | ***(2.64)*** | ***(2.24)*** | ***(1.78)*** | ***(1.51)*** | ***(1.30)*** | ***(1.15)*** | |
| Output Torque in•lbs | — | — | — | — | — | 130970 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | |
| *(N•m)* | — | — | — | — | — | *(14800)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | |
| Hollow Shaft OHL lbs | — | — | — | — | — | 32145 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | |
| *(N)* | — | — | — | — | — | *(143000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | |
| Solid Shaft OHL lbs | — | — | — | — | — | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | |
| *(N)* | — | — | — | — | — | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | |
| **Input Power HP** | **10.7** | **8.98** | **7.75** | **6.75** | **5.71** | **4.89** | **4.14** | **3.54** | **3.00** | — | — | — | — | 4F18DB |
| ***(kW)*** | ***(7.95)*** | ***(6.70)*** | ***(5.78)*** | ***(5.03)*** | ***(4.26)*** | ***(3.65)*** | ***(3.09)*** | ***(2.64)*** | ***(2.24)*** | — | — | — | — | |
| Output Torque in•lbs | 147785 | 145130 | 147785 | 147785 | 147785 | 150440 | 150440 | 150440 | 150440 | — | — | — | — | |
| *(N•m)* | *(16700)* | *(16400)* | *(16700)* | *(16700)* | *(16700)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | — | — | — | — | |
| Hollow Shaft OHL lbs | 31245 | 31695 | 31245 | 31020 | 31020 | 30570 | 30570 | 30570 | 30570 | — | — | — | — | |
| *(N)* | *(139000)* | *(141000)* | *(139000)* | *(138000)* | *(138000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | — | — | — | — | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | — | — | — | — | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | — | — | — | |
| **Input Power HP** | — | — | — | — | **5.93** | **5.00** | **4.24** | **3.62** | **3.07** | **2.44** | **2.07** | **1.78** | **1.58** | 4F19DA |
| ***(kW)*** | — | — | — | — | ***(4.42)*** | ***(3.73)*** | ***(3.16)*** | ***(2.70)*** | ***(2.29)*** | ***(1.82)*** | ***(1.54)*** | ***(1.33)*** | ***(1.18)*** | |
| Output Torque in•lbs | — | — | — | — | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | |
| *(N•m)* | — | — | — | — | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | |
| Hollow Shaft OHL lbs | — | — | — | — | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | |
| *(N)* | — | — | — | — | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | |
| Solid Shaft OHL lbs | — | — | — | — | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | |
| *(N)* | — | — | — | — | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | |
| **Input Power HP** | **11.1** | **9.56** | **8.09** | **7.01** | **5.93** | **5.00** | **4.24** | — | — | — | — | — | — | 4F19DB |
| ***(kW)*** | ***(8.29)*** | ***(7.13)*** | ***(6.03)*** | ***(5.23)*** | ***(4.42)*** | ***(3.73)*** | ***(3.16)*** | — | — | — | — | — | — | |
| Output Torque in•lbs | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | — | — | — | — | — | — | |
| *(N•m)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | — | — | — | — | — | — | |
| *(N)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | — | — | — | — | — | — | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | — | — | — | — | — | — | |

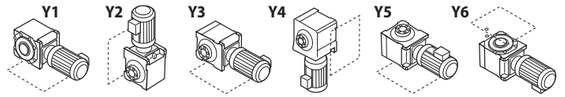
**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.





# 50 Hz, 1450 RPM Frame Size Selection Tables

## Double Reduction
## Y1, Y2, Y3, Y4, Y5, Y6 Mounting Positions



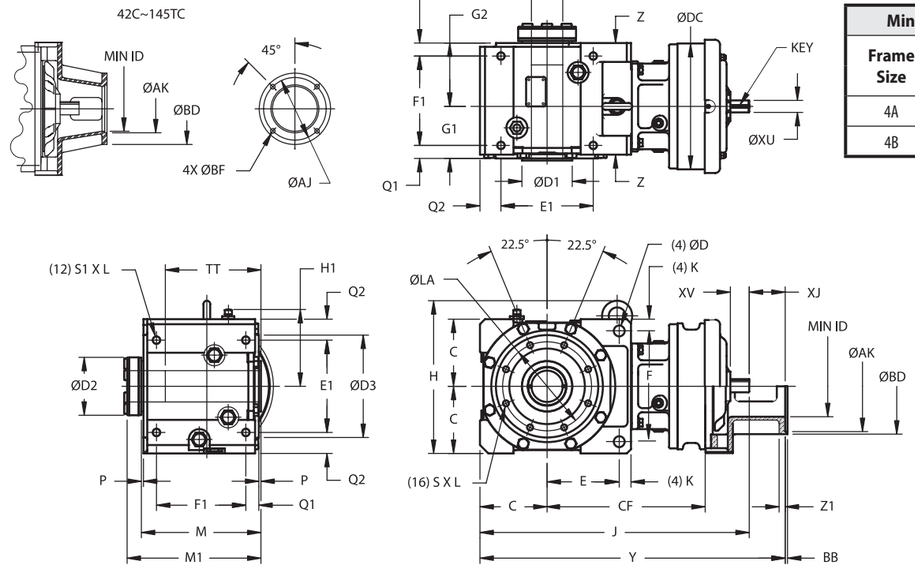

Dimensions on pages 2.168 - 2.177

| Output RPM | 0.49 | 0.41 | 0.33 | 0.28 | 0.22 | 0.20 | 0.16 | 0.14 | 0.12 | 0.09 | 0.08 | 0.07 | 0.05 | Frame Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio | 2944 | 3511 | 4365 | 5177 | 6472 | 7228 | 8880 | 10658 | 12184 | 15530 | 17966 | 21620 | 26492 | |
| **Input Power HP** | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 4E19DA |
| ***(kW)*** | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | |
| Output Torque in•lbs | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | 102655 | |
| *(N•m)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | *(11600)* | |
| Hollow Shaft OHL lbs | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | 16995 | |
| *(N)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | *(75600)* | |
| Solid Shaft OHL lbs | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | 21920 | |
| *(N)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | *(97500)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4E19DB |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **1.34** | **1.13** | 1.01 | 1.01 | 1.01 | **0.547** | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 0.536 | 4F18DA |
| ***(kW)*** | ***(1.00)*** | ***(0.841)*** | *(0.750)* | *(0.750)* | *(0.750)* | ***(0.408)*** | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | *(0.400)* | |
| Output Torque in•lbs | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | 150440 | |
| *(N•m)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | *(17000)* | |
| Hollow Shaft OHL lbs | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | 30570 | |
| *(N)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | *(136000)* | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F18DB |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| **Input Power HP** | **1.38** | **1.15** | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 4F19DA |
| ***(kW)*** | ***(1.03)*** | ***(0.860)*** | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | *(0.750)* | |
| Output Torque in•lbs | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | 153980 | |
| *(N•m)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | *(17400)* | |
| Hollow Shaft OHL lbs | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | 29670 | |
| *(N)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | *(132000)* | |
| Solid Shaft OHL lbs | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | 29530 | |
| *(N)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | *(131340)* | |
| **Input Power HP** | — | — | — | — | — | — | — | — | — | — | — | — | — | 4F19DB |
| ***(kW)*** | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Output Torque in•lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N•m)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Hollow Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Solid Shaft OHL lbs | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| *(N)* | — | — | — | — | — | — | — | — | — | — | — | — | — | |

**Note:** The motor Input Powers listed in GRAY are to overcome breakaway torque requirements in cold temperature or high inertia applications.
A torque limiting device is recommended to protect the unit or the driven machine.

# Dimensions

## Single Reduction
## LHY(J)-4A100Y~4B165Y




| Minimim Engagement | | |
|---|---|---|
| Frame Size | TT | |
| | inch | *(mm)* |
| 4A | 8.19 | *(208)* |
| 4B | 9.53 | *(242)* |

All dimensions are in inches (mm).
For units ordered in the Y2 mounting configuration, please refer to page 2.166 for external lubricant piping dimensions.

| Model | C | E | F | K | Z | ØD | E1 | F1 | Q1 | Q2 | S1 x L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4A100, 4A105 4A110, 4A115 4A120, 4A125 4A140, 4A145** | 4.33 *(110)* | 4.49 *(114)* | 7.24 *(184)* | 0.71 *(18)* | 1.38 *(35)* | 0.71 *(18)* | 5.91 *(150)* | 6.30 *(160)* | 0.91 *(23)* | 1.38 *(35)* | M12 x 0.79 *(M12 x 20)* | 8.50 *(216)* |
| **4B120, 4B125 4B140, 4B145 4B160, 4B165** | 5.12 *(130)* | 5.59 *(142)* | 8.43 *(214)* | 0.91 *(23)* | 1.58 *(40)* | 0.87 *(22)* | 7.48 *(190)* | 7.68 *(195)* | 1.06 *(27)* | 1.38 *(35)* | M16 x 1.02 *(M16 x 26)* | 10.2 *(259)* |

| | | | | | | | | | | | ØU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Model** | **P** | **G1** | **G2** | **H** | **H1** | **ØLA** | **ØD3** | **S x L** | **M1** | **ØD1** | **ØD2** | **Std & Max** | **Min** |
| **4A100, 4A105 4A110, 4A115 4A120, 4A125 4A140, 4A145** | 0.20 *(5)* | 3.78 *(96)* | 4.33 *(110)* | 10.9 *(276)* | 5.16 *(131)* | 6.10 *(155)* | 6.89 *(175)* | M10 x 0.67 *(M10 x 17)* | 9.84 *(250)* | 3.35 *(85)* | 4.09 *(104)* | 2-3/16 *(55.563)* | 1-11/16 *(42.863)* |
| **4B120, 4B125 4B140, 4B145 4B160, 4B165** | 0.20 *(5)* | 4.80 *(122)* | 5.00 *(127)* | 12.1 *(308)* | 5.94 *(151)* | 6.89 *(175)* | 7.83 *(199)* | M12x0.79 *(M12 x 20)* | 11.5 *(293)* | 3.94 *(100)* | 4.49 *(114)* | 2-7/16 *(61.913)* | 1-15/16 *(49.213)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.





All dimensions are in inches *(mm)*.

| With C-Face Adapter | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | **NEMA C-Face** | **Y** | **Z1** | **Min. ID** | **XJ** | **Weight lb *(kg)*** |
| **4A100, 4A105** | 48C | 17.87 *(454)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 111 *(50)* |
| | 56C-145TC | 18.33 *(466)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 113 *(51)* |
| | 182TC-184TC | 19.16 *(487)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 117 *(53)* |
| **4A110, 4A115** | 56C | 18.60 *(472)* | 0.47 *(12)* | 3.93 *(100)* | 2.62 *(67)* | 126 *(57)* |
| | 143TC-145TC | 18.60 *(472)* | 0.47 *(12)* | 3.93 *(100)* | 2.62 *(67)* | 126 *(57)* |
| | 182TC-184TC | 19.40 *(493)* | 0.47 *(12)* | 3.93 *(100)* | 3.44 *(87)* | 131 *(59)* |
| **4A120, 4A125** | 143TC-145TC | 19.40 *(493)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 133 *(60)* |
| | 182TC-184TC | 20.14 *(512)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 137 *(62)* |
| | 213TC-215TC | 21.14 *(537)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 147 *(67)* |
| **4A140, 4A145** | 182TC-184TC | 21.33 *(542)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 155 *(70)* |
| | 213TC-215TC | 21.95 *(558)* | 1.10 *(28)* | 5.43 *(138)* | 4.00 *(102)* | 161 *(73)* |
| | 254TC-256TC | 22.88 *(581)* | 0.57 *(14)* | 5.08 *(129)* | 4.93 *(125)* | 163 *(74)* |
| **4B120, 4B125** | 56C-145TC | 21.64 *(550)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 197 *(89)* |
| | 182TC-184TC | 22.39 *(569)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 201 *(91)* |
| | 213TC-215TC | 23.39 *(594)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 211 *(96)* |
| **4B140, 4B145** | 143TC-145TC | 22.63 *(575)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 217 *(98)* |
| | 182TC-184TC | 23.37 *(594)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 221 *(100)* |
| | 213TC-215TC | 24.0 *(610)* | 1.1 *(28)* | 5.43 *(138)* | 4 *(102)* | 227 *(103)* |
| | 254TC-256TC | 24.93 *(633)* | 0.57 *(14)* | 5.08 *(129)* | 4.93 *(125)* | 230 *(104)* |
| **4B160, 4B165** | 182TC-184TC | 25.46 *(647)* | 0.57 *(14)* | 5.71 *(145)* | 3.37 *(86)* | 304 *(138)* |
| | 213TC-215TC | 26.09 *(663)* | 1.20 *(30)* | 5.71 *(145)* | 4.00 *(102)* | 310 *(141)* |
| | 254TC-256TC | 26.84 *(682)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 306 *(139)* |
| | 284TC-286TC | 27.52 *(699)* | 0.57 *(14)* | 7.09 *(180)* | 5.44 *(138)* | 300 *(136)* |
| | 324TC-326TC | 28.59 *(726)* | 0.57 *(14)* | 7.87 *(200)* | 6.50 *(165)* | 311 *(141)* |

| Free Shaft Input | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Model** | **ØXU** | **XV** | **Key** | **CF** | **ØDC** | **J** | **Weight lb *(kg)*** |
| **4A100, 4A105** | 0.625 *(15.875)* | 0.98 *(25)* | 3/16 x 3/16 x 0.75 *(4.76 x 4.76 x 19)* | 9.33 *(237)* | 5.91 *(150)* | 15.71 *(399)* | 106 *(48)* |
| **4A110, 4A115** | 0.625 *(15.875)* | 0.98 *(25)* | 3/16 x 3/16 x 0.75 *(4.76 x 4.76 x 19)* | 9.76 *(248)* | 6.38 *(162)* | 15.98 *(406)* | 119 *(54)* |
| **4A120, 4A125** | 0.750 *(19.050)* | 1.38 *(35)* | 3/16 x 3/16 x 1.02 *(4.76 x 4.76 x 26)* | 9.57 *(243)* | 8.03 *(204)* | 16.77 *(426)* | 123 *(56)* |
| **4A140, 4A145** | 0.875 *(22.225)* | 1.57 *(40)* | 3/16 x 3/16 x 1.38 *(4.76 x 4.76 x 33)* | 10.43 *(265)* | 9.06 *(230)* | 17.95 *(456)* | 139 *(63)* |
| **4B120, 4B125** | 0.750 *(19.050)* | 1.38 *(35)* | 3/16 x 3/16 x 1.02 *(4.76 x 4.76 x 26)* | 11.02 *(280)* | 8.03 *(204)* | 19.02 *(483)* | 187 *(85)* |
| **4B140, 4B145** | 0.875 *(22.225)* | 1.57 *(40)* | 3/16 x 3/16 x 1.38 *(4.76 x 4.76 x 33)* | 11.69 *(297)* | 9.06 *(230)* | 20.00 *(508)* | 205 *(93)* |
| **4B160, 4B165** | 1.125 *(28.575)* | 1.77 *(45)* | 1/4 x 1/4 x 1.77 *(6.35 x 6.35 x 45)* | 12.83 *(326)* | 11.81 *(300)* | 22.09 *(561)* | 258 *(117)* |

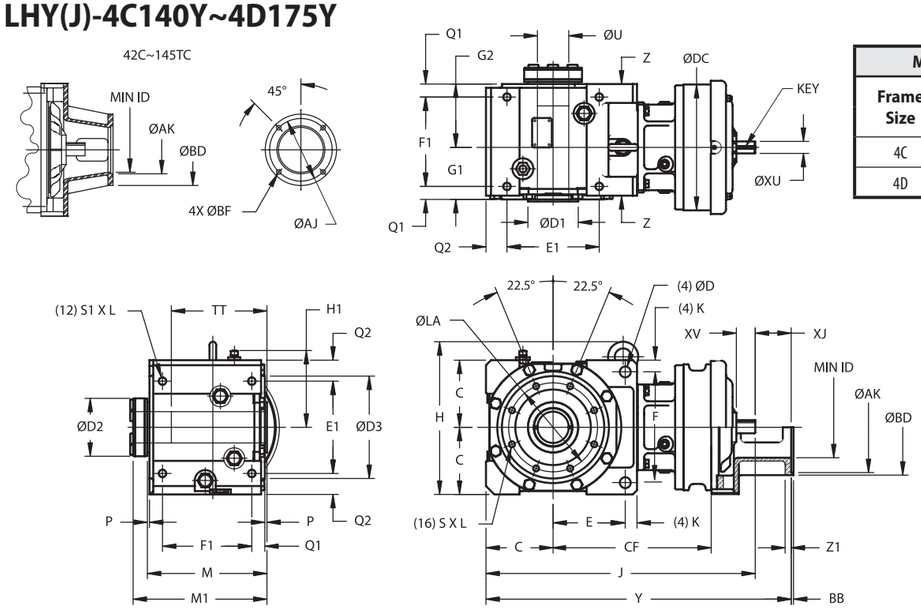
| NEMA C-Face Adapter | ØAJ | ØAK | ØBD | BB | ØBF |
|---|---|---|---|---|---|
| 42C-48C | 3.75 *(95)* | 3 *(76)* | 4.33 *(110)* | — — | 0.28 *(7)* |
| 56C-145TC | 5.87 *(149)* | 4.5 *(114)* | 6.69 *(170)* | — — | 0.43 *(11)* |
| 182TC-256TC | 7.25 *(184)* | 8.50 *(216)* | 8.98 *(228)* | 0.22 *(6)* | 0.55 *(14)* |
| 284TC-286TC | 9.02 *(229)* | 10.5 *(267)* | 11.1 *(282)* | 0.22 *(6)* | 0.55 *(14)* |
| 324TC-326TC | 11.0 *(279)* | 12.5 *(318)* | 14.17 *(360)* | 0.22 *(6)* | 0.71 *(18)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.

# Dimensions

## Single Reduction
## LHY(J)-4C140Y~4D175Y




| Min. Engagement | | |
|---|---|---|
| Frame Size | TT | |
| | inch | *(mm)* |
| 4C | 10.98 | *(279)* |
| 4D | 12.83 | *(326)* |

All dimensions are in inches *(mm)*.
For units ordered in the Y2 mounting configuration, please refer to page 2.166 for external lubricant piping dimensions.

| Model | C | E | F | K | Z | ØD | E1 | F1 | Q1 | Q2 | S1 x L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4C140, 4C145 4C160, 4C165 4C170, 4C175** | 6.30 *(160)* | 6.77 *(172)* | 10.4 *(264)* | 1.10 *(28)* | 1.77 *(45)* | 1.02 *(26)* | 8.66 *(220)* | 8.39 *(213)* | 1.22 *(31)* | 1.97 *(50)* | M20 x 1.30 *(M20 x 33)* | 11.2 *(285)* |
| **4D160, 4D165 4D170, 4D175** | 7.48 *(190)* | 7.60 *(193)* | 12.2 *(310)* | 1.38 *(35)* | 2.17 *(55)* | 1.30 *(33)* | 9.84 *(250)* | 10.0 *(254)* | 1.42 *(36)* | 2.56 *(65)* | M24 x 1.57 *(M24 x 40)* | 13.4 *(340* |

| Model | P | G1 | G2 | H | H1 | ØLA | ØD3 | S x L | M1 | ØD1 | ØD2 | ØU Std & Max | ØU Min |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4C140, 4C145 4C160, 4C165 4C170, 4C175** | 0.20 *(5)* | 4.88 *(124)* | 5.94 *(151)* | 14.3 *(364)* | 7.20 *(183)* | 8.35 *(212)* | 9.61 *(244)* | M16 x 1.02 *(M16 x 26)* | 12.8 *(326)* | 4.72 *(120)* | 5.43 *(138)* | 2-15/16 *(74.613)* | 2-3/16 *(55.563)* |
| **4D160, 4D165 4D170, 4D175** | 0.28 *(7)* | 5.83 *(148)* | 7.01 *(178)* | 16.7 *(424)* | 8.39 *(213)* | 10.0 *(255)* | 11.6 *(295)* | M20 x 1.30 *(M20 x 33)* | 15.0 *(381)* | 5.51 *(140)* | 5.98 *(152)* | 3-7/16 *(87.313)* | 2-7/16 *(61.913)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.





All dimensions are in inches *(mm)*.

| With C-Face Adapter | | | | | | |
|---|---|---|---|---|---|---|
| Model | NEMA C-Face | Y | Z1 | Min. ID | XJ | Weight lb *(kg)* |
| **4C140, 4C145** | 143TC-145TC | 26.13 *(664)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 321 *(146)* |
| | 182TC-184TC | 26.88 *(683)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 325 *(147)* |
| | 213TC-215TC | 27.50 *(699)* | 1.1 *(28)* | 5.43 *(138)* | 4 *(102)* | 331 *(150)* |
| | 254TC-256TC | 28.43 *(722)* | 0.57 *(14)* | 5.08 *(129)* | 4.93 *(125)* | 333 *(151)* |
| **4C160, 4C165** | 143TC-145TC | 27.90 *(709)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 401 *(182)* |
| | 182TC-184TC | 28.65 *(728)* | 0.57 *(14)* | 5.71 *(145)* | 3.37 *(86)* | 405 *(184)* |
| | 213TC-215TC | 29.28 *(744)* | 1.20 *(30)* | 5.71 *(145)* | 4.00 *(102)* | 412 *(187)* |
| | 254TC-256TC | 30.03 *(763)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 408 *(185)* |
| | 284TC-286TC | 30.71 *(780)* | 0.57 *(14)* | 7.09 *(180)* | 5.44 *(138)* | 402 *(182)* |
| | 324TC-326TC | 31.78 *(807)* | 0.57 *(14)* | 7.87 *(200)* | 6.50 *(165)* | 412 *(187)* |
| **4C170, 4C175** | 182TC-184TC | 30.07 *(764)* | 0.57 *(14)* | 5.71 *(145)* | 3.38 *(86)* | 448 *(203)* |
| | 213TC-215TC | 30.70 *(780)* | 1.20 *(30)* | 5.71 *(145)* | 4.00 *(102)* | 454 *(206)* |
| | 254TC-256TC | 31.44 *(799)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 450 *(204)* |
| | 284TC-286TC | 32.13 *(816)* | 0.57 *(14)* | 7.87 *(200)* | 5.44 *(138)* | 461 *(209)* |
| | 324TC-326TC | 32.70 *(831)* | 0.57 *(14)* | 7.87 *(200)* | 6.00 *(152)* | 456 *(207)* |
| **4D160, 4D165** | 143TC-145TC | 31.92 *(811)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 549 *(249)* |
| | 182TC-184TC | 32.67 *(830)* | 0.57 *(14)* | 5.71 *(145)* | 3.37 *(86)* | 553 *(251)* |
| | 213TC-215TC | 33.29 *(846)* | 1.20 *(30)* | 5.71 *(145)* | 4.00 *(102)* | 559 *(254)* |
| | 254TC-256TC | 34.04 *(865)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 556 *(252)* |
| | 284TC-286TC | 34.73 *(882)* | 0.57 *(14)* | 7.09 *(180)* | 5.44 *(138)* | 549 *(249)* |
| | 324TC-326TC | 35.79 *(909)* | 0.57 *(14)* | 7.87 *(200)* | 6.50 *(165)* | 560 *(254)* |
| **4D170, 4D175** | 182TC-184TC | 33.22 *(844)* | 0.57 *(14)* | 5.71 *(145)* | 3.38 *(86)* | 587 *(266)* |
| | 213TC-215TC | 33.85 *(860)* | 1.20 *(30)* | 5.71 *(145)* | 4.00 *(102)* | 593 *(269)* |
| | 254TC-256TC | 34.59 *(879)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 589 *(267)* |
| | 284TC-286TC | 35.28 *(896)* | 0.57 *(14)* | 7.87 *(200)* | 5.44 *(138)* | 600 *(272)* |
| | 324TC-326TC | 35.85 *(911)* | 0.57 *(14)* | 7.87 *(200)* | 6.00 *(152)* | 594 *(269)* |

| Free Shaft Input | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | ØXU | XV | Key | CF | ØDC | J | Weight lb *(kg)* |
| **4C140, 4C145** | 0.875 *(22.225)* | 1.57 *(40)* | 3/16 x 3/16 x 1.38 *(4.76 x 4.76 x 33)* | 14.02 *(356)* | 9.06 *(230)* | 23.50 *597)* | 309 *(140)* |
| **4C160, 4C165** | 1.125 *(28.575)* | 1.77 *(45)* | 1/4 x 1/4 x 1.77 *(6.35 x 6.35 x 45)* | 14.84 *(377)* | 11.81 *(300)* | 25.28 *(642)* | 359 *(163)* |
| **4C170, 4C175** | 1.375 *(34.925)* | 2.17 *(55)* | 5/16 x 5/16 x 2.16 *(7.94 x 7.94 x 55)* | 15.47 *(393)* | 13.39 *(340)* | 26.69 *(678)* | 410 *(186)* |
| **4D160, 4D165** | 1.125 *(28.575)* | 1.77 *(45)* | 1/4 x 1/4 x 1.77 *(6.35 x 6.35 x 45)* | 17.68 *(449)* | 11.81 *(300)* | 29.29 *(744)* | 507 *(230)* |
| **4D170, 4D175** | 1.375 *(34.925)* | 2.17 *(55)* | 5/16 x 5/16 x 2.16 *(7.94 x 7.94 x 55)* | 17.44 *(443)* | 13.39 *(340)* | 29.84 *(758)* | 549 *(249)* |

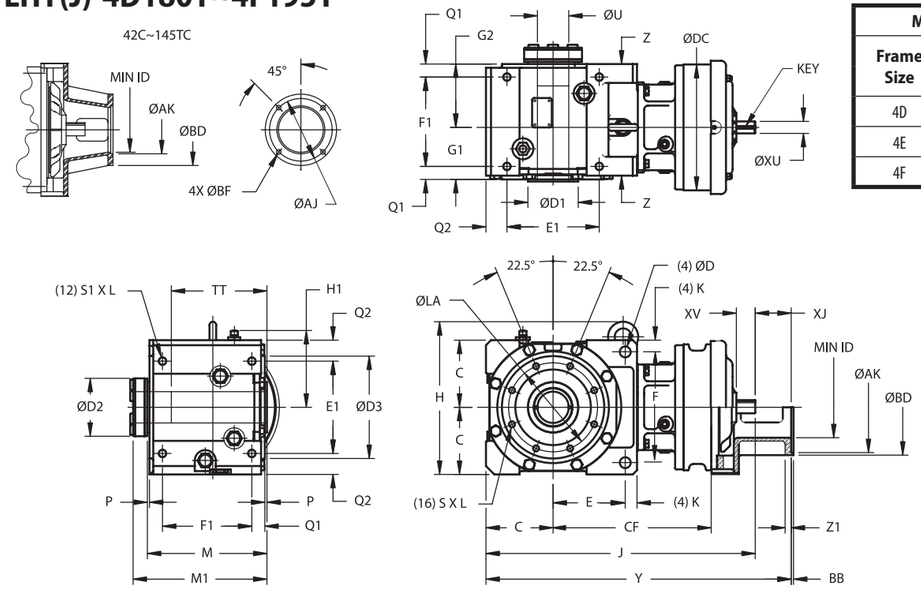
| NEMA C-Face Adapter | ØAJ | ØAK | ØBD | BB | ØBF |
|---|---|---|---|---|---|
| 42C-48C | 3.75 *(95)* | 3.00 *(76)* | 4.33 *(110)* | — — | 0.28 *(7)* |
| 56C-145TC | 5.87 *(149)* | 4.50 *(114)* | 6.69 *(170)* | — — | 0.43 *(11)* |
| 182TC-256TC | 7.25 *(184)* | 8.50 *(216)* | 8.98 *(228)* | 0.22 *(6)* | 0.55 *(14)* |
| 284TC-286TC | 9.00 *(229)* | 10.5 *(267)* | 11.1 *(282)* | 0.22 *(6)* | 0.55 *(14)* |
| 324TC-326TC | 11.0 *(279)* | 12.5 *(318)* | 14.17 *(360)* | 0.22 *(6)* | 0.71 *(18)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.

# Dimensions

## Single Reduction
## LHY(J)-4D180Y~4F195Y




| Min. Engagement | | |
|---|---|---|
| Frame Size | TT | |
| | inch | *(mm)* |
| 4D | 12.83 | *(326)* |
| 4E | 14.13 | *(359)* |
| 4F | 16.22 | *(412)* |

All dimensions are in inches *(mm)*.
For units ordered in the Y2 mounting configuration, please refer to page 2.166 for external lubricant piping dimensions.

| Model | C | E | F | K | Z | ØD | E1 | F1 | Q1 | Q2 | S1 x L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4D180, 4D185** | 7.48 *(190)* | 7.60 *(193)* | 12.22 *(310)* | 1.38 *(35)* | 2.17 *(55)* | 1.30 *(33)* | 9.84 *(250)* | 10.0 *(254)* | 1.42 *(36)* | 2.56 *(65)* | M24 x 1.57 *(M24 x 40)* | 13.4 *(340)* |
| **4E170, 4E175 4E180, 4E185 4E190, 4E195** | 8.46 *(215)* | 9.06 *(230)* | 14.2 *(360)* | 1.38 *(35)* | 2.17 *(55)* | 1.30 *(33)* | 11.8 *(300)* | 11.1 *(283)* | 1.50 *(38)* | 2.56 *(65)* | M24 x 1.57 *(M24 x 40)* | 14.7 *(373)* |
| **4F180, 4F185 4F190, 4F195** | 9.45 *(240)* | 9.92 *(252)* | 15.8 *(400)* | 1.77 *(45)* | 2.76 *(70)* | 1.54 *(39)* | 13.4 *(340)* | 12.6 *(320)* | 1.99 *(51)* | 2.76 *(70)* | M30 x 1.97 *(M30 x 50)* | 17.1 *(435)* |

| Model | P | G1 | G2 | H | H1 | ØLA | ØD3 | S x L | M1 | ØD1 | ØD2 | ØU Std & Max | ØU Min |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4D180, 4D185** | 0.28 *(7)* | 5.83 *(148)* | 7.01 *(178)* | 16.7 *(424)* | 8.39 *(213)* | 10.0 *(255)* | 11.6 *(295)* | M20 x 1.30 *(M20 x 33)* | 15.0 *(381)* | 5.51 *(140)* | 5.98 *(152)* | 3-7/16 *(87.313)* | 2-7/16 *(61.913)* |
| **4E170, 4E175 4E180, 4E185 4E190, 4E195** | 0.28 *(7)* | 6.14 *(156)* | 7.99 *(203)* | 19.6 *(498)* | 9.37 *(238)* | 11.0 *(280)* | 12.6 *(320)* | M20 x 1.38 *(M20 x 35)* | 16.3 *(414)* | 6.30 *(160)* | 6.69 *(170)* | 3-15/16 *(100.013)* | 2-15/16 *(74.613)* |
| **4F180, 4F185 4F190, 4F195** | 0.28 *(7)* | 9.37 *(238)* | 7.20 *(183)* | 23.2 *(590)* | 10.8 *(273)* | 12.6 *(320)* | 14.6 *(370)* | M24 x 1.57 *(M24 x 40)* | 19.2 *(486)* | 7.09 *(180)* | 8.15 *(207)* | 4-15/16 *(125.413)* | 3-15/16 *(100.013)* |



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Certified prints are available after receipt of an order; consult factory.





All dimensions are in inches *(mm)*.

| With C-Face Adapter | | | | | | |
|---|---|---|---|---|---|---|
| Model | NEMA C-Face | Y | Z1 | Min. ID | XJ | Weight lb *(kg)* |
| **4D180, 4D185** | 182TC-184TC | 33.97 *(863)* | 0.57 *(14)* | 5.71 *(145)* | 3.50 *(89)* | 554 *(251)* |
| | 213TC-215TC | 34.47 *(876)* | 1.07 *(27)* | 5.71 *(145)* | 4.00 *(102)* | 554 *(251)* |
| | 254TC-256TC | 35.22 *(895)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 568 *(257)* |
| | 284TC-286TC | 35.91 *(912)* | 0.57 *(14)* | 7.87 *(200)* | 5.44 *(138)* | 562 *(255)* |
| | 324TC-326TC | 36.97 *(939)* | 0.57 *(14)* | 7.87 *(200)* | 6.50 *(165)* | 566 *(257)* |
| **4E170, 4E175** | 182TC-184TC | 35.19 *(894)* | 0.57 *(14)* | 5.71 *(145)* | 3.38 *(86)* | 750 *(340)* |
| | 213TC-215TC | 35.81 *(910)* | 1.20 *(30)* | 5.71 *(145)* | 4.00 *(102)* | 756 *(343)* |
| | 254TC-256TC | 36.56 *(929)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 752 *(341)* |
| | 284TC-286TC | 37.25 *(946)* | 0.57 *(14)* | 7.87 *(200)* | 5.44 *(138)* | 763 *(346)* |
| | 324TC-326TC | 37.81 *(960)* | 0.57 *(14)* | 7.87 *(200)* | 6.00 *(152)* | 758 *(344)* |
| **4E180, 4E185** | 182TC-184TC | 35.94 *(913)* | 0.57 *(14)* | 5.71 *(145)* | 3.50 *(89)* | 715 *(324)* |
| | 213TC-215TC | 36.44 *(926)* | 1.07 *(27)* | 5.71 *(145)* | 4.00 *(102)* | 721 *(327)* |
| | 254TC-256TC | 37.19 *(945)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 729 *(331)* |
| | 284TC-286TC | 37.88 *(962)* | 0.57 *(14)* | 7.87 *(200)* | 5.44 *(138)* | 724 *(328)* |
| | 324TC-326TC | 38.94 *(989)* | 0.57 *(14)* | 7.87 *(200)* | 6.50 *(165)* | 728 *(330)* |
| **4E190, 4E195** | 213TC-215TC | 37.99 *(965)* | 1.07 *(27)* | 5.71 *(145)* | 4.00 *(102)* | 798 *(362)* |
| | 254TC-256TC | 38.61 *(981)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 806 *(366)* |
| | 284TC-286TC | 39.30 *(998)* | 0.57 *(14)* | 7.87 *(200)* | 5.44 *(138)* | 801 *(363)* |
| | 324TC-326TC | 40.36 *(1025)* | 0.57 *(14)* | 7.87 *(200)* | 6.50 *(165)* | 805 *(365)* |
| **4F180, 4F185** | 182TC-184TC | 39.44 *(1002)* | 0.57 *(14)* | 5.71 *(145)* | 3.50 *(89)* | 910 *(413)* |
| | 213TC-215TC | 39.94 *(1014)* | 1.07 *(27)* | 5.71 *(145)* | 4.00 *(102)* | 916 *(415)* |
| | 254TC-256TC | 40.70 *(1034)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 924 *(419)* |
| | 284TC-286TC | 41.38 *(1051)* | 0.57 *(14)* | 7.87 *(200)* | 5.44 *(138)* | 919 *(417)* |
| | 324TC-326TC | 42.44 *(1078)* | 0.57 *(14)* | 7.87 *(200)* | 6.50 *(165)* | 923 *(419)* |
| **4F190, 4F195** | 213TC-215TC | 41.41 *(1052)* | 1.07 *(27)* | 5.71 *(145)* | 4.00 *(102)* | 987 *(448)* |
| | 254TC-256TC | 42.03 *(1068)* | 0.57 *(14)* | 5.71 *(145)* | 4.75 *(121)* | 995 *(451)* |
| | 284TC-286TC | 42.72 *(1085)* | 0.57 *(14)* | 7.87 *(200)* | 5.44 *(138)* | 990 *(449)* |
| | 324TC-326TC | 43.78 *(1112)* | 0.57 *(14)* | 7.87 *(200)* | 6.50 *(165)* | 994 *(451)* |

| Free Shaft Input | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | ØXU | XV | Key | CF | ØDC | J | Weight lb *(kg)* |
| **4D180, 4D185** | 1.500 *(38.100)* | 2.56 *(65)* | 3/8 x 3/8 x 2.56 *(9.53 x 9.53 x 65)* | 17.56 *(446)* | 14.57 *(370)* | 30.47 *(774)* | 506 *(229)* |
| **4E170, 4E175** | 1.375 *(34.925)* | 2.17 *(55)* | 5/16 x 5/16 x 2.16 *(7.94 x 7.94 x 55)* | 18.43 *(468)* | 13.39 *(340)* | 31.81 *(808)* | 712 *(323)* |
| **4E180, 4E185** | 1.5 *(38.100)* | 2.56 *(65)* | 3/8 x 3/8 x 2.56 *(9.53 x 9.53 x 65)* | 18.54 *(471)* | 14.57 *(370)* | 32.44 *(824)* | 667 *(302)* |
| **4E190, 4E195** | 1.75 *(44.450)* | 2.76 *(70)* | 3/8 x 3/8 x 2.76 *(9.53 x 9.53 x 70)* | 19.29 *(490)* | 16.93 *(430)* | 33.86 *(860)* | 728 *(330)* |
| **4F180, 4F185** | 1.5 *(38.100)* | 2.56 *(65)* | 3/8 x 3/8 x 2.56 *(9.53 x 9.53 x 65)* | 21.06 *(535)* | 14.57 *(370)* | 35.94 *(913)* | 862 *(391)* |
| **4F190, 4F195** | 1.75 *(44.450)* | 2.76 *(70)* | 3/8 x 3/8 x 2.76 *(9.53 x 9.53 x 70)* | 21.73 *(552)* | 16.93 *(430)* | 37.28 *(947)* | 917 *(416)* |

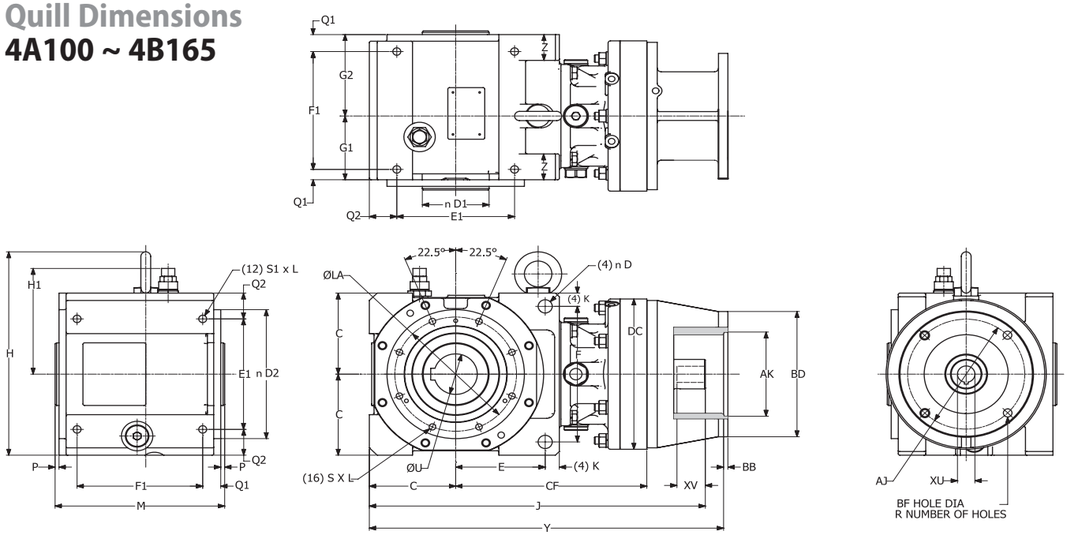
| NEMA C-Face Adapter | ØAJ | ØAK | ØBD | BB | ØBF |
|---|---|---|---|---|---|
| 42C-48C | 3.75 *(95)* | 3 *(76)* | 4.33 *(110)* | — — | 0.28 *(7)* |
| 56C-145TC | 5.87 *(149)* | 4.5 *(114)* | 6.69 *(170)* | — — | 0.43 *(11)* |
| 182TC-256TC | 7.25 *(184)* | 8.50 *(216)* | 8.98 *(228)* | 0.22 *(6)* | 0.55 *(14)* |
| 284TC-286TC | 9 *(229)* | 10.5 *(267)* | 11.1 *(282)* | 0.22 *(6)* | 0.55 *(14)* |
| 324TC-326TC | 11 *(279)* | 12.5 *(318)* | 14.17 *(360)* | 0.22 *(6)* | 0.71 *(18)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.

# Dimensions

## Quill Dimensions
## 4A100 ~ 4B165




All dimensions are in inches *(mm)*.
For units ordered in the Y2 mounting configuration, please refer to page 2.166 for external lubricant piping dimensions.

| Model | C | E | F | K | Z | ØD | E1 | F1 | Q1 | Q2 | S1 x L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **4A100, 4A105<br>4A110, 4A115<br>4A120, 4A125<br>4A140, 4A145** | 4.33<br>*(110)* | 4.49<br>*(114)* | 7.24<br>*(184)* | 0.71<br>*(18)* | 1.38<br>*(35)* | 0.71<br>*(18)* | 5.91<br>*(150)* | 6.3<br>*(160)* | 0.91<br>*(23)* | 1.38<br>*(35)* | M12 x 0.79<br>*(M12 x 20)* |
| **4B120, 4B125<br>4B140, 4B145<br>4B160, 4B165** | 5.12<br>*(130)* | 5.59<br>*(142)* | 8.43<br>*(214)* | 0.91<br>*(23)* | 1.58<br>*(40)* | 0.87<br>*(22)* | 7.48<br>*(190)* | 7.68<br>*(195)* | 1.06<br>*(27)* | 1.38<br>*(35)* | M16 x 1.02<br>*(M16 x 26)* |

| Model | ØDC | M | P | G1 | G2 | H | H1 | ØLA | ØD1 | S x L | ØD2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **4A100<br>4A105** | 5.91<br>*(150)* | 8.5<br>*(216)* | 0.20<br>*(5)* | 3.78<br>*(96)* | 4.33<br>*(110)* | 10.9<br>*(276)* | 5.16<br>*(131)* | 6.10<br>*(155)* | 3.35<br>*(85)* | M10 x 0.67<br>*(M10 x 17)* | 6.89<br>*(175)* |
| **4A110<br>4A115** | 6.38<br>*(162)* | | | | | | | | | | |
| **4A120<br>4A125** | 8.03<br>*(204)* | | | | | | | | | | |
| **4A140<br>4A145** | 9.06<br>*(230)* | | | | | | | | | | |
| **4B120<br>4B125** | 8.03<br>*(204)* | 10.2<br>*(259)* | 0.20<br>*(5)* | 4.80<br>*(122)* | 5.00<br>*(127)* | 12.1<br>*(308)* | 5.94<br>*(151)* | 6.89<br>*(175)* | 3.94<br>*(100)* | M12 x 0.79<br>*(M12 x 20)* | 7.83<br>*(199)* |
| **4B140<br>4B145** | 9.06<br>*(230)* | | | | | | | | | | |
| **4B160<br>4B165** | 11.81<br>*(300)* | | | | | | | | | | |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.





All dimensions are in inches *(mm)*.

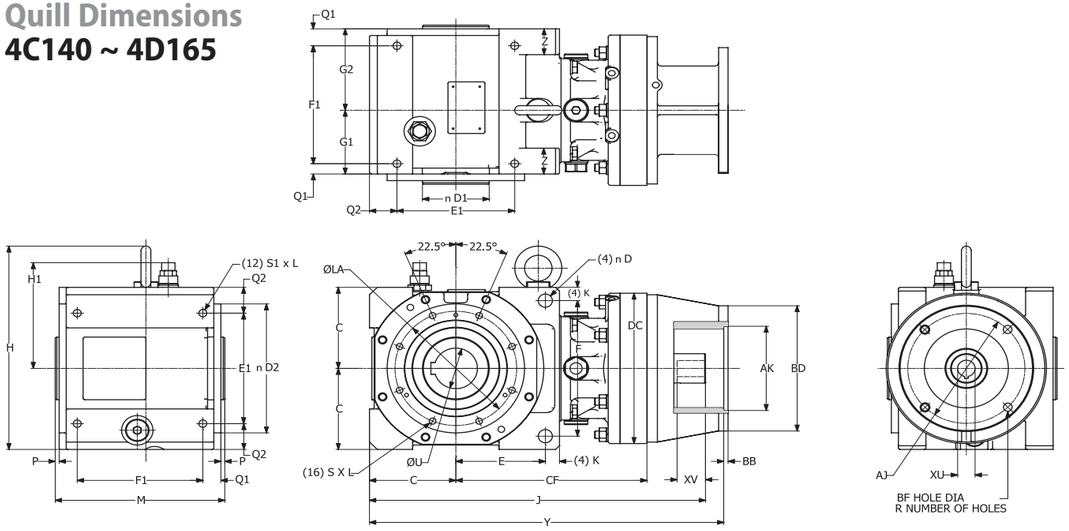
| Model | Motor Frame | AJ | AK | BD | BB | BF | R | Y | CL | Z | High Speed Shaft XU | High Speed Shaft XV | High Speed Shaft Keyway | J | Weight lb *(kg)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4A100, 4A105** | 56C | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.20<br>*(5)* | 0.43<br>*(11)* | 4 | 16.61<br>*(422)* | 3.15<br>*(80)* | 0.47<br>*(12)* | 0.625<br>*(15.875)* | +0.0007/-0<br>*(+0.018/-0)* | 1.18<br>*(30)* | 3/16 x 3/32<br>*(4.75 x 2.38)* | 15.74<br>*(400)* | 110<br>*(50)* |
| | 143TC-145TC | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.20<br>*(5)* | 0.43<br>*(11)* | 4 | 16.61<br>*(422)* | 3.15<br>*(80)* | 0.47<br>*(12)* | 0.875<br>*(22.225)* | +0.0008/-0<br>*(+0.020/-0)* | 1.65<br>*(42)* | 3/16 x 3/32<br>*(4.75 x 2.38)* | 16.09<br>*(409)* | 110<br>*(50)* |
| **4A110, 4A115** | 56C | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.20<br>*(5)* | 0.43<br>*(11)* | 4 | 17.16<br>*(436)* | 3.27<br>*(83)* | 0.47<br>*(12)* | 0.625<br>*(15.875)* | +0.0007/-0<br>*(+0.018/-0)* | 1.56<br>*(40)* | 3/16 x 3/32<br>*(4.75 x 2.38)* | 16.72<br>*(425)* | 124<br>*(56)* |
| | 143TC-145TC | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.20<br>*(5)* | 0.43<br>*(11)* | 4 | 17.16<br>*(436)* | 3.27<br>*(83)* | 0.47<br>*(12)* | 0.875<br>*(22.225)* | +0.0008/-0<br>*(+0.020/-0)* | 1.65<br>*(42)* | 3/16 x 3/32<br>*(4.75 x 2.38)* | 16.66<br>*(423)* | 124<br>*(56)* |
| | 182TC-184TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.59<br>*(15)* | 4 | 17.89<br>*(454)* | 4.02<br>*(102)* | 0.69<br>*(18)* | 1.125<br>*(28.575)* | +0.0008/-0<br>*(+0.020/-0)* | 1.85<br>*(47)* | 1/4 x 1/8<br>*(6.35 x 3.175)* | 16.8<br>*(427)* | 130<br>*(59)* |
| **4A120, 4A125** | 56C | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.22<br>*(6)* | 0.43<br>*(11)* | 4 | 17.66<br>*(449)* | 3.98<br>*(101)* | 0.47<br>*(12)* | 0.625<br>*(15.875)* | +0.0007/-0<br>*(+0.018/-0)* | 1.18<br>*(30)* | 3/16 x 3/32<br>*(4.75 x 2.38)* | 16.81<br>*(427)* | 131<br>*(59)* |
| | 143TC-145TC | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.22<br>*(6)* | 0.43<br>*(11)* | 4 | 17.66<br>*(449)* | 3.98<br>*(101)* | 0.47<br>*(12)* | 0.875<br>*(22.225)* | +0.0016/+0.0008<br>*(+0.041/+0.020)* | 1.50<br>*(38)* | 3/16 x 3/32<br>*(4.75 x 2.38)* | 17.01<br>*(432)* | 131<br>*(59)* |
| | 182TC-184TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 18.80<br>*(478)* | 5.12<br>*(130)* | 0.67<br>*(17)* | 1.125<br>*(28.575)* | +0.0016/+0.0008<br>*(+0.041/+0.020)* | 1.97<br>*(50)* | 1/4 x 1/8<br>*(6.35 x 3.175)* | 18.41<br>*(468)* | 134<br>*(61)* |
| | 213TC-215TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 18.80<br>*(478)* | 5.12<br>*(130)* | 0.67<br>*(17)* | 1.375<br>*(34.925)* | +0.0020/+0.0010<br>*(+0.051/+0.025* | 2.64<br>*(67* | 5/16 x 5/32<br>*(7.938 x 3.969)* | 17.76<br>*(451)* | 134<br>*(61)* |
| **4A140, 4A145** | 143TC-145TC | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.20<br>*(5)* | 0.43<br>*(11)* | 4 | 18.62<br>*(473)* | 4.06<br>*(103)* | 0.47<br>*(12)* | 0.875<br>*(22.225)* | +0.0008/-0<br>*(+0.020/-0)* | 1.61<br>*(41)* | 3/16 x 3/32<br>*(4.75 x2.38)* | 18.26<br>*(464)* | 152<br>*(69)* |
| | 182TC-184TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 9.00<br>*(229)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 20.50<br>*(521)* | 5.96<br>*(151)* | 0.67<br>*(17)* | 1.125<br>*(28.575)* | +0.0016/+0.0008<br>*(+0.041/+0.020)* | 1.91<br>*(49)* | 1/4 x 1/8<br>*(6.35 x 3.175)* | 19.48<br>*(495)* | 160<br>*(73)* |
| | 213TC-215TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 9.00<br>*(229)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 20.50<br>*(521)* | 5.96<br>*(151)* | 0.67<br>*(17)* | 1.375<br>*(34.925)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 2.68<br>*(68)* | 5/16 x 5/32<br>*(7.938 x 3.969)* | 19.14<br>*(486)* | 159<br>*(72)* |
| | 254TC-256TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 9.00<br>*(229)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 20.50<br>*(521)* | 5.96<br>*(151)* | 0.67<br>*(17)* | 1.625<br>*(41.275)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 2.99<br>*(76)* | 3/8 x 3/8<br>*(9.525 x 9.525)* | 19.46<br>*(494)* | 160<br>*(73)* |
| **4B120, 4B125** | 56C | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.22<br>*(6)* | 0.43<br>*(11)* | 4 | 19.90<br>*(505)* | 3.98<br>*(101)* | 0.47<br>*(12)* | 0.625<br>*(15.875)* | +0.0007/-0<br>*(+0.018/-0)* | 1.18<br>*(30)* | 3/16 x 3/32<br>*(4.75 x 2.38)* | 19.05<br>*(484)* | 195<br>*(88)* |
| | 143TC-145TC | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.22<br>*(6)* | 0.43<br>*(11)* | 4 | 19.90<br>*(505)* | 3.98<br>*(101)* | 0.47<br>*(12)* | 0.875<br>*(22.225)* | +0.0016/+0.0008<br>*(+0.041/+0.020)* | 1.50<br>*(38)* | 3/16 x 3/32<br>*(4.75 x 2.38)* | 19.24<br>*(489)* | 195<br>*(88)* |
| | 182TC-184TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 21.04<br>*(534)* | 5.12<br>*(130)* | 0.67<br>*(17)* | 1.125<br>*(28.575)* | +0.0016/+0.0008<br>*(+0.041/+0.020)* | 1.97<br>*(50)* | 1/4 x 1/8<br>*(6.35 x 3.175)* | 20.64<br>*(524)* | 198<br>*(437)* |
| | 213TC-215TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 21.04<br>*(534)* | 5.12<br>*(130)* | 0.67<br>*(17)* | 1.375<br>*(34.925)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 2.64<br>*(67)* | 5/16 x 5/32<br>*(7.938 x 3.969)* | 19.99<br>*(508)* | 198<br>*(90)* |
| **4B140, 4B145** | 143TC-145TC | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.20<br>*(5)* | 0.43<br>*(11)* | 4 | 20.67<br>*(525)* | 4.06<br>*(103)* | 0.47<br>*(12)* | 0.875<br>*(22.225)* | +0.0008/-0<br>*(+0.020/-0)* | 1.61<br>*(41)* | 3/16 x 3/32<br>*(4.75 x 2.38)* | 20.33<br>*(516)* | 218<br>*(99)* |
| | 182TC-184TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 9.00<br>*(229)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 22.55<br>*(573)* | 5.96<br>*(151)* | 0.67<br>*(17)* | 1.125<br>*(28.575)* | +0.0016/+0.0008<br>*(+0.041/+0.020* | 1.91<br>*(49)* | 1/4 x 1/8<br>*(6.35 x 3.175)* | 21.55<br>*(547)* | 226<br>*(498)* |
| | 213TC-215TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 9.00<br>*(229)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 22.55<br>*(573)* | 5.96<br>*(151)* | 0.67<br>*(17)* | 1.375<br>*(34.925)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 2.68<br>*(68)* | 5/16 x 5/32<br>*(7.938 x 3.969)* | 21.21<br>*(539)* | 225<br>*(496)* |
| | 254TC-256TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 9.00<br>*(229)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 22.55<br>*(573)* | 5.96<br>*(151)* | 0.67<br>*(17)* | 1.625<br>*(41.275)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 2.99<br>*(76)* | 3/8 x 3/8<br>*(9.525 x 9.525)* | 21.53<br>*(547)* | 226<br>*(102)* |
| **4B160, 4B165** | 182TC-184TC | 7.25<br>*(184)* | 8.5<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 22.99<br>*(584)* | 5.26<br>*(134)* | 0.79<br>*(20)* | 1.125<br>*(28.575)* | +0.0016/+0.0008<br>*(+0.041/+0.020)* | 2.01<br>*(51)* | 1/4 x 1/8<br>*(6.35 x 3.175)* | 22.07<br>*(561)* | 264<br>*(120)* |
| | 213TC-215TC | 7.25<br>*(184)* | 8.5<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 22.99<br>*(584)* | 5.26<br>*(134)* | 0.79<br>*(20)* | 1.375<br>*(34.925)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 2.48<br>*(63)* | 5/16 x 5/32<br>*(7.938 x 3.969)* | 22.07<br>*(561)* | 267<br>*(121)* |
| | 254TC-256TC | 7.25<br>*(184)* | 8.5<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 22.99<br>*(584)* | 5.26<br>*(134)* | 0.79<br>*(20)* | 1.625<br>*(41.275)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 3.11<br>*(79)* | 3/8 x 3/8<br>*(9.525 x 9.525)* | 22.07<br>*(561)* | 266<br>*(121)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.

# Dimensions

## Quill Dimensions 4C140 ~ 4D165




All dimensions are in inches *(mm)*.
For units ordered in the Y2 mounting configuration, please refer to page 2.166 for external lubricant piping dimensions.

| Model | C | E | F | K | Z | ØD | E1 | F1 | Q1 | Q2 | S1 x L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **4C140, 4C145**<br>**4C160, 4C165** | 6.30<br>*(160)* | 6.77<br>*(172)* | 10.4<br>*(264)* | 1.10<br>*(28)* | 1.77<br>*(45)* | 1.02<br>*(26)* | 8.66<br>*(220)* | 8.39<br>*(213)* | 1.22<br>*(31)* | 1.97<br>*(50)* | M20 x 1.30<br>*(M20 x 33)* |
| **4D160, 4D165** | 7.48<br>*(190)* | 7.60<br>*(193)* | 12.2<br>*(310)* | 1.38<br>*(35)* | 2.17<br>*(55)* | 1.30<br>*(33)* | 9.84<br>*(250)* | 10.0<br>*(254)* | 1.42<br>*(36)* | 2.56<br>*(65)* | M24 x 1.57<br>*(M24 x 40)* |

| Model | ØDC | M | P | G1 | G2 | H | H1 | ØLA | ØD1 | S x L | ØD2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **4C140**<br>**4C145** | 9.06<br>*(230)* | 11.2<br>*(285)* | 0.20<br>*(5)* | 4.88<br>*(124)* | 5.94<br>*(151)* | 14.3<br>*(364)* | 7.20<br>*(183)* | 8.35<br>*(212)* | 4.72<br>*(120)* | M16 x 1.02<br>*(M16 x 26)* | 9.61<br>*(244)* |
| **4C160**<br>**4C165** | 11.81<br>*(300)* | | | | | | | | | | |
| **4D160**<br>**4D165** | 11.81<br>*(300)* | 13.4<br>*(340)* | 0.28<br>*(7)* | 5.83<br>*(148)* | 7.01<br>*(178)* | 16.7<br>*(424)* | 8.39<br>*(213)* | 10.0<br>*(255)* | 5.51<br>*(140)* | M20 x 1.30<br>*(M20 x 33)* | 11.6<br>*(295)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.





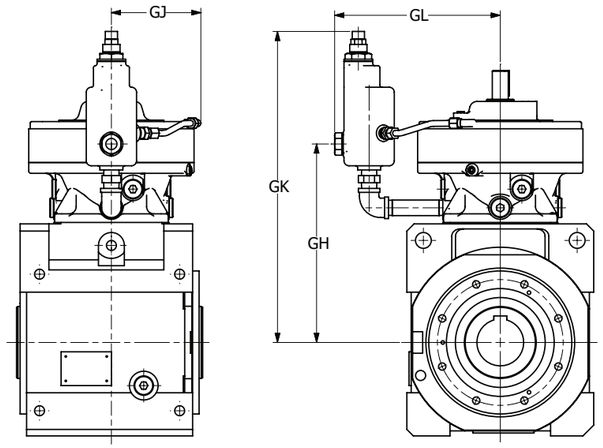
All dimensions are in inches *(mm)*.

| Model | Motor Frame | AJ | AK | BD | BB | BF | R | Y | CL | Z | High Speed Shaft XU | High Speed Shaft XV | High Speed Shaft Keyway | J | Weight lb *(kg)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4C140, 4C145** | 143TC-145TC | 5.88<br>*(149)* | 4.50<br>*(114)* | 6.69<br>*(170)* | 0.20<br>*(5)* | 0.43<br>*(11)* | 4 | 24.18<br>*(614)* | 4.06<br>*(103)* | 0.47<br>*(12)* | 0.875<br>*(22.225)* | +0.0008/-0<br>*(+0.020/-0)* | 1.61<br>*(41)* | 3/16 x 3/32<br>*(4.75 x 2.38)* | 23.8<br>*(605)* | 322<br>*(146)* |
| | 182TC-184TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 9.00<br>*(229)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 26.06<br>*(662)* | 5.96<br>*(151)* | 0.67<br>*(17)* | 1.125<br>*(28.575)* | +0.0016/+0.0008<br>*(+0.041/+0.020)* | 1.91<br>*(49)* | 1/4 x 1/8<br>*(6.35 x 3.175)* | 25.02<br>*(636)* | 330<br>*(150)* |
| | 213TC-215TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 9.00<br>*(229)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 26.06<br>*(662)* | 5.96<br>*(151)* | 0.67<br>*(17)* | 1.375<br>*(34.925)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 2.68<br>*(68)* | 5/16 x 5/32<br>*(7.938 x 3.969)* | 24.69<br>*(627)* | 329<br>*(149)* |
| | 254TC-256TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 9.00<br>*(229)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 26.06<br>*(662)* | 5.96<br>*(151)* | 0.67<br>*(17)* | 1.625<br>*(41.275)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 2.99<br>*(76)* | 3/8 x 3/8<br>*(9.525 x 9.525)* | 25<br>*(635)* | 330<br>*(150)* |
| **4C160, 4C165** | 182TC-184TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 26.18<br>*(665)* | 5.26<br>*(134)* | 0.79<br>*(20)* | 1.125<br>*(28.575)* | +0.0016/+0.0008<br>*(+0.041/+0.020)* | 2.01<br>*(51)* | 1/4 x 1/8<br>*(6.35 x 3.175)* | 25.25<br>*(641)* | 365<br>*(166)* |
| | 213TC-215TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 26.18<br>*(665)* | 5.26<br>*(134)* | 0.79<br>*(20)* | 1.375<br>*(34.925)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 2.48<br>*(63)* | 5/16 x 5/32<br>*(7.938 x 3.969)* | 25.25<br>*(641)* | 368<br>*(167)* |
| | 254TC-256TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 26.18<br>*(665)* | 5.26<br>*(134)* | 0.79<br>*(20)* | 1.625<br>*(41.275)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 3.11<br>*(79)* | 3/8 x 3/8<br>*(9.525 x 9.525)* | 25.25<br>*(641)* | 367<br>*(166)* |
| **4D160, 4D165** | 182TC-184TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 30.20<br>*(767)* | 5.26<br>*(134)* | 0.79<br>*(20)* | 1.125<br>*(28.575)* | +0.0016/+0.0008<br>*(+0.041/+0.020)* | 2.01<br>*(51)* | 1/4 x 1/8<br>*(6.35 x 3.175)* | 29.28<br>*(744)* | 513<br>*(233)* |
| | 213TC-215TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 30.20<br>*(767)* | 5.26<br>*(134)* | 0.79<br>*(20)* | 1.375<br>*(34.925)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 2.48<br>*(63* | 5/16 x 5/32<br>*(7.938 x 3.969)* | 29.28<br>*(744)* | 516<br>*(234)* |
| | 254TC-256TC | 7.25<br>*(184)* | 8.50<br>*(216)* | 8.98<br>*(228)* | 0.22<br>*(6)* | 0.55<br>*(14)* | 4 | 30.20<br>*(767)* | 5.26<br>*(134)* | 0.79<br>*(20)* | 1.625<br>*(41.275)* | +0.0020/+0.0010<br>*(+0.051/+0.025)* | 3.11<br>*(79)* | 3/8 x 3/8<br>*(9.525 x 9.525)* | 29.28<br>*(744)* | 515<br>*(234)* |

Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.

# Dimensions

## Single Reduction, External Lubricant Piping
## LHY(J)-4A100 ~ 4F195




All dimensions are in inches *(mm)*.

| Frame Size | GJ | GL | GH | GK |
|---|---|---|---|---|
| **4A100** | 3.86 | 5.98 | 8.66 | 13.3 |
| **4A105** | *(98)* | *(152)* | *(220)* | *(339)* |
| **4A110** | 4.02 | 6.85 | 8.98 | 13.7 |
| **4A115** | *(102)* | *(174)* | *(228)* | *(347)* |
| **4A120** | 6.38 | 7.99 | 8.90 | 14.3 |
| **4A125** | *(162)* | *(203)* | *(226)* | *(364)* |
| **4A140** | 6.46 | 9.09 | 9.61 | 15.8 |
| **4A145** | *(164)* | *(231)* | *(244)* | *(401)* |
| **4B120** | 6.38 | 7.99 | 10.4 | 15.8 |
| **4B125** | *(162)* | *(203)* | *(263)* | *(401)* |
| **4B140** | 6.46 | 9.09 | 10.9 | 17.0 |
| **4B145** | *(164)* | *(231)* | *(276)* | *(433)* |
| **4B160** | 7.09 | 10.3 | 11.5 | 17.7 |
| **4B165** | *(180)* | *(261)* | *(293)* | *(450)* |
| **4C140** | 6.46 | 9.09 | 13.1 | 19.3 |
| **4C145** | *(164)* | *(231)* | *(334)* | *(491)* |
| **4C160** | 7.09 | 10.3 | 13.5 | 19.7 |
| **4C165** | *(180)* | *(261)* | *(344)* | *(501)* |
| **4C170** | 7.95 | 11.4 | 14.1 | 22.2 |
| **4C175** | *(202)* | *(289)* | *(358)* | *(565)* |
| **4D160** | 7.09 | 10.3 | 16.4 | 22.6 |
| **4D165** | *(180)* | *(261)* | *(416)* | *(573)* |
| **4D170** | 7.95 | 11.4 | 16.1 | 24.2 |
| **4D175** | *(202)* | *(289)* | *(408)* | *(615)* |
| **4D180** | 9.06 | 12.4 | 16.2 | 27.0 |
| **4D185** | *(230)* | *(314)* | *(411)* | *(687)* |
| **4E170** | 7.95 | 11.4 | 17.0 | 25.2 |
| **4E175** | *(202)* | *(289)* | *(433)* | *(640)* |
| **4E180** | 9.06 | 12.4 | 17.2 | 27.7 |
| **4E185** | *(230)* | *(314)* | *(436)* | *(703)* |
| **4E190** | 10.2 | 14.0 | 17.7 | 28.2 |
| **4E195** | *(260)* | *(355)* | *(450)* | *(717)* |
| **4F180** | 9.06 | 12.4 | 19.6 | 30.2 |
| **4F185** | *(230)* | *(314)* | *(499)* | *(766)* |
| **4F190** | 10.2 | 14.0 | 20.2 | 30.7 |
| **4F195** | *(260)* | *(355)* | *(512)* | *(779)* |



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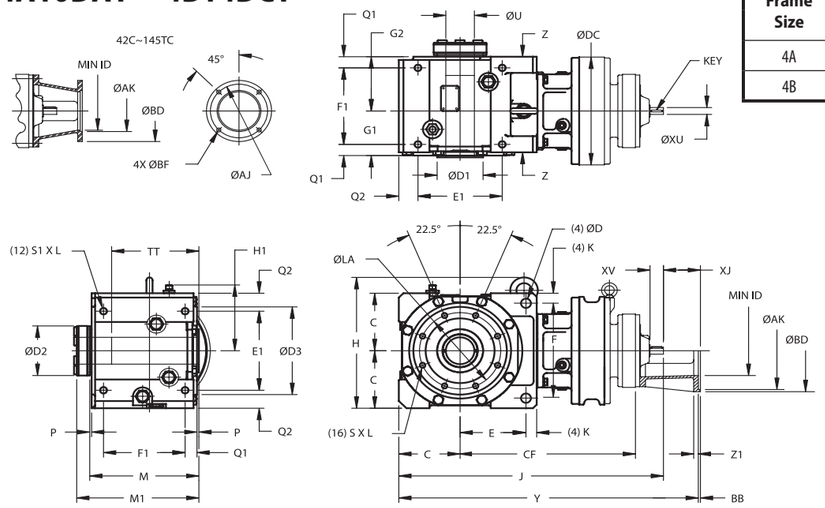
Sumitomo Drive Technologies **Cyclo® BBB4**



Speed Reducers
Dimensions

# Dimensions

## Double Reduction
## LHY(J)-4A10DAY ~ 4B14DCY




| Min. Engagement | | |
|---|---|---|
| Frame Size | TT | |
| | inch | *(mm)* |
| 4A | 8.19 | *(208)* |
| 4B | 9.53 | *(242)* |

All dimensions are in inches *(mm)*.
For units ordered in the Y2 mounting configuration, please refer to page 2.176 for external lubricant piping dimensions.

| Model | C | E | F | K | Z | ØD | E1 | F1 | Q1 | Q2 | S1 x L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4A10DA, 4A12DA, 4A12DB, 4A14DA, 4A14DB, 4A14DC | 4.33 *(110)* | 4.49 *(114)* | 7.24 *(184)* | 0.71 *(18)* | 1.38 *(35)* | 0.71 *(18)* | 5.91 *(150)* | 6.30 *(160)* | 0.91 *(23)* | 1.38 *(35)* | M12 x 0.79 *(M12 x 20)* | 8.50 *(216)* |
| 4B12DA, 4B12DB 4B14DA, 4B14DB, 4B14DC | 5.12 *(130)* | 5.59 *(142)* | 8.43 *(214)* | 0.91 *(23)* | 1.58 *(40)* | 0.87 *(22)* | 7.48 *(190)* | 7.68 *(195)* | 1.06 *(27)* | 1.38 *(35)* | M16 x 1.02 *(M16 x 26)* | 10.2 *(259)* |

| | | | | | | | | | | | ØU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | P | G1 | G2 | H | H1 | ØLA | ØD3 | S x L | M1 | ØD1 | ØD2 | Std & Max | Min |
| 4A10DA, 4A12DA, 4A12DB, 4A14DA, 4A14DB, 4A14DC | 0.20 *(5)* | 3.78 *(96)* | 4.33 *(110)* | 10.9 *(276)* | 5.16 *(131)* | 6.10 *(155)* | 6.89 *(175)* | M10 x 0.67 *(M10 x 17)* | 9.84 *(250)* | 3.35 *(85)* | 4.09 *(104)* | 2-3/16 *(55.563)* | 1-11/16 *(42.863)* |
| 4B12DA, 4B12DB 4B14DA, 4B14DB 4B14DC | 0.20 *(5)* | 4.80 *(122)* | 5.00 *(127)* | 12.1 *(308)* | 5.94 *(151)* | 6.89 *(175)* | 7.83 *(199)* | M12 x 0.79 *(M12 x 20)* | 11.5 *(293)* | 3.94 *(100)* | 4.49 *(114)* | 2-7/16 *(61.913)* | 1-15/16 *(49.213)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.





All dimensions are in inches *(mm)*.

| With C-Face Adapter | | | | | | |
|---|---|---|---|---|---|---|
| Model | NEMA C-Face | Y | Z1 | Min. ID | XJ | Weight lb *(kg)* |
| 4A10DA | 42C | 19.4 *(493)* | 0.47 *(12)* | 2.44 *(62)* | 1.78 *(45)* | 113 *(51)* |
| | 48C | 19.8 *(503)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 113 *(51)* |
| | 56C | 20.2 *(513)* | 0.47 *(12)* | 3.15 *(80)* | 2.56 *(65)* | 116 *(53)* |
| 4A12DA | 42C | 19.9 *(505)* | 0.47 *(12)* | 2.44 *(62)* | 1.78 *(45)* | 131 *(59)* |
| | 48C | 20.3 *(515)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 131 *(59)* |
| | 56C | 20.7 *(525)* | 0.47 *(12)* | 3.15 *(80)* | 2.56 *(65)* | 133 *(60)* |
| 4A12DB | 48C | 21.0 *(534)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 139 *(63)* |
| | 56C-145TC | 21.5 *(546)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 142 *(64)* |
| 4A14DA | 48C | 21.1 *(536)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 129 *(59)* |
| | 56C | 21.5 *(547)* | 0.47 *(12)* | 3.15 *(80)* | 2.56 *(65)* | 131 *(59)* |
| 4A14DB | 48C | 21.8 *(552)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 147 *(67)* |
| | 56C-145TC | 22.2 *(564)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 149 *(68)* |
| 4A14DC | 143TC-145TC | 22.5 *(570)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 154 *(70)* |
| | 182TC-184TC | 23.3 *(591)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 158 *(72)* |
| 4B12DA | 42C | 22.1 *(562)* | 0.47 *(12)* | 2.44 *(62)* | 1.78 *(45)* | 195 *(88)* |
| | 48C | 22.5 *(572)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 195 *(88)* |
| | 56C | 22.9 *(582)* | 0.47 *(12)* | 3.15 *(80)* | 2.56 *(65)* | 197 *(89)* |
| 4B12DB | 48C | 23.3 *(591)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 203 *(92)* |
| | 56C-145TC | 23.7 *(603)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 206 *(93)* |
| 4B14DA | 48C | 23.2 *(589)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 202 *(92)* |
| | 56C | 23.6 *(599)* | 0.47 *(12)* | 3.15 *(80)* | 2.56 *(65)* | 204 *(93)* |
| 4B14DB | 48C | 23.8 *(605)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 212 *(96)* |
| | 56C-145TC | 24.3 *(617)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 215 *(98)* |
| 4B14DC | 143TC-145TC | 24.5 *(623)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 220 *(100)* |
| | 182TC-184TC | 25.3 *(644)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 224 *(102)* |

| Free Shaft Input | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | ØXU | XV | Key | CF | ØDC | J | Weight lb *(kg)* |
| 4A10DA | 0.500 *(12.7)* | 0.98 *(24.9)* | 1/8 x 1/8 x 0.71 *(3.175 x 3.175 x 18)* | 11.22 *(285)* | 5.91 *(150)* | 17.64 *(448)* | 110 *(50)* |
| 4A12DA | 0.500 *(12.7)* | 0.98 *(24.9)* | 1/8 x 1/8 x 0.71 *(3.175 x 3.175 x 18)* | 11.69 *(297)* | 8.03 *(204)* | 18.11 *(460)* | 128 *(58)* |
| 4A12DB | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 12.17 *(309)* | 8.03 *(204)* | 18.86 *(479)* | 135 *(61)* |
| 4A14DA | 0.500 *(12.7)* | 0.98 *(24.9)* | 1/8 x 1/8 x 0.71 *(3.175 x 3.175 x 18)* | 12.50 *(319)* | 9.06 *(230)* | 18.98 *(482)* | 137 *(62)* |
| 4A14DB | 0.625 *(15.9* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 12.90 *(328)* | 9.06 *(230)* | 19.61 *(498)* | 139 *(63)* |
| 4A14DC | 0.625 *(15.9* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 13.45 *(342)* | 9.06 *(230)* | 19.84 *(504)* | 143 *(65)* |
| 4B12DA | 0.500 *(12.7)* | 0.98 *(24.9)* | 1/8 x 1/8 x 0.71 *(3.175 x 3.175 x 18)* | 13.15 *(334)* | 8.03 *(204)* | 20.35 *(517)* | 192 *(87.1)* |
| 4B12DB | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 13.62 *(346)* | 8.03 *(204)* | 21.10 *(536)* | 198 *(90)* |
| 4B14DA | 0.500 *(12.7)* | 0.98 *(24.9)* | 1/8 x 1/8 x 0.71 *(3.175 x 3.175 x 18)* | 13.82 *(351)* | 9.06 *(230)* | 21.02 *(534)* | 198 *(90)* |
| 4B14DB | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 14.17 *(360)* | 9.06 *(230)* | 21.65 *(550)* | 207 *(94)* |
| 4B14DC | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 14.72 *(374)* | 9.06 *(230)* | 21.89 *(556)* | 209 *(95)* |

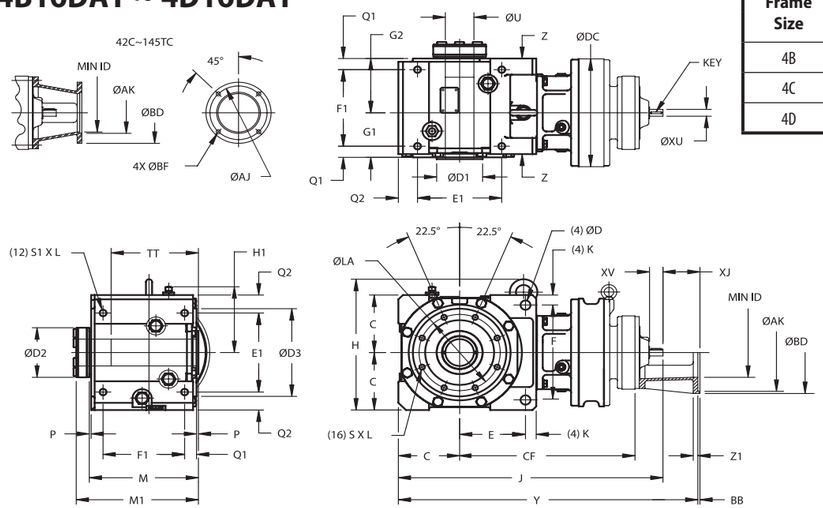
| NEMA C-Face Adapter | ØAJ | ØAK | ØBD | BB | ØBF |
|---|---|---|---|---|---|
| 42C-48C | 3.75 *(95)* | 3 *(76)* | 4.33 *(110)* | — — | 0.28 *(7)* |
| 56C-145TC | 5.87 *(149)* | 4.5 *(114)* | 6.69 *(170)* | — — | 0.43 *(11)* |
| 182TC-256TC | 7.25 *(184)* | 8.5 *(216)* | 8.98 *(228)* | 0.22 *(6)* | 0.55 *(14)* |
| 284TC-286TC | 9 *(229)* | 10.5 *(267)* | 11.1 *(282)* | 0.22 *(6)* | 0.55 *(14)* |
| 324TC-326TC | 11 *(279)* | 12.5 *(318)* | 14.17 *(360)* | 0.22 *(6)* | 0.71 *(18)* |



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Certified prints are available after receipt of an order; consult factory.

# Dimensions

## Double Reduction
## LHY(J)-4B16DAY ~ 4D16DAY




| Min. Engagement | | |
|---|---|---|
| Frame Size | TT | |
| | inch | *(mm)* |
| 4B | 9.53 | *(242)* |
| 4C | 10.98 | *(279)* |
| 4D | 12.83 | *(326)* |

All dimensions are in inches *(mm)*.
For units ordered in the Y2 mounting configuration, please refer to page 2.176 for external lubricant piping dimensions.

| Model | C | E | F | K | Z | ØD | E1 | F1 | Q1 | Q2 | S1 x L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4B16DA, 4B16DB, 4B16DC** | 5.12 *(130)* | 5.59 *(142)* | 8.43 *(214)* | 0.91 *(23)* | 1.58 *(40)* | 0.87 *(22)* | 7.48 *(190)* | 7.68 *(195)* | 1.06 *(27)* | 1.38 *(35)* | M16 x 1.02 *(M16 x 26)* | 10.2 *(259)* |
| **4C14DA, 4C14DB, 4C14DC, 4C16DA, 4C16DB, 4C16DC, 4C17DA, 4C17DB, 4C17DC** | 6.30 *(160)* | 6.77 *(172)* | 10.4 *(264)* | 1.10 *(28)* | 1.77 *(45)* | 1.02 *(26)* | 8.66 *(220)* | 8.39 *(213)* | 1.22 *(31)* | 1.97 *(50)* | M20 x 1.30 *(M20 x 33)* | 11.2 *(285)* |
| **4D16DA** | 7.48 *(190)* | 7.60 *(193)* | 12.2 *(310)* | 1.38 *(35)* | 2.17 *(55)* | 1.30 *(33)* | 9.84 *(250)* | 10.0 *(254)* | 1.42 *(36)* | 2.56 *(65)* | M24 x 1.57 *(M24 x 40)* | 13.4 *(340)* |

| Model | P | G1 | G2 | H | H1 | ØLA | ØD3 | S x L | M1 | ØD1 | ØD2 | ØU Std & Max | ØU Min |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4B16DA, 4B16DB, 4B16DC** | 0.20 *(5)* | 4.80 *(122)* | 5.00 *(127)* | 12.1 *(308)* | 5.94 *(151)* | 6.89 *(175)* | 7.83 *(199)* | M12 x 0.79 *(M12 x 20)* | 11.5 *(293)* | 3.94 *(100)* | 4.49 *(114)* | 2-7/16 *(61.913)* | 1-15/16 *(49.213)* |
| **4C14DA, 4C14DB, 4C14DC, 4C16DA, 4C16DB, 4C16DC, 4C17DA, 4C17DB, 4C17DC** | 0.20 *(5)* | 4.88 *(124)* | 5.94 *(151)* | 14.3 *(364)* | 7.20 *(183)* | 8.35 *(212)* | 9.61 *(244)* | M16 x 1.02 *(M16 x 26)* | 12.8 *(326)* | 4.72 *(120)* | 5.43 *(138)* | 2-15/16 *(71.613)* | 2-3/16 *(55.563)* |
| 4D16DA | 0.28 *(7)* | 5.83 *(148)* | 7.01 *(178)* | 16.7 *(424)* | 8.39 *(213)* | 10.0 *(255)* | 11.6 *(295)* | M20 x 1.30 *(M20 x 33)* | 15.0 *(381)* | 5.51 *(140)* | 5.98 *(152)* | 3-7/16 *(87.313)* | 2-7/16 *(61.913)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.





All dimensions are in inches *(mm)*.

| With C-Face Adapter | | | | | | |
|---|---|---|---|---|---|---|
| Model | NEMA C-Face | Y | Z1 | Min. ID | XJ | Weight lb *(kg)* |
| **4B16DA** | 56C-145TC | 25.0 *(636)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 272 *(123)* |
| **4B16DB** | 143TC-145TC | 25.2 *(642)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 277 *(126)* |
| | 182TC-184TC | 26.1 *(663)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 283 *(128)* |
| **4B16DC** | 182TC-184TC | 26.5 *(673)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 282 *(128)* |
| | 213TC-215TC | 27.5 *(698)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 284 *(129)* |
| **4C14DA** | 48C | 26.7 *(678)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 305 *(138)* |
| | 56C | 27.1 *(688)* | 0.47 *(12)* | 3.15 *(80)* | 2.56 *(65)* | 308 *(140)* |
| **4C14DB** | 48C | 27.3 *(694)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 316 *(143)* |
| | 56C-145TC | 27.8 *(706)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 318 *(144)* |
| **4C14DC** | 143TC-145TC | 28.0 *(712)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 320 *(145)* |
| | 182TC-184TC | 28.8 *(733)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 324 *(147)* |
| **4C16DA** | 56C-145TC | 28.7 *(729)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 369 *(167)* |
| **4C16DB** | 56C-145TC | 28.9 *(735)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 374 *(170)* |
| | 182TC-184TC | 29.7 *(755)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 380 *(172)* |
| **4C16DC** | 182TC-184TC | 29.7 *(754)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 379 *(172)* |
| | 213TC-215TC | 30.7 *(779)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 381 *(173)* |
| **4C17DA** | 56C-145TC | 29.4 *(746)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 394 *(179)* |
| **4C17DB** | 143TC-145TC | 29.6 *(751)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 398 *(180)* |
| | 182TC-184TC | 30.4 *(773)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 402 *(182)* |
| **4C17DC** | 182TC-184TC | 31.3 *(796)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 415 *(188)* |
| | 213TC-215TC | 32.3 *(821)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 425 *(193)* |
| **4D16DA** | 48C | 32.2 *(819)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 514 *(233)* |
| | 56C-145TC | 32.7 *(831)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 517 *(234)* |

| Free Shaft Input | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | ØXU | XV | Key | CF | ØDC | J | Weight lb *(kg)* |
| **4B16DA** | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/1 6x 0.75 *(4.762 x 4.762 x 19.05)* | 15.39 *(391)* | 11.81 *(300)* | 22.87 *(581)* | 260 *(118)* |
| **4B16DB** | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 15.94 *(405)* | 11.81 *(300)* | 23.11 *(587)* | 265 *(120)* |
| **4B16DC** | 0.750 *(19.1)* | 1.38 *(35.1)* | 3/16 x 3/16 x 1.02 *(4.762 x 4.762 x 26)* | 15.94 *(405)* | 11.81 *(300)* | 24.09 *(612)* | 276 *(125)* |
| **4C14DA** | 0.500 *(12.7)* | 0.98 *(24.9)* | 1/8 x 1/8 x 0.71 *(3.175 x 3.175 x 18)* | 16.14 *(410)* | 9.06 *(230)* | 24.53 *(623)* | 302 *(137)* |
| **4C14DB** | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 16.50 *(419)* | 9.06 *(230)* | 25.16 *(639)* | 311 *(141)* |
| **4C14DC** | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 17.05 *(433)* | 9.06 *(230)* | 25.39 *(645)* | 313 *(142)* |
| **4C16DA** | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 17.40 *(442)* | 11.81 *(300)* | 26.06 *(662)* | 362 *(164)* |
| **4C16DB** | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 17.95 *(456)* | 11.81 *(300)* | 26.29 *(668)* | 367 *(166)* |
| **4C16DC** | 0.750 *(19.1)* | 1.38 *(35.1)* | 3/16 x 3/16 x 1.02 *(4.762 x 4.762 x 26)* | 17.95 *(456)* | 11.81 *(300)* | 27.28 *(693)* | 397 *(180)* |
| **4C17DA** | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 18.07 *(459)* | 13.39 *(340)* | 26.73 *(679)* | 401 *(182)* |
| **4C17DB** | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 18.62 *(473)* | 13.39 *(340)* | 26.97 *(685)* | 406 *(184)* |
| **4C17DC** | 0.750 *(19.1)* | 1.38 *(35.1)* | 3/16 x 3/16 x 1.02 *(4.762 x 4.762 x 26)* | 18.78 *(477)* | 13.39 *(340)* | 27.95 *(710)* | 417 *(189)* |
| **4D16DA** | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 20.24 *(514)* | 11.81 *(300)* | 30.08 *(764)* | 509 *(231)* |

| NEMA C-Face Adapter | ØAJ | ØAK | ØBD | BB | ØBF |
|---|---|---|---|---|---|
| 42C-48C | 3.75 *(95)* | 3 *(76)* | 4.33 *(110)* | — — | 0.28 *(7)* |
| 56C-145TC | 5.87 *(149)* | 4.5 *(114)* | 6.69 *(170)* | — — | 0.43 *(11)* |
| 182TC-256TC | 7.25 *(184)* | 8.5 *(216)* | 8.98 *(228)* | 0.22 *(6)* | 0.55 *(14)* |
| 284TC-286TC | 9 *(229)* | 10.5 *(267)* | 11.1 *(282)* | 0.22 *(6)* | 0.55 *(14)* |
| 324TC-326TC | 11 *(279)* | 12.5 *(318)* | 14.17 *(360)* | 0.22 *(6)* | 0.71 *(18)* |

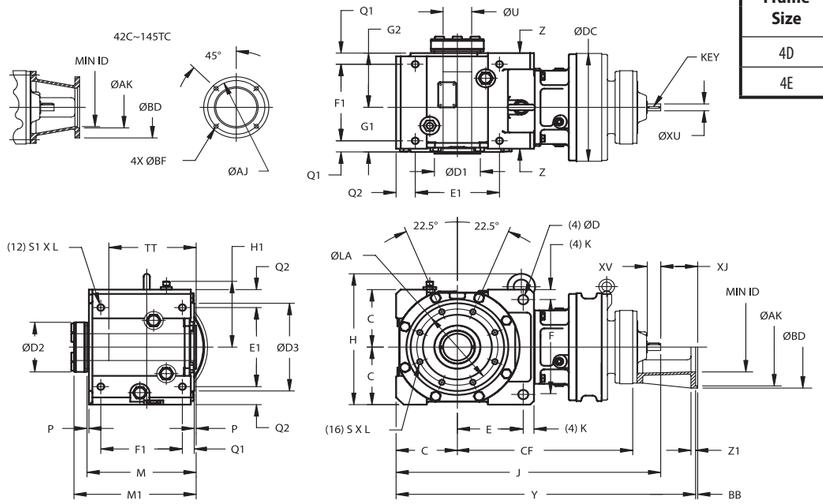


Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.

# Dimensions

## Double Reduction
## LHY(J)-4D16DBY ~ 4E18DAY

| Min. Engagement | | |
|---|---|---|
| Frame Size | TT | |
| | inch | *(mm)* |
| 4D | 12.83 | *(326)* |
| 4E | 14.13 | *(359)* |




All dimensions are in inches *(mm)*.
For units ordered in the Y2 mounting configuration, please refer to page 2.176 for external lubricant piping dimensions.

| Model | C | E | F | K | Z | ØD | E1 | F1 | Q1 | Q2 | S1 x L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4D16DB, 4D16DC, 4D17DA, 4D17DB, 4D17DC,4D18DA, 4D18DB | 7.48 *(190)* | 7.60 *(193)* | 12.2 *(310)* | 1.38 *(35)* | 2.17 *(55)* | 1.30 *(33)* | 9.84 *(250)* | 10.0 *(254)* | 1.42 *(36)* | 2.56 *(65)* | M24 x 1.57 *(M24 x 40)* | 13.4 *(340)* |
| 4E17DA, 4E17DB, 4E17DC, 4E18DA | 8.46 *(215)* | 9.06 *(230)* | 14.2 *(360)* | 1.38 *(35)* | 2.17 *(55)* | 1.30 *(33)* | 11.8 *(300)* | 11.1 *(283)* | 1.50 *(38)* | 2.56 *(65)* | M24 x 1.57 *(M24 x 40)* | 14.7 *(373)* |

| | | | | | | | | | | | ØU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | P | G1 | G2 | H | H1 | ØLA | ØD3 | S x L | M1 | ØD1 | ØD2 | Std & Max | Min |
| 4D16DB, 4D16DC, 4D17DA, 4D17DB, 4D17DC, 4D18DA, 4D18DB | 0.28 *(7)* | 5.83 *(148)* | 7.01 *(178)* | 16.7 *(424)* | 8.39 *(213)* | 10.0 *(255)* | 11.6 *(295)* | M20 x 1.30 *(M20 x 33)* | 15.0 *(381)* | 5.51 *(140)* | 5.98 *(152)* | 3-7/16 *(87.313)* | 2-7/16 *(61.913)* |
| 4E17DA, 4E17DB, 4E17DC, 4E18DA | 0.28 *(7)* | 6.14 *(156)* | 7.99 *(203)* | 19.6 *(498)* | 9.37 *(238)* | 11.0 *(280)* | 12.6 *(320)* | M20 x 1.38 *(M20 x 35)* | 16.3 *(414)* | 6.30 *(160)* | 6.69 *(170)* | 3-15/16 *(100.013)* | 2-15/16 *(74.613)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.





## Double Reduction LHY(J)-4D16DBY~4E18DAY Dimensions

All dimensions are in inches *(mm)*.

| With C-Face Adapter | | | | | | |
|---|---|---|---|---|---|---|
| Model | NEMA C-Face | Y | Z1 | Min. ID | XJ | Weight lb *(kg)* |
| 4D16DB | 143TC-145TC | 32.9 *(837)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 521 *(236)* |
| | 182TC-184TC | 33.8 *(858)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 525 *(238)* |
| 4D16DC | 182TC-184TC | 34.2 *(868)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 542 *(246)* |
| | 213TC-215TC | 35.2 *(893)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 544 *(247)* |
| 4D17DA | 56C-145TC | 32.5 *(826)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 548 *(249)* |
| 4D17DB | 143TC-145TC | 32.7 *(832)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 552 *(250)* |
| | 182TC-184TC | 33.6 *(853)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 556 *(252)* |
| 4D17DC | 182TC-184TC | 34.5 *(876)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 569 *(258)* |
| | 213TC-215TC | 35.5 *(901)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 579 *(263)* |
| 4D18DA | 143TC-145TC | 35.62 *(905)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 643 *(292)* |
| | 182TC-184TC | 36.36 *(924)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 646 *(293)* |
| 4D18DB | 56C-145TC | 37.59 *(955)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 666 *(302)* |
| | 182TC-184TC | 38.33 *(974)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 670 *(304)* |
| | 213TC-215TC | 38.96 *(990)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 675 *(306)* |
| 4E17DA | 48C | 34.0 *(864)* | 0.47 *(12)* | 2.44 *(62)* | 2.16 *(55)* | 708 *(321)* |
| | 56C-145TC | 34.5 *(876)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 711 *(322)* |
| 4E17DB | 143TC-145TC | 34.7 *(882)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 715 *(324)* |
| | 182TC-184TC | 35.5 *(903)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 719 *(326)* |
| 4E17DC | 182TC-184TC | 36.4 *(926)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 732 *(332)* |
| | 213TC-215TC | 37.4 *(951)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 743 *(337)* |
| 4E18DA | 143TC-145TC | 37.6 *(955)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 808 *(366)* |
| | 182TC-184TC | 38.33 *(974)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 812 *(368)* |

| Free Shaft Input | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | ØXU | XV | Key | CF | ØDC | J | Weight lb *(kg)* |
| 4D16DB | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 20.79 *(528)* | 11.81 *(300)* | 30.31 *(770)* | 514 *(233)* |
| 4D16DC | 0.750 *(19.1)* | 1.38 *(35.1)* | 3/16 x 3/16 x 1.02 *(4.762 x 4.762 x 26)* | 20.87 *(530)* | 11.81 *(300)* | 31.22 *(793)* | 529 *(240)* |
| 4D17DA | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 20.04 *(509)* | 13.39 *(340)* | 29.88 *(759)* | 540 *(245)* |
| 4D17DB | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 20.59 *(523)* | 13.39 *(340)* | 30.12 *(765)* | 545 *(247)* |
| 4D17DC | 0.750 *(19.1)* | 1.38 *(35.1)* | 3/16 x 3/16 x 1.02 *(4.762 x 4.762 x 26)* | 20.75 *(527)* | 13.39 *(340)* | 31.10 *(790)* | 556 *(252)* |
| 4D18DA | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 20.08 *(510)* | 14.57 *(370)* | 32.99 *(838)* | 635 *(288)* |
| 4D18DB | 0.875 *(22.2)* | 1.57 *(39.9)* | 3/16 x 3/16 x 1.38 *(4.762 x 4.762 x 35.05)* | 22.08 *(561)* | 14.57 *(370)* | 34.96 *(888)* | 659 *(299)* |
| 4E17DA | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 21.02 *(534)* | 13.39 *(340)* | 31.85 *(809)* | 703 *(319)* |
| 4E17DB | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 21.57 *(548)* | 13.39 *(340)* | 32.09 *(815)* | 708 *(321)* |
| 4E17DC | 0.750 *(19.1)* | 1.38 *(35.1)* | 3/16 x 3/16 x 1.02 *(4.762 x 4.762 x 26)* | 21.73 *552)* | 13.39 *(340)* | 33.07 *(840)* | 719 *(326)* |
| 4E18DA | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 24.45 *(621)* | 14.57 *(370)* | 34.96 *(888)* | 800 *(363)* |

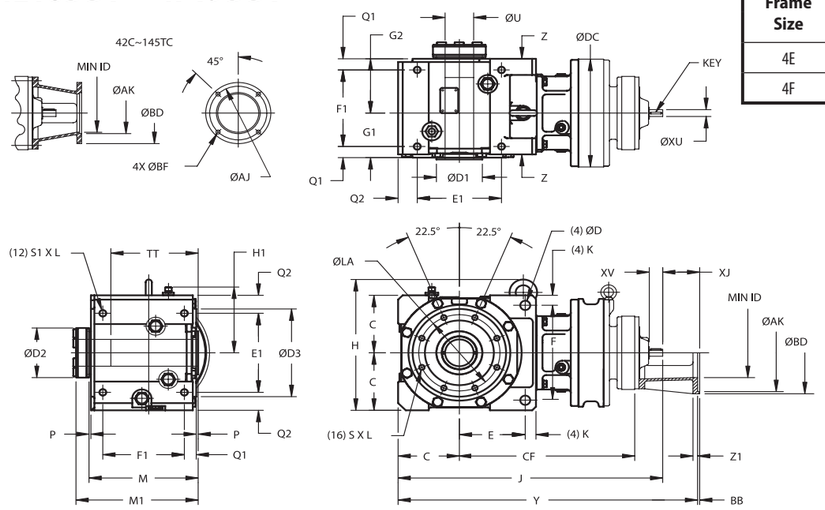
| NEMA C-Face Adapter | ØAJ | ØAK | ØBD | BB | ØBF |
|---|---|---|---|---|---|
| 42C-48C | 3.75 *(95)* | 3 *(76)* | 4.33 *(110)* | — — | 0.28 *(7)* |
| 56C-145TC | 5.87 *(149)* | 4.5 *(114)* | 6.69 *(170)* | — — | 0.43 *(11)* |
| 182TC-256TC | 7.25 *(184)* | 8.5 *(216)* | 8.98 *(228)* | 0.22 *(6)* | 0.55 *(14)* |
| 284TC-286TC | 9 *(229)* | 10.5 *(267)* | 11.1 *(282)* | 0.22 *(6)* | 0.55 *(14)* |
| 324TC-326TC | 11 *(279)* | 12.5 *(318)* | 14.17 *(360)* | 0.22 *(6)* | 0.71 *(18)* |



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Certified prints are available after receipt of an order; consult factory.

# Dimensions

## Double Reduction
## LHY(J)-4E18DBY ~ 4F19DBY




| Min. Engagement | | |
|---|---|---|
| Frame Size | TT | |
| | inch | *(mm)* |
| 4E | 14.13 | *(359)* |
| 4F | 16.22 | *(412)* |

All dimensions are in inches *(mm)*.
For units ordered in the Y2 mounting configuration, please refer to page 2.176 for external lubricant piping dimensions.

| Model | C | E | F | K | Z | ØD | E1 | F1 | Q1 | Q2 | S1 x L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4E18DB, 4E19DA, 4E19DB | 8.46 *(215)* | 9.06 *(230)* | 14.2 *(360)* | 1.38 *(35)* | 2.17 *(55)* | 1.30 *(33)* | 11.8 *(300)* | 11.1 *(283)* | 1.50 *(38)* | 2.56 *(65)* | M24 x 1.57 *(M24 x 40)* | 14.7 *(373)* |
| 4F18DA, 4F18DB 4F19DA, 4F19DB | 9.45 *(240)* | 9.92 *(252)* | 15.8 *(400)* | 1.77 *(45)* | 2.76 *(70)* | 1.54 *(39)* | 13.4 *(340)* | 12.6 *(320)* | 1.99 *(51)* | 2.76 *(70)* | M30 x 1.97 *(M30 x 50)* | 17.1 *(435)* |

| | | | | | | | | | | | ØU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | P | G1 | G2 | H | H1 | ØLA | ØD3 | S x L | M1 | ØD1 | ØD2 | Std & Max | Min |
| 4E18DB, 4E19DA, 4E19DB | 0.28 *(7)* | 6.14 *(156)* | 7.99 *(203)* | 19.6 *(498)* | 9.37 *(238)* | 11.0 *(280)* | 12.6 *(320)* | M20 x 1.38 *(M20 x 35)* | 16.3 *(414)* | 6.30 *(160)* | 6.69 *(170)* | 3-15/16 *(100.013)* | 2-15/16 *(74.613)* |
| 4F18DA, 4F18DB 4F19DA, 4F19DB | 0.28 *(7)* | 9.37 *(238)* | 7.20 *(183)* | 23.2 *(590)* | 10.8 *(273)* | 12.6 *(320)* | 14.6 *(370)* | M24 x 1.57 *(M24 x 40)* | 19.2 *(486)* | 7.09 *(180)* | 8.15 *(207)* | 4-15/16 *(125.413)* | 3-15/16 *(100.013)* |



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Certified prints are available after receipt of an order; consult factory.





All dimensions are in inches *(mm)*.

| With C-Face Adapter | | | | | | |
|---|---|---|---|---|---|---|
| Model | NEMA C-Face | Y | Z1 | Min. ID | XJ | Weight lb *(kg)* |
| 4E18DB | 56C-145TC | 39.56 *(1005)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 833 *(378)* |
| | 182TC-184TC | 40.30 *(1024)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 837 *(380)* |
| | 213TC-215TC | 40.93 *(1040)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 839 *(380)* |
| 4E19DA | 56C-145TC | 39.80 *(1011)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 912 *(414)* |
| | 182TC-184TC | 40.54 *(1030)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 916 *(415)* |
| 4E19DB | 56C-145TC | 40.70 *(1034)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 916 *(415)* |
| | 182TC-184TC | 41.44 *(1053)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 920 *(417)* |
| | 213TC-215TC | 42.07 *(1069)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 925 *(420)* |
| 4F18DA | 143TC-145TC | 41.17 *(1046)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 1195 *(542)* |
| | 182TC-184TC | 41.91 *(1065)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 1199 *(544)* |
| 4F18DB | 56C-145TC | 43.02 *(1093)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 1221 *(554)* |
| | 182TC-184TC | 43.76 *(1112)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 1225 *(556)* |
| | 213TC-215TC | 44.39 *(1128)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 1236 *(561)* |
| 4F19DA | 182TC-184TC | 43.96 *(1117)* | 0.47 *(12)* | 5.43 *(138)* | 3.37 *(86)* | 1305 *(592)* |
| | 213TC-215TC | 44.49 *(1130)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 1316 *(597)* |
| 4F19DB | 56C-145TC | 44.13 *(1121)* | 0.47 *(12)* | 4.21 *(107)* | 2.63 *(67)* | 1305 *(592)* |
| | 182TC-184TC | 44.87 *(1140)* | 0.47 *(12)* | 5.43 *(138)* | 3.45 *(88)* | 1316 *(597)* |
| | 213TC-215TC | 45.50 *(1156)* | 1.47 *(37)* | 5.43 *(138)* | 4.37 *(111)* | 1327 *(602)* |

| Free Shaft Input | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | ØXU | XV | Key | CF | ØDC | J | Weight lb *(kg)* |
| 4E18DB | 0.875 *(22.2)* | 1.57 *(39.9)* | 3/16 x 3/16 x 1.38 *(4.762 x 4.762 x 35.05)* | 25.31 *(643)* | 14.57 *(370)* | 36.93 *(938)* | 825 *(374)* |
| 4E19DA | 0.750 *(19.1)* | 1.38 *(35.1)* | 3/16 x 3/16 x 1.02 *(4.762 x 4.762 x 26)* | 25.83 *(656)* | 16.93 *(430)* | 37.17 *(944)* | 904 *(410)* |
| 4E19DB | 0.875 *(22.2)* | 1.57 *(39.9)* | 3/16 x 3/16 x 1.38 *(4.762 x 4.762 x 35.05)* | 26.46 *(672)* | 16.93 *(430)* | 38.07 *(967)* | 908 *(412)* |
| 4F18DA | 0.625 *(15.9)* | 0.98 *(24.9)* | 3/16 x 3/16 x 0.75 *(4.762 x 4.762 x 19.05)* | 26.93 *(684)* | 14.57 *(370)* | 38.54 *(979)* | 1188 *(539)* |
| 4F18DB | 0.875 *(22.2)* | 1.57 *(39.9)* | 3/16 x 3/16 x 1.38 *(4.762 x 4.762 x 35.05)* | 27.80 *(706)* | 14.57 *(370)* | 40.39 *(1026)* | 1213 *(550)* |
| 4F19DA | 0.750 *(19.1)* | 1.38 *(35.1)* | 3/16 x 3/16 x 1.02 *(4.762 x 4.762 x 26)* | 28.27 *(718)* | 16.93 *(430)* | 40.59 *(1031)* | 1292 *(586)* |
| 4F19DB | 0.875 *(22.2)* | 1.57 *(39.9)* | (3/16 x 3/16 x 1.38) *(4.762 x 4.762 x 35.05)* | 28.90 *(734)* | 16.93 *(430)* | 41.50 *(1054)* | 1297 *(588)* |

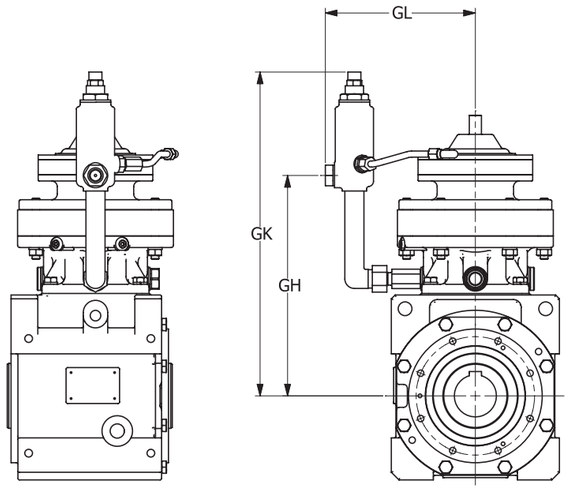
| NEMA C-Face Adapter | ØAJ | ØAK | ØBD | BB | ØBF |
|---|---|---|---|---|---|
| 42C-48C | 3.75 *(95)* | 3 *(76)* | 4.33 *(110)* | — — | 0.28 *(7)* |
| 56C-145TC | 5.87 *(149)* | 4.5 *(114)* | 6.69 *(170)* | — — | 0.43 *(11)* |
| 182TC-256TC | 7.25 *(184)* | 8.5 *(216)* | 8.98 *(228)* | 0.22 *(6)* | 0.55 *(14)* |
| 284TC-286TC | 9 *(229)* | 10.5 *(267)* | 11.1 *(282)* | 0.22 *(6)* | 0.55 *(14)* |
| 324TC-326TC | 11 *(279)* | 12.5 *(318)* | 14.17 *(360)* | 0.22 *(6)* | 0.71 *(18)* |



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Certified prints are available after receipt of an order; consult factory.

# Dimensions

## Double Reduction, External Lubricant Piping
## LHY(J)-4A10DA ~ 4F19DB




All dimensions are in inches *(mm)*.

| Frame Size | GL | GH | GK | Frame Size | GL | GH | GK | Frame Size | GL | GH | GK |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **4A10DA** | 5.98 *(152)* | 10.9 *(278)* | 15.6 *(397)* | **4C14DC** | 9.09 *(231)* | 16.5 *(418)* | 22.6 *(575)* | **4E17DA** | 11.4 *(289)* | 20.5 *(521)* | 28.7 *(728)* |
| **4A12DA** | 7.99 *(203)* | 11.4 *(290)* | 16.9 *(428)* | **4C16DA** | 10.3 *(261)* | 17.0 *(433)* | 23.2 *(590)* | **4E17DB** | 11.4 *(289)* | 20.8 *(528)* | 28.9 *(735)* |
| **4A12DB** | 7.99 *(203)* | 11.8 *(299)* | 17.2 *(437)* | **4D16DA** | 10.3 *(261)* | 19.9 *(505)* | 26.1 *(662)* | **4E17DC** | 11.4 *(289)* | 21.0 *(533)* | 29.1 *(740)* |
| **4B12DA** | 7.99 *(203)* | 12.9 *(327)* | 18.3 *(465)* | **4D16DB** | 10.3 *(261)* | 20.2 *(512)* | 26.3 *(669)* | **4E18DA** | 12.4 *(314)* | 21.1 *(536)* | 31.6 *(803)* |
| **4B12DB** | 7.99 *(203)* | 13.2 *(336)* | 18.7 *(474)* | **4D17DA** | 11.4 *(289)* | 19.5 *(496)* | 27.7 *(703)* | **4E18DB** | 12.4 *(314)* | 20.6 *(522)* | 32.2 *(819)* |
| **4B14DA** | 9.09 *(231)* | 13.7 *(349)* | 19.9 *(506)* | **4D17DB** | 11.4 *(289)* | 19.8 *(503)* | 28.0 *(710)* | **4F18DA** | 12.4 *(314)* | 23.6 *(599)* | 34.1 *(866)* |
| **4B14DB** | 9.09 *(231)* | 13.9 *(353)* | 20.1 *(510)* | **4D17DC** | 11.4 *(289)* | 20.0 *(508)* | 28.1 *(715)* | **4F18DB** | 12.4 *(314)* | 24.2 *(615)* | 34.7 *(882)* |
| **4C14DA** | 9.09 *(231)* | 16.0 *(407)* | 22.2 *(564)* | **4D18DA** | 12.4 *(314)* | 20.1 *(511)* | 31.0 *(787)* | **4F19DA** | 14.0 *(355)* | 24.6 *(624)* | 35.1 *(891)* |
| **4C14DB** | 9.09 *(231)* | 16.2 *(411)* | 22.4 *(568)* | **4D18DB** | 12.4 *(314)* | 20.7 *(527)* | 31.3 *(794)* | **4F19DB** | 14.0 *(355)* | 24.9 *(633)* | 35.4 *(900)* |



Dimensions shown are for reference only and are subject to change without notice, unless certified. Certified prints are available after receipt of an order; consult factory.





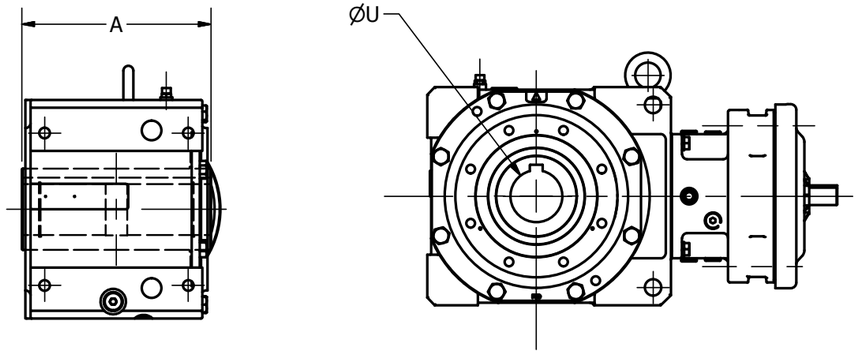
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# 3 Options

# Options

## Keyed Hollow Shaft

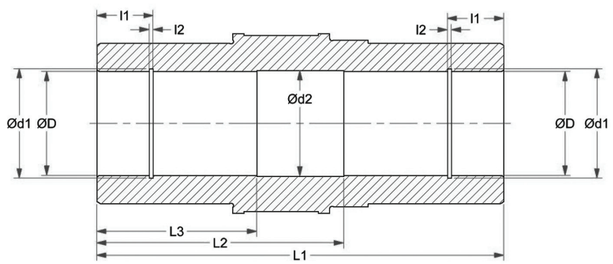



All dimensions are in inches *(mm)*.

| Frame Size | Standard Inch Bore Dimension | | | Standard Metric Bore Dimension | | | A | TK* |
|---|---|---|---|---|---|---|---|---|
| | ØU | ØU Tolerance | Keyway | ØU | ØU Tolerance | Keyway | | |
| **4A** | 2.000 | +0.0018/+0.0006 | 1/2 x 1/4 | *(55)* | *(+0.046/+0.016)* | *(16 x 10)* | 8.50 *(216)* | 6.50 *(165)* |
| **4B** | 2.375 | +0.0018/+0.0006 | 5/8 x 5/16 | *(65)* | *(+0.046/+0.016)* | *(18 x 11)* | 10.20 *(259)* | 7.87 *(200)* |
| **4C** | 2.750 | +0.0018/+0.0006 | 5/8 x 5/16 | *(75)* | *(+0.046/+0.016)* | *(20 x 12)* | 11.22 *(285)* | 9.76 *(248)* |
| **4D** | 3.250 | +0.0021/+0.0007 | 3/4 X 3/8 | *(85)* | *(+0.054/+0.019)* | *(22 x 14)* | 13.39 *(340)* | 11.93 *(303)* |
| **4E** | 4.000 | +0.0021/+0.0007 | 1 X 1/2 | *(100)* | *(+0.054/+0.019)* | *(28 x 16)* | 14.69 *(373)* | 10.24 *(260)* |
| **4F** | 4.500 | +0.0023/+0.0009 | 1 X 1/2 | *(120)* | *(+0.058/+0.023)* | *(32 x 18)* | 17.13 *(435)* | 12.44 *(316)* |

*Recommended minimum shaft engagement

## Internal Retaining Ring




All dimensions are in inches *(mm)*.

| Frame Size | BBB | | | | Retaining Ring Groove | | | |
|---|---|---|---|---|---|---|---|---|
| | ØD | L1 | Ød1 | l1 | l2 | Ød2 | L2 | L3 |
| **4A** | 2 *(55)* | 8.50 *(216)* | 2.09 *(58)* | 1.18 *(30)* | .069 *(2.2)* | 2.04 *(56)* | 5.16 *(131)* | 3.35 *(85)* |
| **4B** | 2-3/8 *(65)* | 10.2 *(259)* | 2.51 *(68)* | 1.18 *(30)* | 0.085 *(2.7)* | 2.42 *(66)* | 6.26 *(159)* | 3.94 *(100)* |
| **4C** | 2-3/4 *(75)* | 11.2 *(285)* | 2.93 *(78)* | 1.18 *(30)* | 0.100 *(2.7)* | 2.80 *(76)* | 6.50 *(165)* | 4.72 *(120)* |
| **4D** | 3-1/4 *(85)* | 13.4 *(340)* | 3.43 *(88.5)* | 1.46 *(30)* | 0.116 *(3.2)* | 3.31 *(101)* | 7.68 *(208)* | 5.71 *(165)* |
| **4E** | 4 *(100)* | 14.7 *(373)* | 4.27 *(103.5)* | 1.46 *(30)* | 0.116 *(3.2)* | 4.06 *(101)* | 8.19 *(208)* | 6.50 *(165)* |
| **4F** | 4-1/2 *(120)* | 17.1 *(435)* | 4.74 *(124)* | 1.93 *(30)* | 0.120 *(4.2)* | 4.55 *(121)* | 9.49 or 9.69 (3) *(241 or 246 (3))* | 7.44 or 7.64 (3) *(189 or 194 (3))* |



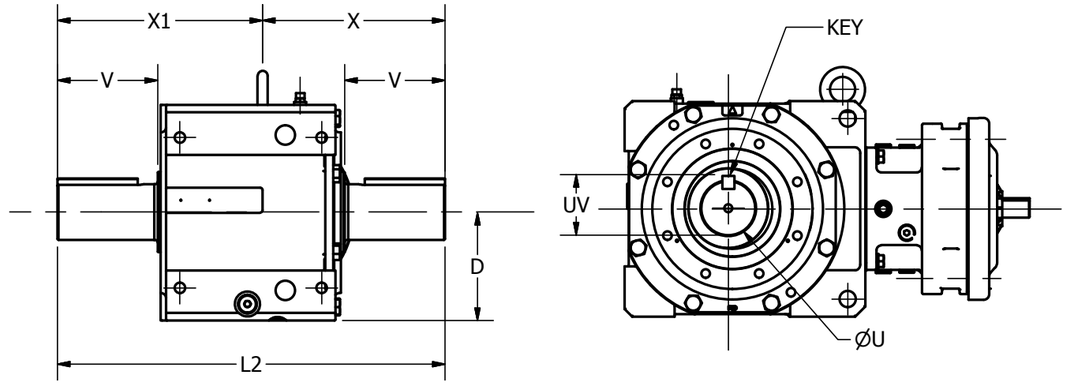


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Certified prints are available after receipt of an order; consult factory.



Options

## Solid Output Shaft




All dimensions are in inches *(mm)*.

| Frame Size | Standard Inch Shaft Dimension | | | | Standard Metric Shaft Dimensions | | | | D | V | X | X1 | L2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ØU | ØU Tolerance | UV | Key | ØU | ØU Tolerance | UV | Key | | | | | |
| **4A** | 2.000 | h6: 0/-0.0006 | 2.22 | 1/2 x 1/2 x 2.76 | *(50)* | *(h6: 0/-0.016)* | *(53.5)* | *(14 x 9 x 70)* | 4.33 *(110)* | 3.54 *(90)* | 7.48 *(190)* | 8.11 *(206)* | 15.59 *(396)* |
| **4B** | 2.875 | h6: 0/-0.0007 | 3.20 | 3/4 x 3/4 x 3.15 | *(65)* | *(h6: 0/-0.019)* | *(69.0)* | *(18 x 11 x 80)* | 5.12 *(130)* | 4.53 *(115)* | 9.53 *(242)* | 9.72 *(247)* | 19.25 *(489)* |
| **4C** | 3.125 | h6: 0/-0.0007 | 3.45 | 3/4 x 3/4 x 4.72 | *(80)* | *(h6: 0/-0.019)* | *(85.0)* | *(22 x 14 x 120)* | 6.30 *(160)* | 5.71 *(145)* | 10.79 *(274)* | 11.85 *(301)* | 22.64 *(575)* |
| **4D** | 3.625 | h6 0/-0.0009 | 4.01 | 7/8 x 7/8 x 5.51 | *(95)* | *(h6: 0/-0.022)* | *(100)* | *(25 x 14 x 140)* | 7.48 *(190)* | 6.69 *(170)* | 12.80 *(325)* | 13.98 *(355)* | 26.77 *(680)* |
| **4E** | 4.375 | h6 0/-0.0009 | 4.82 | 1 x 1 x 6.30 | *(110)* | *(h6: 0/-0.022)* | *(116)* | *(28 x 16 x 160)* | 8.46 *(215)* | 7.87 *(200)* | 14.29 *(363)* | 16.14 *(410)* | 30.43 *(773)* |
| **4F** | 4.750 | h6 0/-0.0010 | 5.29 | 1-1/4 x 1-1/4 x 6.69 | *(130)* | *(h6: 0/-0.025)* | *(137)* | *(32 x 18 x 170)* | 9.45 *(240)* | 8.27 *(210)* | 15.75 *(400)* | 17.91 *(455)* | 33.66 *(855)* |

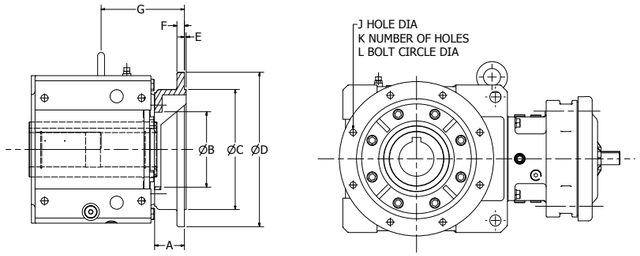
Cyclo® BBB4
Options

Sumitomo Drive Technologies **Cyclo® BBB4**

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Certified prints are available after receipt of an order; consult factory.

# Options

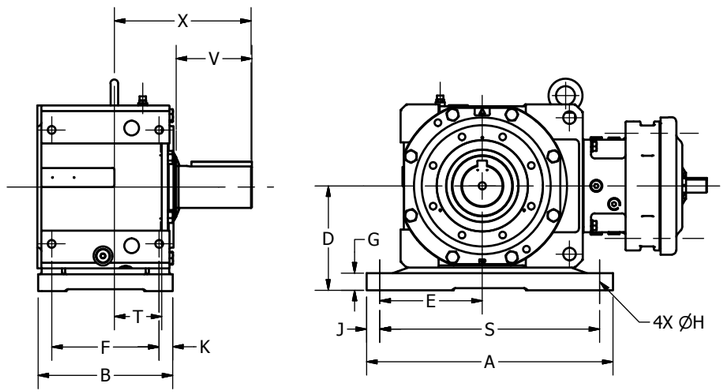
## Output Flange




All dimensions are in inches *(mm)*.

| Frame Size | A | ØB | ØC | ØD | E | F | G | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|
| 4A | 2.36 *(60)* | 4.72 *(120)* | 7.09 *(180)* | 9.84 *(250)* | 0.16 *(4)* | 0.59 *(15)* | 6.30 *(160)* | 0.55 *(14)* | 4 | 8.46 *(215)* |
| 4B | 2.40 *(61)* | 5.51 *(140)* | 9.06 *(230)* | 11.8 *(300)* | 0.16 *(4)* | 0.63 *(16)* | 7.40 *(188)* | 0.55 *(14)* | 4 | 10.4 *(265)* |
| 4C | 2.87 *(73)* | 6.50 *(165)* | 9.84 *(250)* | 13.8 *(350)* | 0.20 *(5)* | 0.71 *(18)* | 7.95 *(202)* | 0.71 *(18)* | 4 | 11.8 *(300)* |
| 4D | 3.15 *(80)* | 7.68 *(195)* | 13.8 *(350)* | 17.7 *(450)* | 0.20 *(5)* | 0.87 *(22)* | 9.25 *(235)* | 0.71 *(18)* | 8 | 15.8 *(400)* |
| 4E | 3.15 *(80)* | 8.66 *(220)* | 13.8 *(350)* | 17.7 *(450)* | 0.20 *(5)* | 0.87 *(22)* | 9.57 *(243)* | 0.71 *(18)* | 8 | 15.8 *(400)* |
| 4F | 2.56 *(65)* | 9.45 *(240)* | 21.7 *(550)* | 26.0 *(660)* | 0.20 *(5)* | 0.94 *(24)* | 10.0 *(255)* | 0.87 *(22)* | 8 | 23.6 *(600)* |

## Foot Mounted




All dimensions are in inches *(mm)*.

| Frame Size | A | B | D | E | F | G | ØH | J | K | S | T | V | X |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4A | 12.6 *(320)* | 7.95 *(202)* | 5.51 *(140)* | 5.31 *(135)* | 6.30 *(160)* | 0.98 *(25)* | 0.55 *(14)* | 0.79 *(20)* | 0.83 *(21)* | 11.0 *(280)* | 2.83 *(72)* | 3.54 *(90)* | 7.48 *(190)* |
| 4B | 15.2 *(385)* | 9.65 *(245)* | 6.69 *(170)* | 6.30 *(160)* | 7.68 *(195)* | 1.38 *(35)* | 0.71 *(18)* | 0.79 *(20)* | 0.98 *(25)* | 13.6 *(345)* | 3.74 *(95)* | 4.53 *(115)* | 9.53 *(242)* |
| 4C | 19.9 *(505)* | 10.6 *(270)* | 8.27 *(210)* | 7.68 *(195)* | 8.27 *(210)* | 1.57 *(40)* | 0.87 *(22)* | 1.18 *(30)* | 1.18 *(30)* | 17.5 *(445)* | 3.58 *(91)* | 5.71 *(145)* | 10.8 *(274)* |
| 4D | 22.1 *(560)* | 12.6 *(320)* | 9.65 *(245)* | 9.25 *(235)* | 10.2 *(260)* | 1.77 *(45)* | 1.02 *(26)* | 1.18 *(30)* | 1.18 *(30)* | 19.7 *(500)* | 4.53 *(115)* | 6.69 *(170)* | 12.8 *(325)* |
| 4E | 25.6 *(650)* | 14.0 *(355)* | 10.8 *(275)* | 10.6 *(270)* | 11.0 *(280)* | 1.77 *(45)* | 1.30 *(33)* | 1.38 *(35)* | 1.50 *(38)* | 22.8 *(580)* | 4.57 *(116)* | 7.87 *(200)* | 14.3 *(363)* |
| 4F | 29.1 *(740)* | 15.8 *(400)* | 12.6 *(320)* | 11.8 *(300)* | 12.6 *(320)* | 2.56 *(65)* | 1.30 *(33)* | 1.38 *(35)* | 1.57 *(40)* | 26.4 *(670)* | 4.43 *(113)* | 8.27 *(210)* | 15.8 *(400)* |





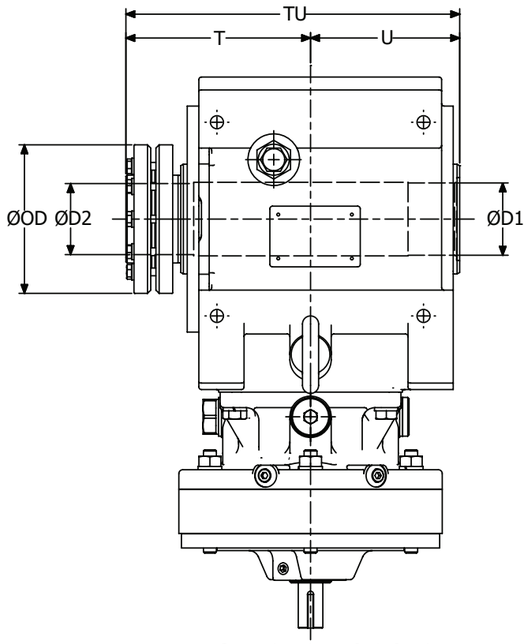
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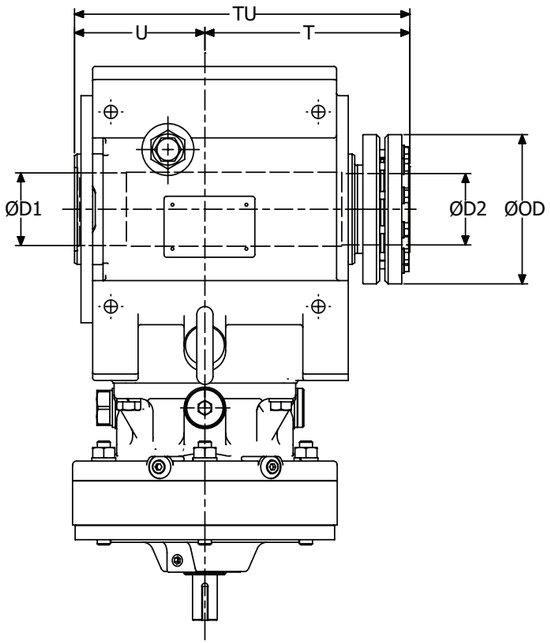
Options

Options

## Shrink Disk




**Left Projecting Shrink Disc**




**Right Projecting Shrink Disc**

All dimensions are in inches *(mm)*.

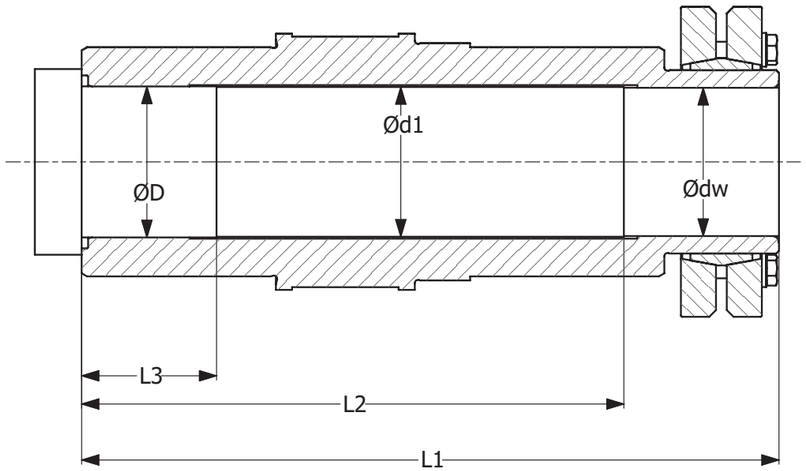
| Frame Size | ØD1 | ØD2 | ØOD | TU | Left Projecting Shrink Disc | | Right Projecting Shrink Disc | |
|---|---|---|---|---|---|---|---|---|
| | | | | | T | U | T | U |
| 4A | 2.20 *(56)* | 2.17 *(55)* | 4.53 *(115)* | 10.2 *(259)* | 5.28 *(134)* | 4.90 *(125)* | 6.40 *(163)* | 3.78 *(96)* |
| 4B | 2.60 *(66)* | 2.56 *(65)* | 5.71 *(145)* | 12.0 *(304)* | 6.76 *(172)* | 5.19 *(132)* | 6.95 *(177)* | 5.00 *(127)* |
| 4C | 2.99 *(76)* | 2.95 *(75)* | 6.69 *(170)* | 13.3 *(337)* | 7.11 *(181)* | 6.14 *(156)* | 8.17 *(208)* | 5.08 *(129)* |
| 4D | 3.39 *(86)* | 3.35 *(85)* | 7.28 *(185)* | 16.0 *(408)* | 8.76 *(223)* | 7.28 *(185)* | 9.94 *(253)* | 6.10 *(155)* |
| 4E | 3.98 *(101)* | 3.94 *(100)* | 9.06 *(230)* | 17.3 *(441)* | 9.07 *(231)* | 8.27 *(210)* | 10.9 *(278)* | 6.42 *(163)* |
| 4F | 4.76 *(121)* | 4.72 *(120)* | 11.4 *(290)* | 20.2 *(513)* | 10.6 *(268)* | 9.65 *(245)* | 12.7 *(323)* | 7.48 *(190)* |

Cyclo® BBB4
Options

Sumitomo Drive Technologies **Cyclo® BBB4**

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# Options




Recommendations for the design of the driven shaft if Shrink Disc connection method is selected:

- When ordering the Cyclo® BBB4 with a shrink disc output option, be sure to designate the orientation (left or right) in which to install the shrink disc.
- Once the product is shipped from the Sumitomo factory, the orientation of the shrink disc **cannot** be changed in the field.
- When designing the driven shaft to be inserted into the shrink disc, refer to the table below for shaft design recommendations.

All dimensions are in inches *(mm)*.

| Model | Driven Shaft Recommended Dimensions | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Ødw | Ødw tolerance | Ød1 | ØD | ØD tolerance | L1 | L2 | L3 |
| **4A100, 4A105<br>4A110, 4A115<br>4A120, 4A125<br>4A140, 4A145** | 2.17<br>*(55)* | h6: +0/-0.0007<br>*(h6: +0/-0.019)* | 2.19<br>*(55.5)* | 2.20<br>*(56)* | h7: +0/-0.0012<br>*(h7: +0/-0.030)* | 10.18<br>*(258.5)* | 7.91<br>*(201)* | 1.97<br>*(50)* |
| **4B120, 4B125<br>4B140, 4B145<br>4B160, 4B165** | 2.56<br>*(65)* | h6: +0/-0.0007<br>*(h6: +0/-0.019)* | 2.58<br>*(65.5)* | 2.60<br>*(66)* | h7: +0/-0.0012<br>*(h7: +0/-0.030)* | 11.95<br>*(303.5)* | 9.61<br>*(244)* | 1.97<br>*(50)* |
| **4C140, 4C145<br>4C160, 4C165<br>4C170, 4C175** | 2.95<br>*(75)* | h6: +0/-0.0007<br>*(h6: +0/-0.019)* | 2.97<br>*(75.5)* | 2.99<br>*(76)* | h7: +0/-0.0012<br>*(h7: +0/-0.030)* | 13.25<br>*(336.5)* | 10.63<br>*(270)* | 1.97<br>*(50)* |
| **4D160, 4D165<br>4D170, 4D175<br>4D180, 4D185** | 3.35<br>*(85)* | h6: +0/-0.0009<br>*(h6: +0/-0.022)* | 3.37<br>*(85.5)* | 3.39<br>*(86)* | h7: +0/-0.0014<br>*(h7: +0/-0.035)* | 16.04<br>*(407.5)* | 12.80<br>*(325)* | 2.56<br>*(65)* |
| **4E170, 4E175<br>4E180, 4E185<br>4E190, 4E195** | 3.94<br>*(100)* | h6: +0/-0.0009<br>*(h6: +0/-0.022)* | 3.96<br>*(100.5)* | 3.98<br>*(101)* | h7: +0/-0.0014<br>*(h7: +0/-0.035)* | 17.34<br>*(440.5)* | 14.09<br>*(358)* | 2.56<br>*(65)* |
| **4F180, 4F185<br>4F190, 4F195** | 4.72<br>*(120)* | h6: +0/-0.0009<br>*(h6: +0/-0.022)* | 4.74<br>*(120.5)* | 4.76<br>*(121)* | h7: +0/-0.0014<br>*(h7: +0/-0.035)* | 20.20<br>*(513)* | 16.34<br>*(415)* | 3.86<br>*(98)* |



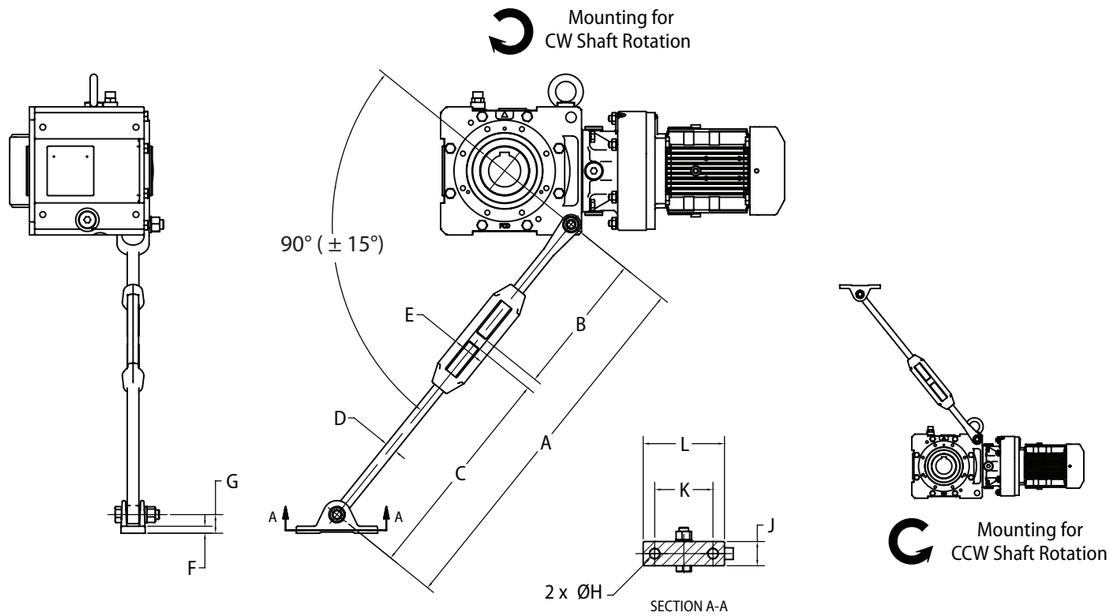


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# Options




All dimensions are in inches *(mm)*.

| Turnbuckle Type Torque Arm Dimensions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frame Size | A Min | A Max | B | C | D Thread | E | F | G | ØH | J | K | L |
| 4A | 25.2<br>*(640)* | 28.7<br>*(730)* | 9.69<br>*(246)* | 14.8<br>*(375)* | M20 | 2.24<br>*(57)* | 0.47<br>*(12.0)* | 1.26<br>*(32)* | 0.69<br>*(17.5)* | 1.65<br>*(42)* | 3.94<br>*(100)* | 5.51<br>*(140)* |
| 4B | 26.0<br>*(660)* | 29.5<br>*(750)* | 10.4<br>*(263)* | 14.8<br>*(375)* | M24 | 2.32<br>*(59)* | 0.81<br>*(20.5)* | 2.13<br>*(54)* | 0.69<br>*(17.5)* | 2.76<br>*(70)* | 4.76<br>*(121)* | 6.61<br>*(168)* |
| 4C | 26.0<br>*(660)* | 29.5<br>*(750)* | 10.4<br>*(263)* | 14.8<br>*(375)* | M24 | 2.32<br>*(59)* | 0.81<br>*(20.5)* | 2.13<br>*(54)* | 0.69<br>*(17.5)* | 2.76<br>*(70)* | 4.76<br>*(121)* | 6.61<br>*(168)* |
| 4D, 4E | 33.9<br>*(860)* | 37.4<br>*(950)* | 18.3 [2]<br>*(465)* [2] | 14.8<br>*(375)* | M24 | 2.32<br>*(59)* | 0.81<br>*(20.5)* | 2.13<br>*(54)* | 0.69<br>*(17.5)* | 2.76<br>*(70)* | 4.76<br>*(121)* | 6.61<br>*(168)* |

**Note: [1]** The Cyclo® BBB4 is shown in Y1 mounting position; use two turnbuckle torque arms if application requires shaft rotation in both directions and use torque arm in tension, not compression. Consult Operation and Maintenance Manual or the Factory when mounting in positions other than Y1.
**[2]** Value may vary from shown.
[3] Turnbuckle Type torque arm is not available for size F Cyclo(R) BBB4 units. Consult Factory for F-size torque arm type and dimensions.

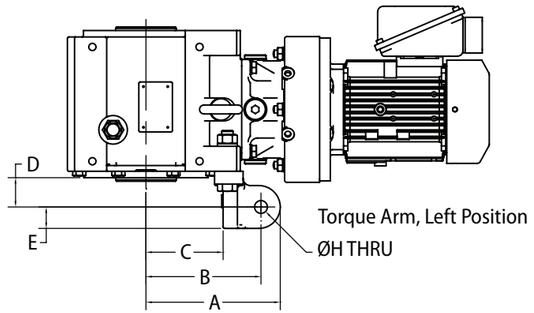


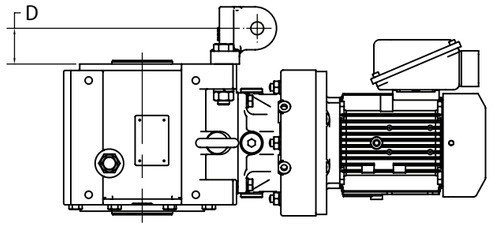


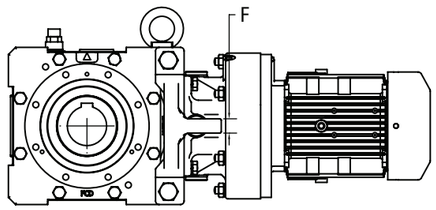
Dimensions shown are for reference only and are subject to change without notice, unless certified.
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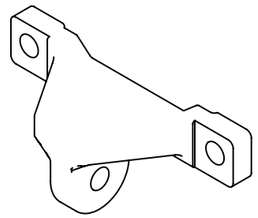
# Options

## Torque Arm T-Type (Optional)[1]



All dimensions are in inches *(mm)*.

| T- Type Torque Arm Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Frame Size** | **A** | **B** | **C** | **D Left [2]** | **D Right [2]** | **E** | **F** | **ØH** |
| 4A | 7.40 *(188)* | 6.34 *(161)* | 4.25 *(108)* | 1.61 *(41)* | 1.97 *(50)* | 1.18 *(30)* | 0.79 *(20)* | 0.71 *(18)* |
| 4B | 8.98 *(228)* | 7.68 *(195)* | 5.00 *(127)* | 2.09 *(53)* | 2.44 *(62)* | 1.42 *(36)* | 1.13 *(29)* | 0.87 *(22)* |
| 4C | 10.8 *(274)* | 9.13 *(232)* | 6.14 *(156)* | 2.60 *(66)* | 2.95 *(75)* | 1.77 *(45)* | 1.25 *(32)* | 1.02 *(26)* |
| 4D | 12.9 *(327)* | 11.0 *(279)* | 7.40 *(188)* | 3.19 *(81)* | 3.58 *(91)* | 2.17 *(55)* | 1.50 *(38)* | 1.30 *(33)* |
| 4E | 14.2 *(361)* | 12.1 *(306)* | 8.27 *(210)* | 3.17 *(81)* | 3.58 *(91)* | 2.17 *(55)* | 1.42 *(36)* | 1.30 *(33)* |

**Note: [1]** The Cyclo® BBB4 is shown in Y1 mounting position

**[2]** D dimension is from flange-mount casing surface to hole **Ø**H.

[3] Turnbuckle Type torque arm is not available for size F Cyclo(R) BBB4 units. Consult Factory for F-size torque arm type and dimensions.



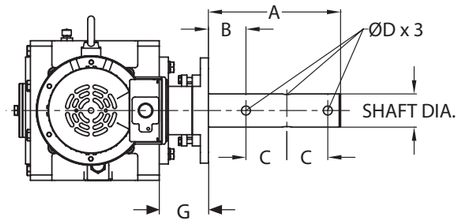
Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.

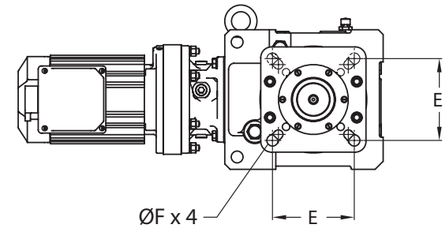




Options

## Screw Conveyor Drive




- The Screw Conveyor option design conforms to established CEMA inch dimensions.
- Complete Cyclo® BBB screw conveyor drive consists of reducer, CEMA drive shaft assembly and mounting adapter kit. The CEMA drive shaft and mounting adapter kit require customer assembly.
- CEMA drive shafts are three hole style.

All dimensions are in inches.

| Model | Shaft Diameter | To Fit Screw Diameter | A | B | C | ØD | E | ØF |
|---|---|---|---|---|---|---|---|---|
| **4A, 4B** | 1-1/2 | 6 to 9 | 9.00 | 2.13 | 3.00 | 17/32 | 4.00 | 0.531 |
| | 2 | 9 to 12 | 9.00 | 2.13 | 3.00 | 21/32 | 0.38 | 0.669 |
| | 2-7/16 | 12 to 14 | 9.69 | 2.75 | 3.00 | 21/32 | 5.63 | 0.669 |
| | 3 | 12 to 20 | 9.88 | 2.88 | 3.00 | 25/32 | 6.00 | 0.827 |
| **4C, 4D** | 2 | 9 to 12 | 9.00 | 2.13 | 3.00 | 21/32 | 5.13 | 0.669 |
| | 2-7/16 | 12 to 14 | 9.69 | 2.75 | 3.00 | 21/32 | 5.63 | 0.669 |
| | 3 | 12 to 20 | 9.88 | 2.88 | 3.00 | 25/32 | 6.00 | 0.827 |
| | 3-7/16 | 18 to 24 | 13.10 | 3.88 | 4.00 | 29/32 | 6.75 | 0.827 |
| **4E** | 2-7/16 | 12 to 14 | 9.69 | 2.75 | 3.00 | 21/32 | 5.63 | 0.669 |
| | 3 | 12 to 20 | 9.88 | 2.88 | 3.00 | 25/32 | 6.00 | 0.827 |
| | 3-7/16 | 18 to 24 | 13.10 | 3.88 | 4.00 | 29/32 | 6.75 | 0.827 |

All dimensions are in inches.

| Model | G | |
|---|---|---|
| | Fabricated steel Adapter | Cast Iron Adapter |
| **A** | 3.60 | 4.17 |
| **B** | 3.60 | 3.96 |
| **C** | 3.92 | 4.31 |
| **D** | 4.25 | 4.65 |
| **E** | 5.49 | 5.93 |

**Shaft Option 1: Standard 'Taper Grip Hub' 3-Hole Screw Conveyor Steel Shafts**

| Model | Drive Shaft Diameters & CEMA Drive Shaft Assembly Part Number | | | | | Adapter Kit | |
|---|---|---|---|---|---|---|---|
| | Ø 1-1/2" | Ø 2" | Ø 2-7/16" | Ø 3" | Ø 3-7/16" | Cast Iron Option | Fabricated steel Option |
| **4A** | 116E4108-C3 | 116E4200-C3 | 116E4207-C3 | 116E4300-C3 | - | 118A4050 | 118A4040 |
| **4B** | 116F4108-C3 | 116F4200-C3 | 116F4207-C3 | 116F4300-C3 | - | 118B4050 | 118B4040 |
| **4C** | - | 116G4200-C3 | 116G4207-C3 | 116G4300-C3 | 116G4307-C3 | 118C4050 | 118C4040 |
| **4D** | - | 116H4200-C3 | 116H4207-C3 | 116H4300-C3 | 116H4307-C3 | 118D4050 | 118D4040 |
| **4E** | - | - | 116J4207-C3 | 116J4300-C3 | 116J4307-C3 | 118E4050 | 118E4040 |

**Shaft Option 2: Standard 'Keyed' 3-Hole Screw Conveyor Shafts [Steel and Stainless steel options]**

| Model | Drive Shaft Diameters & CEMA Drive Shaft Assembly Part Number [3] | | | | | Adapter Kit | |
|---|---|---|---|---|---|---|---|
| | Ø 1-1/2" | Ø 2" | Ø 2-7/16" | Ø 3" | Ø 3-7/16" | Cast Iron Option | Fabricated steel Option |
| **4A** | 118A5108-C3/ S3 | 118A5200-C3/ S3 | 118A5207-C3/ S3 | 118A5300-C3/ S3 | - | 118A4060 | 118A4040 |
| **4B** | 118B5108-C3/ S3 | 118B5200-C3/ S3 | 118B5207-C3/ S3 | 118B5300-C3/ S3 | - | 118B4060 | 118B4040 |
| **4C** | - | 118C5200-C3/ S3 | 118C5207-C3/ S3 | 118C5300-C3/ S3 | 118C5307-C3/ S3 | 118C4060 | 118C4040 |
| **4D** | - | 118D5200-C3/ S3 | 118D5207-C3/ S3 | 118D5300-C3/ S3 | 118D5307-C3/ S3 | - | 118D4040 |
| **4E** | - | - | 118E5207-C3/ S3 | 118E5300-C3/ S3 | 118E5307-C3/ S3 | - | 118E4040 |

**Note: [1]** The dimension shown is E maximum.

**[2]** Consult Factory for information on F-size Screw Conveyor options

**[3]** Use suffix 'C3' for Carbon Steel, and 'S3' for Stainless Steel (AISI316) shaft material



Dimensions shown are for reference only and are subject to change without notice, unless certified.
Certified prints are available after receipt of an order; consult factory.

# Options

## Shaft Availability - Keyed Hollow Bore

All dimensions are in inches.

| Bore (in) | Frame Size | | | | | |
|---|---|---|---|---|---|---|
| | 4A | 4B | 4C | 4D | 4E | 4F |
| 1-7/16″ | ○ | | | | | |
| 1-1/2″ | ○ | | | | | |
| 1-5/8″ | ○ | | | | | |
| 1-11/16″ | ○ | | | | | |
| 1-3/4″ | ○ | | | | | |
| 1-13/16″ | ○ | ○ | | | | |
| 1-7/8″ | ○ | ○ | | | | |
| 1- 15/16″ | ● ◊ | ○ | | | | |
| 2″ | ● ◊ | ○ | | | | |
| 2-3/16″ | ● ◊ | ● ◊ | | | | |
| 2-1/4″ | | ○ | | | | |
| 2-3/8″ | | ● ◊ | ○ | | | |
| 2-7/16″ | | ● ◊ | ○ | | | |
| 2-1/2″ | | ○ | ○ | | | |
| 2-9/16″ | | | ○ | | | |
| 2-5/8″ | | | ○ | | | |
| 2-3/4″ | | | ● ◊ | | | |
| 2-7/8″ | | | ○ | | | |
| 2-15/16″ | | | ● ◊ | ○ | | |
| 3″ | | | ○ | ○ | | |
| 3-1/8″ | | | ○ | ○ | | |
| 3-3/16″ | | | ○ | ○ | | |
| 3-1/4″ | | | ○ | ○ | | |
| 3-3/8″ | | | ○ | ○ | ○ | ○ |
| 3-7/16″ | | | ○ | ● | ○ | ○ |
| 3-1/2″ | | | ○ | ○ | ○ | ○ |
| 3-5/8″ | | | | ○ | ○ | ○ |
| 3-3/4″ | | | | ○ | ○ | ○ |
| 3-7/8″ | | | | ○ | ○ | ○ |
| 3-15/16″ | | | | ○ | ○ | ○ |
| 4″ | | | | ○ | ● | ○ |
| 4-7/16″ | | | | | | ○ |
| 4-1/2″ | | | | | | ● |
| 4-3/4″ | | | | | | ○ |

All dimensions are in millimeters.

| Bore (mm) | Frame Size | | | | | |
|---|---|---|---|---|---|---|
| | 4A | 4B | 4C | 4D | 4E | 4F |
| 35 | ○ | | | | | |
| 40 | ○ | | | | | |
| 45 | ○ | ○ | | | | |
| 50 | ○ | ○ | | | | |
| 55 | ● | ○ | | | | |
| 60 | | ○ | ○ | | | |
| 65 | | ● | ○ | | | |
| 70 | | | ○ | | | |
| 75 | | | ● | ○ | | |
| 80 | | | | ○ | | |
| 85 | | | | ● | ○ | |
| 90 | | | | ○ | ○ | |
| 95 | | | | | ○ | |
| 100 | | | | | ● | |
| 105 | | | | | ○ | |
| 110 | | | | | | ○ |
| 115 | | | | | | ○ |
| 120 | | | | | | ● |

● Standard shaft size (Carbon steel material)
○ On-demand shaft size (carbon steel material)
◊ Standard Stainless Steel shaft size (AIS 304 grade material)

Note: 1) The customer is responsible for validating the strength of the driven shaft.
2) Consult factory for the price and delivery of 'On-demand' shaft sizes.
3) If the required shaft size is different than the above mentioned sizes, please consult the factory.





Options

Options

## Shaft Availability - Shrink Disc

All dimensions are in inches.

| Bore (in) | Frame Size | | | | | |
|---|---|---|---|---|---|---|
| | 4A | 4B | 4C | 4D | 4E | 4F |
| 1- 15/16" | ○ ◊ | | | | | |
| 2" | ○ ◊ | ○ | | | | |
| 2-3/16" | ○ ◊ | ○ ◊ | | | | |
| 2-3/8" | | ○ ◊ | | | | |
| 2-7/16" | | ○ ◊ | | | | |
| 2-3/4" | | | ○ ◊ | | | |
| 2-15/16" | | | ○ ◊ | | | |
| 3-15/16" | | | | | | |

All dimensions are in millimeters.

| Bore (mm) | Frame Size | | | | | |
|---|---|---|---|---|---|---|
| | 4A | 4B | 4C | 4D | 4E | 4F |
| 55 | ● | | | | | |
| 65 | | ● | | | | |
| 66 | | | | | | |
| 75 | | | ● | | | |
| 85 | | | | ● | | |
| 100 | | | | | ● | |
| 120 | | | | | | ● |

● Standard shaft size (Carbon steel material)
○ On-demand shaft size (carbon steel material)
◊ Standard Stainless Steel shaft size (AIS 304 grade material)

Note: 1) Shrink disc bore with LEFT as well as RIGHT projections are available (refer figures on page 3.5).
2) Shrink disc bore size mentioned in above is ødw dimension of the Table on page 3.6
3) If the required shaft size is different than the above mentioned sizes, please consult the factory.

## Shaft Availability - Taper Grip Bushing

Please refer øU dimensions in 'Dimensions' section for the shaft size range (Min. & Max.)

Cyclo® BBB4
Options

# Options

## Shaft Availability - Solid Shaft

All dimensions are in inches.

| Bore (in) | Frame Size | | | | | |
|---|---|---|---|---|---|---|
| | 4A | 4B | 4C | 4D | 4E | 4F |
| 1-7/16" | ○ | | | | | |
| 1-1/2" | ○ | | | | | |
| 1-9/16" | ○ | | | | | |
| 1-5/8" | ○ | | | | | |
| 1-3/4" | ○ | | | | | |
| 1-7/8" | ○ | ○ | | | | |
| 1-15/16" | ○ | ○ | | | | |
| 2" | ● | ○ | | | | |
| 2-1/8" | ○ | ○ | | | | |
| 2-3/16" | ○ | ○ | | | | |
| 2-1/4" | | ○ | | | | |
| 2.236" | | ○ | | | | |
| 2-3/8" | | ○ | ○ | | | |
| 2-7/16" | | ○ | ○ | | | |
| 2-1/2" | | ○ | ○ | | | |
| 2-5/8" | | ○ | ○ | | | |
| 2-3/4" | | ○ | ○ | | | |
| 2-7/8" | | ● | ○ | ○ | | |
| 2-15/16" | | | ○ | ○ | | |
| 3" | | | ○ | ○ | | |
| 3-1/8" | | | ● | ○ | | |
| 3-1/4" | | | | ○ | | |
| 3-3/8" | | | | ○ | ○ | |
| 3-7/16" | | | | ○ | ○ | |
| 3-5/8" | | | | ● | ○ | |
| 3-7/8" | | | | | ○ | |
| 4" | | | | | ○ | |
| 4-3/8" | | | | | ● | ○ |
| 4-7/16" | | | | | ● | ○ |
| 4-1/2" | | | | | ○ | ○ |
| 4-5/8" | | | | | | ○ |
| 4-3/4" | | | | | | ● |

All dimensions are in millimeters.

| Bore (mm) | Frame Size | | | | | |
|---|---|---|---|---|---|---|
| | 4A | 4B | 4C | 4D | 4E | 4F |
| 25 | ○ | | | | | |
| 45 | ○ | | | | | |
| 50 | ● | | | | | |
| 55 | | | | | | |
| 60 | | ○ | | | | |
| 65 | | ● | | | | |
| 70 | | | | | | |
| 75 | | | ○ | | | |
| 80 | | | ● | | | |
| 85 | | | | ○ | | |
| 90 | | | | ○ | | |
| 95 | | | | ● | ○ | |
| 100 | | | | | ○ | |
| 110 | | | | | ● | |
| 115 | | | | | | |
| 120 | | | | | | |
| 130 | | | | | | ● |

● Standard shaft size (Carbon steel material)
○ On-demand shaft size (carbon steel material)
◊ Standard Stainless Steel shaft size (AIS 304 grade material)

Note: 1) The customer is responsible for validating the strength of the driven shaft.
2) Consult factory for the price and delivery of 'On-demand' shaft sizes.
3) If the required shaft size is different than the above mentioned sizes, please consult the factory.
4) Solid shaft with LEFT, RIGHT as well as DOUBLE EXTENDED projections are available.





# Options

## Food Industry Packages

Three food-grade packages are available for use in machinery where there in incidental food contact.
When ordering, chose the Special Specification Code (SSC) that meets your requirements to obtain the features listed below.

### Available Food Industry Option Packages

| REDUCER OPTIONS | SHIELD*360°* ™ | CHEMI SHIELD*360°* ™ | ULTRA SHIELD*360°* ™* |
|---|---|---|---|
| DuPont Alesta AM Powder Coat | | | |
| FDA White Acrylic Topcoat | ♦ | | |
| Stainless Steel Gray Acrylic Topcoat | | ♦ | |
| Stainless Steel Gray 2-Part Epoxy Topcoat | | | ♦ |
| FDA Approved Grease | ♦ | | |
| Triple Lip Seals | ♦ | | |
| FKM Antimicrobial Cassette Seals | | ♦ | ♦ |
| Stainless Steel Hardware | | | |
| Stainless Steel Nameplate | | ♦ | ♦ |
| Corrosion Preventative Plugs | | ♦ | ♦ |
| Carbon Output Shaft | ♦ | | |
| Stainless Steel Output Shaft | | ♦ | ♦ |

Stainless Steel Hollow Shaft - ratings with stainless steel hollow shaft are the same as those listed in this catalog for standard models

* UltraShield360° ™ available in quill option only

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# 4
# Appendix

# Exact Ratios

**Bevel Buddybox catalog ratio 11, 13, 14, 16, and 18 utilize a planetary gearset for the first reduction stage.**

**The exact ratio of planetary gearing can be calculated using the following formula:**

$i_{PLANETARY} = (Z_{SUN} + Z_{RING}) / Z_{SUN}$

where: $Z_{SUN}$ = Number of teeth in the sun gear

$Z_{RING}$ = Number of teeth in the ring gear

**The overall gearbox ratio can be determined using the following formula:**

$i_{OVERALL} = (Z_{GEAR} / Z_{PINION}) \times i_{PLANETARY}$

where: $Z_{GEAR}$ = Number of teeth in the bevel gear

$Z_{PINION}$ = Number of teeth in the bevel pinion

## Table 4.1 BBB4 with Planetary Input - Exact Ratios

| Nominal Ratio | Frame Size | Gearing Tooth Count | | | | Calculated Ratio $i_{OVERALL}$ |
|---|---|---|---|---|---|---|
| | | Bevel | | Planetary | | |
| | | $Z_{GEAR}$ | $Z_{PINION}$ | $Z_{SUN}$ | $Z_{RING}$ | |
| 11 | 4A100/5 | 35 | 10 | 46 | 92 | 10.50 |
| | 4A120/5 | 35 | 10 | 60 | 120 | 10.50 |
| | 4A140/5 | 35 | 10 | 54 | 114 | 10.89 |
| | 4B120/5 | 35 | 10 | 60 | 120 | 10.50 |
| | 4B140/5 | 35 | 10 | 54 | 114 | 10.89 |
| | 4B160/5 | 35 | 10 | 60 | 126 | 10.85 |
| | 4C140/5 | 35 | 10 | 54 | 114 | 10.89 |
| | 4C160/5 | 35 | 10 | 60 | 126 | 10.85 |
| | 4C170/5 | 35 | 10 | 58 | 122 | 10.86 |
| | 4D170/5 | 35 | 10 | 58 | 122 | 10.86 |
| | 4D180/5 | 35 | 10 | 68 | 136 | 10.50 |
| | 4E170/5 | 35 | 10 | 58 | 122 | 10.86 |
| | 4E180/5 | 35 | 10 | 68 | 136 | 10.50 |
| | 4E190/5 | 35 | 10 | 66 | 138 | 10.82 |
| | 4F180/5 | 35 | 10 | 68 | 136 | 10.50 |
| | 4F190/5 | 35 | 10 | 66 | 138 | 10.82 |
| 13 | 4A100/5 | 32 | 10 | 34 | 104 | 12.99 |
| | 4A120/5 | 32 | 10 | 45 | 135 | 12.80 |
| | 4A140/5 | 32 | 10 | 43 | 131 | 12.95 |
| | 4B120/5 | 32 | 10 | 45 | 135 | 12.80 |
| | 4B140/5 | 32 | 10 | 43 | 131 | 12.95 |
| | 4B160/5 | 32 | 10 | 48 | 144 | 12.80 |
| | 4C140/5 | 32 | 10 | 43 | 131 | 12.95 |
| | 4C160/5 | 32 | 10 | 48 | 144 | 12.80 |
| | 4C170/5 | 32 | 10 | 44 | 136 | 13.09 |
| | 4D170/5 | 32 | 10 | 44 | 136 | 13.09 |
| | 4D180/5 | 32 | 10 | 44 | 136 | 13.09 |
| | 4E170/5 | 32 | 10 | 44 | 136 | 13.09 |
| | 4E180/5 | 32 | 10 | 44 | 136 | 13.09 |
| | 4E190/5 | 32 | 10 | 45 | 138 | 13.01 |
| | 4F180/5 | 32 | 10 | 44 | 136 | 13.09 |
| | 4F190/5 | 32 | 10 | 45 | 138 | 13.01 |







Exact Ratios

## Table 4.1 BBB4 with Planetary Input - Exact Ratios continued

| Nominal Ratio | Frame Size | Gearing Tooth Count | | | | Calculated Ratio $i_{OVERALL}$ |
|---|---|---|---|---|---|---|
| | | Bevel | | Planetary | | |
| | | $Z_{GEAR}$ | $Z_{PINION}$ | $Z_{SUN}$ | $Z_{RING}$ | |
| 14 | 4A100/5 | 35 | 10 | 34 | 104 | 14.21 |
| | 4A120/5 | 35 | 10 | 45 | 135 | 14.00 |
| | 4A140/5 | 35 | 10 | 43 | 131 | 14.16 |
| | 4B120/5 | 35 | 10 | 45 | 135 | 14.00 |
| | 4B140/5 | 35 | 10 | 43 | 131 | 14.16 |
| | 4B160/5 | 35 | 10 | 48 | 144 | 14.00 |
| | 4C140/5 | 35 | 10 | 43 | 131 | 14.16 |
| | 4C160/5 | 35 | 10 | 48 | 144 | 14.00 |
| | 4C170/5 | 35 | 10 | 44 | 136 | 14.32 |
| | 4D170/5 | 35 | 10 | 44 | 136 | 14.32 |
| | 4D180/5 | 35 | 10 | 44 | 136 | 14.32 |
| | 4E170/5 | 35 | 10 | 44 | 136 | 14.32 |
| | 4E180/5 | 35 | 10 | 44 | 136 | 14.32 |
| | 4E190/5 | 35 | 10 | 45 | 138 | 14.23 |
| | 4F180/5 | 35 | 10 | 44 | 136 | 14.32 |
| | 4F190/5 | 35 | 10 | 45 | 138 | 14.23 |
| 16 | 4A100/5 | 32 | 10 | 30 | 114 | 15.36 |
| | 4A120/5 | 32 | 10 | 38 | 148 | 15.66 |
| | 4A140/5 | 32 | 10 | 36 | 144 | 16.00 |
| | 4B120/5 | 32 | 10 | 38 | 148 | 15.66 |
| | 4B140/5 | 32 | 10 | 36 | 144 | 16.00 |
| | 4B160/5 | 32 | 10 | 39 | 159 | 16.25 |
| | 4C140/5 | 32 | 10 | 36 | 144 | 16.00 |
| | 4C160/5 | 32 | 10 | 39 | 159 | 16.25 |
| | 4C170/5 | 32 | 10 | 38 | 154 | 16.17 |
| | 4D170/5 | 32 | 10 | 38 | 154 | 16.17 |
| | 4D180/5 | 32 | 10 | 35 | 136 | 15.63 |
| | 4E170/5 | 32 | 10 | 38 | 154 | 16.17 |
| | 4E180/5 | 32 | 10 | 35 | 136 | 15.63 |
| | 4E190/5 | 32 | 10 | 36 | 138 | 15.47 |
| | 4F180/5 | 32 | 10 | 35 | 136 | 15.63 |
| | 4F190/5 | 32 | 10 | 36 | 138 | 15.47 |
| 18 | 4A100/5 | 35 | 10 | 30 | 114 | 16.80 |
| | 4A120/5 | 35 | 10 | 38 | 148 | 17.13 |
| | 4A140/5 | 35 | 10 | 36 | 144 | 17.50 |
| | 4B120/5 | 35 | 10 | 38 | 148 | 17.13 |
| | 4B140/5 | 35 | 10 | 36 | 144 | 17.50 |
| | 4B160/5 | 35 | 10 | 39 | 159 | 17.77 |
| | 4C140/5 | 35 | 10 | 36 | 144 | 17.50 |
| | 4C160/5 | 35 | 10 | 39 | 159 | 17.77 |
| | 4C170/5 | 35 | 10 | 38 | 154 | 17.68 |
| | 4D170/5 | 35 | 10 | 38 | 154 | 17.68 |
| | 4D180/5 | 35 | 10 | 35 | 136 | 17.10 |
| | 4E170/5 | 35 | 10 | 38 | 154 | 17.68 |
| | 4E180/5 | 35 | 10 | 35 | 136 | 17.10 |
| | 4E190/5 | 35 | 10 | 36 | 138 | 16.92 |
| | 4F180/5 | 35 | 10 | 35 | 136 | 17.10 |
| | 4F190/5 | 35 | 10 | 36 | 138 | 16.92 |

# Exact Ratios

## Bevel Buddybox catalog ratios greater than 18:1 utilize Cyclo as the first (or first and second) reduction stage

**Cyclo reduction ratios are exact thus the exact overall Bevel Buddybox reduction ratio can be calculated as:**

$i_{OVERALL} = (Z_{GEAR} / Z_{PINION}) \times i_{CYCLO}$

where: $Z_{GEAR}$ = Number of teeth in the bevel gear

$Z_{PINION}$ = Number of teeth in the bevel pinion

### Table 4.2 BBB4 with Cyclo Input - Exact Ratios

Single Reduction Cyclo

| Nominal Ratio | Frame Size | Bevel Gear Tooth Count | | Cyclo Ratio ($i_{CYCLO}$) | Calculated Ratio $i_{OVERALL}$ |
|---|---|---|---|---|---|
| | | $Z_{GEAR}$ | $Z_{PINION}$ | | |
| 21 | ALL[1] | 35 | 10 | 6 | 21.00 |
| 22 | | 32 | 10 | 7 | 22.40 |
| 25 | | 35 | 10 | 7 | 24.50 |
| 28 | | 35 | 10 | 8 | 28.00 |
| 35 | | 32 | 10 | 11 | 35.20 |
| 39 | | 35 | 10 | 11 | 38.50 |
| 46 | | 35 | 10 | 13 | 45.50 |
| 53 | | 35 | 10 | 15 | 52.50 |
| 60 | | 35 | 10 | 17 | 59.50 |
| 67 | | 32 | 10 | 21 | 67.20 |
| 74 | | 35 | 10 | 21 | 73.50 |
| 80 | | 32 | 10 | 25 | 80.00 |
| 88 | | 35 | 10 | 25 | 87.50 |
| 102 | | 35 | 10 | 29 | 101.50 |
| 112 | | 32 | 10 | 35 | 112.00 |
| 123 | | 35 | 10 | 35 | 122.50 |
| 151 | | 35 | 10 | 43 | 150.50 |
| 179 | | 35 | 10 | 51 | 178.50 |
| 207 | | 35 | 10 | 59 | 206.50 |
| 249 | | 35 | 10 | 71 | 248.50 |
| 305 | | 35 | 10 | 87 | 304.50 |
| 417 | 4A10 | 35 | 10 | 119 | 416.50 |

**Note [1]:** 22:1 and 25:1 ratios are not available for 4A100/5 and 4A110/5 sizes.





Appendix

Exact Ratios

### Table 4.3 BBB4 with Cyclo Input - Exact Ratios

Double Reduction Cyclo

| Nominal Ratio | Frame Size | Bevel Gearing Tooth Count | | Cyclo Ratio ($i_{CYCLO}$) | Calculated Ratio $i_{OVERALL}$ |
|---|---|---|---|---|---|
| | | $Z_{GEAR}$ | $Z_{PINION}$ | | |
| 364 | ALL | 35 | 10 | 104 | 364.000 |
| 424 | | 35 | 10 | 121 | 423.500 |
| 501 | | 35 | 10 | 143 | 500.500 |
| 578 | | 35 | 10 | 165 | 577.500 |
| 683 | | 35 | 10 | 195 | 682.500 |
| 809 | | 35 | 10 | 231 | 808.500 |
| 956 | | 35 | 10 | 273 | 955.500 |
| 1117 | | 35 | 10 | 319 | 1116.50 |
| 1320 | | 35 | 10 | 377 | 1319.50 |
| 1656 | | 35 | 10 | 473 | 1655.50 |
| 1957 | | 35 | 10 | 559 | 1956.50 |
| 2272 | | 35 | 10 | 649 | 2271.50 |
| 2559 | | 35 | 10 | 731 | 2558.50 |
| 2944 | | 35 | 10 | 841 | 2943.50 |
| 3511 | | 35 | 10 | 1003 | 3510.50 |
| 4365 | | 35 | 10 | 1247 | 4364.50 |
| 5177 | | 35 | 10 | 1479 | 5176.50 |
| 6472 | | 35 | 10 | 1849 | 6471.50 |
| 7228 | | 35 | 10 | 2065 | 7227.50 |
| 8880 | | 35 | 10 | 2537 | 8879.50 |
| 10658 | | 35 | 10 | 3045 | 10657.5 |
| 12184 | | 35 | 10 | 3481 | 12183.5 |
| 15530 | | 35 | 10 | 4437 | 15529.5 |
| 17966 | | 35 | 10 | 5133 | 17965.5 |
| 21620 | | 35 | 10 | 6177 | 21619.5 |
| 26492 | | 35 | 10 | 7569 | 26491.5 |

Cyclo® BBB4
Appendix

# Special Load Guidelines **Overhung Load**

## Reducer Output Shaft Allowable Overhung Load

When a sprocket, sheave, or gear is mounted on the slowspeed of a reducer, an overhung load is applied on that shaft. It is necessary to check if the shaft of the Cyclo® BBB4 Speed Reducer will allow the overhung load. Calculate the overhung load using the following formulas:

***1) Radial load, Pr***

$$Pr = \frac{Tl}{R} \leq \frac{Pro}{Lf \cdot Cf \cdot Sf} \quad \text{(lbs, } N\text{)}$$

***2) Axial Load, Pa***

$$Pa \leq \frac{Pao}{Cf \cdot Sf} \quad \text{(lbs, } N\text{)}$$

***3) When there is combined radial and axial loading on the output shaft***

$$\left(\frac{Pr}{Pro} + \frac{Pa}{Pao}\right) \cdot Cf \cdot Sf \leq 1 \quad \text{(lbs, } N\text{)}$$

LEGEND
- **Pr** = Actual radial load (lbs, *N*)
- **Tl** = Actual transmitted torque on slow speed shaft of reducer (lb·in, *N·m*)
- **R** = Pitch circle radius of sprocket, gear, pulley, etc. (inch, meter)
- **Pro** = Allowable radial load (lbs, *N*)
- **Pa** = Actual axial load (lbs, *N*)
- **Pao** = Allowable axial load (lbs, *N*)
- **Cf** = Coupling factor
- **Sf** = Service factor
- **Lf** = Load Location factor = 1.0[1]

The values shown in the tables within are the allowable OHL[2] when it is applied to the center of the solid shaft extension or at the load-side edge of the hollow bore. Please consult the factory when the center point of the load is located elsewhere.

**Table 4.4 Coupling Factor, Cf**

| Type of Connection | Cf |
|---|---|
| General Purpose Chain | 1.0 |
| Machined Gear, Pinion or Synchronous Belt | 1.25 |
| V-Belt | 1.5 |
| Flat Belt | 2.5 |

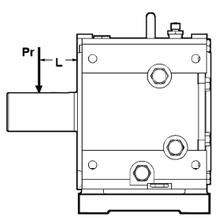
**Table 4.5 Service Factor, Sf**

| Shock Factor | Sf |
|---|---|
| No Shock | 1.0 |
| Moderate Shock | 1.5 |
| Heavy Shock | 2.0 |

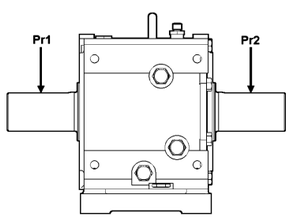
**Overhung Load, capacity for solid output shaft**

OHL[2] ratings assume there is no axial load applied to the shaft and that the unit is horizontal to floor/foundation. (Mounting feet at bottom or top.) Consult factory when it is wall mount or vertical position. When flange mounted, OHL location should be same side as flange. Consult factory when OHL is opposite flange side. Use ISO/JIS Class 12.9 for mounting hardware.

Loading position L is the distance from the output shaft shoulder




Pro from table must be ≥ Pr




For double extension, Pr1 and Pr2 is assumed to be in the same direction. Pr0 from table must be ≥ Pr1+ Pr2

**Note [1]:** For output speeds that are in between those detailed in Tables 4.6a through 4.7c, the overhung load capacity may be calculated through interpolation.
**[2]:** OHL = Overhung Load





Appendix

# Special Load Guidelines **Output Shaft Overhung Load** continued

**Table 4.6a Allowable Overhung Load for Output Shaft (Solid Output Shaft) (Cf, Sf = 1)**

Force Units: lbs, (*N*)

| Model | L inch *(mm)* | Output Shaft, RPM | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5 | 10 | 20 | 30 | 35 | 45 | 50 | 60 | 75 | 90 |
| | 0.75 *(19.1)* | 7170 *(31890)* | 8360 *(37180)* | 7190 *(31980)* | 6110 *(27170)* | 5740 *(25530)* | 5160 *(22950)* | 4940 *(21970)* | 4570 *(20320)* | 4120 *(18320)* | 3790 *(16850)* |
| | 1.00 *(25.4)* | 6850 *(30460)* | 7490 *(33310)* | 6960 *(30950)* | 5940 *(26420)* | 5560 *(24730)* | 5020 *(22320)* | 4790 *(21300)* | 4420 *(19660)* | 3990 *(17740)* | 3670 *(16320)* |
| | 1.25 *(31.8)* | 5940 *(26420)* | 6240 *(27750)* | 6240 *(27750)* | 5760 *(25620)* | 5410 *(24060)* | 4870 *(21660)* | 4640 *(20630)* | 4290 *(19080)* | 3890 *(17300)* | 3570 *(15870)* |
| | 1.50 *(38.1)* | 5230 *(23260)* | 5340 *(23750)* | 5340 *(23750)* | 5340 *(23750)* | 5260 *(23390)* | 4740 *(21080)* | 4520 *(20100)* | 4170 *(18540)* | 3770 *(16760)* | 3470 *(15430)* |
| **4A100** **4A105** **4A110** **4A115** **4A120** **4A125** **4A140** **4A145** | 1.75 *(44.5)* | 4670 *(20770)* | 4670 *(20770)* | 4670 *(20770)* | 4670 *(20770)* | 4670 *(20770)* | 4590 *(20410)* | 4390 *(19520)* | 4070 *(18100)* | 3670 *(16320)* | 3370 *(14980)* |
| | 1.88 *(47.6)* | 3970 *(17650)* | 4170 *(18540)* | 4170 *(18540)* | 4170 *(18540)* | 4170 *(18540)* | 4170 *(18540)* | 4170 *(18540)* | 3970 *(17650)* | 3570 *(15870)* | 3290 *(14630)* |
| | 2.00 *(50.8)* | 3420 *(15210)* | 3740 *(16630)* | 3740 *(16630)* | 3740 *(16630)* | 3740 *(16630)* | 3740 *(16630)* | 3740 *(16630)* | 3740 *(16630)* | 3490 *(15520)* | 3190 *(14180)* |
| | 2.50 *(63.5)* | 2970 *(13210* | 3120 *(13870* | 3120 *(13870* | 3120 *(13870* | 3120 *(13870* | 3120 *(13870* | 3120 *(13870* | 3120 *(13870* | 3120 *(13870* | 3040 *(13520)* |
| | 3.00 *(76.2)* | 2610 *(11600)* | 2670 *(11870)* | 2670 *(11870)* | 2670 *(11870)* | 2670 *(11870)* | 2670 *(11870)* | 2670 *(11870)* | 2670 *(11870)* | 2670 *(11870)* | 2670 *(11870)* |
| | 3.50 *(88.9)* | 2340 *(10400)* | 2340 *(10400)* | 2340 *(10400)* | 2340 *(10400)* | 2340 *(10400)* | 2340 *(10400)* | 2340 *(10400)* | 2340 *(10400)* | 2340 *(10400)* | 2340 *(10400)* |
| | 4.00 *(102)* | 2110 *(9380)* | 2080 *(9250)* | 2080 *(9250)* | 2080 *(9250)* | 2080 *(9250)* | 2080 *(9250)* | 2080 *(9250)* | 2080 *(9250)* | 2080 *(9250)* | 2080 *(9250)* |
| | 0.75 *(19.1)* | 11800 *(52480)* | 11830 *(52610)* | 8810 *(39180)* | 7340 *(32640)* | 6810 *(30290)* | 6010 *(26730)* | 5690 *(25300)* | 5160 *(22950)* | 4570 *(20320)* | 4120 *(18320)* |
| | 1.00 *(25.4)* | 12350 *(54930)* | 11530 *(51280)* | 8610 *(38290)* | 7160 *(31840)* | 6660 *(29620)* | 5860 *(26060)* | 5560 *(24730)* | 5040 *(22410)* | 4470 *(19880)* | 4020 *(17880)* |
| | 1.25 *(31.8)* | 12620 *(56130)* | 11260 *(50080)* | 8410 *(37400)* | 6990 *(31090)* | 6490 *(28860)* | 5740 *(25530)* | 5440 *(24190)* | 4940 *(21970)* | 4370 *(19430)* | 3920 *(17430)* |
| | 1.50 *(38.1)* | 11720 *(52130)* | 11010 *(48970)* | 8210 *(36510)* | 6840 *(30420)* | 6340 *(28200)* | 5610 *(24950)* | 5310 *(23610)* | 4820 *(21430)* | 4270 *(18990)* | 3820 *(16990)* |
| | 1.75 *(44.5)* | 10460 *(46520)* | 10460 *(46520)* | 8040 *(35760)* | 6660 *(29620)* | 6210 *(27620)* | 5460 *(24280)* | 5190 *(23080)* | 4720 *(20990)* | 4170 *(18540)* | 3740 *(16630)* |
| **4B120** **4B125** **4B140** **4B145** **4B160** **4B165** | 1.88 *(47.6)* | 8870 *(39450)* | 9310 *(41410)* | 7860 *(34960)* | 6540 *(29080)* | 6060 *(26950)* | 5360 *(23840)* | 5060 *(22500)* | 4620 *(20540)* | 4070 *(18100)* | 3670 *(16320)* |
| | 2.00 *(50.8)* | 7650 *(34020)* | 8360 *(37180)* | 7690 *(34200)* | 6390 *(28420)* | 5940 *(26420)* | 5240 *(23300)* | 4970 *(22100)* | 4520 *(20100)* | 3990 *(17740)* | 3570 *(15870)* |
| | 2.50 *(63.5)* | 6650 *(29570)* | 6990 *(31090)* | 6990 *(31090)* | 6110 *(27170)* | 5690 *(25300)* | 5020 *(22320)* | 4770 *(21210)* | 4320 *(19210)* | 3820 *(16990)* | 3420 *(15210)* |
| | 3.00 *(76.2)* | 5870 *(26100)* | 5990 *(26640)* | 5990 *(26640)* | 5890 *(26190)* | 5460 *(24280)* | 4820 *(21430)* | 4570 *(20320)* | 4140 *(18410)* | 3670 *(16320)* | 3290 *(14630)* |
| | 3.50 *(88.9)* | 5240 *(23300)* | 5240 *(23300)* | 5240 *(23300)* | 5240 *(23300)* | 5240 *(23300)* | 4640 *(20630)* | 4390 *(19520)* | 3990 *(17740)* | 3520 *(15650)* | 3170 *(14100)* |
| | 4.00 *(102)* | 4720 *(20990)* | 4640 *(20630)* | 4640 *(20630)* | 4640 *(20630)* | 4640 *(20630)* | 4470 *(19880)* | 4240 *(18850)* | 3840 *(17080)* | 3390 *(15070)* | 3040 *(13520)* |
| | 4.50 *(114)* | 4310 *(19170)* | 4190 *(18630)* | 4190 *(18630)* | 4190 *(18630)* | 4190 *(18630)* | 4190 *(18630)* | 4090 *(18190)* | 3720 *(16540)* | 3270 *(14540)* | 2940 *(13070)* |
| | 5.00 *(127)* | 3320 *(14760)* | 3490 *(15520)* | 3490 *(15520)* | 3490 *(15520)* | 3490 *(15520)* | 3490 *(15520)* | 3490 *(15520)* | 3470 *(15430)* | 3070 *(13650)* | 2740 *(12180)* |

**Note [1]:** For output speeds that are in between those detailed in Tables 4.6a through 4.7c, the overhung load capacity may be calculated through interpolation.

# Special Load Guidelines **Output Shaft Overhung Load** continued

**Table 4.6b Allowable Overhung Load for Output Shaft (Solid Output Shaft) (Cf, Sf = 1), continued**

Force Units: lbs, *(N)*

| Model | L inch *(mm)* | Output shaft, RPM | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5 | 10 | 20 | 30 | 35 | 45 | 50 | 60 | 75 | 90 |
| | 0.75 *(19.1)* | 16770 *(74590)* | 16650 *(74050)* | 12330 *(54840)* | 10180 *(45280)* | 9460 *(42070)* | 8310 *(36960)* | 7860 *(34960)* | 7090 *(31530)* | 6240 *(27750)* | 5560 *(24730)* |
| | 1.00 *(25.4)* | 17560 *(78100)* | 16280 *(72410)* | 12060 *(53640)* | 9960 *(44300)* | 9240 *(41090)* | 8110 *(36070)* | 7690 *(34200)* | 6940 *(30860)* | 6090 *(27080)* | 5440 *(24190)* |
| | 1.25 *(31.8)* | 17980 *(79970)* | 15930 *(70850)* | 11810 *(52530)* | 9760 *(43410)* | 9040 *(40200)* | 7940 *(35310)* | 7510 *(33400)* | 6790 *(30200)* | 5960 *(26510)* | 5310 *(23610)* |
| | 1.50 *(38.1)* | 18210 *(80990)* | 15580 *(69290)* | 11530 *(51280)* | 9540 *(42430)* | 8840 *(39320)* | 7790 *(34640)* | 7360 *(32730)* | 6640 *(29530)* | 5840 *(25970)* | 5210 *(23170)* |
| | 1.75 *(44.5)* | 18280 *(81300)* | 15250 *(67830)* | 11310 *(50300)* | 9340 *(41540)* | 8660 *(38510)* | 7610 *(33840)* | 7190 *(31980)* | 6510 *(28950)* | 5710 *(25390)* | 5090 *(22640)* |
| | 1.88 *(47.6)* | 17120 *(76140)* | 14960 *(66540)* | 11080 *(49280)* | 9160 *(40740)* | 8490 *(37760* | 7460 *(33180)* | 7060 *(31400)* | 6360 *(28280)* | 5590 *(24860)* | 4990 *(22190)* |
| **4C140** **4C145** | 2.00 *(50.8)* | 15780 *(70180)* | 14660 *(65200)* | 10860 *(48300)* | 8990 *(39980)* | 8310 *(36960)* | 7310 *(32510)* | 6910 *(30730)* | 6240 *(27750)* | 5490 *(24410)* | 4890 *(21750)* |
| **4C160** **4C165** | 2.50 *(63.5)* | 13690 *(60890)* | 14080 *(62620)* | 10430 *(46390)* | 8640 *(38430)* | 7990 *(35530)* | 7040 *(31310)* | 6640 *(29530)* | 6010 *(26730)* | 5260 *(23390)* | 4720 *(20990)* |
| **4C170** **4C175** | 3.00 *(76.2)* | 12090 *(53770)* | 12330 *(54840)* | 10060 *(44740)* | 8310 *(36960)* | 7710 *(34290)* | 6760 *(30060)* | 6390 *(28420)* | 5790 *(25750)* | 5060 *(22500)* | 4540 *(20190)* |
| | 3.50 *(88.9)* | 10780 *(47940)* | 10780 *(47940)* | 9690 *(43100)* | 8010 *(35620)* | 7440 *(33090)* | 6540 *(29080)* | 6160 *(27390)* | 5590 *(24860)* | 4890 *(21750)* | 4370 *(19430)* |
| | 4.00 *(102)* | 9740 *(43320)* | 9590 *(42650)* | 9360 *(41630)* | 7740 *(34420)* | 7160 *(31840)* | 6310 *(28060)* | 5960 *(26510)* | 5390 *(23970)* | 4720 *(20990)* | 4220 *(18770)* |
| | 4.50 *(114)* | 8860 *(39400)* | 8610 *(38290)* | 8610 *(38290)* | 7490 *(33310)* | 6940 *(30860)* | 6090 *(27080)* | 5760 *(25620)* | 5210 *(23170)* | 4570 *(20320)* | 4090 *(18190)* |
| | 5.00 *(127)* | 6840 *(30420)* | 7190 *(31980)* | 7190 *(31980)* | 7010 *(31180)* | 6490 *(28860)* | 5710 *(25390)* | 5390 *(23970)* | 4890 *(21750)* | 4290 *(19080)* | 3820 *(16990)* |
| | 6.00 *(152)* | 6040 *(26860)* | 6160 *(27390)* | 6160 *(27390)* | 6160 *(27390)* | 6110 *(27170)* | 5360 *(23840)* | 5090 *(22640)* | 4590 *(20410)* | 4040 *(17960)* | 3590 *(15960)* |

**Note [1]:** For output speeds that are in between those detailed in Tables 4.6a through 4.7c, the overhung load capacity may be calculated through interpolation.





# Special Load Guidelines **Output Shaft Overhung Load** continued

**Table 4.6c Allowable Overhung Load for Output Shaft (Solid Output Shaft) (Cf, Sf = 1), continued**

Force Units: lbs, *(N)*

| Model | L inch *(mm)* | Output Shaft, RPM | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5 | 10 | 20 | 30 | 35 | 45 | 50 | 60 | 75 | 90 |
| | 0.75 *(19.1)* | 21850 *(97180)* | 23970 *(106610)* | 17730 *(78860)* | 14630 *(65070)* | 13530 *(60180)* | 11880 *(52840)* | 11210 *(49860)* | 10110 *(44960)* | 8860 *(39400)* | 7890 *(35090)* |
| | 1.00 *(25.4)* | 23060 *(102570)* | 23550 *(104750)* | 17400 *(77390)* | 14360 *(63870)* | 13280 *(59060)* | 11660 *(51860)* | 11010 *(48970)* | 9940 *(44210)* | 8690 *(38650)* | 7740 *(34420)* |
| | 1.25 *(31.8)* | 23590 *(104920)* | 23100 *(102740)* | 17080 *(75970 )* | 14080 *(62620)* | 13030 *(57950)* | 11430 *(50840)* | 10810 *(48080)* | 9740 *(43320)* | 8540 *(37980)* | 7590 *(33760)* |
| | 1.50 *(38.1)* | 23940 *(106480)* | 22700 *(100960)* | 16780 *(74630 )* | 13830 *(61510)* | 12810 *(56970)* | 11230 *(49950)* | 10610 *(47190)* | 9560 *(42520)* | 8390 *(37310)* | 7460 *(33180)* |
| | 1.75 *(44.5)* | 24070 *(107060)* | 22300 *(99190)* | 16480 *(73300 )* | 13580 *(60400)* | 12580 *(55950)* | 11030 *(49060)* | 10410 *(46300)* | 9410 *(41850)* | 8240 *(36650)* | 7340 *(32640)* |
| | 1.88 *(47.6)* | 22610 *(100560)* | 21900 *(97410)* | 16180 *(71960 )* | 13360 *(59420)* | 12360 *(54970)* | 10830 *(48170)* | 10230 *(45500)* | 9240 *(41090)* | 8090 *(35980)* | 7210 *(32070)* |
| **4D160** **4D165** | 2.00 *(50.8)* | 21420 *(95270)* | 21520 *(95720)* | 15900 *(70720 )* | 13130 *(58400)* | 12160 *(54080)* | 10660 *(47410)* | 10060 *(44740)* | 9090 *(40430)* | 7960 *(35400)* | 7090 *(31530)* |
| **4D170** **4D175** | 2.50 *(63.5)* | 20310 *(90330)* | 20820 *(92600)* | 15380 *(68410 )* | 12680 *(56400)* | 11760 *(52300)* | 10310 *(45850)* | 9740 *(43320)* | 8790 *(39090)* | 7690 *(34200)* | 6840 *(30420)* |
| **4D180** **4D185** | 3.00 *(76.2)* | 17910 *(79660)* | 18280 *(81300 )* | 14910 *(66310 )* | 12280 *(54620)* | 11380 *(50610)* | 9990 *(44430)* | 9440 *(41980)* | 8510 *(37850)* | 7440 *(33090)* | 6640 *(29530)* |
| | 3.50 *(88.9)* | 16000 *(71160)* | 16000 *(71160)* | 14430 *(64180)* | 11910 *(52970)* | 11030 *(49060)* | 9660 *(42960)* | 9140 *(40650)* | 8240 *(36650)* | 7210 *(32070)* | 6410 *(28510)* |
| | 4.00 *(102)* | 14440 *(64220)* | 14210 *(63200)* | 14010 *(62310)* | 11560 *(51410)* | 10680 *(47500)* | 9390 *(41760)* | 8860 *(39400)* | 7990 *(35530)* | 6990 *(31090)* | 6240 *(27750)* |
| | 4.50 *(114)* | 13180 *(58620)* | 12810 *(56970)* | 12810 *(56970)* | 11210 *(49860)* | 10380 *(46170)* | 9110 *(40520 )* | 8610 *(38290)* | 7760 *(34510)* | 6790 *(30200)* | 6040 *(26860)* |
| | 5.00 *(127)* | 10150 *(45140)* | 10660 *(47410)* | 10660 *(47410)* | 10610 *(47190)* | 9810 *(43630)* | 8610 *(38290)* | 8140 *(36200)* | 7340 *(32640)* | 6410 *(28510)* | 5710 *(25390)* |
| | 6.00 *(152)* | 8950 *(39800)* | 9140 *(40650)* | 9140 *(40650)* | 9140 *(40650)* | 9140 *(40650)* | 8160 *(36290)* | 7710 *(34290)* | 6960 *(30950)* | 6090 *(27080)* | 5410 *(24060)* |
| | 7.00 *(178)* | 7990 *(35530)* | 7990 *(35530)* | 7990 *(35530)* | 7990 *(35530)* | 7990 *(35530)* | 7760 *(34510)* | 7310 *(32510)* | 6610 *(29400)* | 5790 *(25750)* | 5140 *(22860)* |

**Note [1]:** For output speeds that are in between those detailed in Tables 4.6a through 4.7c, the overhung load capacity may be calculated through interpolation.

# Special Load Guidelines **Output Shaft Overhung Load** continued

**Table 4.6d Allowable Overhung Load for Output Shaft (Solid Output Shaft) (Cf, Sf = 1), continued**

Force Units: lbs, *(N)*

| Model | L inch *(mm)* | Output Shaft, RPM | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5 | 10 | 20 | 30 | 35 | 45 | 50 | 60 | 75 | 90 |
| | 0.75 *(19.1)* | 22060 *(98120)* | 25720 *(114400)* | 24970 *(111060)* | 20970 *(93270)* | 19550 *(86950)* | 17350 *(77170)* | 16480 *(73300)* | 15030 *(66850)* | 13380 *(59510)* | 12110 *(53860)* |
| | 1.00 *(25.4)* | 23290 *(103590)* | 25470 *(113290)* | 24620 *(109500)* | 20600 *(91620)* | 19200 *(85400)* | 17050 *(75830)* | 16200 *(72050)* | 14780 *(65740)* | 13160 *(58530)* | 11880 *(52840)* |
| | 1.25 *(31.8)* | 23780 *(105770)* | 24970 *(111060)* | 24200 *(107640)* | 20250 *(90070)* | 18880 *(83970)* | 16780 *(74630)* | 15930 *(70850)* | 14530 *(64620)* | 12930 *(57510)* | 11680 *(51950)* |
| | 1.50 *(38.1)* | 24210 *(107680)* | 24700 *(109860)* | 23800 *(105860)* | 19930 *(88640)* | 18580 *(82640)* | 16480 *(73300)* | 15650 *(69610)* | 14280 *(63510)* | 12710 *(56530)* | 11510 *(51190)* |
| | 1.75 *(44.5)* | 24370 *(108390)* | 24370 *(108390)* | 23420 *(104170)* | 19600 *(87180)* | 18280 *(81300)* | 16230 *(72190)* | 15400 *(68490)* | 14060 *(62530)* | 12510 *(55640)* | 11310 *(50300)* |
| | 1.88 *(47.6)* | 22920 *(101940)* | 24070 *(107060)* | 23050 *(102520)* | 19280 *(85750)* | 17980 *(79970)* | 15950 *(70940)* | 15150 *(67380)* | 13830 *(61510)* | 12310 *(54750)* | 11130 *(49500)* |
| **4E170** **4E175** | 2.00 *(50.8)* | 21720 *(96610)* | 23750 *(105640)* | 22670 *(100830)* | 18980 *(84420)* | 17700 *(78720)* | 15700 *(69830)* | 14930 *(66400)* | 13610 *(60530)* | 12110 *(53860)* | 10960 *(48750)* |
| **4E180** **4E185** | 2.50 *(63.5)* | 22070 *(98160)* | 23170 *(103060)* | 22000 *(97850)* | 18400 *(81840)* | 17150 *(76280)* | 15230 *(67740)* | 14460 *(64310)* | 13210 *(58750)* | 11730 *(52170)* | 10630 *(47280)* |
| **4E190** **4E195** | 3.00 *(76.2)* | 22150 *(98520)* | 22600 *(100520)* | 21350 *(94960)* | 17850 *(79390)* | 16650 *(74050)* | 14780 *(65740)* | 14030 *(62400)* | 12810 *(56970)* | 11380 *(50610)* | 10310 *(45850)* |
| | 3.50 *(88.9)* | 22070 *(98160)* | 22070 *(98160)* | 20720 *(92160)* | 17350 *(77170)* | 16150 *(71830)* | 14360 *(63870)* | 13630 *(60620)* | 12430 *(55280)* | 11060 *(49190)* | 10010 *(44520)* |
| | 4.00 *(102)* | 21900 *(97410)* | 21550 *(95850)* | 20150 *(89620)* | 16850 *(74940)* | 15700 *(69830)* | 13960 *(62090)* | 13260 *(58980)* | 12080 *(53730)* | 10760 *(47860)* | 9740 *(43320)* |
| | 4.50 *(114)* | 21680 *(96430)* | 21070 *(93710)* | 19600 *(87180)* | 16400 *(72940)* | 15280 *(67960* | 13580 *(60400* | 12880 *(57290)* | 11760 *(52300)* | 10460 *(46520)* | 9460 *(42070)* |
| | 5.00 *(127)* | 17810 *(79210)* | 18700 *(83170)* | 18580 *(82640)* | 15550 *(69160)* | 14510 *(64540)* | 12880 *(57290)* | 12230 *(54390)* | 11160 *(49630)* | 9940 *(44210)* | 8990 *(39980)* |
| | 6.00 *(152)* | 15710 *(69870)* | 16030 *(71300)* | 16030 *(71300)* | 14780 *(65740)* | 13780 *(61290)* | 12230 *(54390)* | 11630 *(51730)* | 10610 *(47190)* | 9440 *(41980)* | 8540 *(37980)* |
| | 7.00 *(178)* | 14030 *(62400)* | 14030 *(62400)* | 14030 *(62400)* | 14030 *(62400)* | 13130 *(58400)* | 11660 *(51860)* | 11080 *(49280)* | 10110 *(44960)* | 8990 *(39980)* | 8140 *(36200)* |
| | 0.75 *(19.1)* | 28700 *(127650)* | 33460 *(148830)* | 33460 *(148830)* | 33460 *(148830)* | 33210 *(147710)* | 29720 *(132190)* | 28470 *(126630)* | 25970 *(115510)* | 23320 *(103720)* | 21270 *(94600)* |
| | 1.00 *(25.4)* | 30370 *(135080)* | 33210 *(147710)* | 33210 *(147710)* | 33210 *(147710)* | 32710 *(145490)* | 29220 *(129970)* | 27970 *(124410)* | 25720 *(114400)* | 23000 *(102300)* | 20950 *(93180)* |
| | 1.25 *(31.8)* | 31150 *(138550)* | 32710 *(145490)* | 32710 *(145490)* | 32710 *(145490)* | 32460 *(144380)* | 28970 *(128850)* | 27470 *(122180)* | 25220 *(112170)* | 22650 *(100740)* | 20650 *(91850)* |
| | 1.50 *(38.1)* | 31820 *(141530)* | 32460 *(144380)* | 32460 *(144380)* | 32460 *(144380)* | 31960 *(142150)* | 28470 *(126630)* | 27220 *(121070)* | 24920 *(110840)* | 22350 *(99410)* | 20350 *(90510)* |
| | 1.75 *(44.5)* | 31960 *(142150)* | 31960 *(142150)* | 31960 *(142150)* | 31960 *(142150)* | 31460 *(139930)* | 28220 *(125520)* | 26720 *(118850)* | 24570 *(109280)* | 22020 *(97940)* | 20080 *(89310)* |
| | 1.88 *(47.6)* | 30200 *(134320)* | 31710 *(141040)* | 31710 *(141040)* | 31710 *(141040)* | 30960 *(137710)* | 27720 *(123290)* | 26470 *(117730)* | 24220 *(107730)* | 21720 *(96610)* | 19800 *(88070)* |
| **4F180** | 2.00 *(50.8)* | 28770 *(127960)* | 31460 *(139930)* | 31460 *(139930)* | 31460 *(139930)* | 30460 *(135480)* | 27220 *(121070)* | 25970 *(115510)* | 23900 *(106300)* | 21420 *(95270)* | 19530 *(86860)* |
| **4F185** | 2.50 *(63.5)* | 29250 *(130100)* | 30710 *(136590)* | 30710 *(136590)* | 30710 *(136590)* | 29720 *(132190)* | 26720 *(118850)* | 25470 *(113290)* | 23270 *(103500)* | 20870 *(92820)* | 19030 *(84640)* |
| **4F190** **4F195** | 3.00 *(76.2)* | 29620 *(131740)* | 30220 *(134410)* | 30220 *(134410)* | 30220 *(134410)* | 28970 *(128850)* | 25970 *(115510)* | 24700 *(109860)* | 22670 *(100830)* | 20320 *(90380)* | 18530 *(82420)* |
| | 3.50 *(88.9)* | 29470 *(131080)* | 29470 *(131080)* | 29470 *(131080)* | 29470 *(131080)* | 28220 *(125520)* | 25220 *(112170)* | 24070 *(107060)* | 22100 *(98300)* | 19830 *(88200)* | 18050 *(80280)* |
| | 4.00 *(102)* | 29440 *(130940)* | 28970 *(128850)* | 28970 *(128850)* | 28970 *(128850)* | 27720 *(123290)* | 24650 *(109640)* | 23500 *(104520)* | 21550 *(95850)* | 19330 *(85970)* | 17630 *(78410)* |
| | 4.50 *(114)* | 29800 *(132550)* | 28970 *(128850)* | 28970 *(128850)* | 28720 *(127740)* | 26970 *(119960)* | 24070 *(107060)* | 22920 *(101940)* | 21050 *(93630)* | 18880 *(83970)* | 17200 *(76500)* |
| | 5.00 *(127)* | 27110 *(120580)* | 28470 *(126630)* | 28470 *(126630)* | 27470 *(122180)* | 25720 *(114400)* | 22970 *(102170)* | 21870 *(97270)* | 20080 *(89310)* | 18000 *(80060)* | 16400 *(72940)* |
| | 6.00 *(152)* | 25700 *(114310)* | 26220 *(116620)* | 26220 *(116620)* | 26220 *(116620)* | 24600 *(109420)* | 21970 *(97720)* | 20920 *(93050)* | 19200 *(85400)* | 17230 *(76630)* | 15700 *(69830)* |
| | 7.00 *(178)* | 23900 *(106300)* | 23900 *(106300)* | 23900 *(106300)* | 23900 *(106300)* | 23550 *(104750)* | 21050 *(93630)* | 20050 *(89180)* | 18400 *(81840)* | 16500 *(73390)* | 15030 *(66850)* |

**Note [1]:** For output speeds that are in between those detailed in Tables 4.6a through 4.7c, the overhung load capacity may be calculated through interpolation.





# Special Load Guidelines **Output Shaft Overhung Load** continued

**Table 4.7a Allowable Overhung Load for Output Shaft (Keyed Hollow Bore, Shrink Disc, Taper Grip Bushing) (Cf, Sf = 1)**

Force Units: lbs, *(N)*

| Model | L inch *(mm)* | Output Shaft, RPM | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5 | 10 | 20 | 30 | 35 | 45 | 50 | 60 | 75 | 90 |
| | 0.75 *(19.1)* | 7170 *(31890)* | 8360 *(37180)* | 7510 *(33400)* | 6440 *(28640)* | 6060 *(26950)* | 5490 *(24410)* | 5260 *(23390)* | 4870 *(21660)* | 4440 *(19740)* | 4120 *(18320)* |
| | 1.00 *(25.4)* | 7490 *(33310)* | 8190 *(36420)* | 7290 *(32420)* | 6240 *(27750)* | 5890 *(26190)* | 5310 *(23610)* | 5090 *(22640)* | 4740 *(21080)* | 4320 *(19210)* | 3990 *(17740)* |
| | 1.25 *(31.8)* | 7610 *(33840)* | 7990 *(35530)* | 7060 *(31400)* | 6060 *(26950)* | 5710 *(25390)* | 5160 *(22950)* | 4940 *(21970)* | 4590 *(20410)* | 4190 *(18630)* | 3870 *(17210)* |
| | 1.50 *(38.1)* | 7680 *(34160)* | 7840 *(34870)* | 6860 *(30510)* | 5890 *(26190)* | 5540 *(24640)* | 5020 *(22320)* | 4820 *(21430)* | 4470 *(19880)* | 4070 *(18100)* | 3770 *(16760)* |
| **4A100** **4A105** **4A110** | 1.75 *(44.5)* | 7660 *(34070)* | 7660 *(34070)* | 6690 *(29750)* | 5740 *(25530)* | 5390 *(23970)* | 4890 *(21750)* | 4690 *(20860)* | 4340 *(19300)* | 3970 *(17650)* | 3670 *(16320)* |
| **4A115** **4A120** | 1.88 *(47.6)* | 7150 *(31800)* | 7510 *(33400)* | 6510 *(28950)* | 5590 *(24860)* | 5260 *(23390)* | 4770 *(21210)* | 4570 *(20320)* | 4240 *(18850)* | 3870 *(17210)* | 3570 *(15870)* |
| **4A125** **4A140** | 2.00 *(50.8)* | 6730 *(29930)* | 7360 *(32730)* | 6340 *(28200)* | 5440 *(24190)* | 5110 *(22720)* | 4640 *(20630)* | 4440 *(19740)* | 4120 *(18320)* | 3770 *(16760)* | 3470 *(15430)* |
| **4A145** | 2.50 *(63.5)* | 6730 *(29930)* | 7060 *(31400)* | 6040 *(26860)* | 5160 *(22950)* | 4870 *(21660)* | 4420 *(19660)* | 4220 *(18770)* | 3920 *(17430)* | 3570 *(15870)* | 3290 *(14630)* |
| | 3.00 *(76.2)* | 6680 *(29710)* | 6810 *(30290)* | 5760 *(25620)* | 4940 *(21970)* | 4640 *(20630)* | 4220 *(18770)* | 4040 *(17960)* | 3740 *(16630)* | 3420 *(15210)* | 3140 *(13960)* |
| | 3.50 *(88.9)* | 6560 *(29170)* | 6560 *(29170)* | 5490 *(24410)* | 4720 *(20990)* | 4440 *(19740)* | 4020 *(17880)* | 3840 *(17080)* | 3570 *(15870)* | 3240 *(14410)* | 3020 *(13430)* |
| | 4.00 *(102)* | 6390 *(28420)* | 6290 *(27970)* | 5260 *(23390)* | 4520 *(20100)* | 4240 *(18850)* | 3840 *(17080)* | 3690 *(16410)* | 3420 *(15210)* | 3120 *(13870)* | 2890 *(12850)* |
| | 0.75 *(19.1)* | 11800 *(52480)* | 13010 *(57860)* | 10010 *(44520)* | 8510 *(37850)* | 7990 *(35530)* | 7190 *(31980)* | 6890 *(30640)* | 6360 *(28280)* | 5740 *(25530)* | 5290 *(23520)* |
| | 1.00 *(25.4)* | 12350 *(54930)* | 12680 *(56400)* | 9760 *(43410)* | 8310 *(36960)* | 7790 *(34640)* | 7010 *(31180)* | 6710 *(29840)* | 6190 *(27530)* | 5610 *(24950)* | 5160 *(22950)* |
| | 1.25 *(31.8)* | 12410 *(55190)* | 12380 *(55060)* | 9540 *(42430)* | 8110 *(36070)* | 7610 *(33840)* | 6860 *(30510)* | 6560 *(29170)* | 6060 *(26950)* | 5490 *(24410)* | 5040 *(22410)* |
| | 1.50 *(38.1)* | 12210 *(54310)* | 12110 *(53860)* | 9310 *(41410)* | 7910 *(35180)* | 7440 *(33090)* | 6690 *(29750)* | 6410 *(28510)* | 5910 *(26280)* | 5340 *(23750)* | 4920 *(21880)* |
| | 1.75 *(44.5)* | 11910 *(52970)* | 11830 *(52610)* | 9110 *(40520)* | 7740 *(34420)* | 7260 *(32290)* | 6540 *(29080)* | 6260 *(27840)* | 5790 *(25750)* | 5240 *(23300)* | 4820 *(21430)* |
| **4B120** **4B125** | 1.88 *(47.6)* | 10890 *(48430)* | 11430 *(50840)* | 8910 *(39630)* | 7590 *(33760)* | 7110 *(31620)* | 6410 *(28510)* | 6110 *(27170)* | 5660 *(25170)* | 5110 *(22720)* | 4690 *(20860)* |
| **4B140** **4B145** | 2.00 *(50.8)* | 10040 *(44650)* | 10980 *(48830)* | 8710 *(38740)* | 7410 *(32950)* | 6960 *(30950)* | 6260 *(27840)* | 5990 *(26640)* | 5540 *(24640)* | 5020 *(22320)* | 4590 *(20410)* |
| **4B160** **4B165** | 2.50 *(63.5)* | 9680 *(43050)* | 10160 *(45190)* | 8340 *(37090)* | 7110 *(31620)* | 6660 *(29620)* | 6010 *(26730)* | 5740 *(25530)* | 5310 *(23610)* | 4790 *(21300)* | 4420 *(19660)* |
| | 3.00 *(76.2)* | 9300 *(41360)* | 9490 *(42210)* | 8010 *(35620)* | 6810 *(30290)* | 6410 *(28510)* | 5760 *(25620)* | 5510 *(24500)* | 5090 *(22640)* | 4620 *(20540)* | 4240 *(18850)* |
| | 3.50 *(88.9)* | 8860 *(39400)* | 8860 *(39400)* | 7710 *(34290)* | 6560 *(29170)* | 6160 *(27390)* | 5540 *(24640)* | 5310 *(23610)* | 4890 *(21750)* | 4440 *(19740)* | 4070 *(18100)* |
| | 4.00 *(102)* | 8470 *(37670)* | 8340 *(37090)* | 7440 *(33090)* | 6310 *(28060)* | 5940 *(26420)* | 5340 *(23750)* | 5110 *(22720)* | 4720 *(20990)* | 4270 *(18990)* | 3920 *(17430)* |
| | 4.50 *(114)* | 8090 *(35980)* | 7860 *(34960)* | 7160 *(31840)* | 6090 *(27080)* | 5740 *(25530)* | 5160 *(22950)* | 4940 *(21970)* | 4540 *(20190)* | 4120 *(18320)* | 3790 *(16850)* |
| | 5.00 *(127)* | 6730 *(29930)* | 7060 *(31400)* | 6690 *(29750)* | 5690 *(25300)* | 5340 *(23750)* | 4820 *(21430)* | 4590 *(20410)* | 4240 *(18850)* | 3840 *(17080)* | 3540 *(15740)* |

**Note [1]:** For output speeds that are in between those detailed in Tables 4.6a through 4.7c, the overhung load capacity may be calculated through interpolation.

# Special Load Guidelines Output Shaft Overhung Load continued

**Table 4.7b Allowable Overhung Load for Output Shaft (Keyed Hollow Bore, Shrink Disc, Taper Grip Bushing) (Cf, Sf = 1), continued** Force Units: lbs, *(N)*

| Model | L inch *(mm)* | Output Shaft, RPM | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5 | 10 | 20 | 30 | 35 | 45 | 50 | 60 | 75 | 90 |
| | 0.75 *(19.1)* | 16770 *(74590)* | 17480 *(77750)* | 13160 *(58530)* | 11030 *(49060)* | 10280 *(45720)* | 9140 *(40650)* | 8690 *(38650)* | 7940 *(35310)* | 7060 *(31400)* | 6390 *(28420)* |
| | 1.00 *(25.4)* | 17560 *(78100)* | 17080 *(75970)* | 12880 *(57290)* | 10780 *(47940)* | 10060 *(44740)* | 8940 *(39760)* | 8490 *(37760)* | 7760 *(34510)* | 6910 *(30730)* | 6260 *(27840)* |
| | 1.25 *(31.8)* | 17980 *(79970)* | 16730 *(74410)* | 12610 *(56080)* | 10560 *(46970)* | 9840 *(43760)* | 8740 *(38870)* | 8310 *(36960)* | 7590 *(33760)* | 6760 *(30060)* | 6110 *(27170)* |
| | 1.50 *(38.1)* | 18210 *(80990)* | 16350 *(72720)* | 12330 *(54840)* | 10330 *(45940)* | 9640 *(42870)* | 8560 *(38070)* | 8140 *(36200)* | 7440 *(33090)* | 6610 *(29400)* | 5990 *(26640)* |
| | 1.75 *(44.5)* | 18280 *(81300)* | 16030 *(71300)* | 12080 *(53730)* | 10110 *(44960)* | 9440 *(41980)* | 8390 *(37310)* | 7960 *(35400)* | 7260 *(32290)* | 6490 *(28860)* | 5860 *(26060)* |
| | 1.88 *(47.6)* | 17120 *(76140)* | 15700 *(69830)* | 11830 *(52610)* | 9910 *(44070)* | 9240 *(41090)* | 8210 *(36510)* | 7810 *(34730)* | 7110 *(31620)* | 6340 *(28200)* | 5740 *(25530)* |
| **4C140** **4C145** **4C160** **4C165** **4C170** **4C175** | 2.00 *(50.8)* | 16170 *(71920)* | 15380 *(68410)* | 11580 *(51500)* | 9710 *(43190)* | 9060 *(40290)* | 8040 *(35760)* | 7640 *(33980)* | 6990 *(31090)* | 6210 *(27620)* | 5640 *(25080)* |
| | 2.50 *(63.5)* | 16260 *(72320)* | 14780 *(65740)* | 11130 *(49500)* | 9340 *(41540)* | 8710 *(38740)* | 7740 *(34420)* | 7360 *(32730)* | 6710 *(29840)* | 5990 *(26640)* | 5410 *(24060)* |
| | 3.00 *(76.2)* | 15640 *(69560)* | 14260 *(63420)* | 10730 *(47720)* | 8990 *(39980)* | 8390 *(37310)* | 7460 *(33180)* | 7090 *(31530)* | 6460 *(28730)* | 5760 *(25620)* | 5210 *(23170)* |
| | 3.50 *(88.9)* | 14980 *(66630)* | 13730 *(61070)* | 10360 *(46080)* | 8660 *(38510)* | 8090 *(35980)* | 7190 *(31980)* | 6840 *(30420)* | 6240 *(27750)* | 5560 *(24730)* | 5040 *(22410)* |
| | 4.00 *(102)* | 14360 *(63870)* | 13260 *(58980)* | 9990 *(44430)* | 8360 *(37180)* | 7810 *(34730)* | 6940 *(30860)* | 6590 *(29310)* | 6010 *(26730)* | 5360 *(23840)* | 4870 *(21660)* |
| | 4.50 *(114)* | 13740 *(61110)* | 12830 *(57060)* | 9660 *(42960)* | 8090 *(35980)* | 7540 *(33530)* | 6710 *(29840)* | 6360 *(28280)* | 5810 *(25840)* | 5190 *(23080)* | 4690 *(20860)* |
| | 5.00 *(127)* | 11480 *(51060)* | 12030 *(53500)* | 9060 *(40290)* | 7590 *(33760)* | 7060 *(31400)* | 6290 *(27970)* | 5960 *(26510)* | 5460 *(24280)* | 4870 *(21660)* | 4390 *(19520)* |
| | 6.00 *(152)* | 10770 *(47900)* | 10980 *(48830)* | 8540 *(37980)* | 7140 *(31750)* | 6660 *(29620)* | 5910 *(26280)* | 5610 *(24950)* | 5140 *(22860)* | 4570 *(20320)* | 4140 *(18410)* |
| | 0.75 *(19.1)* | 21850 *(97180)* | 25470 *(113290)* | 19150 *(85170)* | 16050 *(71390)* | 14960 *(66540 )* | 13310 *(59200 )* | 12630 *(56170 )* | 11560 *(51410)* | 10280 *(45720)* | 9310 *(41410)* |
| | 1.00 *(25.4)* | 23060 *(102570)* | 24950 *(110970)* | 18800 *(83620)* | 15750 *(70050)* | 14680 *(65290)* | 13060 *(58090)* | 12410 *(55190)* | 11330 *(50390)* | 10090 *(44880)* | 9140 *(40650)* |
| | 1.25 *(31.8)* | 23590 *(104920)* | 24500 *(108970)* | 18450 *(82060)* | 15450 *(68720)* | 14430 *(64180)* | 12810 *(56970)* | 12180 *(54170)* | 11130 *(49500)* | 9910 *(44070)* | 8990 *(39980)* |
| | 1.50 *(38.1)* | 23940 *(106480)* | 24050 *(106970)* | 18130 *(80640)* | 15180 *(67520)* | 14160 *(62980)* | 12580 *(55950)* | 11960 *(53190)* | 10930 *(48610)* | 9740 *(43320)* | 8810 *(39180)* |
| | 1.75 *(44.5)* | 24070 *(107060)* | 23620 *(105060)* | 17800 *(79170)* | 14930 *(66400)* | 13910 *(61870)* | 12360 *(54970)* | 11760 *(52300)* | 10730 *(47720)* | 9560 *(42520)* | 8660 *(38510)* |
| | 1.88 *(47.6)* | 22610 *(100560)* | 23220 *(103280)* | 17500 *(77840)* | 14660 *(65200)* | 13680 *(60840)* | 12160 *(54080)* | 11560 *(51410)* | 10560 *(46970)* | 9390 *(41760)* | 8510 *(37850)* |
| **4D160** **4D165** **4D170** **4D175** **4D180** **4D185** | 2.00 *(50.8)* | 21420 *(95270)* | 22820 *(101500)* | 17200 *(76500)* | 14410 *(64090)* | 13430 *(59730)* | 11960 *(53190)* | 11360 *(50520)* | 10360 *(46080)* | 9240 *(41090)* | 8360 *(37180)* |
| | 2.50 *(63.5)* | 21710 *(96560)* | 22070 *(98160)* | 16630 *(73970)* | 13930 *(61960)* | 13010 *(57860)* | 11560 *(51410)* | 10980 *(48830)* | 10040 *(44650)* | 8940 *(39760)* | 8090 *(35980)* |
| | 3.00 *(76.2)* | 21760 *(96780)* | 21370 *(95050)* | 16100 *(71610)* | 13510 *(60090)* | 12580 *(55950)* | 11180 *(49720)* | 10630 *(47280)* | 9710 *(43190)* | 8640 *(38430)* | 7840 *(34870)* |
| | 3.50 *(88.9)* | 21650 *(96290)* | 20700 *(92070)* | 15600 *(69380)* | 13080 *(58170)* | 12180 *(54170)* | 10830 *(48170)* | 10310 *(45850)* | 9410 *(41850)* | 8390 *(37310)* | 7590 *(33760)* |
| | 4.00 *(102)* | 21470 *(95490)* | 20080 *(89310)* | 15130 *(67290)* | 12680 *(56400)* | 11830 *(52610)* | 10510 *(46740)* | 9990 *(44430)* | 9140 *(40650)* | 8140 *(36200)* | 7360 *(32730)* |
| | 4.50 *(114)* | 20940 *(93140)* | 19500 *(86730)* | 14710 *(65430)* | 12310 *(54750)* | 11480 *(51060)* | 10210 *(45410)* | 9710 *(43190)* | 8860 *(39400)* | 7890 *(35090)* | 7140 *(31750)* |
| | 5.00 *(127)* | 17570 *(78150)* | 18430 *(81970)* | 13880 *(61730)* | 11630 *(51730)* | 10860 *(48300)* | 9640 *(42870)* | 9160 *(40740)* | 8390 *(37310)* | 7460 *(33180)* | 6760 *(30060)* |
| | 6.00 *(152)* | 16540 *(73560)* | 16880 *(75080)* | 13160 *(58530)* | 11030 *(49060)* | 10280 *(45720)* | 9140 *(40650)* | 8690 *(38650)* | 7940 *(35310)* | 7060 *(31400)* | 6410 *(28510)* |
| | 7.00 *(178)* | 15550 *(69160)* | 15550 *(69160)* | 12510 *(55640)* | 10480 *(46610)* | 9790 *(43540)* | 8690 *(38650)* | 8260 *(36740)* | 7540 *(33530)* | 6710 *(29840)* | 6090 *(27080)* |

**Note [1]:** For output speeds that are in between those detailed in Tables 4.6a through 4.7c, the overhung load capacity may be calculated through interpolation.





# Special Load Guidelines Output Shaft Overhung Load continued

**Table 4.7c Allowable Overhung Load for Output Shaft (Keyed Hollow Bore, Shrink Disc, Taper Grip Bushing) (Cf, Sf = 1)** Force Units: lbs, *(N)*

| Model | L inch *(mm)* | Output Shaft, RPM | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5 | 10 | 20 | 30 | 35 | 45 | 50 | 60 | 75 | 90 |
| | 0.75 *(19.1)* | 22060 *(98120)* | 25720 *(114400)* | 25720 *(114400)* | 21700 *(96520)* | 20270 *(90160)* | 18100 *(80500)* | 17230 *(76630)* | 15780 *(70180)* | 14130 *(62850)* | 12830 *(57060)* |
| | 1.00 *(25.4)* | 23290 *(103590)* | 25470 *(113290)* | 25470 *(113290)* | 21350 *(94960)* | 19930 *(88640)* | 17780 *(79080)* | 16930 *(75300)* | 15500 *(68940)* | 13880 *(61730)* | 12630 *(56170)* |
| | 1.25 *(31.8)* | 23780 *(105770)* | 24970 *(111060)* | 24920 *(110840)* | 20970 *(93270)* | 19600 *(87180)* | 17480 *(77750)* | 16650 *(74050)* | 15250 *(67830)* | 13660 *(60750)* | 12410 *(55190)* |
| | 1.50 *(38.1)* | 24210 *(107680)* | 24700 *(109860)* | 24520 *(109060)* | 20620 *(91710)* | 19280 *(85750)* | 17200 *(76500)* | 16380 *(72850)* | 15010 *(66760)* | 13430 *(59730)* | 12210 *(54310)* |
| | 1.75 *(44.5)* | 24370 *(108390)* | 24370 *(108390)* | 24120 *(107280)* | 20300 *(90290)* | 18950 *(84280)* | 16900 *(75170)* | 16100 *(71610)* | 14760 *(65650)* | 13210 *(58750)* | 12010 *(53420)* |
| | 1.88 *(47.6)* | 22920 *(101940)* | 24070 *(107060)* | 23720 *(105500)* | 19980 *(88870)* | 18650 *(82950)* | 16650 *(74050)* | 15850 *(70500)* | 14510 *(64540)* | 12980 *(57730)* | 11810 *(52530)* |
| **4E170** **4E175** **4E180** **4E185** **4E190** **4E195** | 2.00 *(50.8)* | 21720 *(96610)* | 23750 *(105640)* | 23350 *(103860)* | 19650 *(87400)* | 18380 *(81750)* | 16380 *(72850)* | 15600 *(69380)* | 14280 *(63510)* | 12780 *(56840)* | 11630 *(51730)* |
| | 2.50 *(63.5)* | 22070 *(98160)* | 23170 *(103060)* | 22650 *(100740)* | 19050 *(84730)* | 17800 *(79170)* | 15880 *(70630)* | 15130 *(67290)* | 13860 *(61640)* | 12410 *(55190)* | 11280 *(50170)* |
| | 3.00 *(76.2)* | 22150 *(98520)* | 22600 *(100520)* | 21970 *(97720)* | 18500 *(82280)* | 17280 *(76860)* | 15400 *(68490)* | 14680 *(65290)* | 13430 *(59730)* | 12030 *(53500)* | 10930 *(48610)* |
| | 3.50 *(88.9)* | 22070 *(98160)* | 22070 *(98160)* | 21350 *(94960)* | 17950 *(79840)* | 16780 *(74630)* | 14960 *(66540)* | 14260 *(63420)* | 13060 *(58090)* | 11680 *(51950)* | 10630 *(47280)* |
| | 4.00 *(102)* | 21900 *(97410)* | 21550 *(95850)* | 20750 *(92290)* | 17450 *(77610)* | 16300 *(72500)* | 14560 *(64760)* | 13860 *(61640)* | 12680 *(56400)* | 11360 *(50520)* | 10330 *(45940)* |
| | 4.50 *(114)* | 21680 *(96430)* | 21070 *(93710)* | 20180 *(89760)* | 16980 *(75520)* | 15850 *(70500)* | 14160 *(62980)* | 13480 *(59950)* | 12330 *(54840)* | 11030 *(49060)* | 10040 *(44650)* |
| | 5.00 *(127)* | 19190 *(85350)* | 20150 *(89620)* | 19130 *(85090)* | 16100 *(71610)* | 15060 *(66980)* | 13430 *(59730)* | 12780 *(56840)* | 11710 *(52080)* | 10480 *(46610)* | 9540 *(42430)* |
| | 6.00 *(152)* | 18940 *(84240)* | 19330 *(85970)* | 18200 *(80950)* | 15300 *(68050)* | 14310 *(63650)* | 12760 *(56750)* | 12160 *(54080)* | 11130 *(49500)* | 9960 *(44300)* | 9060 *(40290)* |
| | 7.00 *(178)* | 18550 *(82510)* | 18550 *(82510)* | 17350 *(77170)* | 14610 *(64980)* | 13630 *(60620)* | 12160 *(54080)* | 11580 *(51500)* | 10610 *(47190)* | 9490 *(42210)* | 8640 *(38430)* |
| | 0.75 *(19.1)* | 28700 *(127650)* | 33460 *(148830)* | 33460 *(148830)* | 33460 *(148830)* | 32960 *(146600)* | 29470 *(131080)* | 28220 *(125520)* | 25720 *(114400)* | 23150 *(102970)* | 21100 *(93850)* |
| | 1.00 *(25.4)* | 30370 *(135080)* | 33210 *(147710)* | 33210 *(147710)* | 33210 *(147710)* | 32460 *(144380)* | 29220 *(129970)* | 27720 *(123290)* | 25470 *(113290)* | 22820 *(101500)* | 20800 *(92510)* |
| | 1.25 *(31.8)* | 31150 *(138550)* | 32710 *(145490)* | 32710 *(145490)* | 32710 *(145490)* | 32210 *(143270)* | 28720 *(127740)* | 27220 *(121070)* | 24970 *(111060)* | 22500 *(100080)* | 20500 *(91180)* |
| | 1.50 *(38.1)* | 31820 *(141530)* | 32460 *(144380)* | 32460 *(144380)* | 32460 *(144380)* | 31710 *(141040)* | 28220 *(125520)* | 26970 *(119960)* | 24750 *(110080)* | 22170 *(98610)* | 20220 *(89930)* |
| | 1.75 *(44.5)* | 31960 *(142150)* | 31960 *(142150)* | 31960 *(142150)* | 31960 *(142150)* | 31210 *(138820)* | 27970 *(124410)* | 26470 *(117730)* | 24400 *(108530)* | 21870 *(97270)* | 19950 *(88730)* |
| | 1.88 (47.6) | 30200 (134320) | 31710 (141040) | 31710 (141040) | 31710 (141040) | 30710 (136590) | 27470 (122180) | 26220 (116620) | 24070 (107060) | 21570 (95940) | 19680 (87530) |
| **4F180** **4F185** **4F190** **4F195** | 2.00 *(50.8)* | 28770 *(127960)* | 31460 *(139930)* | 31460 *(139930)* | 31460 *(139930)* | 30460 *(135480)* | 27220 *(121070)* | 25970 *(115510)* | 23750 *(105640)* | 21270 *(94600)* | 19400 *(86290)* |
| | 2.50 *(63.5)* | 29250 *(130100)* | 30710 *(136590)* | 30710 *(136590)* | 30710 *(136590)* | 29470 *(131080)* | 26470 *(117730)* | 25220 *(112170)* | 23120 *(102830)* | 20720 *(92160)* | 18900 *(84060)* |
| | 3.00 *(76.2)* | 29620 *(131740)* | 30220 *(134410)* | 30220 *(134410)* | 30220 *(134410)* | 28720 *(127740)* | 25720 *(114400)* | 24550 *(109190)* | 22520 *(100160)* | 20200 *(89840)* | 18400 *(81840)* |
| | 3.50 *(88.9)* | 29470 *(131080)* | 29470 *(131080)* | 29470 *(131080)* | 29470 *(131080)* | 28220 *(125520)* | 25220 *(112170)* | 23920 *(106390)* | 21970 *(97720)* | 19700 *(87620)* | 17950 *(79840)* |
| | 4.00 *(102)* | 29440 *(130940)* | 28970 *(128850)* | 28970 *(128850)* | 28970 *(128850)* | 27470 *(122180)* | 24500 *(108970)* | 23350 *(103860)* | 21420 *(95270)* | 19230 *(85530)* | 17500 *(77840)* |
| | 4.50 *(114)* | 29800 *(132550)* | 28970 *(128850)* | 28970 *(128850)* | 28720 *(127740)* | 26720 *(118850)* | 23920 *(106390)* | 22800 *(101410)* | 20920 *(93050)* | 18750 *(83400)* | 17100 *(76060)* |
| | 5.00 *(127)* | 27110 *(120580)* | 28470 *(126630)* | 28470 *(126630)* | 27220 *(121070)* | 25470 *(113290)* | 22850 *(101630)* | 21750 *(96740)* | 19980 *(88870)* | 17900 *(79610)* | 16330 *(72630)* |
| | 6.00 *(152)* | 25700 *(114310)* | 26220 *(116620)* | 26220 *(116620)* | 26220 *(116620)* | 24450 *(108750)* | 21850 *(97180)* | 20820 *(92600)* | 19100 *(84950)* | 17130 *(76190)* | 15600 *(69380)* |
| | 7.00 *(178)* | 25470 *(113290)* | 25470 *(113290)* | 25470 *(113290)* | 24970 *(111060)* | 23450 *(104300)* | 20950 *(93180)* | 19950 *(88730)* | 18300 *(81390)* | 16430 *(73080)* | 14960 *(66540)* |

# Special Load Guidelines Input Shaft Overhung Load continued

## Allowable Axial Load for Hollow and Solid Shafts

**Table 4.8 Allowable Axial Load (Common to Hollow and Solid Shafts)**

[Units] Upper line: lbs; lower line: *(N)*

| Frame Size | Output Shaft Speed r/min | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 20 | 30 | 35 | 45 | 50 | 60 | 75 | 90 |
| 4A10 □, 4A11 □, 4A12 □, 4A14 □ | 4968<br>*(22100)* | 4968<br>*(22100)* | 4968<br>*(22100)* | 4586<br>*(20400)* | 4249<br>*(18900)* | 3709<br>*(16500)* | 3507<br>*(15600)* | 3147<br>*(14000)* | 2743<br>*(12200)* | 2428<br>*(10800)* |
| 4B12 □, 4B14 □, 4B16 □ | 9329<br>*(41500)* | 8835<br>*(39300)* | 6227<br>*(27700)* | 4923<br>*(21900)* | 4474<br>*(19900)* | 3754<br>*(16700)* | 3462<br>*(15400)* | 2990<br>*(13300)* | 2450<br>*(10900)* | 2025<br>*(9010)* |
| 4C14 □, 4C16 □, 4C17 □ | 14567<br>*(64800)* | 10903<br>*(48500)* | 7373<br>*(32800)* | 5620<br>*(25000)* | 4991<br>*(22200)* | 4024<br>*(17900)* | 3642<br>*(16200)* | 2990<br>*(13300)* | 2248<br>*(10000)* | 1675<br>*(7450)* |
| 4D16 □, 4D17 □, 4D18 □ | 20816<br>*(92600)* | 14859<br>*(66100)* | 9981<br>*(44400)* | 7531<br>*(33500)* | 6677<br>*(29700)* | 5328<br>*(23700)* | 4811<br>*(21400)* | 3912<br>*(17400)* | 2877<br>*(12800)* | 2070<br>*(9210)* |
| 4E17 □, 4E18 □, 4E19 □ | 20974<br>*(93300)* | 20569<br>*(91500)* | 14297<br>*(63600)* | 11150<br>*(49600)* | 10049<br>*(44700)* | 8340<br>*(37100)* | 7666<br>*(34100)* | 6542<br>*(29100)* | 5215<br>*(23200)* | 4204<br>*(18700)* |
| 4F18 □, 4F19 □ | 33720<br>*(150000)* | 33720<br>*(150000)* | 24503<br>*(109000)* | 19670<br>*(87500)* | 17962<br>*(79900)* | 15331<br>*(68200)* | 14297<br>*(63600)* | 12544<br>*(55800)* | 10521<br>*(46800)* | 8947<br>*(39800)* |

*The □ mark of each frame size represents 0, 5, DA, DB, or DC.

## Reducer Input Shaft Allowable Overhung Load

The radial load acting on the high speed shaft (ie: unit supplied as a reducer) may be calculated with the following formula:

$$Pr \leq \frac{Pro}{Lf \bullet Cf \bullet Sf}$$

LEGEND

- **Pr** = Actual radial load (lbs, *N*)
- **Pro** = Allowable radial load (lbs, *N*)
- **Lf** = Load Location factor (Table 4.6a)
- **Cf** = Coupling Factor (Table 4.4)
- **Sf** = Service factor (Table 4.5)

**Figure 4.1 Input Shaft Load Location Factor (Lf)**

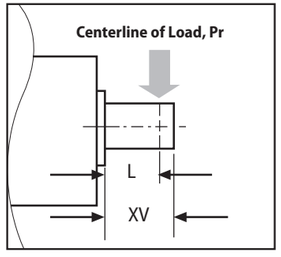



**Table 4.9 Input Shaft Load Location Factor (Lf)**

| Model | L inch/*(mm)* | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.25<br>*(6.35)* | 0.50<br>*(12.7)* | 0.75<br>*(19.05)* | 1.00<br>*(25.4)* | 1.25<br>*(31.75)* | 1.50<br>*(38.1)* | 1.75<br>*(44.45)* | 2.00<br>*(50.8)* | 2.50<br>*(63.5)* | 3.00<br>*(76.2)* | 3.50<br>*(88.9)* | 4.00<br>*(101.6)* |
| 4A10DA, 4A12DA, 4B12DA, 4B14DA, 4C14DA | 0.78 | 1.07 | 1.52 | 2.02 | — | — | — | — | — | — | — | — |
| 4A12DB, 4B12DB, 4B14DB, 4C14DB, 4C16DA, 4D16DA, 4D17DA, 4E17DA | 0.90 | 1.09 | 1.52 | 2.03 | 2.53 | — | — | — | — | — | — | — |
| 4A100, 4A105, 4C14DC, 4D16DB, 4D17DB, 4D18DA, 4E17DB, 4E18DA, 4F18DA | 0.93 | 1.09 | 1.52 | 2.03 | 2.53 | — | — | — | — | — | — | — |
| 4A110, 4A115 | 0.93 | 1.09 | 1.52 | 2.03 | 2.53 | — | — | — | — | — | — | — |
| 4A120, 4A125, 4B120, 4B125, 4D17DC, 4E17DC, 4E19DA, 4F19DA | 0.68 | 0.87 | 1.10 | 1.43 | 1.77 | 2.12 | 2.46 | — | — | — | — | — |
| 4C145, 4D18DB, 4E18DB, 4E19DB, 4F18DB, 4F19DB | 0.70 | 0.84 | 0.98 | 1.25 | 1.53 | 1.83 | 2.11 | — | — | — | — | — |
| 4B160, 4B165, 4C160, 4C165, 4D160, 4D165 | 0.90 | 0.94 | 0.97 | 1.06 | 1.22 | 1.36 | 1.51 | 1.66 | 1.94 | — | — | — |
| 4C170, 4C175, 4D170, 4D175, 4E170, 4E175 | — | 0.91 | 0.95 | 0.99 | 1.09 | 1.23 | 1.38 | 1.51 | 1.79 | 2.08 | — | — |
| 4D180, 4D185, 4E180, 4E185, 4F180, 4F185 | — | — | 0.92 | 0.96 | 1.01 | 1.11 | 1.24 | 1.37 | 1.63 | 1.88 | 2.15 | 2.40 |
| 4E190, 4E195, 4F190, 4F195 | — | — | 0.92 | 0.95 | 0.99 | 1.06 | 1.15 | 1.26 | 1.47 | 1.69 | 1.90 | 2.12 |







Special Load Guidelines Input Shaft Overhung Load continued

**Table 4.10 Input Shaft Overhung Load Capacity Pro (Lf, Cf, Sf =1)**

Force Units: lbs, *(N)*

| Model | Reduction Ratio | Input Speed (RPM) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 1750 | 1450 | 1165 | 980 | 870 | 720 | 580 |
| 4A10DA, 4A12DA, 4B12DA, 4B14DA, 4C14DA | 364 - 5177, 7228, 10658 | 44<br>*(196)* | 33<br>*(147)* | 33<br>*(147)* | 44<br>*(196)* | 44<br>*(196)* | 44<br>*(196)* | 44<br>*(196)* |
| | 1849, 2537 | 11<br>*(49.1)* | 11<br>*(49.1)* | 11<br>*(49.1)* | 11<br>*(49.1)* | 11<br>*(49.1)* | 33<br>*(147)* | 44<br>*(196)* |
| 4A12DB, 4B12DB, 4B14DB, 4C14DB, 4C16DA, 4D16DA, 4D17DA, 4E17DA | All Ratios | 44<br>*(196)* | 44<br>*(196)* | 44<br>*(196)* | 44<br>*(196)* | 55<br>*(245)* | 55<br>*(245)* | 66<br>*(294)* |
| 4A100, 4A105, 4C14DC, 4D16DB, 4D17DB, 4D18DA, 4E17DB, 4E18DA, 4F18DA | 11 - 39 , 54 - 578 , 809, 1117, 1656 , 2272 - 10658 | 99<br>*(441)* | 99<br>*(441)* | 110<br>*(491)* | 121<br>*(540)* | 132<br>*(589)* | 132<br>*(589)* | 132<br>*(589)* |
| | 42, 46, 48, 53, 683, 956, 1320, 1957 | 99<br>*(441)* | 77<br>*(343)* | 99<br>*(441)* | 110<br>*(491)* | 110<br>*(491)* | 121<br>*(540)* | 132<br>*(589)* |
| 4A110, 4A115 | 19 - 28 , 67 - 305 | 99<br>*(441)* | 77<br>*(343)* | 99<br>*(441)* | 110<br>*(491)* | 110<br>*(491)* | 121<br>*(540)* | 132<br>*(589)* |
| | 35 - 60 | 44<br>*(196)* | 44<br>*(196)* | 44<br>*(196)* | 44<br>*(196)* | 55<br>*(245)* | 55<br>*(245)* | 66<br>*(294)* |
| 4A120, 4A125, 4B120, 4B125, 4D17DC, 4E17DC, 4E19DA, 4F19DA | 11 - 60 , 364 - 2559 , 3511 , 5177 | 133<br>*(590)* | 155<br>*(690)* | 166<br>*(740)* | 175<br>*(780)* | 198<br>*(880)* | 198<br>*(880)* | 198<br>*(880)* |
| | 67 - 305, 2944, 4365, 6472 - 10658 | 121<br>*(540)* | 99<br>*(440)* | 110<br>*(490)* | 121<br>*(540)* | 133<br>*(590)* | 198<br>*(880)* | 198<br>*(880)* |
| 4D18DB, 4E18DB, 4E19DB, 4F18DB, 4F19DB | 11 - 74 | 308<br>*(1370)* | 308<br>*(1370)* | 308<br>*(1370)* | 342<br>*(1520)* | 364<br>*(1620)* | 387<br>*(1720)* | 418<br>*(1860)* |
| | 80 - 305 | 288<br>*(1280)* | 288<br>*(1280)* | 288<br>*(1280)* | 308<br>*(1370)* | 330<br>*(1470)* | 353<br>*(1570)* | 398<br>*(1770)* |
| 4A140, 4A145, 4B140, 4B145, 4C140, 4C145 | 11 - 28 | 308<br>*(1370)* | 308<br>*(1370)* | 308<br>*(1370)* | 342<br>*(1520)* | 364<br>*(1620)* | 387<br>*(1720)* | 418<br>*(1860)* |
| | 35 - 74 | 277<br>*(1230)* | 220<br>*(980)* | 243<br>*(1080)* | 265<br>*(1180)* | 277<br>*(1230)* | 297<br>*(1320)* | 330<br>*(1470)* |
| | 80 , 88 | 243<br>*(1080)* | 254<br>*(1130)* | 265<br>*(1180)* | 288<br>*(1280)* | 297<br>*(1320)* | 308<br>*(1370)* | 330<br>*(1470)* |
| | 93 - 305 | 121<br>*(540)* | 133<br>*(590)* | 133<br>*(590)* | 155<br>*(690)* | 155<br>*(690)* | 155<br>*(690)* | 243<br>*(1080)* |
| 4B160, 4B165, 4C160, 4C165, 4D160, 4D165 | 11 - 88 , 163 - 207 | 398<br>*(1770)* | 398<br>*(1770)* | 441<br>*(1960)* | 463<br>*(2060)* | 486<br>*(2160)* | 486<br>*(2160)* | 486<br>*(2160)* |
| | 93 - 151 , 227 - 305 | 243<br>*(1080)* | 265<br>*(1180)* | 288<br>*(1280)* | 308<br>*(1370)* | 308<br>*(1370)* | 353<br>*(1570)* | 398<br>*(1770)* |
| 4C170, 4C175, 4D170, 4D175, 4E170, 4E175 | All Ratios | 463<br>*(2060)* | 463<br>*(2060)* | 508<br>*(2260)* | 508<br>*(2260)* | 528<br>*(2350)* | 551<br>*(2450)* | 596<br>*(2650)* |
| 4D180, 4D185, 4E180, 4E185, 4F180, 4F185 | All Ratios | 618<br>*(2750)* | 573<br>*(2550)* | 618<br>*(2750)* | 661<br>*(2940)* | 683<br>*(3040)* | 751<br>*(3340)* | 771<br>*(3430)* |
| 4E190, 4E195, 4F190, 4F195 | 35 - 88 | 683<br>*(3040)* | 683<br>*(3040)* | 728<br>*(3240)* | 794<br>*(3530)* | 816<br>*(3630)* | 881<br>*(3920)* | 881<br>*(3920)* |
| | 93 - 305 | 596<br>*(2650)* | 573<br>*(2550)* | 638<br>*(2840)* | 661<br>*(2940)* | 706<br>*(3140)* | 751<br>*(3340)* | 816<br>*(3630)* |

# Special Load Guidelines **Inertia**

**Table 4.11 Reducer Moment of Inertia on reducer input shaft: Hollow Output Shaft, Ratios 11 - 53[1]**
Units: lb•inch$^2$ *(x $10^{-4}$ kg•$m^2$)*

| Model | Nominal Reduction Ratio | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 |
| **4A100** | 1.57 | 0.978 | 0.904 | 0.608 | 0.586 | 0.462 | — | — | 0.302 | 0.186 | 0.176 | 0.162 | 0.141 |
| **4A105** | *(4.60)* | *(2.86)* | *(2.64)* | *(1.78)* | *(1.72)* | *(1.35)* | — | — | *(0.884)* | *(0.544)* | *(0.514)* | *(0.475)* | *(0.414)* |
| **4A110** | — | — | — | — | — | 0.710 | — | — | 0.491 | 0.358 | 0.348 | 0.304 | 0.278 |
| **4A115** | — | — | — | — | — | *(2.08)* | — | — | *(1.44)* | *(1.05)* | *(1.02)* | *(0.891)* | *(0.813)* |
| **4A120** | 3.86 | 2.35 | 2.28 | 1.70 | 1.65 | 1.28 | 1.44 | 1.42 | 0.986 | 0.608 | 0.598 | 0.631 | 0.589 |
| **4A125** | *(11.3)* | *(6.89)* | *(6.67)* | *(4.99)* | *(4.84)* | *(3.74)* | *(4.21)* | *(4.14)* | *(2.89)* | *(1.78)* | *(1.75)* | *(1.85)* | *(1.72)* |
| **4A140** | 8.32 | 5.30 | 5.22 | 3.77 | 3.72 | 3.37 | 3.47 | 3.45 | 2.27 | 1.61 | 1.60 | 1.29 | 1.16 |
| **4A145** | *(24.4)* | *(15.5)* | *(15.3)* | *(11.0)* | *(10.9)* | *(9.87)* | *(10.2)* | *(10.1)* | *(6.65)* | *(4.71)* | *(4.68)* | *(3.77)* | *(3.40)* |
| **4B120** | 5.24 | 3.24 | 3.05 | 2.30 | 1.47 | 1.62 | 1.73 | 1.67 | 1.18 | 0.726 | 0.700 | 0.704 | 0.644 |
| **4B125** | *(15.3)* | *(9.48)* | *(8.93)* | *(6.72)* | *(4.31)* | *(4.75)* | *(5.06)* | *(4.88)* | *(3.45)* | *(2.12)* | *(2.05)* | *(2.06)* | *(1.88)* |
| **4B140** | 9.69 | 6.22 | 6.03 | 4.37 | 4.25 | 3.75 | 3.79 | 3.72 | 2.48 | 1.74 | 1.71 | 1.37 | 1.22 |
| **4B145** | *(28.4)* | *(18.2)* | *(17.7)* | *(12.8)* | *(12.4)* | *(11.0)* | *(11.1)* | *(10.9)* | *(7.27)* | *(5.08)* | *(5.01)* | *(4.01)* | *(3.58)* |
| **4B160** | 27.7 | 17.8 | 17.6 | 12.1 | 12.0 | 8.93 | 10.1 | 10.0 | 6.17 | 4.41 | 4.39 | 3.87 | 3.46 |
| **4B165** | *(81.0)* | *(52.1)* | *(51.6)* | *(35.5)* | *(35.1)* | *(26.1)* | *(29.5)* | *(29.3)* | *(18.0)* | *(12.9)* | *(12.8)* | *(11.3)* | *(10.1)* |
| **4C140** | 13.7 | 9.01 | 8.40 | 6.20 | 3.96 | 4.84 | 4.73 | 4.52 | 3.10 | 2.12 | 2.04 | 1.60 | 1.40 |
| **4C145** | *(40.1)* | *(26.4)* | *(24.6)* | *(18.1)* | *(11.6)* | *(14.2)* | *(13.8)* | *(13.2)* | *(9.06)* | *(6.20)* | *(5.96)* | *(4.69)* | *(4.09)* |
| **4C160** | 31.9 | 20.8 | 20.1 | 14.0 | 13.6 | 10.0 | 11.0 | 10.8 | 6.75 | 4.78 | 4.69 | 4.09 | 3.63 |
| **4C165** | *(93.4)* | *(60.8)* | *(59.0)* | *(40.9)* | *(39.7)* | *(29.2)* | *(32.1)* | *(31.6)* | *(19.8)* | *(14.0)* | *(13.7)* | *(12.0)* | *(10.6)* |
| **4C170** | 55.0 | 35.0 | 34.4 | 26.4 | 26.0 | 23.8 | 23.4 | 23.1 | 17.6 | 13.3 | 13.2 | 12.3 | 10.9 |
| **4C175** | *(161)* | *(102)* | *(101)* | *(77.2)* | *(76.0)* | *(69.8)* | *(68.3)* | *(67.7)* | *(51.4)* | *(38.9)* | *(38.6)* | *(36.1)* | *(31.9)* |
| **4D160** | — | — | — | — | — | 12.6 | 13.3 | 12.7 | 8.21 | 5.73 | 5.47 | 4.64 | 4.04 |
| **4D165** | — | — | — | — | — | *(36.8)* | *(39.0)* | *(37.1)* | *(24.0)* | *(16.8)* | *(16.0)* | *(13.6)* | *(11.8)* |
| **4D170** | 68.5 | 44.1 | 42.2 | 32.3 | 31.1 | 26.5 | 25.7 | 25.1 | 19.0 | 14.2 | 14.0 | 12.9 | 11.3 |
| **4D175** | *(200)* | *(129)* | *(123)* | *(94.5)* | *(90.9)* | *(77.5)* | *(75.3)* | *(73.4)* | *(55.7)* | *(41.7)* | *(40.9)* | *(37.7)* | *(33.1)* |
| **4D180** | 104 | 52.8 | 50.9 | 36.4 | 35.1 | 36.6 | 31.5 | 30.9 | 26.5 | 21.5 | 21.2 | 18.9 | 16.6 |
| **4D185** | *(304)* | *(155)* | *(149)* | *(107)* | *(103)* | *(107)* | *(92.2)* | *(90.3)* | *(77.5)* | *(62.8)* | *(62.1)* | *(55.4)* | *(48.7)* |
| **4E170** | — | — | — | — | — | 30.5 | 29.0 | 28.0 | 21.3 | 15.6 | 15.2 | 13.7 | 12.0 |
| **4E175** | — | — | — | — | — | *(89.2)* | *(84.7)* | *(82.0)* | *(62.3)* | *(45.5)* | *(44.4)* | *(40.2)* | *(35.0)* |
| **4E180** | 120 | 62.3 | 59.5 | 43.0 | 41.1 | 40.6 | 34.7 | 33.8 | 28.7 | 22.8 | 22.4 | 19.8 | 17.3 |
| **4E185** | *(351)* | *(182)* | *(174)* | *(126)* | *(120)* | *(119)* | *(102)* | *(98.9)* | *(84.0)* | *(66.7)* | *(65.5)* | *(57.8)* | *(50.6)* |
| **4E190** | 188 | 102 | 99.6 | 70.7 | 68.8 | 77.0 | 64.9 | 64.0 | 56.7 | 48.5 | 48.1 | 44.2 | 41.9 |
| **4E195** | *(551)* | *(300)* | *(291)* | *(207)* | *(201)* | *(225)* | *(190)* | *(187)* | *(166)* | *(142)* | *(141)* | *(129)* | *(123)* |
| **4F180** | 178 | 97.6 | 92.8 | 68.4 | 65.1 | 52.8 | 44.4 | 42.7 | 35.6 | 26.7 | 26.0 | 22.4 | 19.2 |
| **4F185** | *(522)* | *(286)* | *(272)* | *(200)* | *(190)* | *(155)* | *(130)* | *(125)* | *(104)* | *(78.1)* | *(76.2)* | *(65.4)* | *(56.3)* |
| **4F190** | 234 | 131 | 126 | 91.0 | 87.7 | 90.0 | 75.2 | 73.6 | 64.1 | 52.7 | 52.0 | 47.0 | 44.0 |
| **4F195** | *(686)* | *(383)* | *(369)* | *(266)* | *(257)* | *(263)* | *(220)* | *(215)* | *(187)* | *(154)* | *(152)* | *(138)* | *(129)* |

**Note: [1]** The inertia tables does not include the inertia of the integral motors. Total unit inertia is obtained by adding the reducer inertia to the motor inertia.







# Special Load Guidelines **Inertia** continued

**Table 4.12 Reducer Moment of Inertia on reducer input shaft: Hollow Output Shaft, Ratios 11 - 53[1]**
Units: lb•inch$^2$ *(x $10^{-4}$ kg•$m^2$)*

| Model | Nominal Reduction Ratio | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 |
| **4A100** | 0.101 | 0.107 | 0.104 | 0.094 | 0.092 | 0.064 | 0.059 | 0.058 | 0.053 | 0.070 | 0.047 | 0.067 | 0.045 |
| **4A105** | *(0.297)* | *(0.314)* | *(0.306)* | *(0.275)* | *(0.270)* | *(0.188)* | *(0.172)* | *(0.169 )* | *(0.154)* | *(0.206)* | *(0.138)* | *(0.196)* | *(0.131)* |
| **4A110** | 0.260 | 0.227 | 0.225 | 0.217 | 0.215 | 0.207 | 0.197 | 0.196 | 0.191 | 0.185 | 0.183 | 0.181 | 0.179 |
| **4A115** | *(0.760)* | *(0.665)* | *(0.657)* | *(0.634)* | *(0.628)* | *(0.605)* | *(0.577)* | *(0.575)* | *(0.559)* | *(0.541)* | *(0.536)* | *(0.529)* | *(0.525)* |
| **4A120** | 0.441 | 0.496 | 0.493 | 0.455 | 0.453 | 0.320 | 0.303 | 0.302 | 0.286 | 0.396 | 0.272 | 0.384 | 0.261 |
| **4A125** | *(1.29)* | *(1.45)* | *(1.44)* | *(1.33)* | *(1.33)* | *(0.935)* | *(0.887)* | *(0.884)* | *(0.838)* | *(1.16)* | *(0.795)* | *(1.12)* | *(0.763)* |
| **4A140** | 1.03 | 0.876 | 0.873 | 0.814 | 0.812 | 0.745 | 0.720 | 0.719 | 0.673 | 0.655 | 0.654 | 0.637 | 0.633 |
| **4A145** | *(3.01)* | *(2.56)* | *(2.56)* | *(2.38)* | *(2.38)* | *(2.18)* | *(2.11)* | *(2.10)* | *(1.97)* | *(1.92)* | *(1.91)* | *(1.86)* | *(1.85)* |
| **4B120** | 0.484 | 0.528 | 0.521 | 0.478 | 0.473 | 0.334 | 0.315 | 0.312 | 0.293 | 0.401 | 0.275 | 0.387 | 0.262 |
| **4B125** | *(1.42)* | *(1.54)* | *(1.52)* | *(1.40)* | *(1.38)* | *(0.978)* | *(0.921)* | *(0.913)* | *(0.857)* | *(1.17)* | *(0.805)* | *(1.13)* | *(0.768)* |
| **4B140** | 1.07 | 0.911 | 0.904 | 0.838 | 0.833 | 0.761 | 0.732 | 0.730 | 0.680 | 0.660 | 0.658 | 0.639 | 0.635 |
| **4B145** | *(3.14)* | *(2.67)* | *(2.65)* | *(2.45)* | *(2.44)* | *(2.23)* | *(2.14)* | *(2.14)* | *(1.99)* | *(1.93)* | *(1.93)* | *(1.87)* | *(1.86)* |
| **4B160** | 2.92 | 2.66 | 2.65 | 2.48 | 2.47 | 2.19 | 2.10 | 2.10 | 2.01 | 1.97 | 1.98 | 1.89 | 1.86 |
| **4B165** | *(8.53)* | *(7.79)* | *(7.77)* | *(7.25)* | *(7.23)* | *(6.41)* | *(6.15)* | *(6.14)* | *(5.88)* | *(5.77)* | *(5.80)* | *(5.54)* | *(5.46)* |
| **4C140** | 1.21 | 1.02 | 0.993 | 0.912 | 0.896 | 0.807 | 0.770 | 0.762 | 0.701 | 0.675 | 0.669 | 0.647 | 0.640 |
| **4C145** | *(3.54)* | *(2.97)* | *(2.91)* | *(2.67)* | *(2.62)* | *(2.36)* | *(2.25)* | *(2.23)* | *(2.05)* | *(1.98)* | *(1.96)* | *(1.89)* | *(1.87)* |
| **4C160** | 3.04 | 2.76 | 2.74 | 2.55 | 2.53 | 2.24 | 2.14 | 2.13 | 2.03 | 1.99 | 1.99 | 1.90 | 1.87 |
| **4C165** | *(8.91)* | *(8.08)* | *(8.02)* | *(7.46)* | *(7.41)* | *(6.54)* | *(6.26)* | *(6.23)* | *(5.94)* | *(5.81)* | *(5.83)* | *(5.56)* | *(5.47)* |
| **4C170** | 10.4 | 9.70 | 9.67 | 9.32 | 9.30 | 8.77 | 8.69 | 8.68 | 8.40 | 8.29 | 8.18 | 8.14 | 8.10 |
| **4C175** | *(30.5)* | *(28.4)* | *(28.3)* | *(27.3)* | *(27.2)* | *(25.7)* | *(25.4)* | *(25.4)* | *(24.6)* | *(24.3)* | *(23.9)* | *(23.8)* | *(23.7)* |
| **4D160** | 3.37 | 3.02 | 2.95 | 2.73 | 2.68 | 2.35 | 2.23 | 2.21 | 2.08 | 2.02 | 2.02 | 1.92 | 1.88 |
| **4D165** | *(9.86)* | *(8.85)* | *(8.64)* | *(8.00)* | *(7.85)* | *(6.87)* | *(6.53)* | *(6.46)* | *(6.09)* | *(5.92)* | *(5.90)* | *(5.62)* | *(5.51)* |
| **4D170** | 10.7 | 9.96 | 9.89 | 9.50 | 9.45 | 8.88 | 8.79 | 8.76 | 8.45 | 8.32 | 8.21 | 8.16 | 8.12 |
| **4D175** | *(31.4)* | *(29.1)* | *(28.9)* | *(27.8)* | *(27.7)* | *(26.0)* | *(25.7)* | *(25.6)* | *(24.7)* | *(24.4)* | *(24.0)* | *(23.9)* | *(23.8)* |
| **4D180** | 15.7 | 14.9 | 14.8 | 13.7 | 13.7 | 13.0 | 12.8 | 12.8 | 12.4 | 12.0 | 11.9 | 11.8 | 11.7 |
| **4D185** | *(46.0)* | *(43.5)* | *(43.3)* | *(40.1)* | *(40.0)* | *(38.0)* | *(37.4)* | *(37.4)* | *(36.2)* | *(35.2)* | *(34.9)* | *(34.6)* | *(34.4)* |
| **4E170** | 11.2 | 10.3 | 10.21 | 9.76 | 9.68 | 9.05 | 8.92 | 8.88 | 8.53 | 8.38 | 8.25 | 8.19 | 8.14 |
| **4E175** | *(32.9)* | *(30.2)* | *(29.9)* | *(28.6)* | *(28.3)* | *(26.5)* | *(26.1)* | *(26.0)* | *(25.0)* | *(24.5)* | *(24.1)* | *(24.0)* | *(23.8)* |
| **4E180** | 16.2 | 15.2 | 15.1 | 14.0 | 13.9 | 13.2 | 12.9 | 12.9 | 12.5 | 12.1 | 12.0 | 11.8 | 11.8 |
| **4E185** | *(47.4)* | *(44.5)* | *(44.2)* | *(40.9)* | *(40.7)* | *(38.5)* | *(37.8)* | *(37.7)* | *(36.5)* | *(35.3)* | *(35.0)* | *(34.7)* | *(34.4)* |
| **4E190** | 40.0 | 37.1 | 37.0 | 35.9 | 35.9 | 34.7 | 33.8 | 33.8 | 33.2 | 32.8 | 32.5 | 32.3 | 32.1 |
| **4E195** | *(117)* | *(109)* | *(108)* | *(105)* | *(105)* | *(102)* | *(98.9)* | *(98.8)* | *(97.1)* | *(96.0)* | *(95.2)* | *(94.6)* | *(94.1)* |
| **4F180** | 17.7 | 16.3 | 16.1 | 14.7 | 14.6 | 13.7 | 13.3 | 13.2 | 12.7 | 12.2 | 12.1 | 11.9 | 11.8 |
| **4F185** | *(51.9)* | *(47.7)* | *(47.1)* | *(43.1)* | *(42.7)* | *(40.0)* | *(38.9)* | *(38.7)* | *(37.2)* | *(35.8)* | *(35.4)* | *(34.9)* | *(34.6)* |
| **4F190** | 41.6 | 38.3 | 38.1 | 36.7 | 36.6 | 35.3 | 34.2 | 34.1 | 33.4 | 33.0 | 32.7 | 32.4 | 32.2 |
| **4F195** | *(122)* | *(112)* | *(111)* | *(108)* | *(107)* | *(103)* | *(100)* | *(99.9)* | *(97.9)* | *(96.6)* | *(95.6)* | *(94.9)* | *(94.3)* |

**Note: [1]** The inertia tables does not include the inertia of the integral motors. Total unit inertia is obtained by adding the reducer inertia to the motor inertia.

# Special Load Guidelines **Inertia** continued

**Table 4.13 Reducer Moment of Inertia on reducer input shaft: Solid Shaft [Left (L) or Right (R)] Output, Ratios 11 - 53**[1]
Units: lb•inch$^2$ *(x $10^{-4}$ kg•$m^2$)*

| Model | Nominal Reduction Ratio | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 |
| 4A100 | 1.58 | 0.986 | 0.910 | 0.614 | 0.560 | 0.465 | — | — | 0.304 | 0.187 | 0.177 | 0.163 | 0.142 |
| 4A105 | *(4.64)* | *(2.88)* | *(2.66)* | *(1.80)* | *(1.64)* | *(1.36)* | — | — | *(0.890)* | *(0.547)* | *(0.517)* | *(0.477)* | *(0.415)* |
| 4A100 | — | — | — | — | — | 0.713 | — | — | 0.492 | 0.359 | 0.349 | 0.305 | 0.278 |
| 4A115 | — | — | — | — | — | *(2.09)* | — | — | *(1.44)* | *(1.05)* | *(1.02)* | *(0.893)* | *(0.814)* |
| 4A120 | 3.88 | 2.36 | 2.29 | 1.71 | 1.66 | 1.28 | 1.44 | 1.42 | 0.988 | 0.610 | 0.599 | 0.632 | 0.589 |
| 4A125 | *(11.3)* | *(6.92)* | *(6.69)* | *(5.01)* | *(4.85)* | *(3.75)* | *(4.22)* | *(4.15)* | *(2.89)* | *(1.78)* | *(1.75)* | *(1.85)* | *(1.72)* |
| 4A140 | 8.34 | 5.31 | 5.23 | 3.77 | 3.72 | 3.37 | 3.48 | 3.45 | 2.27 | 1.61 | 1.60 | 1.29 | 1.16 |
| 4A145 | *(24.4)* | *(15.5)* | *(15.3)* | *(11.0)* | *(10.9)* | *(9.88)* | *(10.2)* | *(10.1)* | *(6.65)* | *(4.71)* | *(4.68)* | *(3.78)* | *(3.40)* |
| 4B120 | 5.30 | 3.28 | 3.09 | 2.32 | 2.19 | 1.64 | 1.74 | 1.68 | 1.19 | 0.731 | 0.705 | 0.708 | 0.646 |
| 4B125 | *(15.5)* | *(9.61)* | *(9.03)* | *(6.80)* | *(6.42)* | *(4.79)* | *(5.10)* | *(4.91)* | *(3.48)* | *(2.14)* | *(2.06)* | *(2.07)* | *(1.89)* |
| 4B120 | 9.75 | 3.91 | 3.72 | 4.40 | 4.27 | 3.76 | 3.80 | 3.74 | 2.49 | 1.74 | 1.72 | 1.37 | 1.22 |
| 4B125 | *(28.5)* | *(11.4)* | *(10.9)* | *(12.9)* | *(12.5)* | *(11.0)* | *(11.1)* | *(10.9)* | *(7.29)* | *(5.10)* | *(5.02)* | *(4.02)* | *(3.58)* |
| 4B140 | 27.7 | 17.8 | 17.7 | 12.2 | 12.0 | 8.95 | 10.1 | 10.0 | 6.18 | 4.42 | 4.39 | 3.87 | 3.47 |
| 4B145 | *(81.2)* | *(52.2)* | *(51.7)* | *(35.6)* | *(35.2)* | *(26.2)* | *(29.5)* | *(29.4)* | *(18.1)* | *(12.9)* | *(12.8)* | *(11.3)* | *(10.1)* |
| 4B160 | 13.8 | 9.10 | 8.47 | 6.26 | 5.85 | 4.87 | 4.76 | 4.55 | 3.12 | 2.13 | 2.05 | 1.61 | 1.40 |
| 4B165 | *(40.5)* | *(26.6)* | *(24.8)* | *(18.3)* | *(17.1)* | *(14.3)* | *(13.9)* | *(13.3)* | *(9.12)* | *(6.23)* | *(5.99)* | *(4.71)* | *(4.10)* |
| 4C160 | 32.0 | 12.4 | 11.8 | 14.0 | 13.6 | 10.0 | 11.0 | 10.8 | 6.77 | 4.79 | 4.70 | 4.09 | 3.63 |
| 4C165 | *(93.7)* | *(36.4)* | *(34.5)* | *(41.0)* | *(39.9)* | *(29.3)* | *(32.2)* | *(31.6)* | *(19.8)* | *(14.0)* | *(13.8)* | *(12.0)* | *(10.6)* |
| 4C170 | 55.1 | 35.1 | 34.5 | 26.4 | 26.0 | 23.9 | 23.4 | 23.2 | 17.6 | 13.3 | 13.2 | 12.3 | 10.9 |
| 4C175 | *(161)* | *(103)* | *(101)* | *(77.3)* | *(76.1)* | *(69.9)* | *(68.4)* | *(67.8)* | *(51.4)* | *(38.9)* | *(38.7)* | *(36.1)* | *(31.9)* |
| 4D160 | — | — | — | — | — | 12.6 | 13.4 | 12.7 | 8.25 | 5.76 | 5.49 | 4.65 | 4.06 |
| 4D165 | — | — | — | — | — | *(37.0)* | *(39.2)* | *(37.3)* | *(24.1)* | *(16.8)* | *(16.1)* | *(13.6)* | *(11.9)* |
| 4D170 | 68.7 | 27.4 | 25.4 | 32.4 | 31.2 | 26.6 | 25.8 | 25.1 | 19.1 | 14.3 | 14.0 | 12.9 | 11.3 |
| 4D175 | *(201)* | *(80.1)* | *(74.4)* | *(94.9)* | *(91.2)* | *(77.7)* | *(75.5)* | *(73.6)* | *(55.8)* | *(41.8)* | *(41.0)* | *(37.8)* | *(33.2)* |
| 4D180 | 104 | 53.0 | 51.1 | 36.6 | 35.2 | 36.7 | 31.6 | 30.9 | 26.5 | 21.5 | 21.2 | 18.9 | 16.7 |
| 4D185 | *(305)* | *(155)* | *(150)* | *(107)* | *(103)* | *(107)* | *(92.4)* | *(90.5)* | *(77.6)* | *(62.9)* | *(62.1)* | *(55.4)* | *(48.8)* |
| 4E170 | — | — | — | — | — | 30.7 | 29.1 | 28.2 | 21.4 | 15.6 | 15.2 | 13.8 | 12.0 |
| 4E175 | — | — | — | — | — | *(89.7)* | *(85.2)* | *(82.4)* | *(62.6)* | *(45.7)* | *(44.6)* | *(40.4)* | *(35.1)* |
| 4E180 | 121 | 48.3 | 45.4 | 43.4 | 41.4 | 40.8 | 34.9 | 33.9 | 28.8 | 22.8 | 22.5 | 19.8 | 17.3 |
| 4E185 | *(353)* | *(141)* | *(133)* | *(127)* | *(121)* | *(119)* | *(102)* | *(99.3)* | *(84.3)* | *(66.9)* | *(65.7)* | *(58.0)* | *(50.7)* |
| 4E190 | 189 | 103 | 100 | 71.1 | 69.1 | 77.2 | 65.1 | 64.1 | 56.8 | 48.6 | 48.2 | 44.3 | 41.9 |
| 4E195 | *(553)* | *(301)* | *(293)* | *(208)* | *(202)* | *(226)* | *(191)* | *(188)* | *(166)* | *(142)* | *(141)* | *(130)* | *(123)* |
| 4F180 | 180 | 76.9 | 71.9 | 69.4 | 65.9 | 53.4 | 44.8 | 43.1 | 35.9 | 26.9 | 26.2 | 22.5 | 19.3 |
| 4F185 | *(528)* | *(225)* | *(210)* | *(203)* | *(193)* | *(156)* | *(131)* | *(126)* | *(105)* | *(78.6)* | *(76.6)* | *(65.8)* | *(56.5)* |
| 4F190 | 236 | 132 | 127 | 92.0 | 88.5 | 90.5 | 75.7 | 74.0 | 64.4 | 52.8 | 52.2 | 47.1 | 44.1 |
| 4F195 | *(692)* | *(388)* | *(373)* | *(269)* | *(259)* | *(265)* | *(221)* | *(216)* | *(188)* | *(155)* | *(153)* | *(138)* | *(129)* |

**Note: [1]** The inertia tables does not include the inertia of the integral motors. Total unit inertia is obtained by adding the reducer inertia to the motor inertia.





Appendix

Special Load Guidelines **Inertia** continued

**Table 4.14 Reducer Moment of Inertia on reducer input shaft: Solid Shaft [Left (L) or Right (R)] Output, Ratios 60 - 305**[1]
Units: lb•inch$^2$ *(x $10^{-4}$ kg•$m^2$)*

| Model | Nominal Reduction Ratio | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 |
| 4A100 | 0.102 | 0.108 | 0.105 | 0.094 | 0.092 | 0.064 | 0.060 | 0.058 | 0.053 | 0.070 | 0.047 | 0.067 | 0.045 |
| 4A105 | *(0.298)* | *(0.315)* | *(0.307)* | *(0.276)* | *(0.270)* | *(0.188)* | *(0.175)* | *(0.169)* | *(0.155)* | *(0.206)* | *(0.138)* | *(0.196)* | *(0.131)* |
| 4A110 | 0.260 | 0.228 | 0.225 | 0.217 | 0.215 | 0.207 | 0.197 | 0.196 | 0.191 | 0.185 | 0.183 | 0.181 | 0.179 |
| 4A115 | *(0.761)* | *(0.666)* | *(0.658)* | *(0.635)* | *(0.629)* | *(0.605)* | *(0.578)* | *(0.575)* | *(0.559)* | *(0.541)* | *(0.536)* | *(0.529)* | *(0.525)* |
| 4A120 | 0.441 | 0.496 | 0.493 | 0.456 | 0.454 | 0.320 | 0.303 | 0.302 | 0.286 | 0.396 | 0.272 | 0.384 | 0.261 |
| 4A125 | *(1.29)* | *(1.45)* | *(1.44)* | *(1.33)* | *(1.33)* | *(0.936)* | *(0.887)* | *(0.884)* | *(0.838)* | *(1.159)* | *(0.795)* | *(1.125)* | *(0.763)* |
| 4A140 | 1.03 | 0.877 | 0.874 | 0.814 | 0.812 | 0.745 | 0.720 | 0.719 | 0.673 | 0.655 | 0.654 | 0.637 | 0.633 |
| 4A145 | *(3.01)* | *(2.57)* | *(2.56)* | *(2.38)* | *(2.38)* | *(2.18)* | *(2.11)* | *(2.10)* | *(1.97)* | *(1.92)* | *(1.91)* | *(1.86)* | *(1.85)* |
| 4B120 | 0.486 | 0.529 | 0.522 | 0.479 | 0.474 | 0.335 | 0.317 | 0.313 | 0.293 | 0.401 | 0.275 | 0.387 | 0.262 |
| 4B125 | *(1.42)* | *(1.55)* | *(1.53)* | *(1.40)* | *(1.39)* | *(0.98)* | *(0.93)* | *(0.91)* | *(0.86)* | *(1.17)* | *(0.81)* | *(1.13)* | *(0.768)* |
| 4B140 | 1.08 | 0.912 | 0.905 | 0.839 | 0.834 | 0.761 | 0.733 | 0.730 | 0.680 | 0.660 | 0.658 | 0.639 | 0.635 |
| 4B145 | *(3.15)* | *(2.67)* | *(2.65)* | *(2.46)* | *(2.44)* | *(2.23)* | *(2.14)* | *(2.14)* | *(1.99)* | *(1.93)* | *(1.93)* | *(1.87)* | *(1.86)* |
| 4B160 | 2.92 | 2.66 | 2.66 | 2.48 | 2.47 | 2.19 | 2.10 | 2.10 | 2.01 | 1.97 | 1.98 | 1.89 | 1.86 |
| 4B165 | *(8.54)* | *(7.79)* | *(7.77)* | *(7.25)* | *(7.24)* | *(6.41)* | *(6.15)* | *(6.14)* | *(5.88)* | *(5.77)* | *(5.80)* | *(5.54)* | *(5.46)* |
| 4C140 | 1.21 | 1.02 | 0.996 | 0.914 | 0.898 | 0.809 | 0.776 | 0.763 | 0.702 | 0.675 | 0.670 | 0.647 | 0.640 |
| 4C145 | *(3.55)* | *(2.98)* | *(2.91)* | *(2.68)* | *(2.63)* | *(2.37)* | *(2.27)* | *(2.23)* | *(2.05)* | *(1.98)* | *(1.96)* | *(1.89)* | *(1.87)* |
| 4C160 | 3.05 | 2.77 | 2.74 | 2.55 | 2.53 | 2.24 | 2.14 | 2.13 | 2.03 | 1.99 | 1.99 | 1.90 | 1.87 |
| 4C165 | *(8.92)* | *(8.09)* | *(8.03)* | *(7.46)* | *(7.41)* | *(6.55)* | *(6.26)* | *(6.24)* | *(5.94)* | *(5.81)* | *(5.83)* | *(5.56)* | *(5.47)* |
| 4C170 | 10.4 | 9.70 | 9.68 | 9.32 | 9.30 | 8.77 | 8.69 | 8.68 | 8.40 | 8.29 | 8.18 | 8.14 | 8.10 |
| 4C175 | *(30.5)* | *(28.4)* | *(28.3)* | *(27.3)* | *(27.2)* | *(25.7)* | *(25.4)* | *(25.4)* | *(24.6)* | *(24.3)* | *(23.9)* | *(23.8)* | *(23.7)* |
| 4D160 | 3.38 | 3.03 | 2.96 | 2.74 | 2.69 | 2.35 | 2.24 | 2.21 | 2.08 | 2.02 | 2.02 | 1.92 | 1.88 |
| 4D165 | *(9.88)* | *(8.87)* | *(8.65)* | *(8.01)* | *(7.86)* | *(6.88)* | *(6.56)* | *(6.46)* | *(6.09)* | *(5.92)* | *(5.91)* | *(5.62)* | *(5.51)* |
| 4D170 | 10.7 | 9.97 | 9.89 | 9.51 | 9.46 | 8.88 | 8.79 | 8.76 | 8.45 | 8.32 | 8.21 | 8.16 | 8.12 |
| 4D175 | *(31.5)* | *(29.2)* | *(29.0)* | *(27.8)* | *(27.7)* | *(26.0)* | *(25.7)* | *(25.6)* | *(24.7)* | *(24.4)* | *(24.0)* | *(23.9)* | *(23.8)* |
| 4D180 | 15.7 | 14.9 | 14.8 | 13.7 | 13.7 | 13.0 | 12.8 | 12.8 | 12.4 | 12.0 | 11.9 | 11.8 | 11.7 |
| 4D185 | *(46.0)* | *(43.5)* | *(43.3)* | *(40.2)* | *(40.0)* | *(38.0)* | *(37.4)* | *(37.4)* | *(36.2)* | *(35.2)* | *(34.9)* | *(34.6)* | *(34.4)* |
| 4E170 | 11.3 | 10.3 | 10.2 | 9.77 | 9.69 | 9.06 | 8.94 | 8.88 | 8.53 | 8.38 | 8.25 | 8.19 | 8.14 |
| 4E175 | *(33.0)* | *(30.3)* | *(29.9)* | *(28.6)* | *(28.4)* | *(26.5)* | *(26.2)* | *(26.0)* | *(25.0)* | *(24.5)* | *(24.1)* | *(24.0)* | *(23.8)* |
| 4E180 | 16.2 | 15.2 | 15.1 | 14.0 | 13.9 | 13.2 | 12.9 | 12.9 | 12.5 | 12.1 | 12.0 | 11.8 | 11.8 |
| 4E185 | *(47.5)* | *(44.6)* | *(44.3)* | *(40.9)* | *(40.7)* | *(38.5)* | *(37.8)* | *(37.7)* | *(36.5)* | *(35.3)* | *(35.1)* | *(34.7)* | *(34.4)* |
| 4E190 | 40.0 | 37.1 | 37.0 | 35.9 | 35.9 | 34.8 | 33.8 | 33.8 | 33.2 | 32.8 | 32.5 | 32.3 | 32.1 |
| 4E195 | *(117)* | *(109)* | *(108)* | *(105)* | *(105)* | *(102)* | *(98.9)* | *(98.8)* | *(97.1)* | *(96.0)* | *(95.2)* | *(94.6)* | *(94.1)* |
| 4F180 | 17.8 | 16.3 | 16.2 | 14.8 | 14.6 | 13.7 | 13.3 | 13.3 | 12.7 | 12.2 | 12.1 | 11.9 | 11.8 |
| 4F185 | *(52.1)* | *(47.8)* | *(47.3)* | *(43.2)* | *(42.8)* | *(40.1)* | *(39.0)* | *(38.8)* | *(37.2)* | *(35.8)* | *(35.4)* | *(34.9)* | *(34.6)* |
| 4F190 | 41.7 | 38.3 | 38.1 | 36.8 | 36.6 | 35.3 | 34.2 | 34.2 | 33.4 | 33.0 | 32.7 | 32.4 | 32.2 |
| 4F195 | *(122)* | *(112)* | *(112)* | *(108)* | *(107)* | *(103)* | *(100)* | *(99.9)* | *(97.9)* | *(96.6)* | *(95.6)* | *(94.9)* | *(94.3)* |

**Note: [1]** The inertia tables does not include the inertia of the integral motors. Total unit inertia is obtained by adding the reducer inertia to the motor inertia.



Cyclo® BBB4
Appendix

# Special Load Guidelines **Inertia** continued

**Table 4.15 Reducer Moment of Inertia on reducer input shaft: Dual Extended Solid Shaft (T) Output, Ratios 11 - 53**[1]
Units: lb•inch$^2$ *(x $10^{-4}$ kg•m$^2$)*

| Model | Nominal Reduction Ratio | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 11 | 13 | 14 | 16 | 18 | 21 | 22 | 25 | 28 | 35 | 39 | 46 | 53 |
| **4A100** | 1.65 | 1.03 | 0.947 | 0.645 | 0.586 | 0.482 | — | — | 0.313 | 0.193 | 0.182 | 0.166 | 0.145 |
| **4A105** | *(4.83)* | *(3.01)* | *(2.77)* | *(1.89)* | *(1.72)* | *(1.41)* | — | — | *(0.917)* | *(0.565)* | *(0.532)* | *(0.487)* | *(0.423)* |
| **4A100** | — | — | — | — | — | 0.730 | — | — | 0.502 | 0.365 | 0.354 | 0.309 | 0.281 |
| **4A115** | — | — | — | — | — | *(2.14)* | — | — | *(1.47)* | *(1.07)* | *(1.03)* | *(0.903)* | *(0.822)* |
| **4A120** | 3.47 | 2.41 | 2.32 | 1.74 | 1.68 | 1.30 | 1.46 | 1.43 | 0.997 | 0.616 | 0.604 | 0.635 | 0.592 |
| **4A125** | *(10.2)* | *(7.05)* | *(6.80)* | *(5.09)* | *(4.93)* | *(3.80)* | *(4.27)* | *(4.18)* | *(2.92)* | *(1.80)* | *(1.77)* | *(1.86)* | *(1.73)* |
| **4A140** | 7.29 | 5.35 | 5.27 | 3.80 | 3.75 | 3.39 | 3.48 | 3.46 | 2.28 | 1.62 | 1.61 | 1.29 | 1.17 |
| **4A145** | *(21.3)* | *(15.7)* | *(15.4)* | *(11.1)* | *(11.0)* | *(9.93)* | *(10.2)* | *(10.1)* | *(6.68)* | *(4.73)* | *(4.70)* | *(3.79)* | *(3.41)* |
| **4B120** | 5.46 | 3.39 | 3.17 | 2.40 | 2.25 | 1.68 | 1.78 | 1.71 | 1.21 | 0.745 | 0.717 | 0.716 | 0.652 |
| **4B125** | *(16.0)* | *(9.92)* | *(9.29)* | *(7.01)* | *(6.59)* | *(4.91)* | *(5.20)* | *(5.00)* | *(3.54)* | *(2.18)* | *(2.10)* | *(2.09)* | *(1.91)* |
| **4B120** | 9.90 | 6.36 | 6.15 | 4.47 | 4.33 | 3.80 | 3.84 | 3.76 | 2.51 | 1.76 | 1.73 | 1.38 | 1.23 |
| **4B125** | *(29.0)* | *(18.6)* | *(18.0)* | *(13.1)* | *(12.7)* | *(11.1)* | *(11.2)* | *(11.0)* | *(7.36)* | *(5.14)* | *(5.06)* | *(4.04)* | *(3.60)* |
| **4B140** | 23.9 | 18.0 | 17.7 | 12.2 | 12.1 | 9.0 | 10.1 | 10.1 | 6.20 | 4.43 | 4.40 | 3.88 | 3.47 |
| **4B145** | *(70.0)* | *(52.5)* | *(51.9)* | *(35.8)* | *(35.4)* | *(26.3)* | *(29.6)* | *(29.4)* | *(18.1)* | *(13.0)* | *(12.9)* | *(11.3)* | *(10.2)* |
| **4B160** | 14.2 | 9.34 | 8.68 | 6.42 | 5.98 | 4.96 | 4.84 | 4.62 | 3.17 | 2.16 | 2.07 | 1.63 | 1.42 |
| **4B165** | *(41.5)* | *(27.3)* | *(25.4)* | *(18.8)* | *(17.5)* | *(14.5)* | *(14.2)* | *(13.5)* | *(9.27)* | *(6.33)* | *(6.07)* | *(4.77)* | *(4.15)* |
| **4C160** | 32.4 | 21.1 | 20.4 | 14.2 | 13.8 | 10.1 | 11.1 | 10.9 | 6.82 | 4.82 | 4.73 | 4.11 | 3.65 |
| **4C165** | *(94.8)* | *(61.8)* | *(59.8)* | *(41.5)* | *(40.3)* | *(29.5)* | *(32.5)* | *(31.8)* | *(20.0)* | *(14.1)* | *(13.8)* | *(12.0)* | *(10.7)* |
| **4C170** | 47.8 | 35.3 | 34.7 | 26.6 | 26.2 | 24.0 | 23.5 | 23.2 | 17.6 | 13.3 | 13.2 | 12.4 | 10.9 |
| **4C175** | *(140)* | *(103)* | *(102)* | *(77.8)* | *(76.5)* | *(70.2)* | *(68.7)* | *(68.0)* | *(51.6)* | *(39.0)* | *(38.7)* | *(36.2)* | *(32.0)* |
| **4D160** | — | — | — | — | — | 12.8 | 13.6 | 12.9 | 8.36 | 5.83 | 5.55 | 4.70 | 4.09 |
| **4D165** | — | — | — | — | — | *(37.6)* | *(39.7)* | *(37.7)* | *(24.5)* | *(17.0)* | *(16.2)* | *(13.7)* | *(12.0)* |
| **4D170** | 69.5 | 44.8 | 42.8 | 32.8 | 31.4 | 26.8 | 25.8 | 25.3 | 19.2 | 14.3 | 14.1 | 13.0 | 11.4 |
| **4D175** | *(203)* | *(131)* | *(125)* | *(95.9)* | *(92.0)* | *(78.3)* | *(75.6)* | *(74.0)* | *(56.2)* | *(42.0)* | *(41.2)* | *(37.9)* | *(33.3)* |
| **4D180** | 82.7 | 53.5 | 51.5 | 36.9 | 35.5 | 36.9 | 31.7 | 31.1 | 26.6 | 21.6 | 21.3 | 19.0 | 16.7 |
| **4D185** | *(242)* | *(157)* | *(151)* | *(108)* | *(104)* | *(108)* | *(92.9)* | *(90.9)* | *(77.9)* | *(63.1)* | *(62.3)* | *(55.5)* | *(48.8)* |
| **4E170** | — | — | — | — | — | 31.0 | 29.5 | 28.4 | 21.6 | 15.8 | 15.3 | 13.9 | 12.1 |
| **4E175** | — | — | — | — | — | *(90.9)* | *(86.2)* | *(83.2)* | *(63.2)* | *(46.1)* | *(44.9)* | *(40.6)* | *(35.3)* |
| **4E180** | 122 | 63.8 | 60.7 | 44.1 | 42.0 | 41.2 | 35.3 | 34.2 | 29.0 | 23.0 | 22.6 | 19.9 | 17.4 |
| **4E185** | *(358)* | *(187)* | *(178)* | *(129)* | *(123)* | *(121)* | *(103)* | *(100)* | *(85.0)* | *(67.3)* | *(66.0)* | *(58.2)* | *(50.9)* |
| **4E190** | 153 | 104 | 101 | 71.8 | 69.7 | 77.5 | 65.4 | 64.4 | 57.0 | 48.7 | 48.3 | 44.4 | 42.0 |
| **4E195** | *(446)* | *(304)* | *(295)* | *(210)* | *(204)* | *(227)* | *(192)* | *(188)* | *(167)* | *(143)* | *1(41)* | *(130)* | *(123)* |
| **4F180** | 182 | 100 | 95.1 | 70.3 | 66.6 | 53.9 | 46.1 | 43.5 | 36.2 | 27.0 | 26.3 | 22.6 | 19.4 |
| **4F185** | *(534)* | *(293)* | *(278)* | *(206)* | *(195)* | *(158)* | *(135)* | *(127)* | *(106)* | *(79.1)* | *(77.1)* | *(66.1)* | *(56.8)* |
| **4F190** | 200 | 134 | 129 | 92.9 | 89.2 | 91.0 | 76.1 | 74.3 | 64.6 | 53.0 | 52.3 | 47.2 | 44.1 |
| **4F195** | *(587)* | *(391)* | *(376)* | *(272)* | *(261)* | *(266)* | *(223)* | *(218)* | *(189)* | *(155)* | *(153)* | *(138)* | *(129)* |

**Note: [1]** The inertia tables does not include the inertia of the integral motors. Total unit inertia is obtained by adding the reducer inertia to the motor inertia.





# Special Load Guidelines **Inertia** continued

**Table 4.16 Reducer Moment of Inertia on reducer input shaft: Dual Extended Solid Shaft (T) Output, Ratios 60 - 305**[1]
Units: lb•inch$^2$ *(x $10^{-4}$ kg•m$^2$)*

| Model | Nominal Reduction Ratio | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 60 | 67 | 74 | 80 | 88 | 102 | 112 | 123 | 151 | 179 | 207 | 249 | 305 |
| **4A100** | 0.104 | 0.109 | 0.106 | 0.095 | 0.093 | 0.065 | 0.059 | 0.058 | 0.053 | 0.071 | 0.047 | 0.067 | 0.045 |
| **4A105** | *(0.304)* | *(0.320)* | *(0.311)* | *(0.279)* | *(0.273)* | *(0.191)* | *(0.174)* | *(0.171)* | *(0.156)* | *(0.207)* | *(0.139)* | *(0.197)* | *(0.131)* |
| **4A110** | 0.262 | 0.229 | 0.226 | 0.218 | 0.216 | 0.208 | 0.198 | 0.197 | 0.191 | 0.185 | 0.183 | 0.181 | 0.180 |
| **4A115** | *(0.767)* | *(0.671)* | *(0.662)* | *(0.638)* | *(0.632)* | *(0.607)* | *(0.579)* | *(0.576)* | *(0.560)* | *(0.541)* | *(0.537)* | *(0.530)* | *(0.526)* |
| **4A120** | 0.443 | 0.498 | 0.495 | 0.457 | 0.455 | 0.321 | 0.304 | 0.303 | 0.287 | 0.396 | 0.272 | 0.384 | 0.261 |
| **4A125** | *(1.30)* | *(1.46)* | *(1.45)* | *(1.34)* | *(1.33)* | *(0.938)* | *(0.889)* | *(0.886)* | *(0.839)* | *(1.16)* | *(0.795)* | *(1.13)* | *(0.763)* |
| **4A140** | 1.03 | 0.878 | 0.875 | 0.815 | 0.813 | 0.745 | 0.720 | 0.719 | 0.673 | 0.655 | 0.654 | 0.637 | 0.633 |
| **4A145** | *(3.01)* | *(2.57)* | *(2.56)* | *(2.39)* | *(2.38)* | *(2.18)* | *(2.11)* | *(2.10)* | *(1.97)* | *(1.92)* | *(1.92)* | *(1.86)* | *(1.85)* |
| **4B120** | 0.490 | 0.533 | 0.525 | 0.482 | 0.476 | 0.337 | 0.317 | 0.314 | 0.294 | 0.401 | 0.276 | 0.387 | 0.263 |
| **4B125** | *(1.44)* | *(1.56)* | *(1.54)* | *(1.41)* | *(1.39)* | *(0.985)* | *(0.926)* | *(0.918)* | *(0.860)* | *(1.18)* | *(0.807)* | *(1.13)* | *(0.769)* |
| **4B140** | 1.08 | 0.916 | 0.909 | 0.842 | 0.836 | 0.763 | 0.734 | 0.731 | 0.681 | 0.661 | 0.659 | 0.640 | 0.635 |
| **4B145** | *(3.16)* | *(2.68)* | *(2.66)* | *(2.46)* | *(2.45)* | *(2.23)* | *(2.15)* | *(2.14)* | *(1.99)* | *(1.93)* | *(1.93)* | *(1.87)* | *(1.86)* |
| **4B160** | 2.92 | 2.67 | 2.66 | 2.48 | 2.48 | 2.19 | 2.10 | 2.10 | 2.01 | 1.97 | 1.98 | 1.89 | 1.86 |
| **4B165** | *(8.55)* | *(7.81)* | *(7.78)* | *(7.26)* | *(7.24)* | *(6.42)* | *(6.16)* | *(6.15)* | *(5.88)* | *(5.77)* | *(5.80)* | *(5.54)* | *(5.46)* |
| **4C140** | 1.23 | 1.03 | 1.00 | 0.921 | 0.903 | 0.813 | 0.774 | 0.765 | 0.704 | 0.677 | 0.671 | 0.648 | 0.640 |
| **4C145** | *(3.59)* | *(3.01)* | *(2.94)* | *(2.69)* | *(2.64)* | *(2.38)* | *(2.27)* | *(2.24)* | *(2.06)* | *(1.98)* | *(1.96)* | *(1.90)* | *(1.87)* |
| **4C160** | 3.06 | 2.77 | 2.75 | 2.56 | 2.54 | 2.24 | 2.14 | 2.13 | 2.03 | 1.99 | 1.99 | 1.90 | 1.87 |
| **4C165** | *(8.96)* | *(8.12)* | *(8.05)* | *(7.48)* | *(7.43)* | *(6.56)* | *(6.27)* | *(6.24)* | *(5.94)* | *(5.82)* | *(5.83)* | *(5.56)* | *(5.47)* |
| **4C170** | 10.4 | 9.71 | 9.68 | 9.33 | 9.31 | 8.77 | 8.70 | 8.69 | 8.40 | 8.29 | 8.18 | 8.14 | 8.11 |
| **4C175** | *(30.5)* | *(28.4)* | *(28.3)* | *(27.3)* | *(27.2)* | *(25.7)* | *(25.4)* | *(25.4)* | *(24.6)* | *(24.3)* | *(23.9)* | *(23.8)* | *(23.7)* |
| **4D160** | 3.40 | 3.05 | 2.97 | 2.75 | 2.70 | 2.36 | 2.24 | 2.21 | 2.08 | 2.03 | 2.02 | 1.92 | 1.88 |
| **4D165** | *(9.95)* | *(8.93)* | *(8.70)* | *(8.05)* | *(7.89)* | *(6.90)* | *(6.56)* | *(6.48)* | *(6.10)* | *(5.93)* | *(5.91)* | *(5.62)* | *(5.51)* |
| **4D170** | 10.8 | 9.99 | 9.91 | 9.52 | 9.47 | 8.89 | 8.80 | 8.77 | 8.45 | 8.33 | 8.21 | 8.16 | 8.12 |
| **4D175** | *(31.5)* | *(29.2)* | *(29.0)* | *(27.9)* | *(27.7)* | *(26.0)* | *(25.7)* | *(25.7)* | *(24.7)* | *(24.4)* | *(24.0)* | *(23.9)* | *(23.8)* |
| **4D180** | 15.7 | 14.9 | 14.8 | 13.7 | 13.7 | 13.0 | 12.8 | 12.8 | 12.4 | 12.0 | 11.9 | 11.8 | 11.7 |
| **4D185** | *(46.1)* | *(43.6)* | *(43.3)* | *(40.2)* | *(40.0)* | *(38.0)* | *(37.5)* | *(37.4)* | *(36.2)* | *(35.2)* | *(34.9)* | *(34.6)* | *(34.4)* |
| **4E170** | 11.3 | 10.4 | 10.3 | 9.80 | 9.72 | 9.08 | 8.94 | 8.89 | 8.54 | 8.39 | 8.25 | 8.19 | 8.14 |
| **4E175** | *(33.1)* | *(30.4)* | *(30.0)* | *(28.7)* | *(28.4)* | *(26.6)* | *(26.2)* | *(26.0)* | *(25.0)* | *(24.5)* | *(24.2)* | *(24.0)* | *(23.8)* |
| **4E180** | 16.3 | 15.3 | 15.2 | 14.0 | 13.9 | 13.2 | 12.9 | 12.9 | 12.5 | 12.1 | 12.0 | 11.9 | 11.8 |
| **4E185** | *(47.7)* | *(44.7)* | *(44.4)* | *(41.0)* | *(40.8)* | *(38.6)* | *(37.9)* | *(37.7)* | *(36.5)* | *(35.4)* | *(35.1)* | *(34.7)* | *(34.4)* |
| **4E190** | 40.1 | 37.2 | 37.1 | 36.0 | 35.9 | 34.8 | 33.8 | 33.8 | 33.2 | 32.8 | 32.5 | 32.3 | 32.1 |
| **4E195** | *(117)* | *(109)* | *(108)* | *(105)* | *(105)* | *(102)* | *(98.9)* | *(98.8)* | *(97.1)* | *(96.0)* | *(95.2)* | *(94.6)* | *(94.1)* |
| **4F180** | 17.9 | 16.4 | 16.2 | 14.8 | 14.7 | 13.7 | 13.3 | 13.3 | 12.7 | 12.3 | 12.1 | 11.9 | 11.8 |
| **4F185** | *(52.3)* | *(48.0)* | *(47.4)* | *(43.3)* | *(42.9)* | *(40.2)* | *(39.0)* | *(38.8)* | *(37.2)* | *(35.9)* | *(35.4)* | *(34.9)* | *(34.6)* |
| **4F190** | 41.7 | 38.4 | 38.2 | 36.8 | 36.7 | 35.4 | 34.2 | 34.2 | 33.5 | 33.0 | 32.7 | 32.4 | 32.2 |
| **4F195** | *(122)* | *(112)* | *(112)* | *(108)* | *(107)* | *(103)* | *(100)* | *(100.0)* | *(97.9)* | *(96.6)* | *(95.6)* | *(94.9)* | *(94.3)* |

**Note: [1]** The inertia tables does not include the inertia of the integral motors. Total unit inertia is obtained by adding the reducer inertia to the motor inertia.

# Special Load Guidelines Misc continued

**Table 4.17 Moment of Inertia on Motor Shaft of N-Frame Integral Motor**

| 1 HP *(0.75 kW)* x 4 Pole | | 1.5 HP *(1.1 kW)* x 4 Pole | | 2 HP *(1.5 kW)* x 4 Pole | | 3 HP *(2.2 kW)* x 4 Pole | | 5 HP *(3.7 kW)* x 4 Pole | |
|---|---|---|---|---|---|---|---|---|---|
| **Standard** | **w/ Brake** | **Standard** | **w/Brake** | **Standard** | **w/Brake** | **Standard** | **w/Brake** | **Standard** | **w/Brake** |
| 8.03 | 8.82 | 11.5 | 13.5 | 13.4 | 15.4 | 30.1 | 33.4 | 66.3 | 71.4 |
| (23.5) | (25.8) | (33.7) | (39.6) | (39.1) | (45) | (88) | (97.8) | (194) | (209) |

| 7.5 HP *(5.5 kW)* x 4 Pole | | 10 HP *(7.5 kW)* x 4 Pole | | 15 HP *(11 kW)* x 4 Pole | | 20 HP *(15 kW)* x 4 Pole | | 25 HP *(18.5 kW)* x 4 Pole | |
|---|---|---|---|---|---|---|---|---|---|
| **Standard** | **w/ Brake** | **Standard** | **w/ Brake** | **Standard** | **w/ Brake** | **Standard** | **w/ Brake** | **Standard** | **w/ Brake** |
| 99.4 | 105 | 140 | 154 | 192 | 206 | 340 | 393 | 875 | 926 |
| (291) | (306) | (409) | (450) | (561) | (602) | (995) | (1150) | (2560) | (2710) |

| 30 HP *(22 kW)* x 4 Pole | | 40 HP *(30 kW)* x 4 Pole | | 50 HP *(37 kW)* x 4 Pole | | 60 HP *(45 kW)* x 4 Pole | | 75 HP *(55 kW)* x 4 Pole | |
|---|---|---|---|---|---|---|---|---|---|
| **Standard** | **w/ Brake** | **Standard** | **w/ Brake** | **Standard** | **w/ Brake** | **Standard** | **w/ Brake** | **Standard** | **w/ Brake** |
| 875 | 926 | 1110 | 1170 | 1330 | 1380 | 2500 | 2550 | 2950 | - |
| (2560) | (2710) | (3260) | (3420) | (3900) | (4040) | (7310) | (7450) | (8640) | - |

## Excessive Overloads

Cyclo® BBB4 Speed Reducers provide 200% momentary intermittent shock load capacity and are warranted for two years from date of shipment. Refer to our standard terms and conditions for our complete warranty.

## Selection for Applications Involving Shock Loading

For applications involving frequent start-stop, braking or reversing, or quick starting of load having large inertia, consult factory for model selection or recommended modifications.

## Allowable Radial and Thrust Loads

The loads imposed on the reducer shafts vary with the method of connecting the shaft to the driven machine. Frequently, in addition to torsional forces, radial and thrust loads are applied to the slow speed shaft at the same time. For example, coupling connections normally involve torsional forces only. However, when power is transmitted through spur gears, belts, pulleys or chains, both torsional and radial forces may be applied to the reducer shafts. When driving through helical or bevel gears, all three conditions (torsional, radial and thrust load) may be referred to the reducer shaft.

The reducer shafts and bearings must have sufficient strength to withstand these loads, and it is, therefore, necessary to determine the allowable limits for each condition. Please consult factory for further information.

## Load Centering

The radial load capacities are calculated with the load concentrated at the midpoint of the slow speed shaft extension. Radial load capacities decrease if the center of the load is moved farther from the reducer and the values obtained from the charts must be adjusted accordingly..







# Lubrication

## Oil lubricated models are not filled with oil prior to shipping.

Before operating, fill the unit with the appropriate amount of the correct lubricant for the mounting position (see Table 4.22 and Table 4.23).
When operating in winter or other relatively low ambient temperatures, use the lower viscosity oil specified for each ambient temperature range.
Please consult the factory if the unit will be operated consistently in ambient temperatures other than 14°F to 104°F (-10° to 40°C).

## Grease lubricated models are lubricated with grease prior to shipment from the factory.

NOTE: For units supplied in the Y4 mounting position (input shaft vertical down), the Cyclo® portion is filled at the factory with grease. For these units, the Cyclo® portion does not need to be filled with lubricant before start-up. The Bevel Gear portion of models built for the Y4 mounting configuration still requires filling with gear oil before start-up. Refer to the unit Operating and Maintenance manual for further details.

Adding grease prior to initial start-up is not required. If grease must be replenished or changed avoid using greases other than those shown in the Table 4.20. Please consult the factory when the units will be used in widely fluctuating temperatures, ambient temperatures other than those specified in Table 4.20, or when other special conditions exist for the application. When motors from another manufacturer will be used, please consult and adhere to the associated motor maintenance manual for the appropriate lubrication instructions.

**Oil lubricated units** are shipped without oil. Prior to initial start-up, the unit must be filled with the correct amount of oil (see Table 4.22 and Table 4.23).

**Grease lubricated models** are lubricated at the factory. Additional grease does not need to be added prior to initial start-up.

**Table 4.18 Lubrication Type**

| Unit Size | Output (Bevel Gear Portion) | Input (Cyclo® Portion) | | |
|---|---|---|---|---|
| | | Motor Horizontal | Motor Vertical Up | Motor Vertical Down |
| All | Oil | Oil | Oil | Grease |

**Reccommended Oils:**

| | | | | | |
|---|---|---|---|---|---|
| **Gulf Oil:** | EP Lubricant HD | **Shell Oil:** | Omala S2 G | **Kluber:** | Kluberoil GEM1 |
| **ExxonMobil Oil:** | Spartan EP | **Caltex:** | Meropa | **Idemitsu Oil:** | Daphane Mechanic |
| **Mobil Oil:** | Mobilgear 600XP | **Castrol:** | Alpha SP | **BP Oil:** | Energol GR-XP |

**Table 4.19 Ambient Temperatures**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| °F | 14 | 32 | 50 | 68 | 86 | 104 | 122 |
| °C | -10 | 0 | 10 | 20 | 30 | 40 | 50 |
| ISO VG | 68* (14° F to 41° F) | | | | | | |
| | | 100 / 150 (32° F to 95° F) | | | | | |
| | | | | | 220 / 320 / 460 (86° F to 122° F) | | |

**Food Grade Oil:** Klüber: Klübersynth UH1 6-460

**Table 4.20 Standard Greases**

| Ambient Temperature °F *(°C)* | Reduction Ratio | Input (Cyclo® Portion) |
|---|---|---|
| 14° to 122°F *(-10° to 50°C)* | 11 through 18:1 | N/A** |
| | 19:1 and higher | Exxon Unirex N2 |

**Table 4.21 Food Grade Grease**

| Ambient Temperature °F *(°C)* | Reduction Ratio | Input (Cyclo® Portion) |
|---|---|---|
| 14° to 122°F *(-10° to 50°C)* | 11 through 18:1 | N/A |
| | 19:1 and higher | Ultrachem Omnilube FGM2 |

## Oil Replenishment and Change Interval

A. Maintain proper oil levels at all times.

B. An oil change after the first 500 hours of operation is highly recommended.

C. Sumitomo recommends an oil change every 2500 hours, or six months, whichever comes first. If a proper preventive maintenance program is implemented and maintained, a longer change period may be acceptable.

D. If the unit is running in a high ambient, high humidity, or corrosive environment, the lubricant will have to be changed more frequently. Consult the factory for recommendations.

## Grease Replenishment and Change Interval

For units ordered for mounting in the Y4 configuration (motor vertical down), please consult the Operating and Maintenance manual for proper grease replentishment and change interval for the Cyclo® portion.

*VG68 is not available for ExxonMobil Spartan.
**Shell Gadus S2 V220 NLGI 0 can be used for 4A100 and 4A105 sizes only

# Lubrication continued

## Oil Quantities

**Table 4.22 BBB with Single Reduction Cyclo - Approximate Oil Quantity**
Units: US liquid gallon *(liter)* **Note: Output =** Bevel Gear Portion **Input =** Cyclo® Portion

| Bevel Gear Unit Size | Mounting Configuration | | | | | |
|---|---|---|---|---|---|---|
| | Y1 | Y3 | Y2 | Y4 | Y5 | Y6 |
| 4A10 | 0.43 *(1.62)* | | 0.85 *(3.17)* | 0.30 *(1.13)* Grease | 0.37 *(1.36)* | 0.48 *(1.84)* |
| 4A11 | 0.44 *(1.66)* | | 0.87 *(3.26)* | | 0.37 *(1.40)* | 0.50 *(1.88)* |
| 4A12 | 0.45 *(1.71)* | | 0.90 *(3.35)* | | 0.40 *(1.45)* | 0.50 *(1.93)* |
| 4A14 | 0.50 *(1.91)* | | 1.00 *(3.77)* | | 0.45 *(1.65)* | 0.55 *(2.13)* |
| 4B12 | 0.87 *(3.29)* | | 1.72 *(6.50)* | 0.45 *(1.72)* Grease | 0.87 *(3.34)* | 0.85 *(3.23)* |
| 4B14 | 0.92 *(3.49)* | | 1.85 *(6.97)* | | 0.92 *(3.54)* | 0.90 *(3.43)* |
| 4B16 | 1.04 *(3.92)* | | 2.01 *(7.61)* | | 1.06 *(3.97)* | 1.03 *(3.86)* |
| 4C14 | 1.46 *(5.52)* | | 2.93 *(11.1)* | 0.72 *(2.72)* Grease | 1.40 *(5.30)* | 1.56 *(5.88)* |
| 4C16 | 1.57 *(5.96)* | | 3.12 *(11.8)* | | 1.51 *(5.74)* | 1.66 *(6.32)* |
| 4C17 | 1.68 *(6.34)* | | 3.30 *(12.5)* | | 1.61 *(6.12)* | 1.77 *(6.70)* |
| 4D16 | 2.67 *(10.1)* | | 5.26 *(19.9)* | 1.22 *(4.61)* Grease | 2.56 *(9.69)* | 2.75 *(10.4)* |
| 4D17 | 2.75 *(10.4)* | | 5.42 *(20.5)* | | 2.64 *(10.0)* | 2.85 *(10.8)* |
| 4D18 | 2.83 *(10.7)* | | 5.55 *(21.0)* | | 2.72 *(10.3)* | 2.93 *(11.1)* |
| 4E17 | 3.86 *(14.6)* | | 7.61 *(28.8)* | 1.66 *(6.26)* Grease | 3.46 *(13.1)* | 4.25 *(16.1)* |
| 4E18 | 3.88 *(14.7)* | | 7.69 *(29.1)* | | 3.49 *(13.2)* | 4.28 *(16.2)* |
| 4E19 | 4.15 *(15.7)* | | 8.03 *(30.4)* | | 3.75 *(14.2)* | 4.54 *(17.2)* |
| 4F18 | 5.28 *(20.0)* | | 10.4 *(39.4)* | 1.93 *(7.28)* Grease | 4.89 *(18.5)* | 5.65 *(21.4)* |
| 4F19 | 5.50 *(20.8)* | | 10.7 *(40.6)* | | 5.10 *(19.3)* | 5.87 *(22.2)* |

**Table 4.23 BBB with Double Reduction Cyclo - Approximate Oil Quantity**
Units: US liquid gallon *(liter)* **Note: Output =** Bevel Gear Portion **Input =** Cyclo® Portion

| Bevel Gear Unit Size | Mounting Configuration | | | | | |
|---|---|---|---|---|---|---|
| | Y1 | Y3 | Y2 | Y4 | Y5 | Y6 |
| 4A10DA | 0.45 *(1.65)* | | 0.85 *(3.20)* | 0.29 *(1.13)* Grease | 0.37 *(1.39)* | 0.50 *(1.87)* |
| 4A12DA | 0.45 *(1.74)* | | 0.90 *(3.38)* | | 0.40 *(1.48)* | 0.53 *(1.96)* |
| 4A12DB | 0.48 *(1.78)* | | 0.90 *(3.43)* | | 0.40 *(1.52)* | 0.53 *(2.00)* |
| 4B12DA | 0.87 *(3.32)* | | 1.72 *(6.53)* | 0.45 *(1.72)* Grease | 0.90 *(3.37)* | 0.87 *(3.26)* |
| 4B12DB | 0.90 *(3.36)* | | 1.74 *(6.57)* | | 0.90 *(3.41)* | 0.87 *(3.30)* |
| 4B14DA | 0.92 *(3.52)* | | 1.85 *(7.00)* | | 0.95 *(3.57)* | 0.92 *(3.46)* |
| 4B14DB | 0.95 *(3.56)* | | 1.85 *(7.04)* | | 0.95 *(3.61)* | 0.92 *(3.50)* |
| 4C14DA | 1.48 *(5.55)* | | 2.96 *(11.2)* | 0.71 *(2.72)* Grease | 1.40 *(5.33)* | 1.56 *(5.91)* |
| 4C14DB | 1.48 *(5.59)* | | 2.96 *(11.2)* | | 1.43 *(5.37)* | 1.56 *(5.95)* |
| 4C14DC | 1.48 *(5.64)* | | 2.99 *(11.3)* | | 1.43 *(5.42)* | 1.59 *(6.00)* |
| 4C16DA | 1.59 *(6.03)* | | 3.12 *(11.8)* | | 1.53 *(5.81)* | 1.69 *(5.39)* |
| 4C16DB | 1.61 *(6.08)* | | 3.14 *(11.9)* | | 1.56 *(5.86)* | 1.69 *(6.44)* |
| 4D16DA | 2.67 *(10.1)* | | 5.28 *(20.0)* | | 1.64 *(6.19)* | 1.80 *(6.77)* |
| 4D16DB | 2.67 *(10.1)* | | 5.28 *(20.0)* | 1.22 *(4.61)* Grease | 2.59 *(9.76)* | 2.77 *(10.5)* |
| 4D17DA | 2.69 *(10.2)* | | 5.28 *(20.0)* | | 2.59 *(9.81)* | 2.80 *(10.6)* |
| 4D17DB | 2.77 *(10.5)* | | 5.44 *(20.6)* | | 2.69 *(10.2)* | 2.88 *(10.9)* |
| 4D17DC | 2.83 *(10.7)* | | 5.47 *(20.7)* | | 2.72 *(10.3)* | 2.91 *(11.0)* |
| 4D18DA | 2.85 *(10.8)* | | 5.57 *(21.1)* | 1.66 *(6.26)* Grease | 2.77 *(10.5)* | 2.96 *(11.2)* |
| 4D18DB | 3.09 *(11.7)* | | 5.65 *(21.4)* | | 3.01 *(11.4)* | 3.20 *(12.1)* |
| 4E17DA | 3.86 *(14.6)* | | 7.61 *(28.8)* | | 3.46 *(13.1)* | 4.25 *(16.1)* |







# Additional Mounting Configurations

**Figure 5.34 Keyed Hollow Output Bore - Output Flange Left**

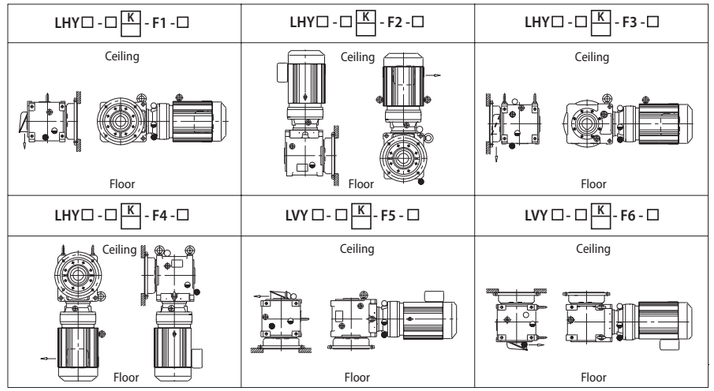



**Figure 5.35 Keyed Hollow Output Bore - Output Flange Right**

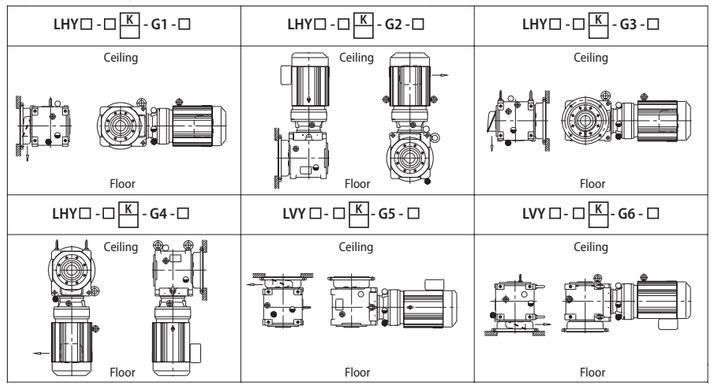
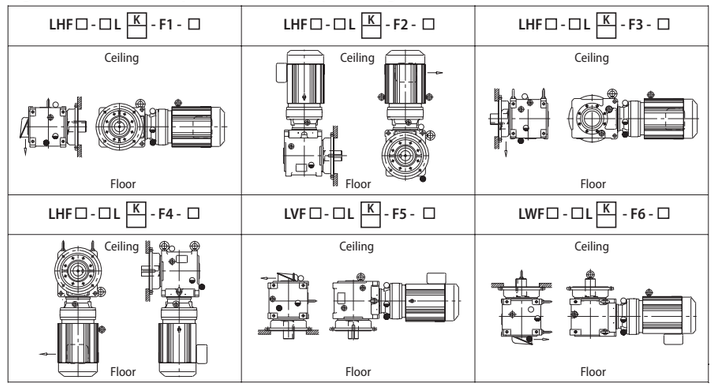



**Figure 5.36 Solid Output Shaft (L) - Output Flange Left**




**Notes:** **[1]** K = inch diameter shaft or keyed hollow bore; blank = metric diameter shaft or keyed hollow bore.
**[2]** ⊸ = direction of lead wires out of terminal box.

# Additional Mounting Configurations continued

**Figure 5.37 Solid Output Shaft Right (R) - Output Flange Right**

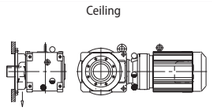
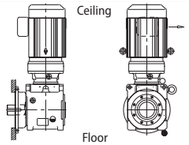
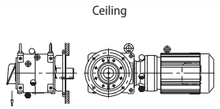
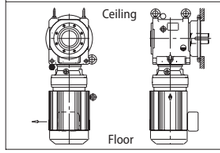
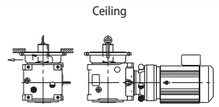
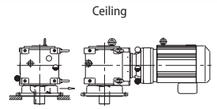
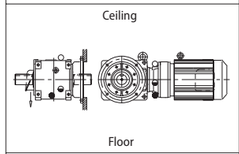
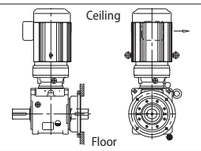
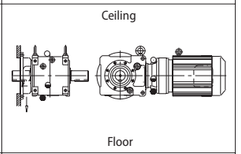
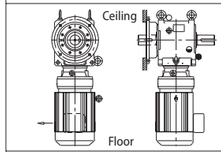
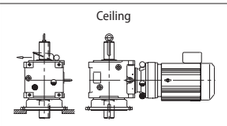
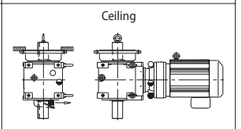
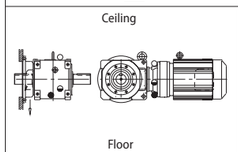
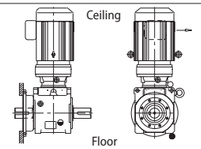
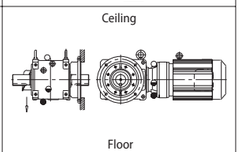
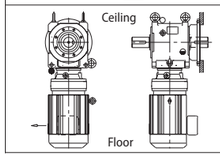
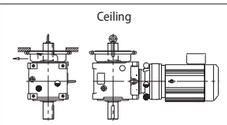
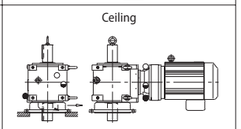
| LHF□ - □R [K] - G1 - □ | LHF□ - □R [K] - G2 - □ | LHF□ - □R [K] - G3 - □ |
|---|---|---|
|  |  |  |
| **LHF□ - □R [K] - G4 - □** | **LWF□ - □R [K] - G5 - □** | **LVF□ - □R [K] - G6 - □** |
|  |  |  |

**Figure 5.38 Double Extended Solid Output Shaft (T) - Output Flange Left**

| LHF□ - □T [K] - F1 - □ | LHF□ - □T [K] - F2 - □ | LHF□ - □T [K] - F3 - □ |
|---|---|---|
|  |  |  |
| **LHF□ - □T [K] - F4 - □** | **LVF□ - □T [K] - F5 - □** | **LWF□ - □T [K] - F6 - □** |
|  |  |  |

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**Figure 5.39 Double Extended Solid Output Shaft (T) - Output Flange Right**

| LHF□ - □T [K] - G1 - □ | LHF□ - □T [K] - G2 - □ | LHF□ - □T [K] - G3 - □ |
|---|---|---|
|  |  |  |
| **LHF□ - □T [K] - G4 - □** | **LWF□ - □T [K] - G5 - □** | **LVF□ - □T [K] - G6 - □** |
|  |  |  |

**Notes:** **[1]** K = inch diameter shaft or keyed hollow bore; blank = metric diameter shaft or keyed hollow bore.
**[2]** ⊸— = direction of lead wires out of terminal box.





# Additional Mounting Configurations continued

**Figure 5.40 Solid Ouput Shaft Left (L) - Output Flange Right**

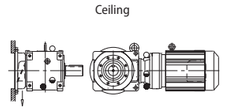
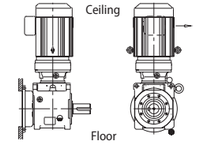
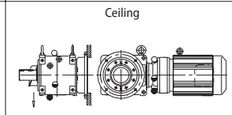
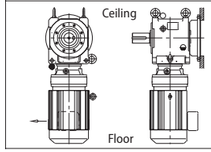
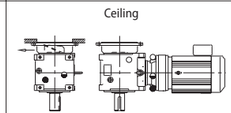
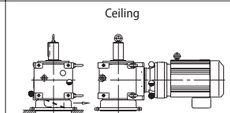
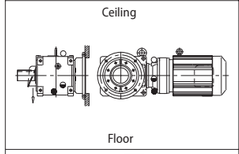
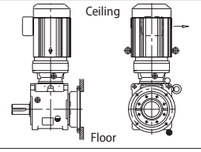
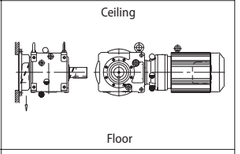
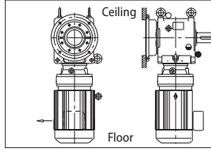
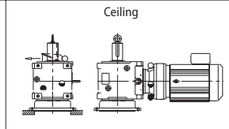
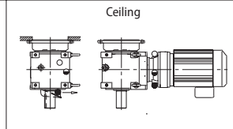
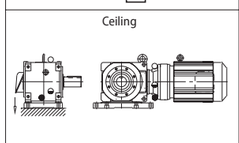
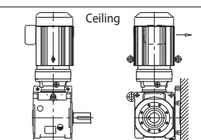
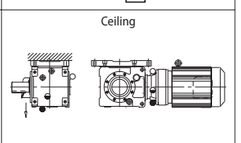
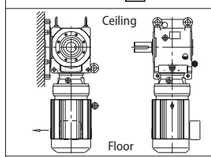
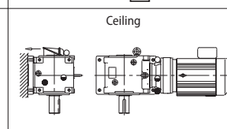
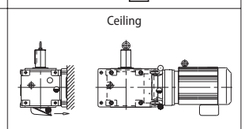
| LHF□ - □L [K] - G1 - □ | LHF□ - □L [K] - G2 - □ | LHF□ - □L [K] - G3 - □ |
|---|---|---|
|  |  |  |
| **LHF□ - □L [K] - G4 - □** | **LVF□ - □L [K] - G5 - □** | **LWF□ - □L [K] - G6 - □** |
|  |  |  |

**Figure 5.41 Solid Ouput Shaft Right (R) - Output Flange Left**

| LHF□ - □R [K] - F1 - □ | LHF□ - □R [K] - F2 - □ | LHF□ - □R [K] - F3 - □ |
|---|---|---|
|  |  |  |
| **LHF□ - □R [K] - F4 - □** | **LWF□ - □R [K] - F5 - □** | **LVF□ - □R [K] - F6 - □** |
|  |  |  |

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**Figure 5.42 Solid Output Shaft Left (L) - Mounting Foot Bottom**

| LHH□ - □L [K] - K1 - □ | LHH□ - □L [K] - K2 - □ | LHH□ - □L [K] - K3 - □ |
|---|---|---|
|  |  |  |
| **LHH□ - □L [K] - K4 - □** | **LVH□ - □L [K] - K5 - □** | **LWH□ - □L [K] - K6 - □** |
|  |  |  |

**Notes:** **[1]** K = inch diameter shaft or keyed hollow bore; blank = metric diameter shaft or keyed hollow bore.
**[2]** ⊸— = direction of lead wires out of terminal box.

# Additional Mounting Configurations continued

**Figure 5.43 Solid Output Shaft Right (R) - Mounting Foot Bottom**

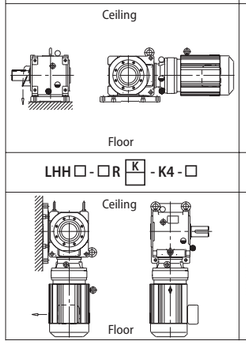
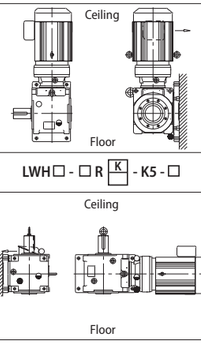
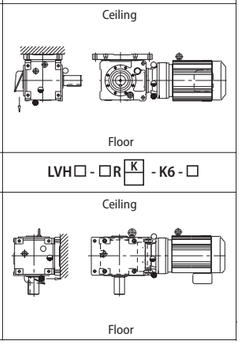
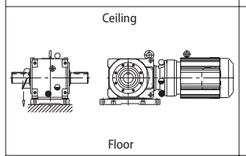
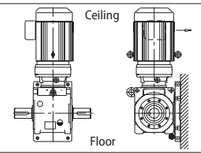
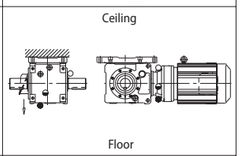
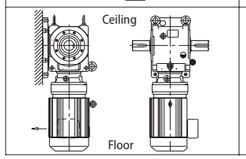
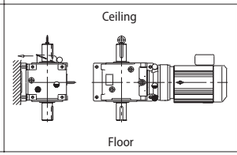
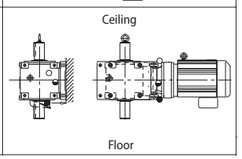
| LHH□ - □R [K] - K1 - □ | LHH□ - □R [K] - K2 - □ | LHH□ - □R [K] - K3 - □ |
|---|---|---|
|  |  |  |
| **LHH□ - □R [K] - K4 - □** | **LWH□ - □R [K] - K5 - □** | **LVH□ - □R [K] - K6 - □** |
|  |  |  |

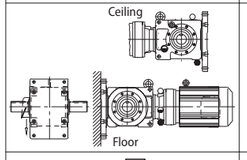
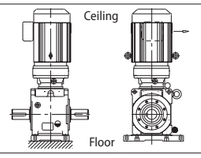
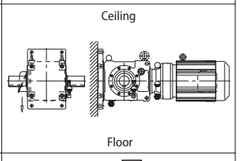
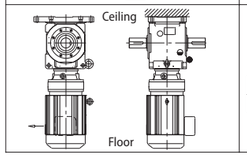
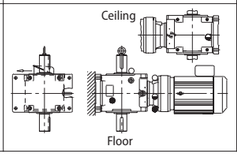
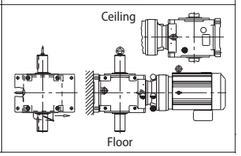
**Figure 5.44 Double Extended Solid Output Shaft (T) - Mounting Foot Bottom**

| LHH□ - □T [K] - K1 - □ | LHH□ - □T [K] - K2 - □ | LHH□ - □T [K] - K3 - □ |
|---|---|---|
|  |  |  |
| **LHH□ - □T [K] - K4 - □** | **LVH□ - □T [K] - K5 - □** | **LVH□ - □T [K] - K6 - □** |
|  |  |  |

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Appendix

**Figure 5.45 Double Extended Solid Output Shaft (T) - Mounting Foot Side**

| LHH□ - □T [K] - V1 - □ | LHH□ - □T [K] - V2 - □ | LHH□ - □T [K] - V3 - □ |
|---|---|---|
|  |  |  |
| **LHH□ - □T [K] - V4 - □** | **LVH□ - □T [K] - V5 - □** | **LVH□ - □T [K] - V6 - □** |
|  |  |  |

**Notes:** **[1]** K = inch diameter shaft or keyed hollow bore; blank = metric diameter shaft or keyed hollow bore.
**[2]** ⊸— = direction of lead wires out of terminal box.





# Additional Mounting Configurations continued

**Figure 5.46 Solid Output Shaft Left (L) - Mounting Foot Side**

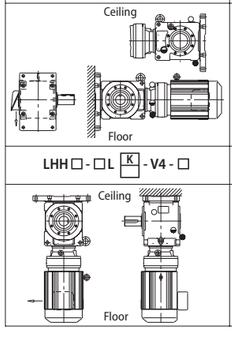
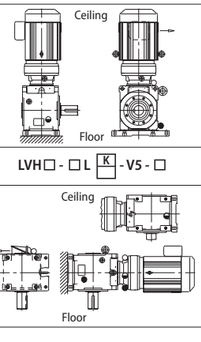
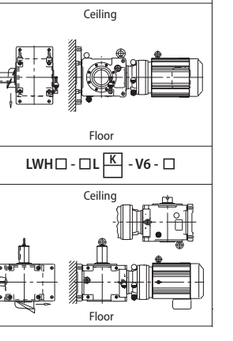
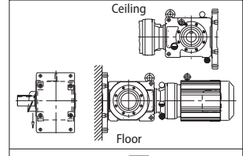
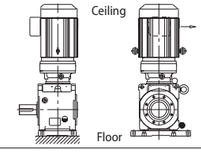
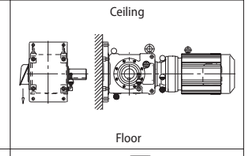
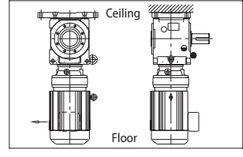
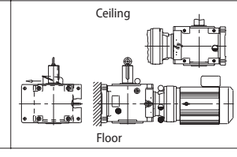
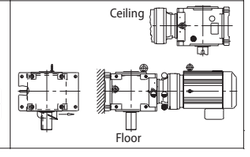
| LHH□ - □L [K] - V1 - □ | LHH□ - □L [K] - V2 - □ | LHH□ - □L [K] - V3 - □ |
|---|---|---|
|  |  |  |
| **LHH□ - □L [K] - V4 - □** | **LVH□ - □L [K] - V5 - □** | **LWH□ - □L [K] - V6 - □** |
|  |  |  |

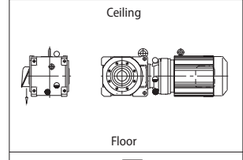
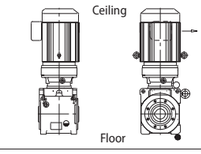
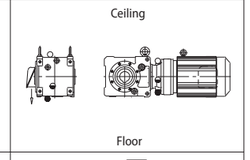
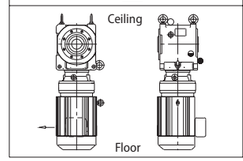
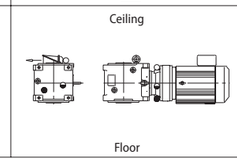
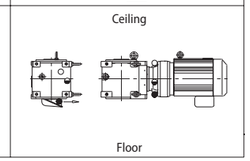
**Figure 5.47 Solid Output Shaft Right (R) - Mounting Foot Side**

| LHH□ - □R [K] - V1 - □ | LHH□ - □R [K] - V2 - □ | LHH□ - □R [K] - V3 - □ |
|---|---|---|
|  |  |  |
| **LHH□ - □R [K] - V4 - □** | **LWH□ - □R [K] - V5 - □** | **LVH□ - □R [K] - V6 - □** |
|  |  |  |

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Appendix

**Figure 5.48 Keyed Hollow Bore Output Bore**

| LHY□ - □ [K] - Y1 - □ | LHY□ - □ [K] - Y2 - □ | LHY□ - □ [K] - Y3 - □ |
|---|---|---|
|  |  |  |
| **LHY□ - □ [K] - Y4 - □** | **LVY□ - □ [K] - Y5 - □** | **LVY□ - □ [K] - Y6 - □** |
|  |  |  |

**Notes:** **[1]** K = inch diameter shaft or keyed hollow bore; blank = metric diameter shaft or keyed hollow bore.
**[2]** ⊸— = direction of lead wires out of terminal box.

# Warranty

Sumitomo warrants that its Cyclo® BBB4 Speed Reducers will deliver their continuous catalog ratings and up to 200% intermittent SHOCK LOAD CAPACITY, provided they are properly installed, maintained and operated within the limits of speed, torque or other load conditions under which they were sold. Sumitomo further states that Cyclo® BBB4 Speed Reducers are warranted to be free from defects in material or workmanship for a period of two years from the date of shipment. Sumitomo assumes no liability beyond product repair or replacement under this limited warranty.

For construction purposes, be sure to obtain certified dimension sheets or drawings. Although Sumitomo takes every precaution to include accurate data in our catalog, Sumitomo cannot guarantee such accuracy. If performance guarantees are required, they should be obtained in writing from the factory. Full consideration will be given to such requests when complete details are given of the proposed installation.







# Notes