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Cone Drive
BY TIMKEN



SERIES HP

HIGH POWER REDUCER

Precision. Motion Control. Technology.

Cone Drive
BY TIMKEN

Cone Drive is a world leader in precision motion control technology. We work with our customers every step of the way – from design specs to the final solution – to create highly precise, highly specific products that keep our customers' technology at the forefront of their industry. Cone Drive offers engineering support, unique solutions, and innovative technology across a breadth of markets and products to drive your company forward.



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SERIES HP

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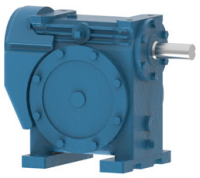
Serving an entire spectrum of mechanical drive applications from food, energy, mining and metal; to automotive, aerospace and marine propulsion, we are your source for drive solutions.

INDUSTRIAL SOLUTIONS

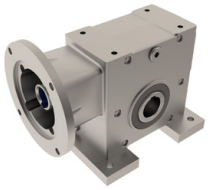
SERIES HP
Worm gearbox with double-enveloping worm gearing. Available in single, double and triple reductions



SERIES HP-A
Universal metric housing featuring double-enveloping gearing & drywell feature



SERIES B
Industrial duty worm gearbox featuring Conex gearing



DUO DRIVE
Dual gears on parallel output shafts



SLEWING SOLUTIONS
Versatile slew bearings and slew drives featuring external, internal and without teeth options in a low profile, ready-to-install package



STAINLESS NEMA
Smooth, contoured stainless steel housing (316), IP69K rated, right angle gearbox

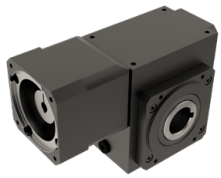


DOUBLE-ENVELOPING WORM GEAR SET
Available in standard sizes, ratios and backlash options along with custom worm gear sets

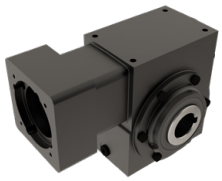


PRECISION MOTION SOLUTIONS

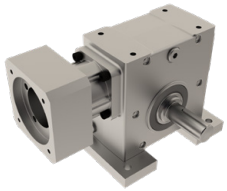
SERIES W
Precision right angle servo gearbox



SERIES RG
Moderate precision right angle servo gearbox



SERIES S
Value engineered right angle servo gearbox



SERIES LE / P
In-line helical geared motors & reducers and precision planetary servo gearbox



HARMONIC
Cone Drive Harmonic Solutions® offer the ultimate in precision motion control technology



STAINLESS SERVO
Smooth, contoured stainless steel housing (316), IP69K rated right angle gearbox



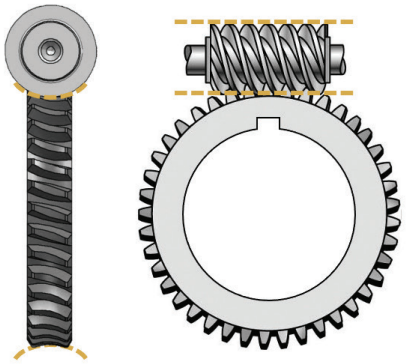
HP SERVO
This double-enveloping worm gearing, high torque gearbox meets the most demanding needs as servo motor capacities increase



We can create custom engineered transmission solutions of any size and configuration.

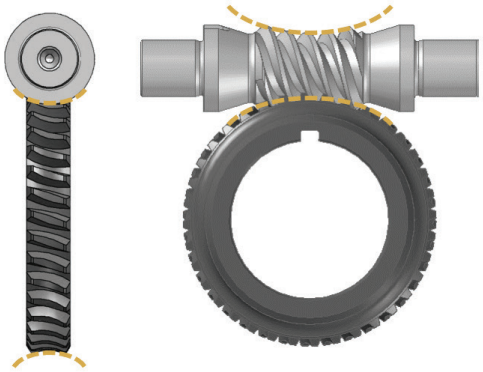
The Double-Enveloping Worm

A better choice for so many reasons.



STANDARD CYLINDRICAL GEAR

Total load is concentrated to only one or two teeth



CONE DRIVE DOUBLE-ENVELOPING GEAR

Total load is distributed among more teeth and surface area

CONE DRIVE DOUBLE-ENVELOPING TECHNOLOGY

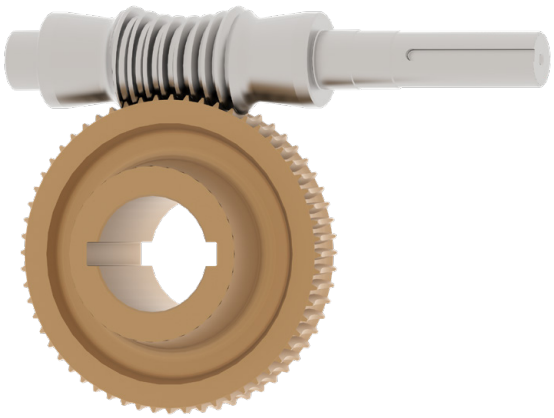
In 1925, Samuel L. Cone developed a method to machine the double-enveloping worm gear. With Cone Drive's double-enveloping technology, the worm 'hugs' the gear creating greater surface contact, higher load capacity, lower contact stress, and greater shock capacity. This gives you the flexibility to decrease the size of a worm drive gearbox to save space or increase the motor to get more power.

EFFICIENCY WITH A POWERFUL DESIGN

Greater surface area contact means the load is distributed across more teeth allowing the worm gear reducer to run cooler, quieter, and more efficiently. Cone Drive worms are through hardened to further provide additional strength. An efficient design without sacrificing power means cost savings with no loss of performance.

SERVICE FACTOR SAVINGS

Cone Drive worm drive gearboxes allow you to maintain service factor levels in a smaller package. The ability to down size equates to space savings in your system and cost savings in your pocket. We publish ratings you can rely on, Cone Drive tests their ratings in accordance with the American Gear Manufacturers Association (AGMA) standards.



PRODUCT VARIETY

Cone Drive worm gearboxes cover a diverse spectrum of markets. We offer a wide range of hollow output bore options, including industry leading large bore sizes. If you are looking for a solution to a gearing application, Cone Drive has the answer and the product range to back it up.

LET'S TALK BEARINGS

We use two heavy duty roller bearings to provide dual support for the worm. The additional support increases the longevity of the worm gearbox which means less down time. Heavy duty bearings are used on the output shafts, which is excellent for applications that require high overhung loads. This not only simplifies the design, but lowers your cost.

WORM DRIVE GEARBOXES WITH POWER AND ACCURACY



The inherent accuracy and torsional stiffness of double-enveloping worm gearing keeps the deflection and torsional displacement low, which is exactly what you need for your most critical timing and indexing applications. For even further control, Cone Drive worm gears provide you with exact ratios, eliminating the problems posed by fractional units. We offer solutions with standard, low, and zero backlash worm gearsets.

CUSTOM IS OUR SPECIALTY

Our experienced team of customer service representatives, application engineers, design engineers and manufacturing engineers are ready and willing to take on a challenge. Let us put our expertise to work and develop a solution customized to fit your needs. We can design and manufacture any type of worm drive gearbox application that you require.

CONE DRIVE QUALITY

• QUALITY ENGINEERING: We will design the right gearbox for your application and build it with the finest materials and components.

• QUALITY MANUFACTURING: We operate with a strict attention to detail and manufacture to exact tolerances and dimensions. Your gearbox will be built with precision and accuracy.

• QUALITY SERVICE: When you need assistance with installation, Cone Drive will be there to support you. We are fully committed to offering you service before and after the sale.

WE HAVE STOOD THE TEST OF TIME

For nearly 100 years, we have been making quality, durable worm gears. Our double-enveloping worm gearboxes drive equipment in mining, steel, aerospace, automotive, printing, packaging, and solar power world-wide. When you choose Cone Drive, you have the confidence of knowing that our many years of experience are behind every unit that we build.

OUR TEAM

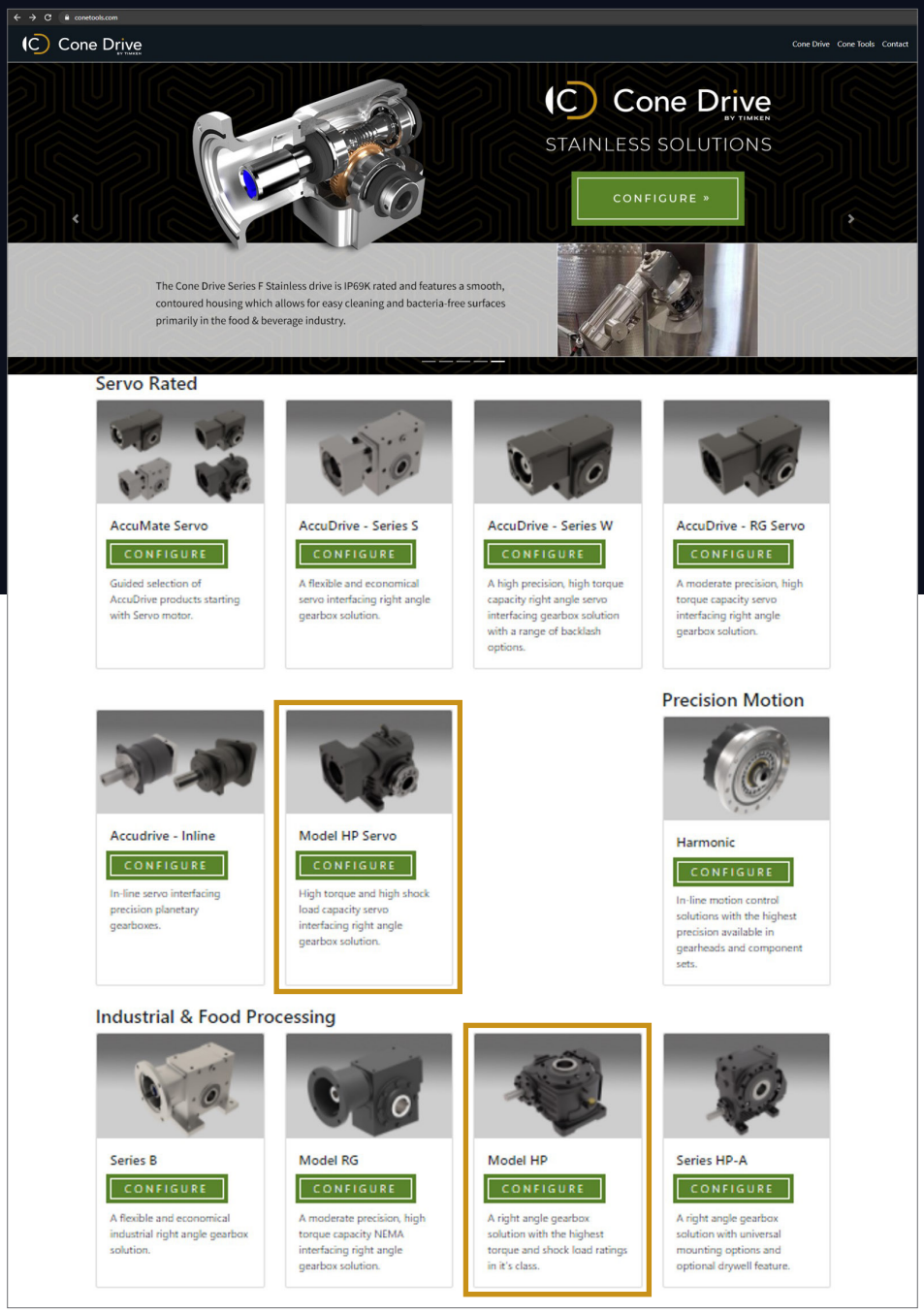
Cone Drive has a team of highly qualified, high character individuals to help if you have questions at any time throughout the purchasing process. Give us a call and we will offer dedicated, personal support to help get you started and identify what product will best fit your application.

Configure Your HP Reducer Online

www.ConeTools.com

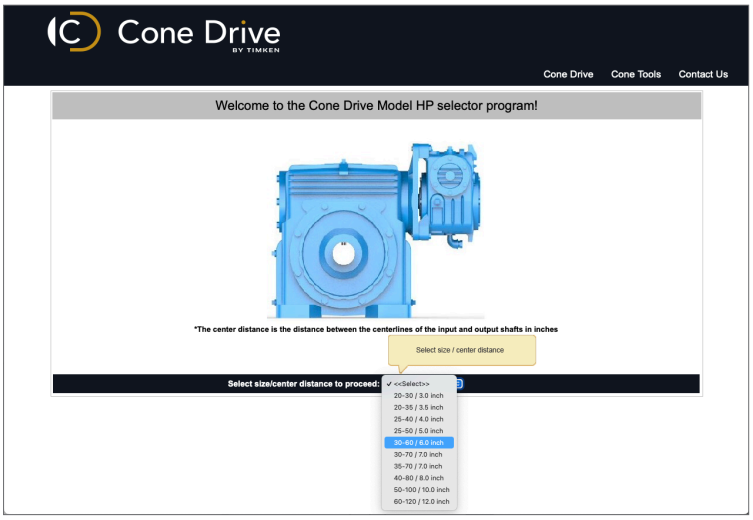
1

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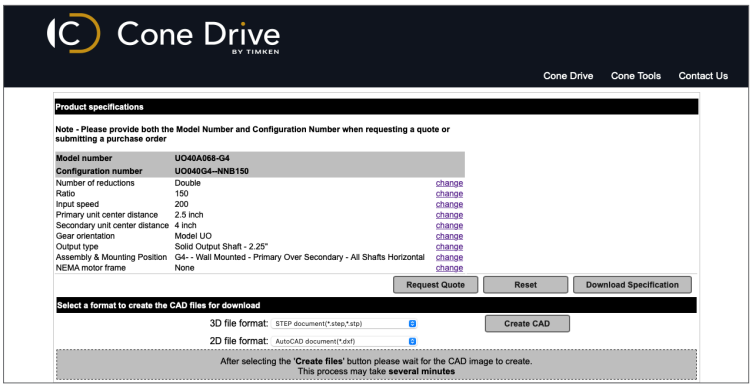
2

Scroll down to locate either the Model HP-Servo or the Industrial Model HP and select "CONFIGURE" to begin your build



3

Step through the guided selection process to build your gearbox to meet your specific needs



4

After configuring your gearbox, a summary page of information will be provided



5

Request a quote, download a specification sheet, or create a 2D or 3D CAD model based on your specific model selections

Series HP

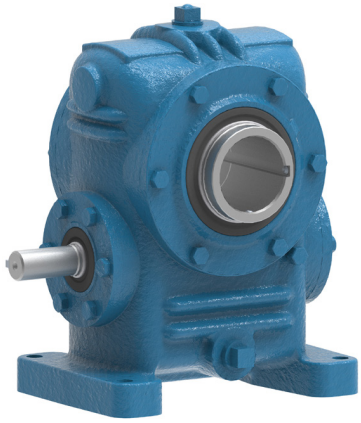
Cone Drive power transmission gearbox solutions are designed with torque in mind. Our industry leading right angle, double-enveloping design is made for applications that require extremely high torque and precision in a quiet, compact package. Since 1935, the Cone Drive Series HP has been excelling at meeting our customer's high power need

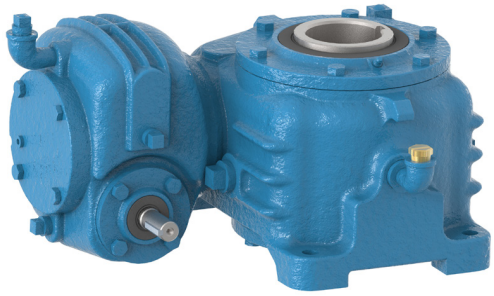
FOOD & PACKAGING | METALS & MINING | OIL & GAS | PAPER & PULP

MADE IN USA

High Power Industrial Control:

- Cone Drive's Double Enveloping Technology
- The absolute answer to power and performance
- Space saving design with single, double, and triple reduction options
- Meeting the demands of the high torque market since 1935
- Impressive 5-year warranty





CONFIGURE & DOWNLOAD YOUR MODEL AT ConeTools.com

Series HP

SPECIFICATIONS

Center Distances: 1.50" thru 28.00"

Exact Reduction Ratios: 5:1 - 343,000:1

Standard Reduction Stages: Single, Double, Triple

Input Options: Single extended or double extended

Output Options: Hollow bore, solid shaft, custom options available

Sealing: Dual lip shaft seals; Double seals and alternate materials available

Main Housing: Cast iron with vent

Cooling Options: Fan and water cooled options available

Shock Load Capacity: 300%

Output Torque: Up to 4,710,000 in-lb (532,159 Nm)

Backlash: Standard or low backlash (zero backlash available upon request)

Warranty: 5 years

Series HP - Servo

The Series HP - Servo gearbox is designed with power and precision in mind. Cone Drive's industry leading right angle, double-enveloping gearboxes are made for applications that require high torque and motion control in a quiet, compact package. When your application requires both performance and positional accuracy, the Series HP - Servo is ready to deliver the power and control you need.

FOOD & PACKAGING | AUTOMATION & ROBOTICS | AEROSPACE & DEFENSE

MADE IN USA

High Power Precision Control:

- Cone Drive's Double Enveloping Technology
- The perfect combination of power and precise motion control
- Best-in-class lead times
- Delivers the performance your high torque application demands
- Impressive 5-year warranty



CONFIGURE & DOWNLOAD YOUR MODEL AT ConeTools.com

Series HP - Servo

SPECIFICATIONS

Center Distances: 3.00" thru 8.00"

Exact Reduction Ratios: 5:1, 10:1, 15:1, 20:1, 25:1, 30:1, 40:1, 50:1, 60:1, 70:1 with many others available

Input Options: Single extended or double extended

Output Options: Keyed hollow bore or solid shaft, keyless hollow bore with shrink disc

Input Speed: Up to 3,000 rpm

Sealing: Dual lip shaft seals; Double seals and alternate materials available

Main Housing: Cast iron with vent

Cooling Options: Fan/shroud on side opposite the input

Shock Load Capacity: 300%

Backlash: Standard or low backlash (zero backlash available upon request)

Input Coupling: Zero backlash servo grade coupling

Coatings: Standard black enamel primer, Steel-It epoxy coating, or USDA white epoxy coating



PACKAGING & PROCESSING | FOOD & BEVERAGE | PHARMACEUTICAL & CHEMICAL





Cone Drive
BY TIMKEN

1

SERIES HP

General Information

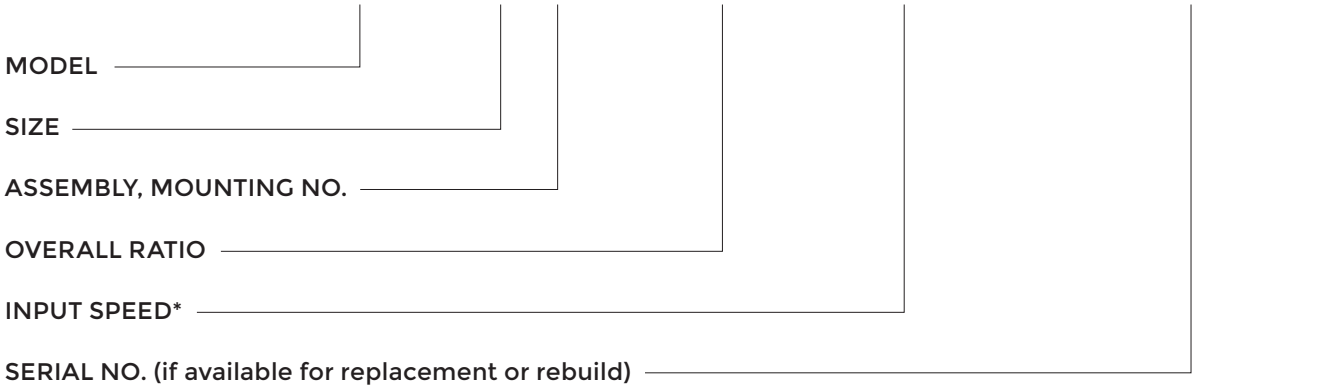
1.2 Model Codes
1.3 Shaft Rotation and Thrust Direction
1.4 Backlash
1.6 Rotational Inertia of Moving Parts
1.7 NEMA C Face Motor Dimensions
1.10 Optional Steeple Bearings
1.11 Standard Hollow Gearshaft Bores



How to Order

When you order or request a quotation for a Cone Drive unit, you will need to provide some basic information. Please provide complete information.

EXAMPLE OF HOW TO ORDER: **SHU** **40 - 2** **15 to 1** **1800** **RPM 87086660010**



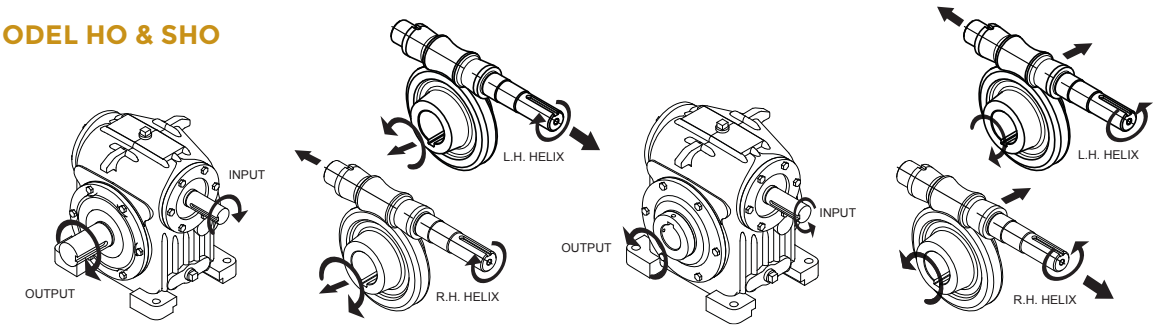
If you require an Application Review, you may wish to provide:

1. Input power (HP)
2. Output torque requirement
3. Service factor (duty cycle)
4. Application data
5. Special requirements
6. Sketch or drawing
7. Hollow shaft bore size (when required)

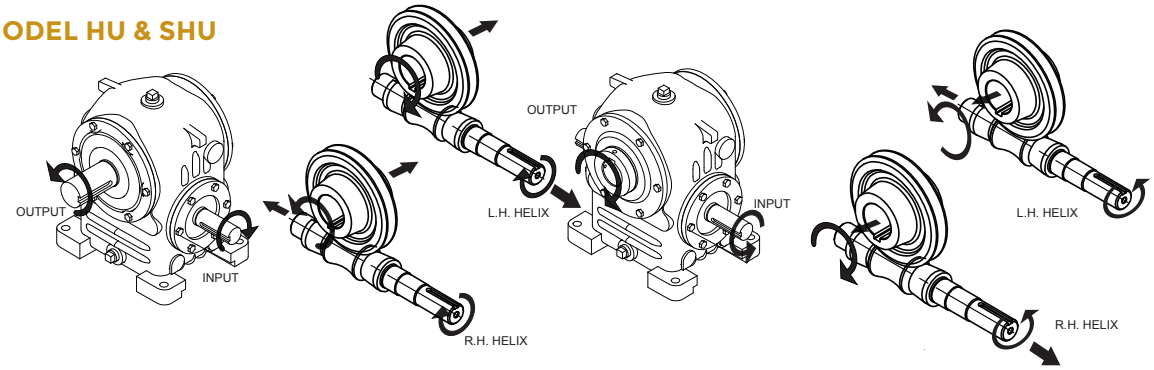
*Standard units are set up for 1750 RPM. If input is to be other than 1750, the information should be made available to Cone Drive to ensure proper bearing and oil level settings are defined.

Shaft rotations shown for standard right hand and left hand helix gear sets. Many ratios can be furnished with left hand helix. When a reducer is built with a left hand helix gear set the output shaft will rotate in opposite direction shown for a right hand helix gear set. (arrows indicate direction of rotation and thrust)

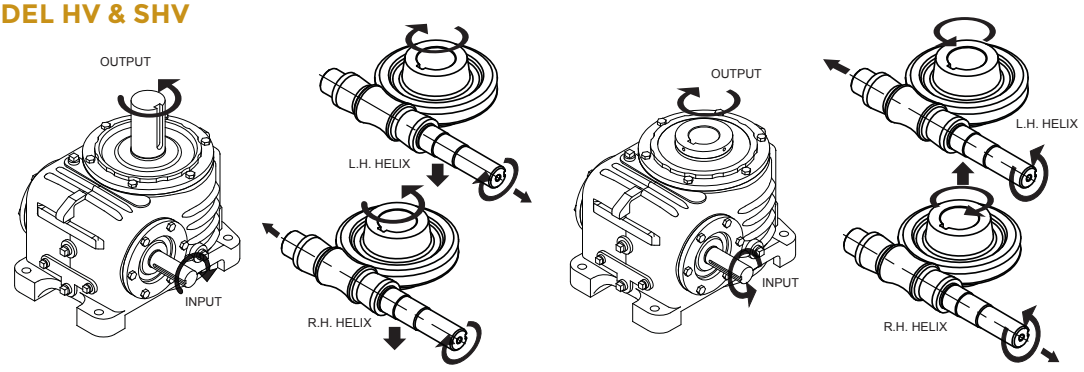
MODEL HO & SHO



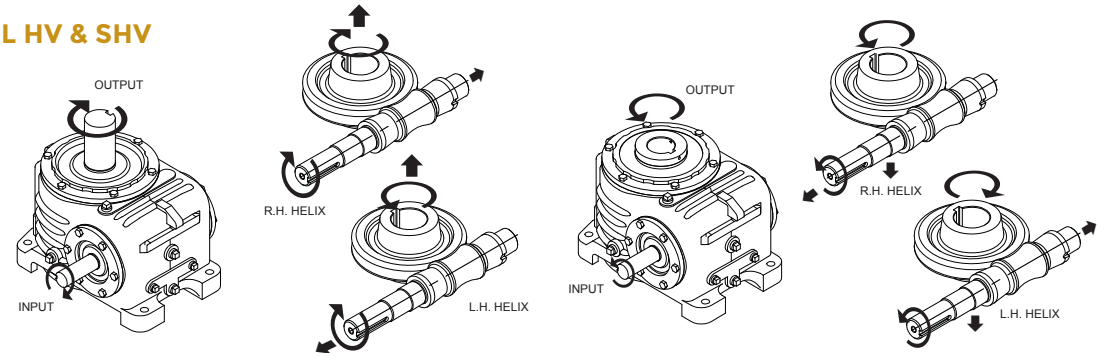
MODEL HU & SHU



MODEL HV & SHV



MODEL HV & SHV



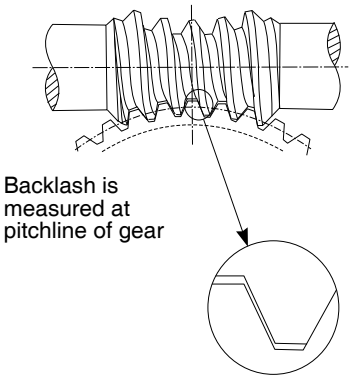
For Extra Precision: Cone Drive's Low Backlash Gearing

The inherent accuracy of Cone Drive's standard product line fulfills a broad range of precision drive requirements. But, for those applications that demand more precision we have a low backlash gear set to suit your needs. As Cone Drive's manufacturing processes lend themselves to generating precision gearing, these low backlash gear sets and reducers can be obtained at very little additional expense.

A standard Cone Drive gear unit provides about half the backlash of other standard gear units. Cone Drive also offers low backlash and zero backlash gearing.

ZERO BACKLASH GEAR SET** .000"
LOW BACKLASH GEAR SET* .000" – .002" for Unit Size 15-80
ASSEMBLED REDUCER* with Low Backlash Gear Set .000 – .004"

* at pitchline of gear.
•• does not include worm bearing end play.



MEASURING BACKLASH:

Backlash is measured at the pitchline of the gear by rotating the output shaft while holding the input shaft stationary. Bearings are set at zero end play for measurement, then adjusted afterwards according to loading, speed and duty cycle.

DOUBLE ENVELOPING:

Cone Drive's unique double-enveloping worm gear sets are double throated. This allows each element to envelop the other to provide area contact between the worm and gear. This design provides more output torque than cylindrical worm gearing for a given center distance. Double enveloping worm gearing also provides multiple tooth contact which will substantially reduce wear and allow extended life of the gear set.

CONE DRIVE'S LOW BACKLASH GEAR SETS AND REDUCERS OFFER:

- Accuracy
- Minimum Backlash
- Smooth Motion

APPLICATION ASSISTANCE:

To assure optimum performance, Cone Drive's application engineers are available to provide further explanations of precision characteristics under operating conditions. All reducers provided with low backlash gear sets require a review of loading speed and duty cycle so that bearings and lubrication can be given proper consideration.

BACKLASH

The following chart lists the backlash for standard reducers. Backlash is defined as the amount of movement at the pitch line of the gear with the worm locked and the gear set on exact center distance. When the gear set is assembled into a machine or reducer, the assembled backlash may fall outside of the limits shown in the table depending on worm and gear bearing looseness, and the actual center distance on which the gear set is mounted. Backlash is measured at the pitch line of the gear and is not dependent on ratio. Backlash is generally not measured at the worm because the amount of rotation of the worm with gear locked is a function of ratio.

STANDARD BACKLASH

SIZE	RPM INPUT											
	100-499			500-999			1000-2000			2001-3000		
	Inches	Degrees	Arc Minutes	Inches	Degrees	Arc Minutes	Inches	Degrees	Arc Minutes	Inches	Degrees	Arc Minutes
15	0.009	0.44	26	0.009	0.44	26	0.011	0.54	32	0.012	0.59	35
20	0.009	0.32	19	0.009	0.32	19	0.011	0.40	24	0.013	0.47	28
25	0.009	0.26	16	0.009	0.26	16	0.011	0.32	19	0.013	0.38	23
30	0.009	0.22	13	0.009	0.22	13	0.011	0.26	16	0.013	0.31	19
35	0.010	0.20	12	0.010	0.20	12	0.012	0.25	15	0.014	0.29	17
40	0.010	0.18	11	0.011	0.20	12	0.013	0.23	14	0.015	0.27	16
50	0.011	0.16	9	0.012	0.17	10	0.014	0.20	12	0.016	0.23	14
60	0.012	0.14	9	0.013	0.16	9	0.015	0.18	11	0.017	0.20	12
70	0.013	0.13	8	0.015	0.15	9	0.018	0.18	11	0.019	0.19	12
80	0.014	0.12	7	0.016	0.14	8	0.019	0.17	10	0.020	0.18	11
100*	0.024	0.17	10	0.024	0.17	10	0.024	0.17	10	0.024	0.17	10
120*	0.026	0.15	9	0.026	0.15	9	0.026	0.15	9	0.026	0.15	9
150*	0.030	0.15	9	0.030	0.15	9	0.030	0.15	9	0.030	0.15	9
180*	0.030	0.12	7	0.030	0.12	7	0.030	0.12	7	0.030	0.12	7
220*	0.031	0.10	6	0.031	0.10	6	0.031	0.10	6	0.031	0.10	6
240*	0.036	0.11	7	0.036	0.11	7	0.036	0.11	7	0.036	0.11	7
280*	0.036	0.09	5	0.036	0.09	5	0.036	0.09	5	0.036	0.09	5

LOW BACKLASH

SIZE	RPM INPUT											
	100-499			500-999			1000-2000			2001-3000		
	Inches	Degrees	Arc Minutes	Inches	Degrees	Arc Minutes	Inches	Degrees	Arc Minutes	Inches	Degrees	Arc Minutes
15	0.003	0.15	9	0.003	0.15	9	0.005	0.24	15	0.006	0.29	18
20	0.003	0.11	6	0.003	0.11	6	0.005	0.18	11	0.007	0.25	15
25	0.003	0.09	5	0.003	0.09	5	0.005	0.15	9	0.007	0.20	12
30	0.003	0.07	4	0.003	0.07	4	0.005	0.12	7	0.007	0.17	10
35	0.003	0.06	4	0.003	0.06	4	0.005	0.10	6	0.007	0.14	9
40	0.003	0.05	3	0.004	0.07	4	0.006	0.11	6	0.008	0.14	9
50	0.003	0.04	3	0.004	0.06	3	0.006	0.09	5	0.008	0.11	7
60	0.003	0.04	2	0.004	0.05	3	0.006	0.07	4	0.008	0.10	6
70	0.003	0.03	2	0.005	0.05	3	0.008	0.08	5	0.009	0.09	6
80	0.003	0.03	2	0.005	0.04	3	0.008	0.07	4	0.009	0.08	5
100*	0.012	0.08	5	0.012	0.08	5	0.012	0.08	5	0.012	0.08	5
120*	0.012	0.07	4	0.012	0.07	4	0.012	0.07	4	0.012	0.07	4
150*	0.012	0.06	4	0.013	0.06	4	0.013	0.06	4	0.013	0.06	4
180*	0.012	0.05	3	0.013	0.05	3	0.013	0.05	3	0.013	0.05	3
220*	0.012	0.04	2	0.013	0.04	2	0.013	0.04	2	0.013	0.04	2
240*	0.012	0.04	2	0.013	0.04	2	0.013	0.04	2	0.013	0.04	2
280*	0.012	0.03	2	0.013	0.03	2	0.013	0.03	2	0.013	0.03	2

Values listed for backlash are nominal. Backlash values in inches are measured at the pitch line.

*Worm is mounted in a type TDO double locked up tapered roller bearing with a fixed spacer which can be ground to reduce backlash for low speeds.

SOLID SHAFT - STANDARD FIGURES

RATIO	UNIT SIZE															
	15	20	25	30	35	40	50	60	70	80	100	120	150	180	220	240
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15700	-
5	0.116	0.532	1.06	2.62	5.80	9.86	20.2	52.0	102	168	547	1160	2000	5550	-	17300
5 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8800	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6300	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9040
10	0.096	0.365	0.772	1.80	3.36	6.52	12.6	29.5	48.4	92.2	313	590	1000	2640	4000	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2910	-
15	0.092	0.334	0.719	1.65	2.90	5.90	11.2	25.3	38.4	78.0	270	484	818	2100		5270
20	0.091	0.323	0.700	1.59	2.74	5.69	10.7	23.9	34.9	73.0	254	447	753	1910	2340	4620
25	-	0.318	0.691	1.57	2.67	5.59	10.5	23.2	33.3	70.7	247	430	723	1820	2140	4310
30	0.090	0.315	0.687	1.55	2.63	5.53	10.3	22.8	32.4	69.5	244	421	707	1770	2030	4150
40	0.090	0.313	0.682	1.54	2.59	5.48	10.2	22.5	31.5	68.2	240	412	691	1730	2030	3980
50	0.089	0.311	0.680	1.53	2.57	5.45	10.2	22.3	31.1	67.7	238	408	683	1710	1920	3910
60	0.089	0.311	0.678	1.53	2.56	5.44	10.1	22.2	30.9	67.4	237	405	679	1690	1870	-
70	-	-	-	-	-	-	10.1	22.2	30.8	67.2	237	404	-	-	-	-

Additional WK^2 for Double Extended Worm (add additional work directly to solid shaft standard figures)

High Speed Shaft	0.008	0.017	0.028	0.103	0.241	0.727	0.775	1.62	3.11	3.94	5.74	16.5	36.5	80.0	165	309

Additional WK^2 for Double Extended Solid Gearshaft (divide additional work by the square of the ratio and add to solid shaft standard figures)

Low Speed Shaft	0.013	0.116	0.189	0.511	1.29	4.05	7.83	18.2	27.7	31.69	60.4	332	772	1580	3910	6650

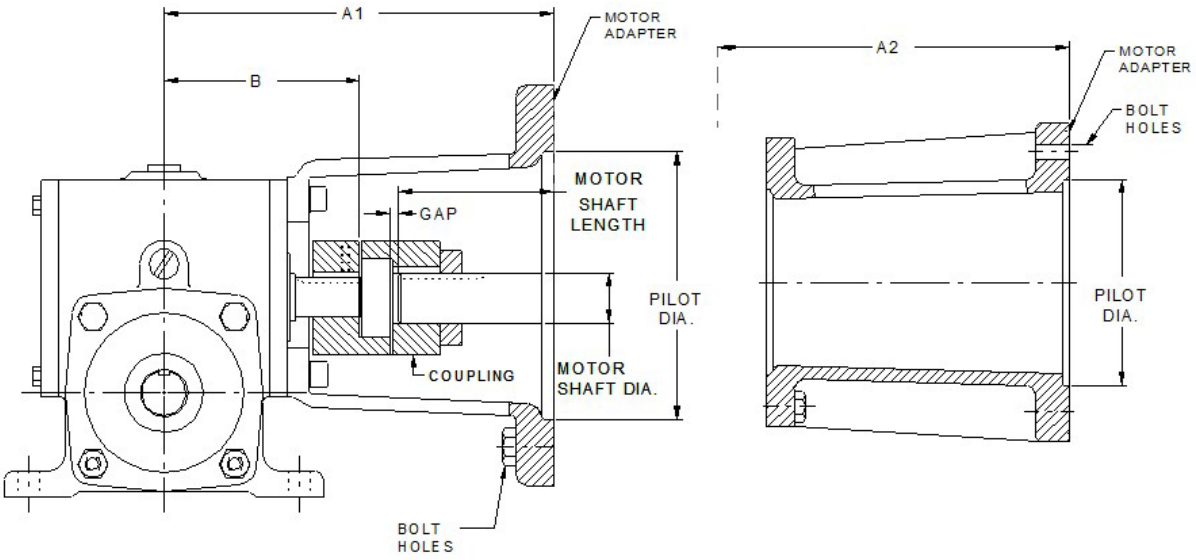
HOLLOW SHAFT - STANDARD FIGURES

RATIO	UNIT SIZE										
	20	25	30	35	40	50	60	70	80	100	120
5	0.565	1.4	3.99	7.58	12.8	27.5	64.4	133	206	518	1170
10	0.373	858.00	2.14	3.80	7.25	14.4	32.6	56	102	306	593
15	0.337	0.757	1.8	3.1	6.23	12	26.7	41.8	82.1	266	486
20	0.325	0.72	1.68	2.86	5.87	11.2	24.6	37	75	253	448
25	0.319	0.705	1.62	2.74	5.7	10.8	23.7	34.5	72.2	246	431
30	0.316	0.70	1.59	2.68	5.61	10.6	23.2	33	70	243	421
40	0.313	0.687	1.56	2.62	5.53	10.3	22.7	32	68.8	239	412
50	0.312	0.68	1.55	2.59	5.48	10.2	22.4	31	68	238	408
60	0.311	0.681	1.54	2.58	5.46	10.2	22.3	31.1	67.5	237	405
70	-	-	-	-	-	10.2	22.2	31	67	236	404

Additional WK^2 for Double Extended Worm (add additional work directly to hollow shaft standard figures)

High Speed Shaft	0.0017	0.028	0.103	0.241	0.727	0.775	1.62	3.11	3.94	5.74	16.5

- Rotational inertias listed determined at high speed shaft and include all moving parts in standard reducers
- Double reduction inertia at high speed shaft = secondary WK^2/(primary ratio)^2 + primary WK^2
- Convert figures to lb-in-sec^2 by dividing by 386 in/sec^2 (gravity)



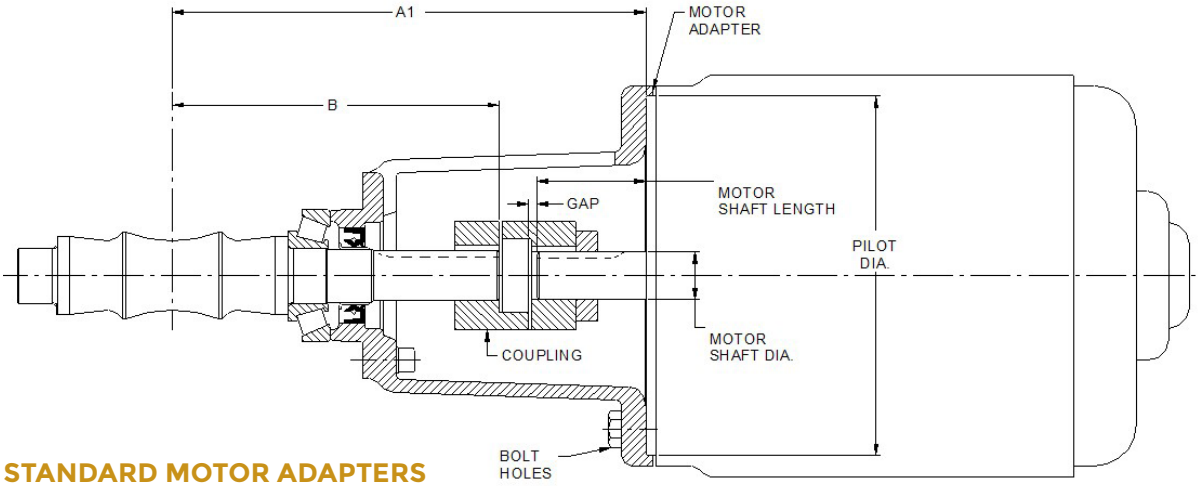
STANDARD MOTOR ADAPTERS

GEARBOX SIZE	Dimension (in)	Motor Frame Size		
		48C	56C	143TC - 145TC
15	Pilot Diameter	3.000	4.500	4.500
	A1	–	5.58	5.58
	A2	5.20	–	–
	B	3.0	3.0	3.0
	Gap	0.020	0.020	0.020
	Bolt Holes	4x 9/32	4x 13/32	4x 13/32
	Bolt Circle	3.750	5.875	5.875
	Worm PN	15-200	15-200	15-200
	Coupling PN	15-140-050/062	15-140-062	15-140-062/088
	Adapter PN	15-M20-48-A	15-M20	15-M20
Motor Shaft				
Length		1.68	2.06	2.12
Diameter		0.500	0.625	0.875
Keyway		FLAT	3/16	3/16

NOTES

- Custom motor adapters available for larger size units
- Specify frame size at time of order
- Reducer can be shipped with or without motor to suit requirements
- Adapter flange will extend below footline of reducers
- For double-extended worms, change part number from -200 to -250

Series HP Size 20 thru 35 NEMA C Face Motor Dimensions



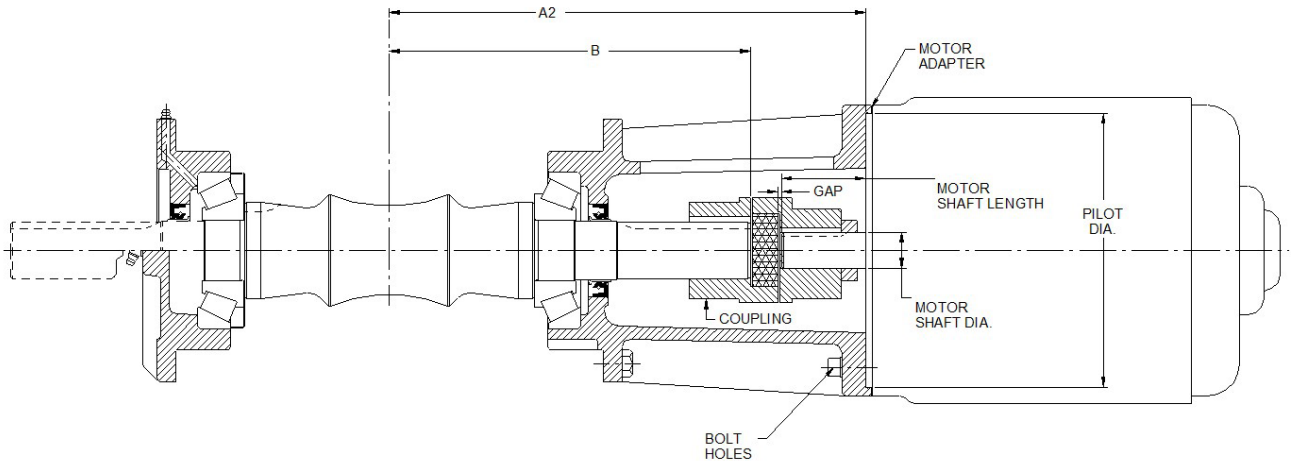
STANDARD MOTOR ADAPTERS

GEARBOX SIZE	Dimension (in)	Motor Frame Size			
		143TC - 145TC	182TC - 184TC	213TC - 215TC	254TC - 256TC
20	Pilot Diameter	4.50	4.50	8.50	–
	A1	7.31	7.31	8.06	–
	B	4.59	4.59	4.59	–
	GAP	0.06	0	0.12	–
	Bolt Holes	4x 13/32	4x 13/32	4x 17/32	–
	Bolt Circle	5.875	5.875	7.250	–
	Worm PN	20-200	20-200	20-200	–
	Coupling PN	720001	720004	720102	–
	Adapter PN	20-M20	20-M20	20-M21	–
25	Pilot Diameter	4.50	4.50	8.50	8.50
	A1	8.00	8.00	8.75	8.75
	B	5.25	5.25	5.25	4.88
	GAP	0.06	0	0.12	0.12
	Bolt Holes	4x 13/32	4x 13/32	4x 17/32	4x 17/32
	Bolt Circle	5.875	5.875	7.250	7.250
	Worm PN	25-200	25-200	25-200	25-200-1
	Coupling PN	720005	720007	720104	720152
	Adapter PN	25-M20	25-M20	25-M21	25-M21
30	Pilot Diameter	4.50	4.50	8.50	8.50
	A1	9.56	9.56	10.18	10.18
	B	6.69	6.69	6.69	6.31
	GAP	0.06	0	0.12	0
	Bolt Holes	4x 13/32	4x 13/32	4x 17/32	4x 17/32
	Bolt Circle	5.875	5.875	7.250	7.250
	Worm PN	30-200	30-200	30-200	30-200-1
	Coupling PN	720105	720107	720109	720154
	Adapter PN	30-M20	30-M20	30-M21	30-M21
35	Pilot Diameter	4.50	4.50	8.50	8.50
	A1	10.56	10.56	11.25	11.25
	B	7.75	7.75	7.75	7.12
	GAP	0	0.06*	0.12	0
	Bolt Holes	4x 13/32	4x 13/32	4x 17/32	4x 17/32
	Bolt Circle	5.875	5.875	7.250	7.250
	Worm PN	35-200	35-200	35-200	35-200-2
	Coupling PN	720110	720112	720113	720203
	Adapter PN	35-M20	35-M20	35-M21	35-M21
Motor Shaft					
Length		2.06	2.12	2.62	3.12
Diameter		0.625	0.875	1.125	1.375
Keyway		3/16	3/16	1/4	5/16

NOTES

- Custom motor adapters available for larger size units
- Specify frame size at time of order
- Reducer can be shipped with or without motor to suit requirements
- Adapter flange will extend below footline of reducers
- For double-extended worms, change part number from -200 to -250

* Recess coupling on motor shaft



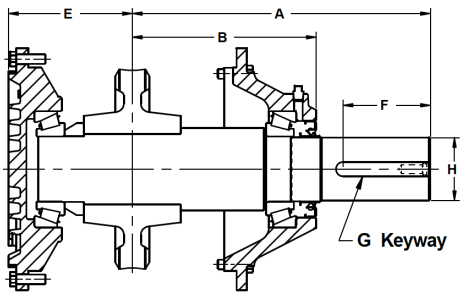
STANDARD MOTOR ADAPTERS

GEARBOX SIZE	Dimension (in)	Motor Frame Size			
		143TC - 145TC	182TC - 184TC	213TC - 215TC	254TC - 256TC
40	Pilot Diameter	4.50	8.50	8.50	8.50
	A2	10.937	12.562	12.562	12.562
	B	7.875	9.000	8.500	7.687
	GAP	0.937	0.937	0.937	1.125
	Bolt Holes	4x 17/32	4x 17/32	4x 17/32	4x 17/32
	Bolt Circle	7.250	7.250	7.250	7.250
	Worm PN	40-200-3	40-200-1	40-200-2	40-200-4
	Coupling PN	720207	720208	720209	720258
	Adapter PN	40-M20	40-M21	40-M21	40-M21
50	Pilot Diameter	4.50	8.50	8.50	8.50
	A2	12.062	13.687	13.687	13.687
	B	9.000	10.125	9.625	8.812
	GAP	0.937	0.937	0.937	1.125
	Bolt Holes	4x 17/32	4x 17/32	4x 17/32	4x 17/32
	Bolt Circle	7.250	7.250	7.250	7.250
	Worm PN	50-200-3	50-200-1	50-200-2	50-200-4
	Coupling PN	720207	720208	720209	720258
	Adapter PN	50-M20	50-M21	50-M21	50-M21
60	Pilot Diameter	4.50	8.50	8.50	8.50
	A2	13.125	14.750	14.750	14.750
	B	10.062	11.187	10.687	9.875
	GAP	0.937	0.937	0.937	1.125
	Bolt Holes	4x 17/32	4x 17/32	4x 17/32	4x 17/32
	Bolt Circle	7.250	7.250	7.250	7.250
	Worm PN	60-200-3	60-200-1	60-200-2	60-200-4
	Coupling PN	720212	720213	720214	720260
	Adapter PN	60-M20	60-M21	60-M21	60-M21
Motor Shaft					
Length		2.12	2.62	3.12	3.75
Diameter		0.875	1.125	1.375	1.625
Keyway		3/16	1/4	5/16	3/8

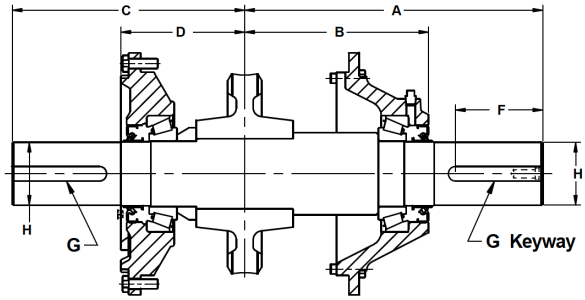
NOTES

- Custom motor adapters available for larger size units
- Specify frame size at time of order
- Reducer can be shipped with or without motor to suit requirements
- Adapter flange will extend below footline of reducers
- For double-extended worms, change part number from -200 to -250

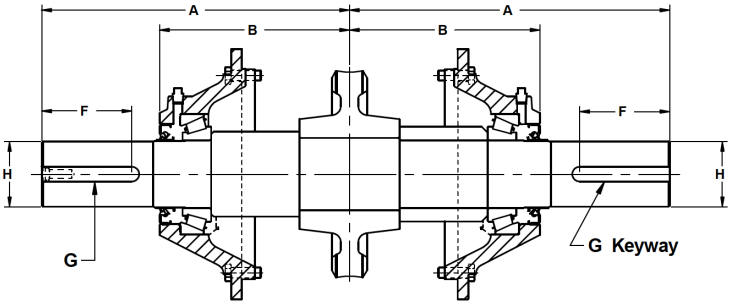
Series HP Optional Steeple Bearings



" R " MOUNTING



" S " MOUNTING



" T " MOUNTING

GEARBOX SIZE	A	B	C	D	E	F	G	H DIA.
	(in)							
25	7.88	4.9	4.50	2.6	2.6	1.38	1/4 x 1/8	1.250 1.249
30	8.62	5.9	5.94	3.4	3.4	2.00	3/8 x 3/16	1.500 1.499
35	10.25	6.3	7.88	4.2	4.2	2.68	1/2 x 1/4	1.875 1.874
40	11.25	6.6	9.25	4.9	4.9	3.31	1/2 x 1/4	2.250 2.249
50	13.62	8.6	10.31	5.6	5.6	3.62	5/8 x 5/16	2.750 2.749
60	15.38	9.6	12.00	6.3	6.4	4.62	3/4 x 3/8	3.250 3.249
70	19.38	12.5	13.00	7.4	7.4	4.88	7/8 x 7/16	3.375 3.374
80	19.38	12.9	14.00	7.8	7.8	4.88	7/8 x 7/16	3.500 3.499
100	24.00	16.5	15.72	9.4	9.4	5.12	1 x 1/2	4.000 3.999
120	36.00	22.6	24.00	12.6	12.4	9.62	1 1/4 x 5/8	5.497 5.496

•When ordering, specify model size, hand of assembly, and steeple bearings using the letter designation R, S, or T for the mounting configuration required
•For R and T mountings, use the standard hand of assembly designation shown throughout the catalog for various sizes of reducers and mounting positions
•For double-extended S mountings on worm over and worm under units, specify steeple bearing on left (L) or right (R) of unit as viewed from the input end
•For S mounting on vertical gear shaft unit, specify steeple bearing opposite feet (U) or through feet (D)

SIZE	BORE*	BORE TOLERANCE	KEYWAY SIZE
	(in)		
20	1.375	+0.002, -0.000	1/4 X 1/8
	1.250		
	1.1875		
	1.125		
	1.000		
25	2.000	+0.002, -0.000	1/4 X 1/8
	1.9375		
	1.6875		3/8 X 3/16
	1.4375		
	1.250		1/4 X 1/8
	1.1875		
30	2.500	+0.002, -0.000	3/8 X 3/16
	2.4375		
	2.1875		1/2 X 1/4
	1.9375		
	1.6875		3/8 X 3/16
	1.500		
35	2.750	+0.002, -0.000	3/8 X 3/16
	2.6875		
	2.500		
	2.4375		5/8 X 5/16
	2.1875		1/2 X 1/4
	1.9375		
	1.6875		3/8 X 3/16
40	2.9375	+0.003, -0.000	5/8 X 5/16
	2.6875		
	2.4375		
	2.1875		
50	3.4375	+0.003, -0.000	5/8 X 5/16
	3.1875		
	2.750		
60	3.9375	+0.003, -0.000	3/4 X 3/8
	3.4375		
	2.9375		
70	4.4375	+0.003, -0.000	1 X 1/2
	3.9375		
80	4.4375	+0.003, -0.000	1 X 1/2
	3.9375		
100	5.9375	+0.003, -0.000	1 1/4 X 7/16
120	7.9375	+0.004, -0.000	1 1/2 X 1/2

*2 set screws at long end of shaft

2

Cone Drive
BY TIMKEN

SERIES HP

Continuous & Steady Speed Applications

SINGLE REDUCTION

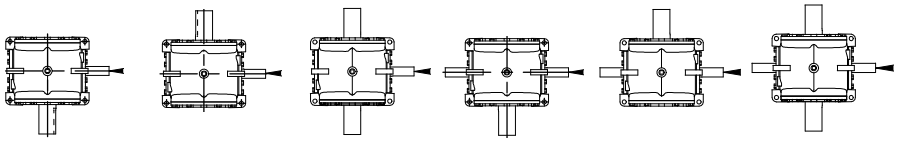
2.2 Assembly & Mounting Position Numbers
2.5 Dimensions
2.25 Ratings

MODELS HU, SHU, HO, SHO

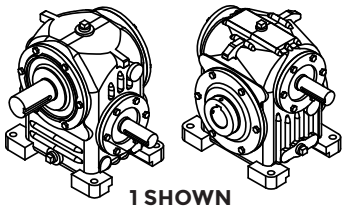
All diagrams show reducer with feet on far side.

Model Prefixes: F = Fan cooled W = Water cooled M = Motorized

TOP VIEW, FLOOR MOUNTED

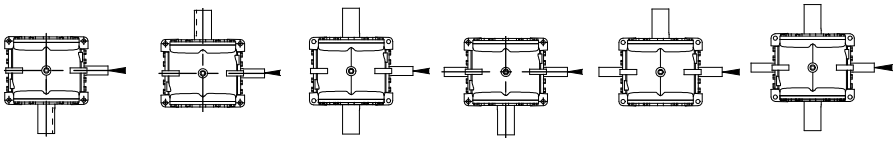


1 2 3 4 5 6

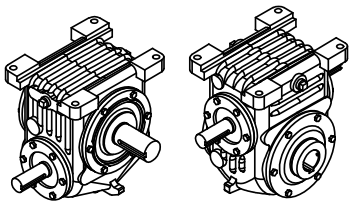


1 SHOWN

CEILING MOUNTED

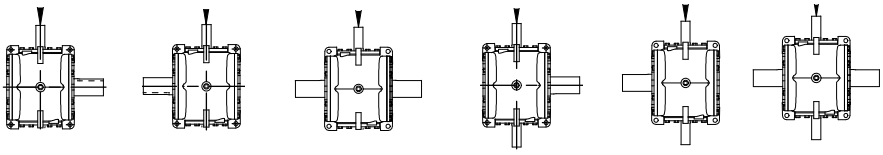


C1 C2 C3 C4 C5 C6

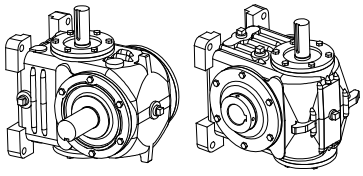


C1 SHOWN

WALL MOUNTED, WORM VERTICAL UP

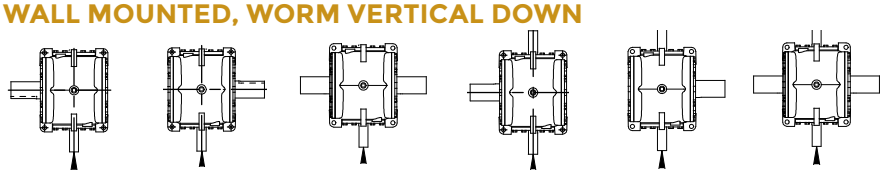


W1 W2 W3 W4 W5 W6

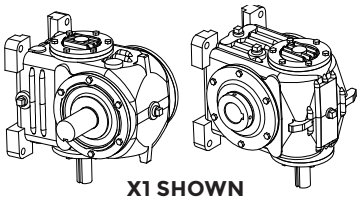


W2 SHOWN

WALL MOUNTED, WORM VERTICAL DOWN

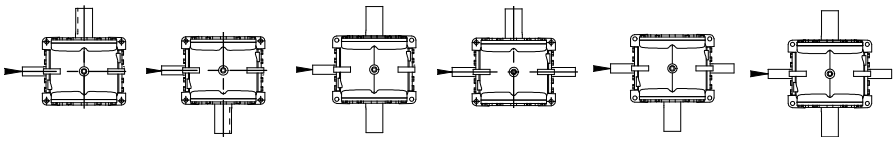


X1 X2 X3 X4 X5 X6

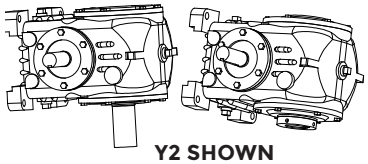


X1 SHOWN

WALL MOUNTED, WORM HORIZONTAL TO THE LEFT

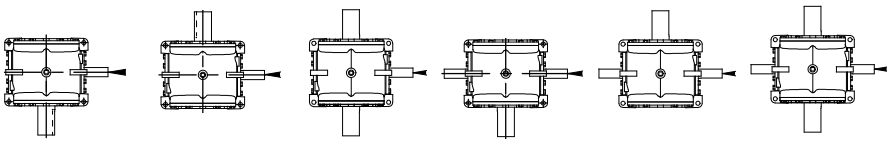


Y1 Y2 Y3 Y4 Y5 Y6

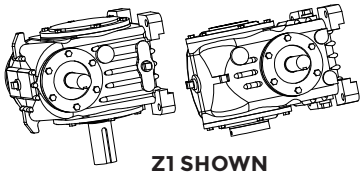


Y2 SHOWN

WALL MOUNTED, WORM HORIZONTAL TO THE RIGHT



Z1 Z2 Z3 Z4 Z5 Z6



Z1 SHOWN

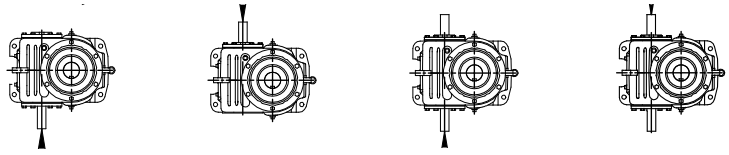
MODELS HV, SHV

All diagrams show reducer with feet on far side.

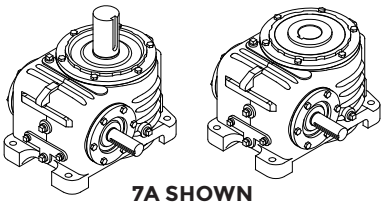
Model Prefixes: F = Fan cooled W = Water cooled M = Motorized

A – Gearshaft Extended Opposite Feet
B – Gearshaft Extended Through Feet
C – Gearshaft Double Extended

TOP VIEW, FLOOR MOUNTED

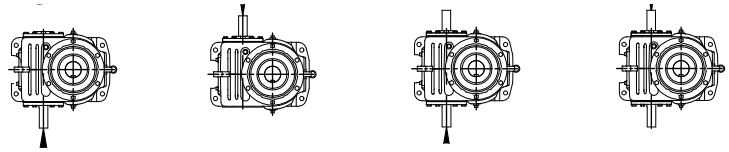


7A 7B 7C | 8A 8B 8C | 9A 9B 9C | 0A 0B 0C

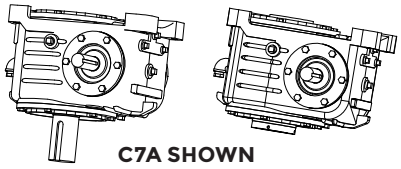


7A SHOWN

CEILING MOUNTED

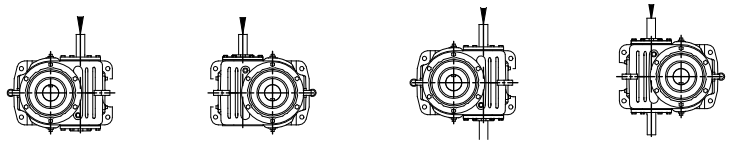


C7A C7B C7C | C8A C8B C8C | C9A C9B C9C | C0A C0B C0C

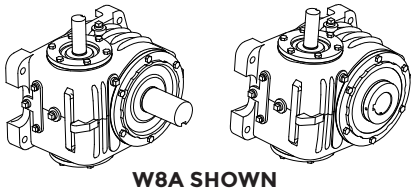


C7A SHOWN

WALL MOUNTED, WORM VERTICAL UP

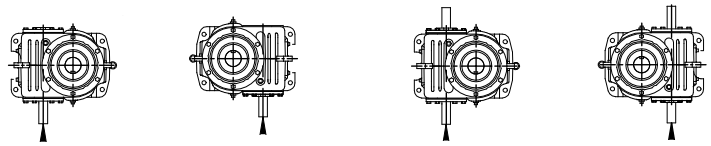


W7A W7B W7C | W8A W8B W8C | W9A W9B W9C | W0A W0B W0C



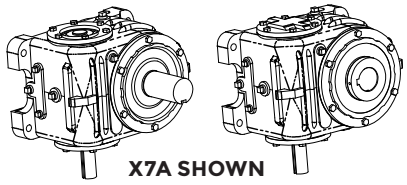
W8A SHOWN

WALL MOUNTED, WORM VERTICAL DOWN



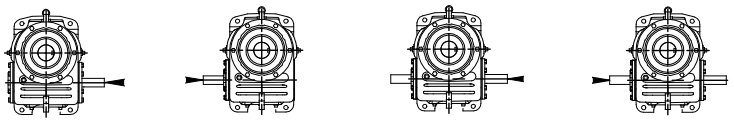
X7A X7B X7C | X8A X8B X8C | X9A X9B X9C | X0A X0B X0C

Size 100 and larger - Contact Cone Drive Regarding Lubrication of Upper Worm Bearing

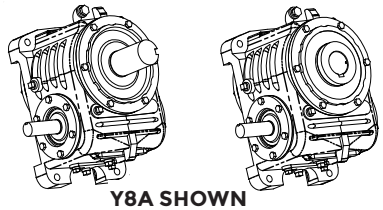


X7A SHOWN

WALL MOUNTED, WORM HORIZONTAL UNDER GEAR

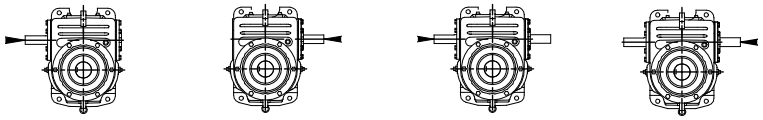


Y7A Y7B Y7C | Y8A Y8B Y8C | Y9A Y9B Y9C | Y0A Y0B Y0C

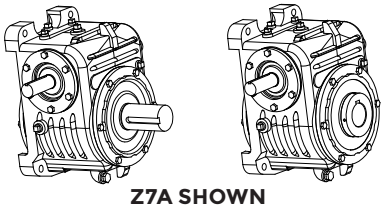


Y8A SHOWN

WALL MOUNTED, WORM HORIZONTAL OVER GEAR



Z7A Z7B Z7C | Z8A Z8B Z8C | Z9A Z9B Z9C | Z0A Z0B Z0C



Z7A SHOWN

MODELS VH, VHU, SVH, SVHU

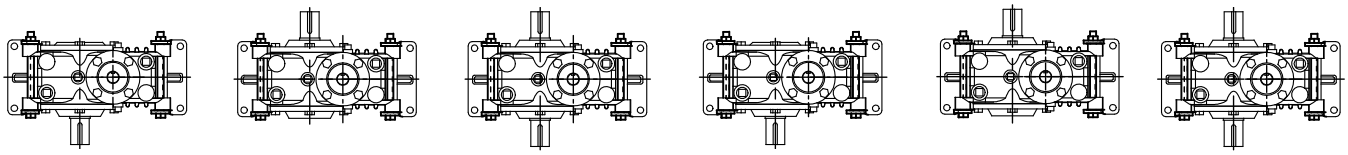
All diagrams show reducer with feet on far side.

Model Prefixes: F = Fan cooled W = Water cooled M = Motorized

Diagrams 1 thru 3 have single extended input shafts, the input end extends up. Diagrams 4 thru 6 have double extended input shafts.

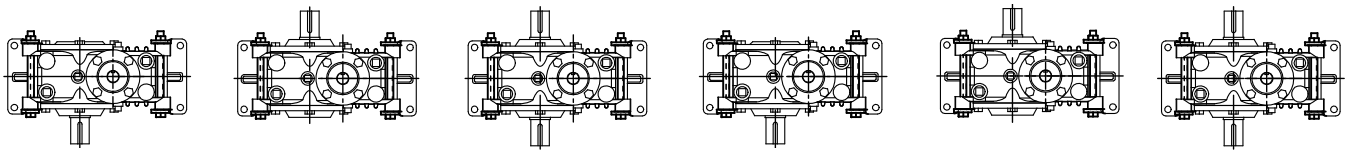
For input end extending down specify same when ordering and add letter "d" after unit size vh50d-1

TOP VIEW, FLOOR MOUNTED



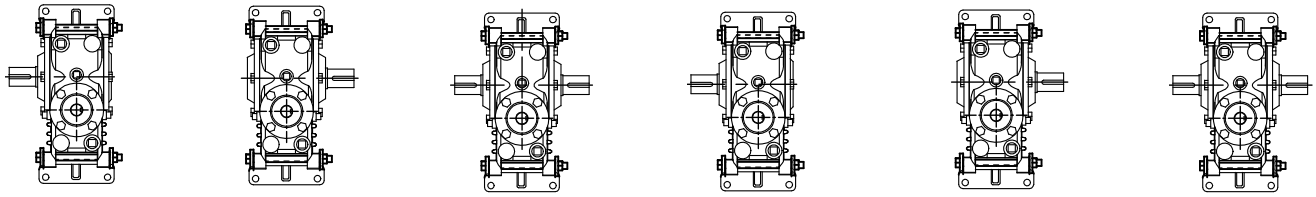
1 2 3 4 5 6

CEILING MOUNTED



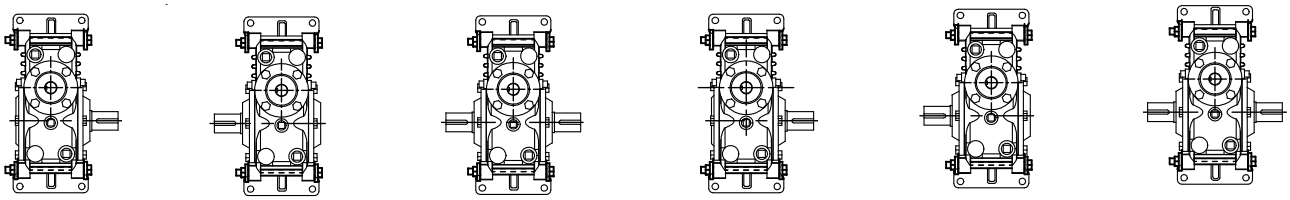
C1 C2 C3 C4 C5 C6

WALL MOUNTED, WORM UNDER GEAR



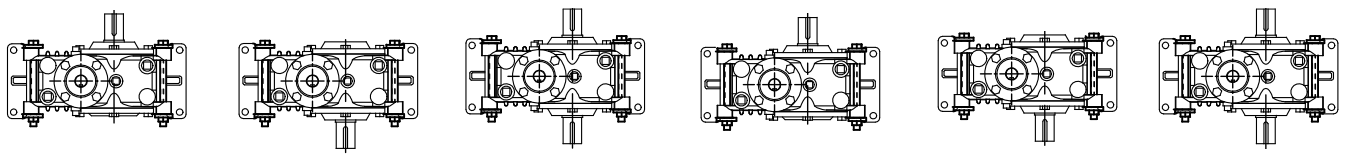
W1 W2 W3 W4 W5 W6

WALL MOUNTED, WORM OVER GEAR



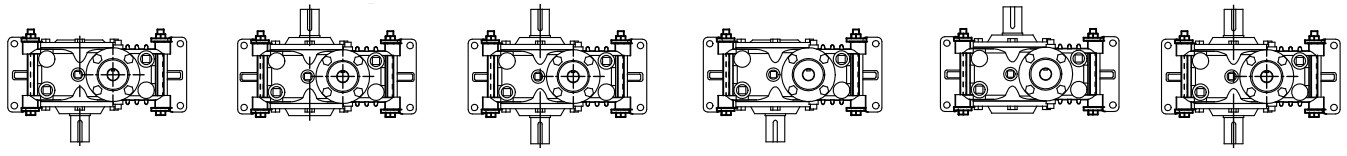
X1 X2 X3 X4 X5 X6

WALL MOUNTED, WORM TO THE LEFT OF GEAR



Y1 Y2 Y3 Y4 Y5 Y6

WALL MOUNTED, WORM TO THE RIGHT OF GEAR

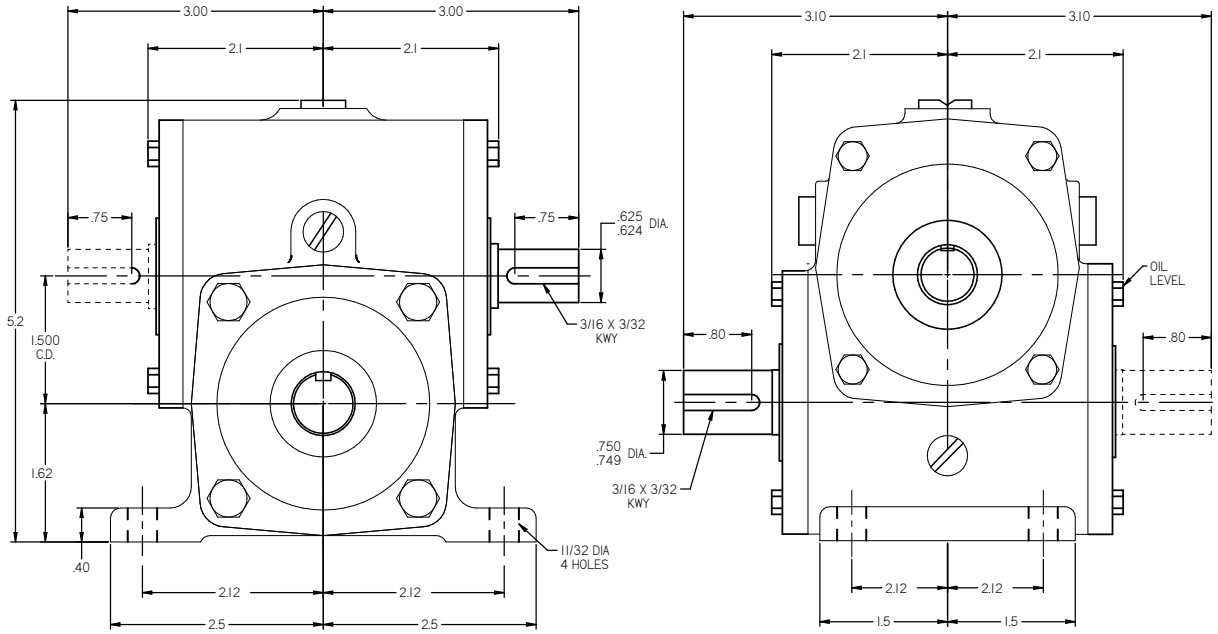


Z1 Z2 Z3 Z4 Z5 Z6

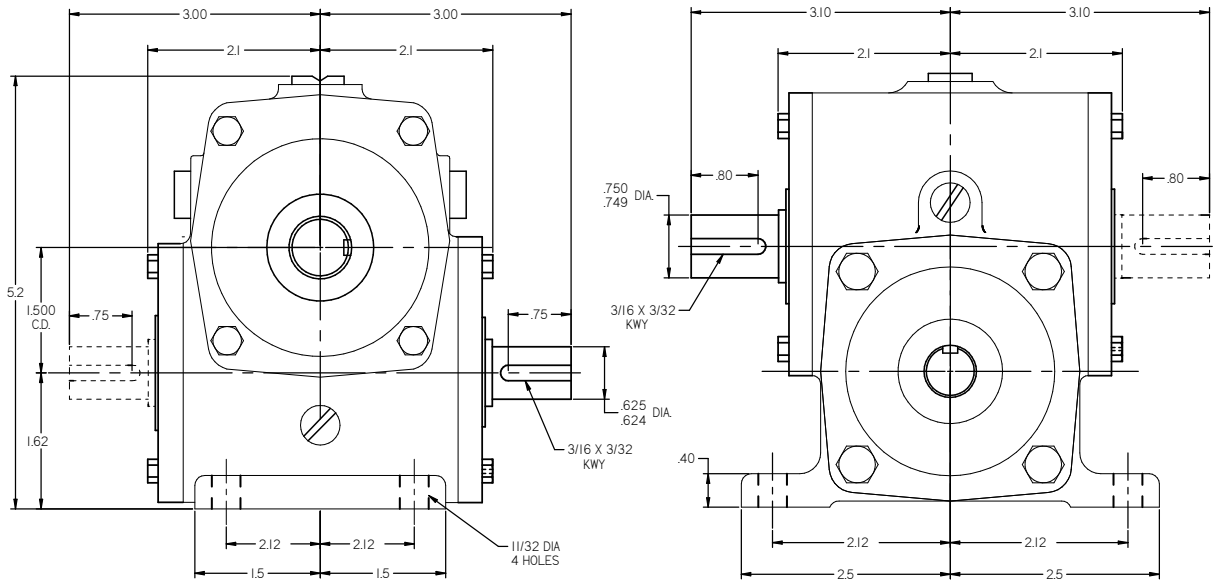
1.500" C.D. Solid Shaft, SIZE 15

(all dimensions in inches)

Model HO 15 Worm Over Gear, net weight 11 lbs.



Model HU 15 Worm Under Gear, net weight 11 lbs.

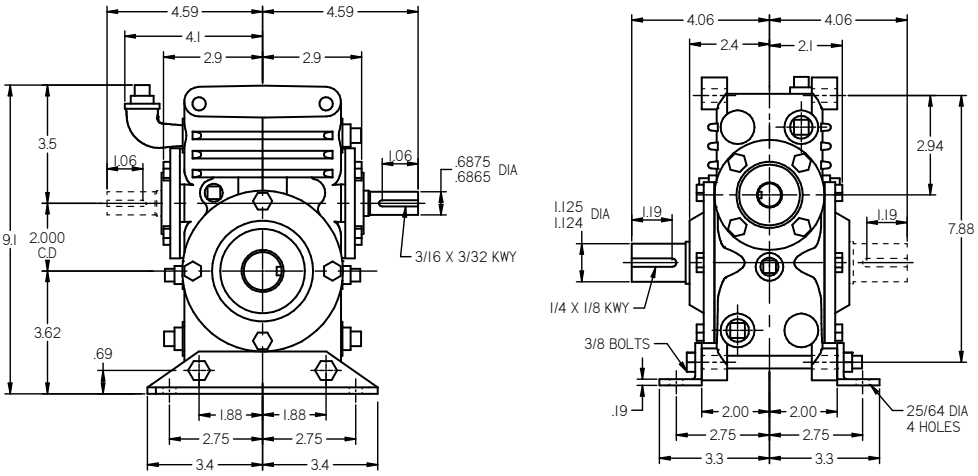


INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

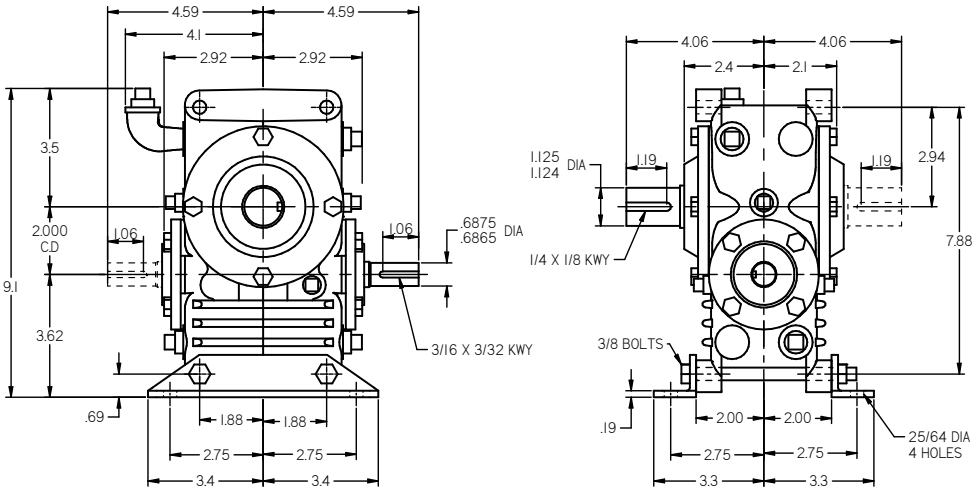
2.000" C.D. SOLID SHAFT, SIZE 20

(all dimensions in inches)

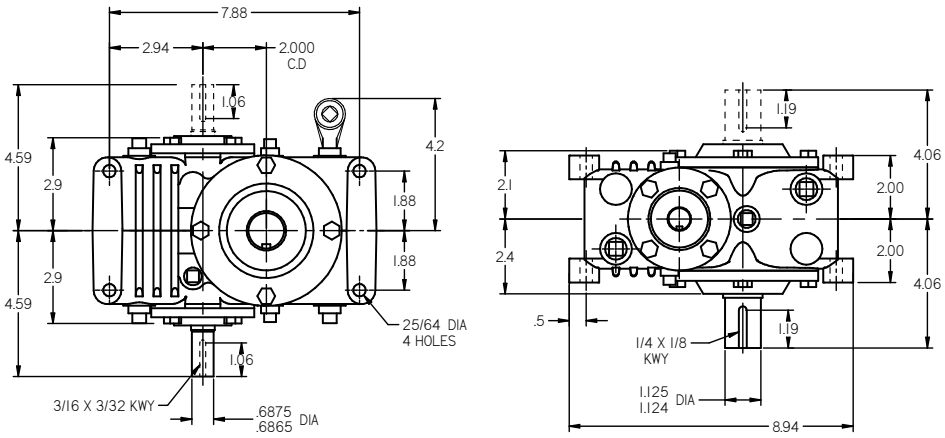
Model HO Worm Over Gear, net weight 26 lbs.



Model HU Worm Under Gear, net weight 26 lbs.



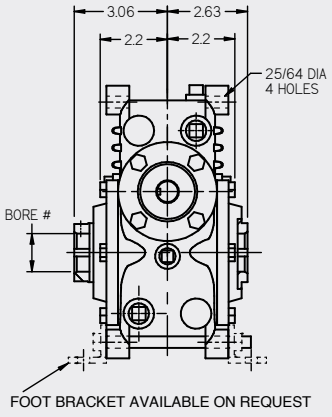
Model HV Worm Horizontal Gear Shaft Vertical, net weight 26 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

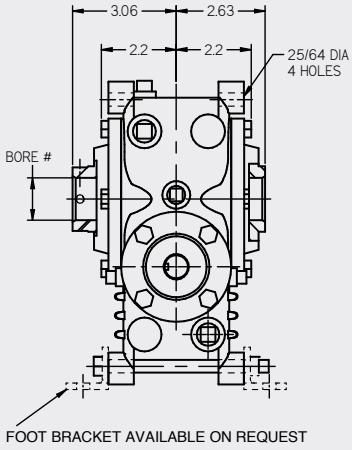
HOLLOW SHAFT

SHO net weight 27 lbs.



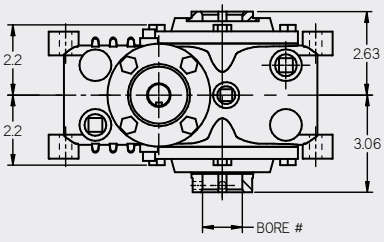
See gear shaft chart. Set screw end of shaft, may extend on either side

SHU net weight 27 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

SHV net weight 27 lbs.

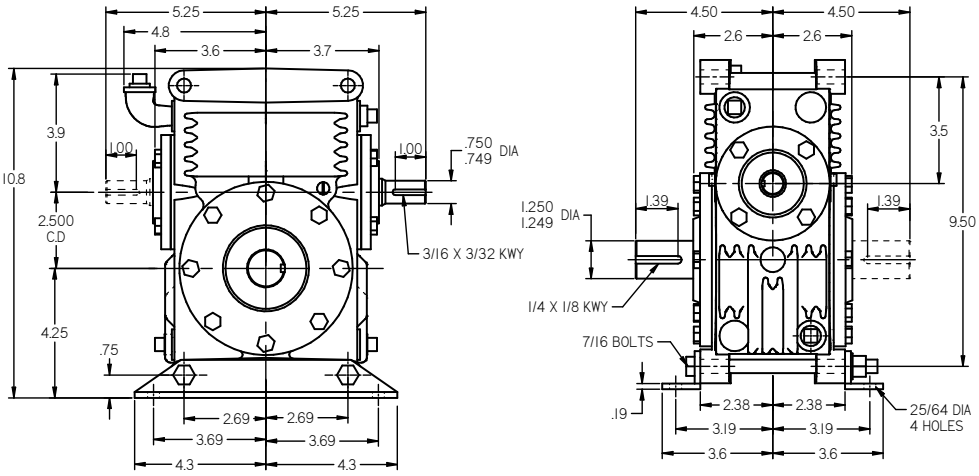


See gear shaft chart. Set screw end of shaft, may extend on either side

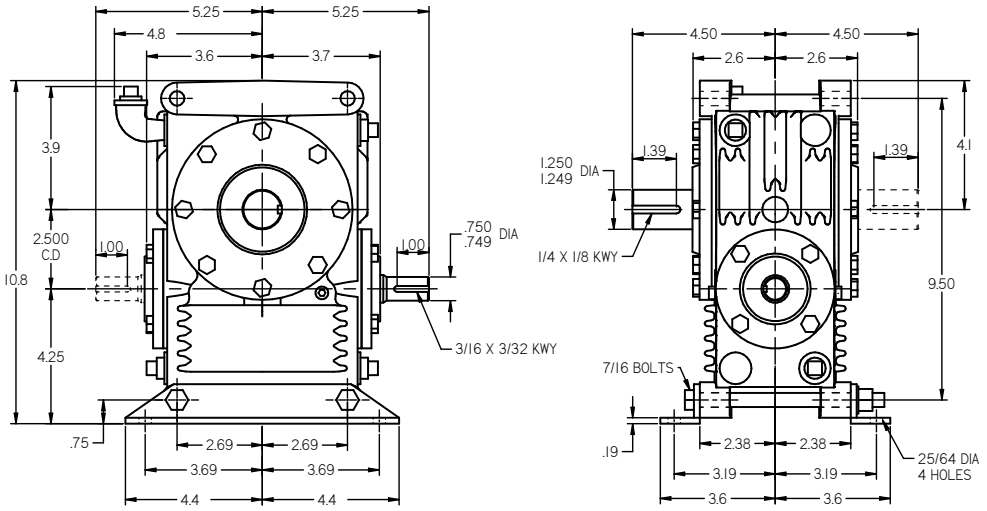
2.500" C.D. SOLID SHAFT, SIZE 25

(all dimensions in inches)

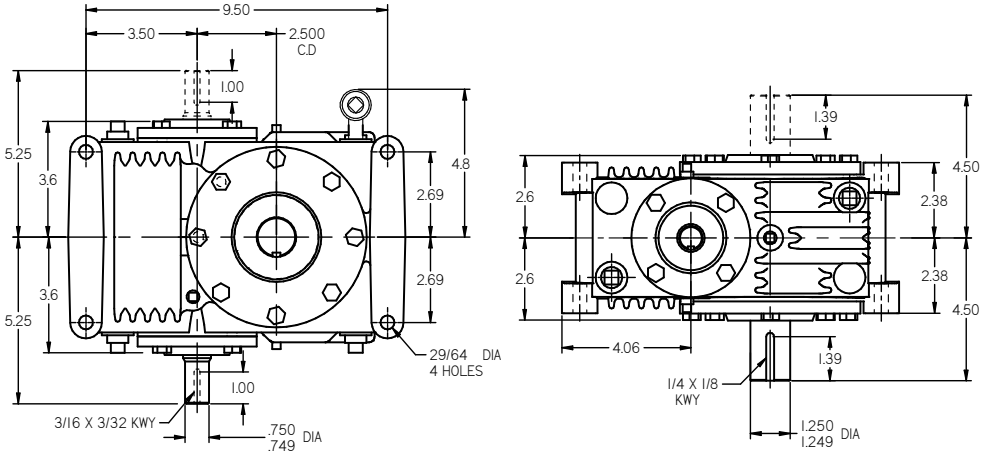
Model HO Worm Over Gear, net weight 45 lbs.



Model HU Worm Under Gear, net weight 45 lbs.



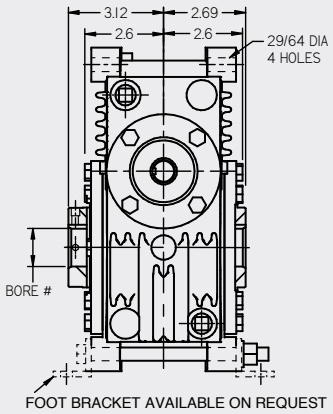
Model HV Worm Horizontal Gear Shaft Vertical, net weight 45 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

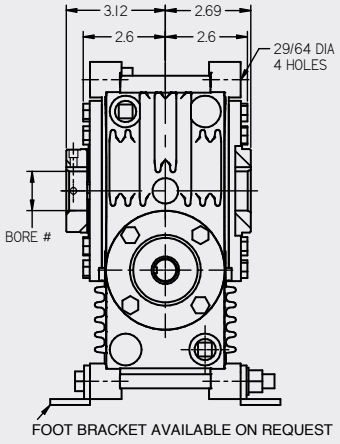
HOLLOW SHAFT

SHO net weight 46 lbs.



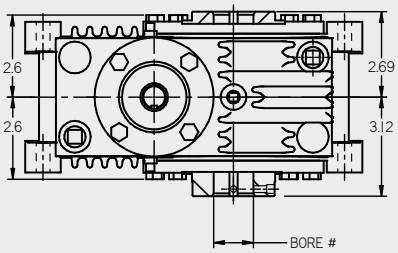
See gear shaft chart. Set screw end of shaft, may extend on either side

SHU net weight 46 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

SHV net weight 46 lbs.

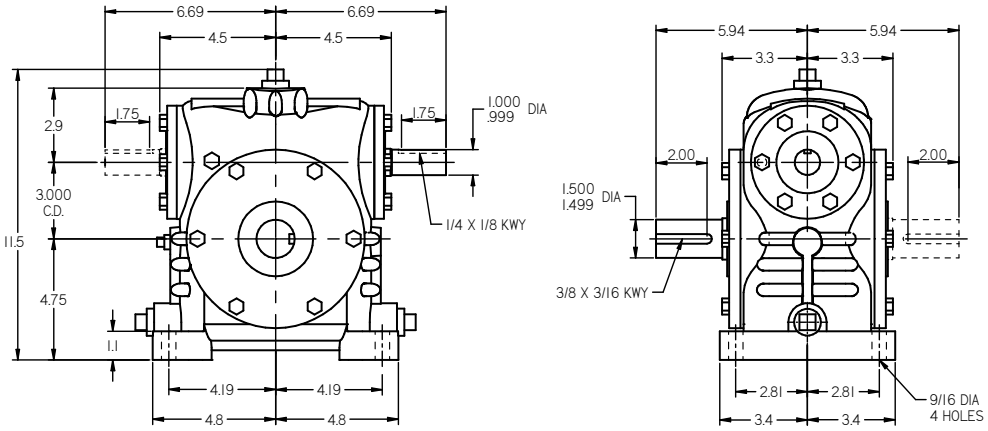


See gear shaft chart. Set screw end of shaft, may extend on either side

3.000" C.D. SOLID SHAFT, SIZE 30

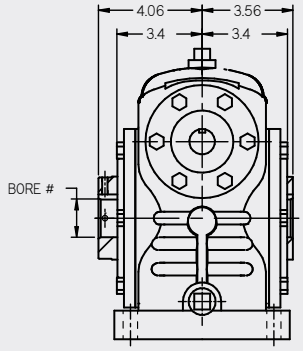
(all dimensions in inches)

Model HO Worm Over Gear, net weight 73 lbs.



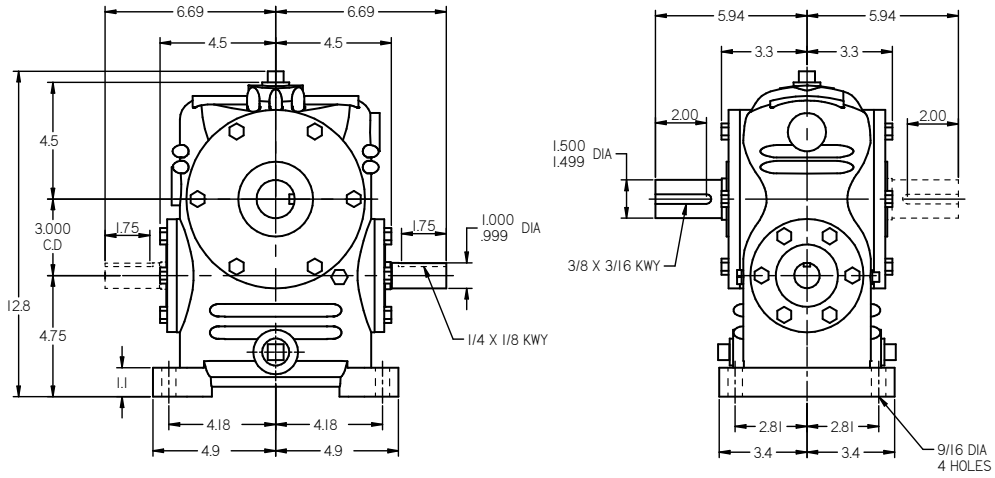
HOLLOW SHAFT

SHO net weight 92 lbs.

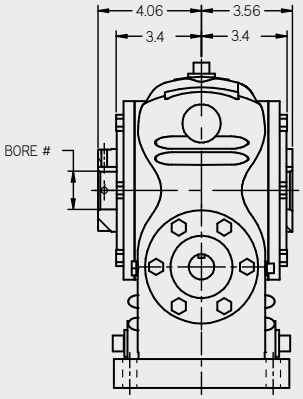


See gear shaft chart. Set screw end of shaft, may extend on either side

Model HU Worm Under Gear, net weight 83 lbs.

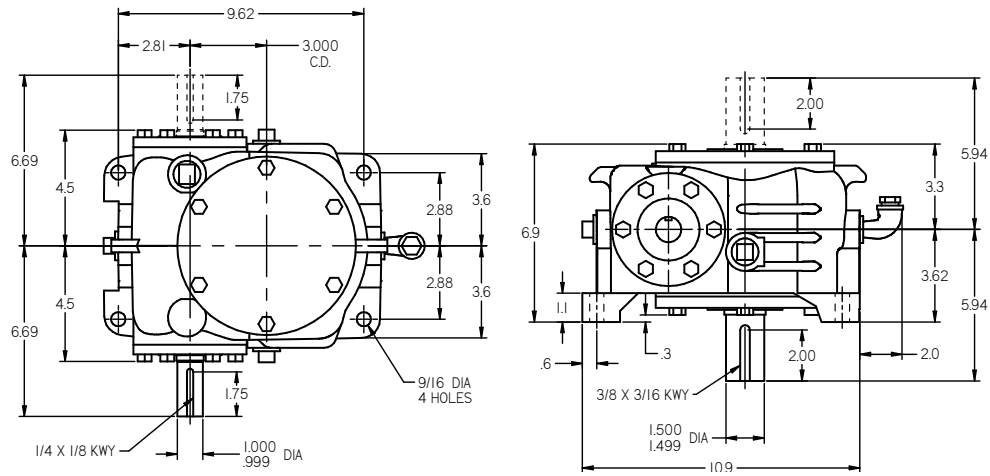


SHU net weight 90 lbs.

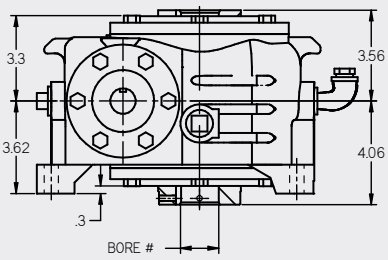


See gear shaft chart. Set screw end of shaft, may extend on either side

Model HV Worm Horizontal Gear Shaft Vertical, net weight 74 lbs.



SHV net weight 89 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

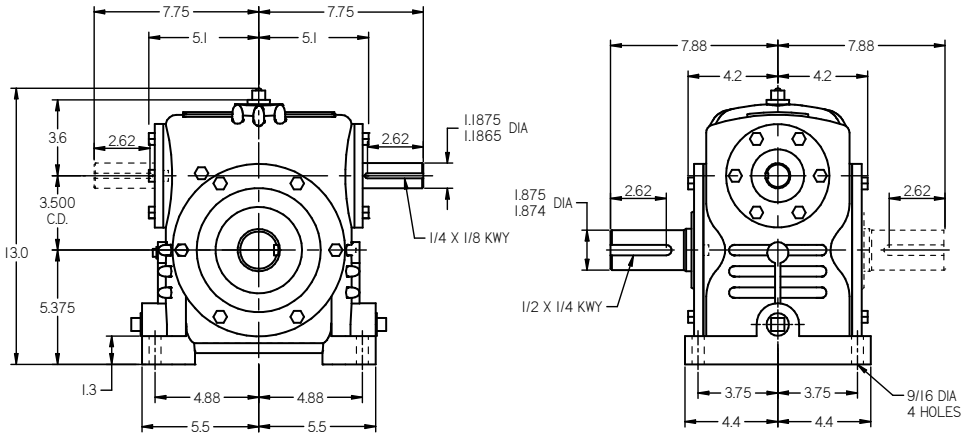
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

Size 35 Single Reduction Dimensions

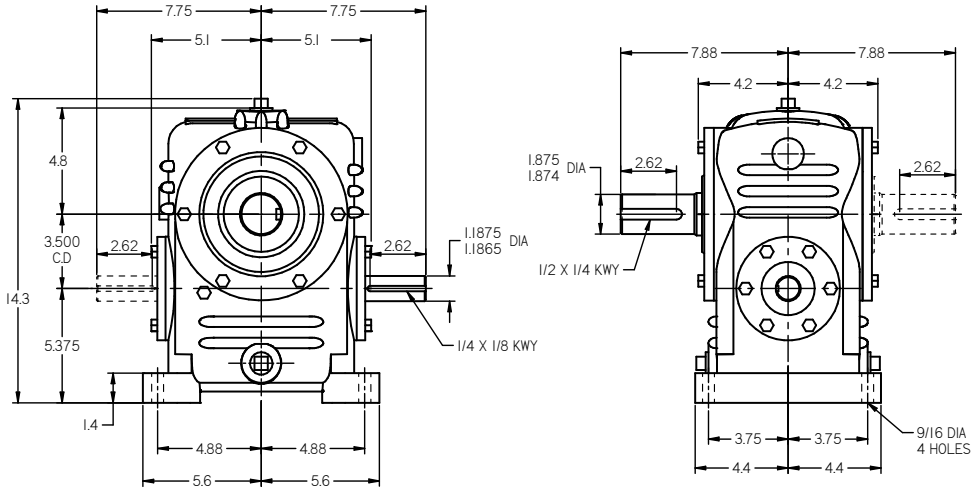
3.500" C.D. SOLID SHAFT, SIZE 35

(all dimensions in inches)

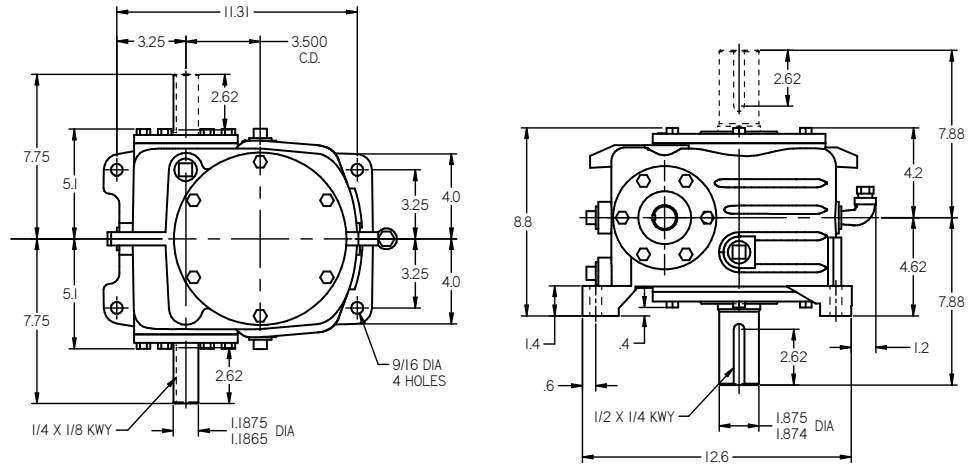
Model HO Worm Over Gear, net weight 122 lbs.



Model HU Worm Under Gear, net weight 134 lbs.



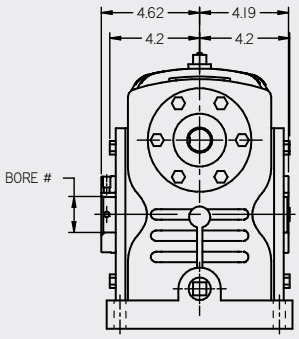
Model HV Worm Horizontal Gear Shaft Vertical, net weight 120 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

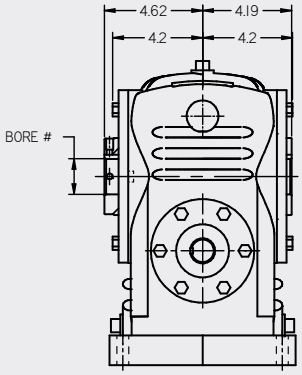
HOLLOW SHAFT

SHO net weight 126 lbs.



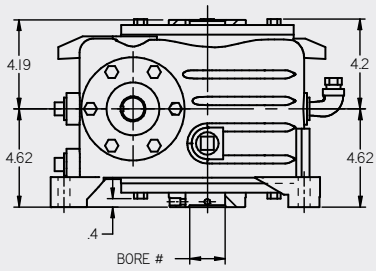
See gear shaft chart. Set screw end of shaft, may extend on either side

SHU net weight 140 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

SHV net weight 123 lbs.

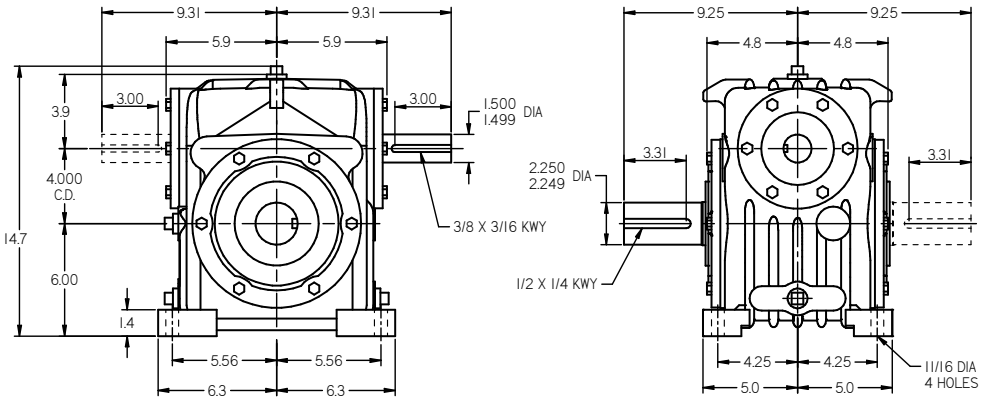


See gear shaft chart. Set screw end of shaft, may extend on either side

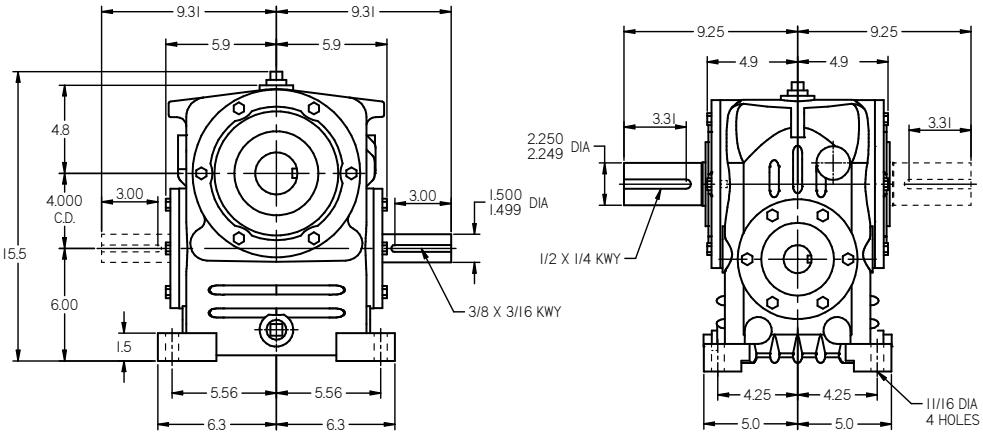
4.000" C.D. SOLID SHAFT, SIZE 40

(all dimensions in inches)

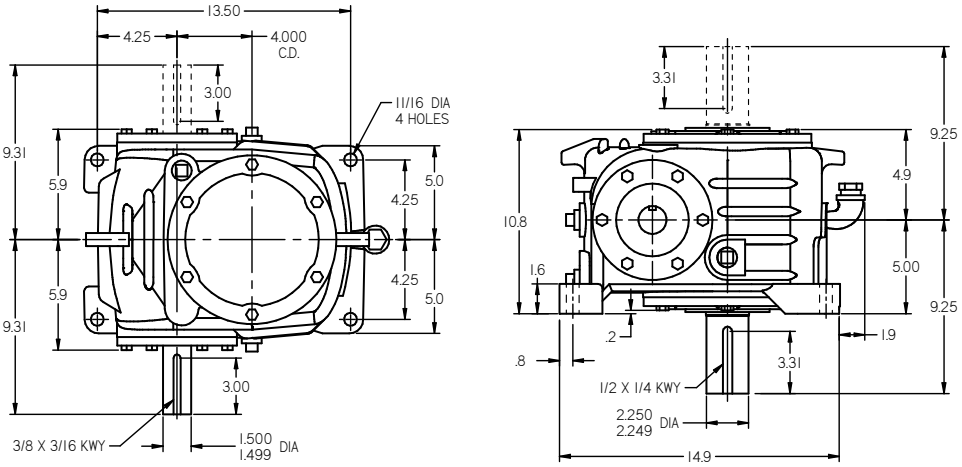
Model HO Worm Over Gear, net weight 175 lbs.



Model HU Worm Under Gear, net weight 187 lbs.



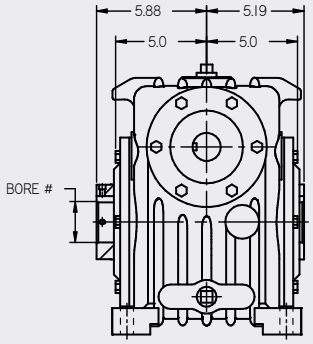
Model HV Worm Horizontal Gear Shaft Vertical, net weight 170 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

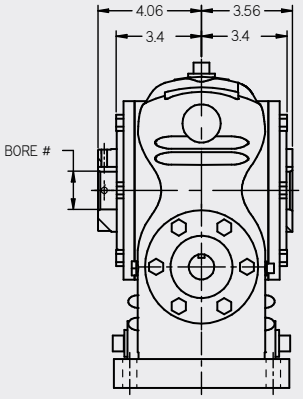
HOLLOW SHAFT

SHO net weight 185 lbs.



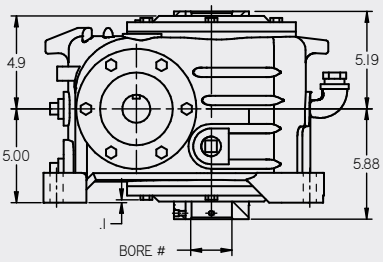
See gear shaft chart. Set screw end of shaft, may extend on either side

SHU net weight 197 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

SHV net weight 180 lbs.



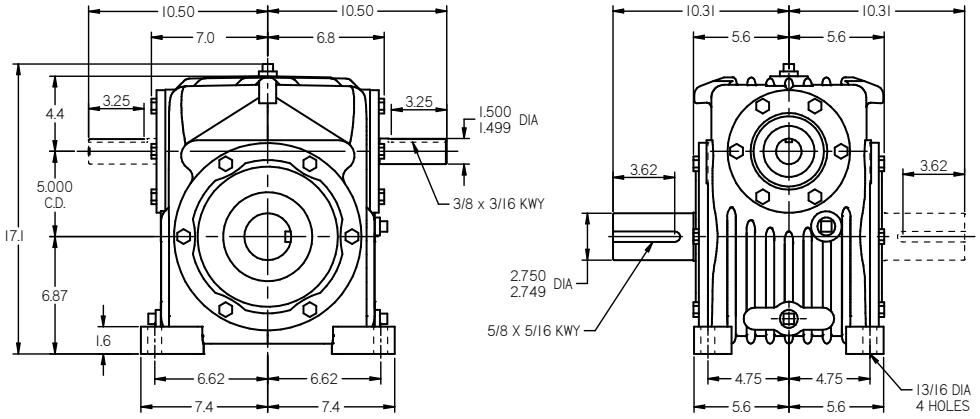
See gear shaft chart. Set screw end of shaft, may extend on either side

Size 50 Single Reduction Dimensions

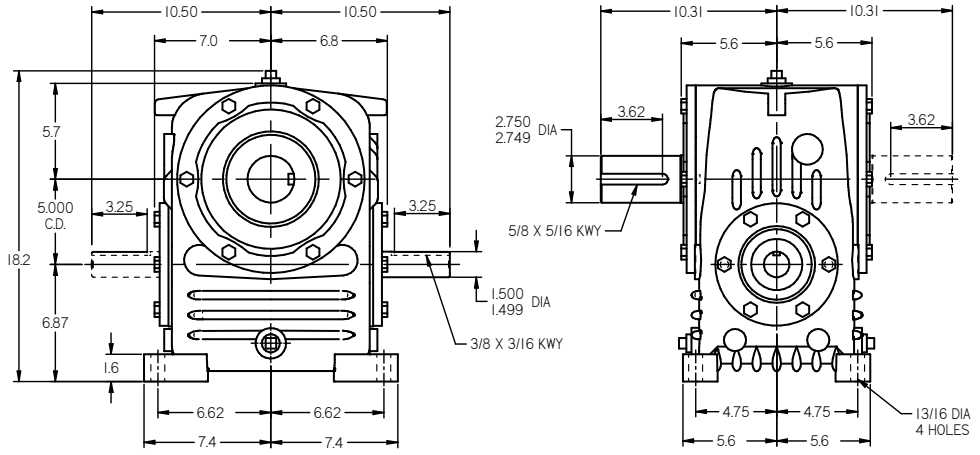
5.000" C.D. SOLID SHAFT, SIZE 50

(all dimensions in inches)

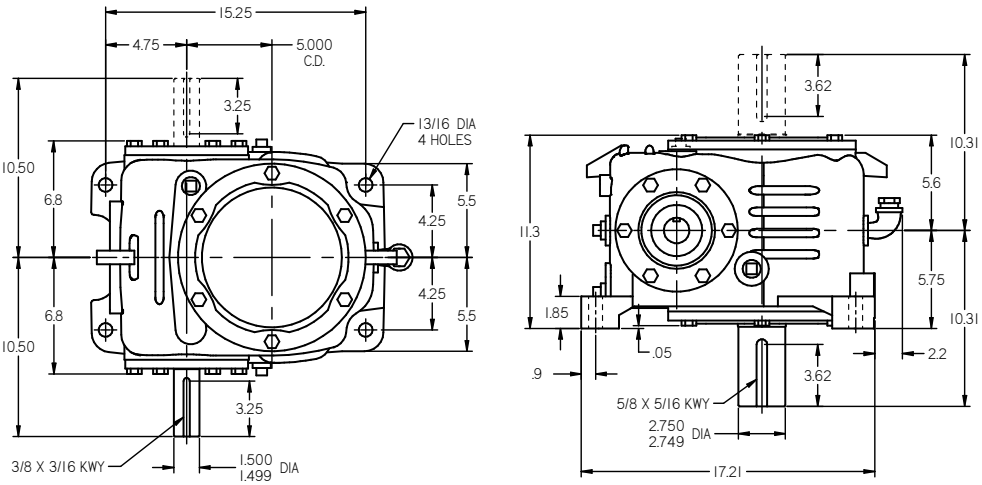
Model HO Worm Over Gear, net weight 290 lbs.



Model HU Worm Under Gear, net weight 305 lbs.



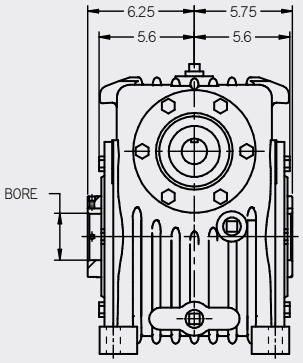
Model HV Worm Horizontal Gear Shaft Vertical, net weight 295 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

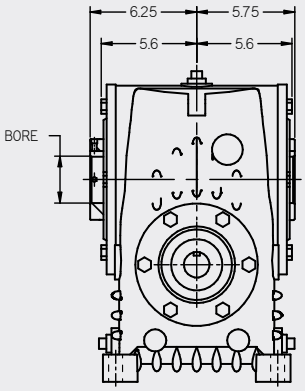
HOLLOW SHAFT

SHO net weight 302 lbs.



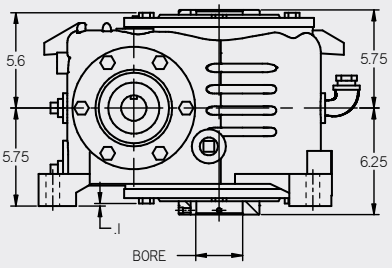
See gear shaft chart. Set screw end of shaft, may extend on either side

SHU net weight 317 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

SHV net weight 307 lbs.

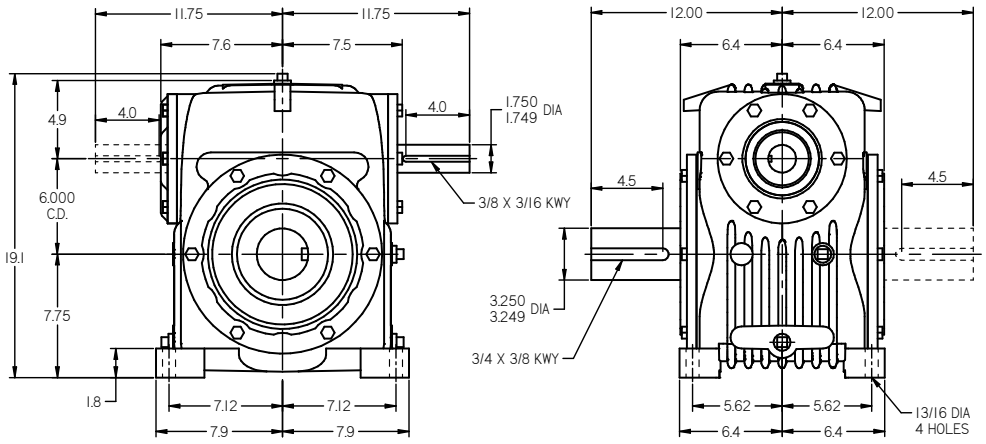


See gear shaft chart. Set screw end of shaft, may extend on either side

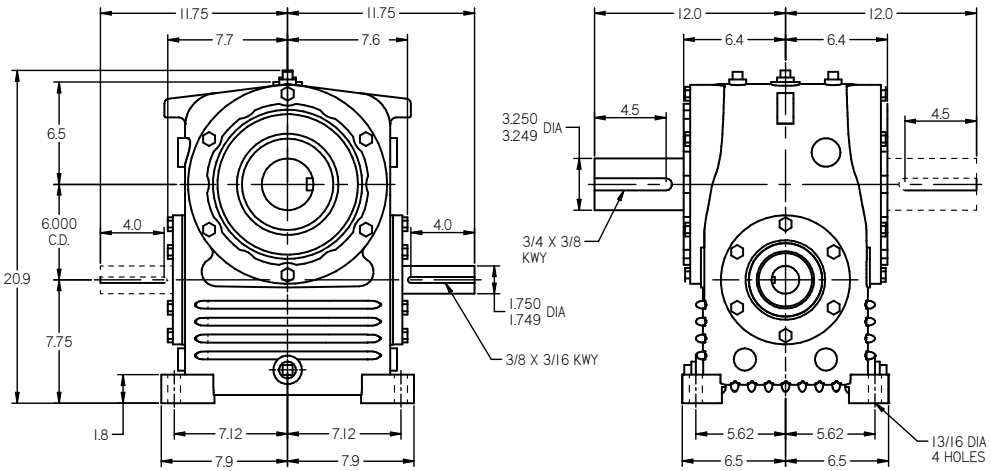
6.000" C.D. SOLID SHAFT, SIZE 60

(all dimensions in inches)

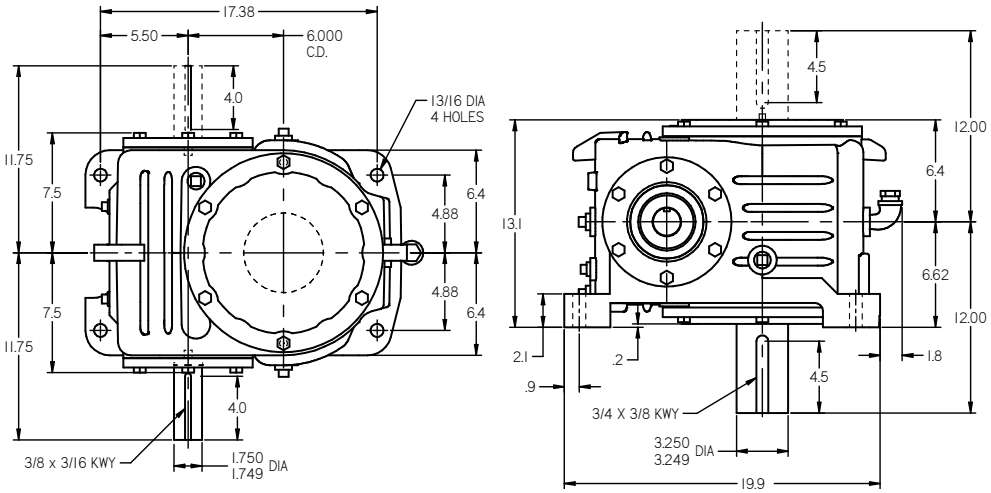
Model HO Worm Over Gear, net weight 388 lbs.



Model HU Worm Under Gear, net weight 396 lbs.



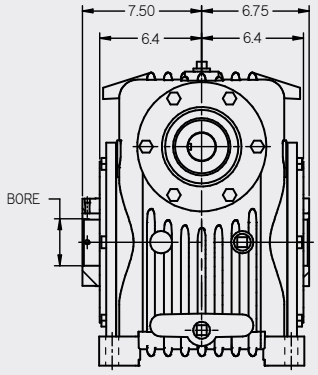
Model HV Worm Horizontal Gear Shaft Vertical, net weight 418 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

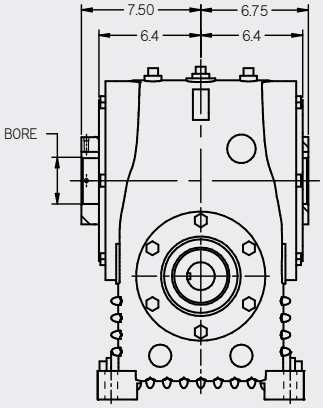
HOLLOW SHAFT

SHO net weight 403 lbs.



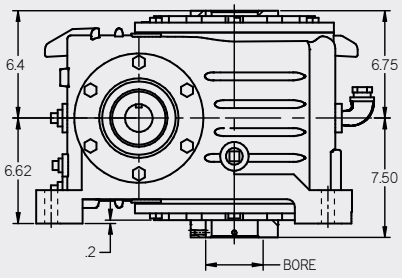
See gear shaft chart. Set screw end of shaft, may extend on either side

SHU net weight 411 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

SHV net weight 433 lbs.



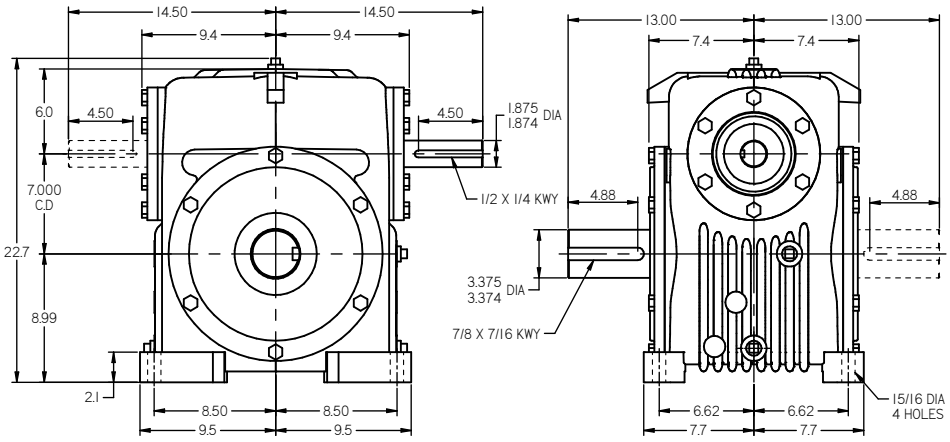
See gear shaft chart. Set screw end of shaft, may extend on either side

Size 70 Single Reduction Dimensions

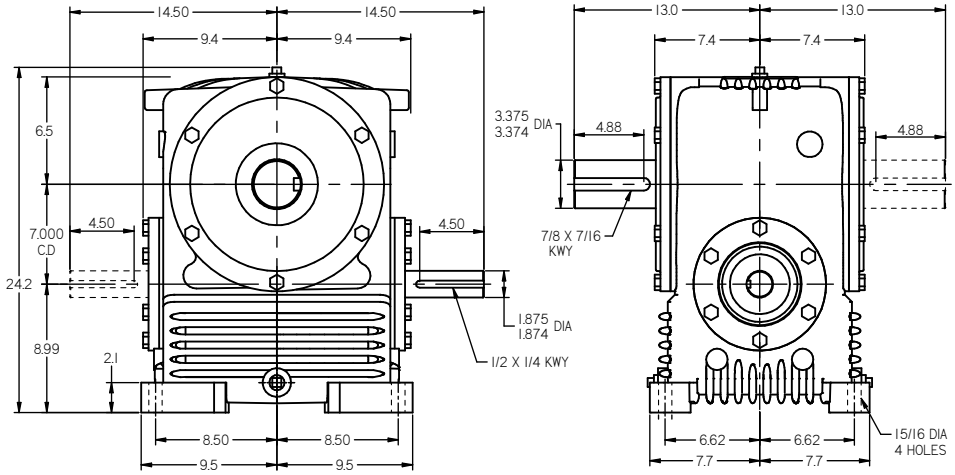
7.000" C.D. SOLID SHAFT, SIZE 70

(all dimensions in inches)

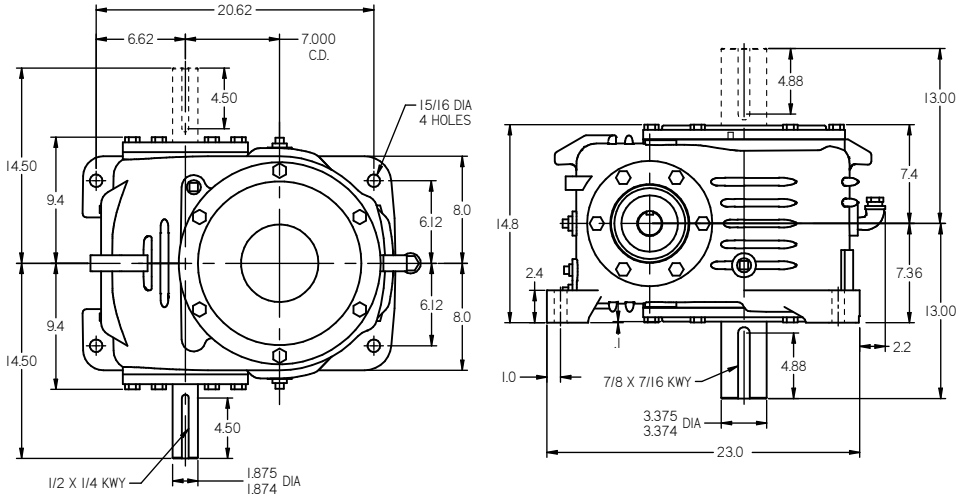
Model HO Worm Over Gear, net weight 535 lbs.



Model HU Worm Under Gear, net weight 605 lbs.



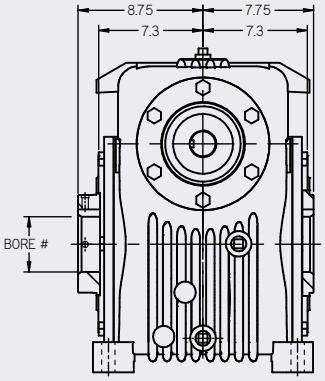
Model HV Worm Horizontal Gear Shaft Vertical, net weight 600 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

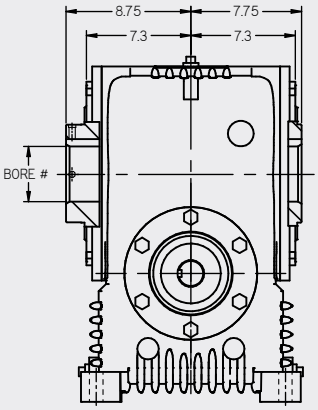
HOLLOW SHAFT

SHO net weight 560 lbs.



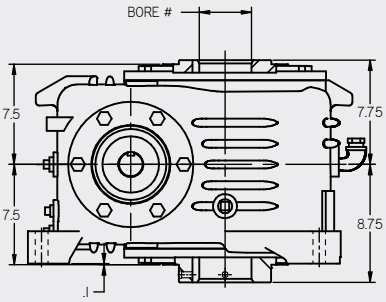
See gear shaft chart. Set screw end of shaft, may extend on either side

SHU net weight 630 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

SHV net weight 625 lbs.

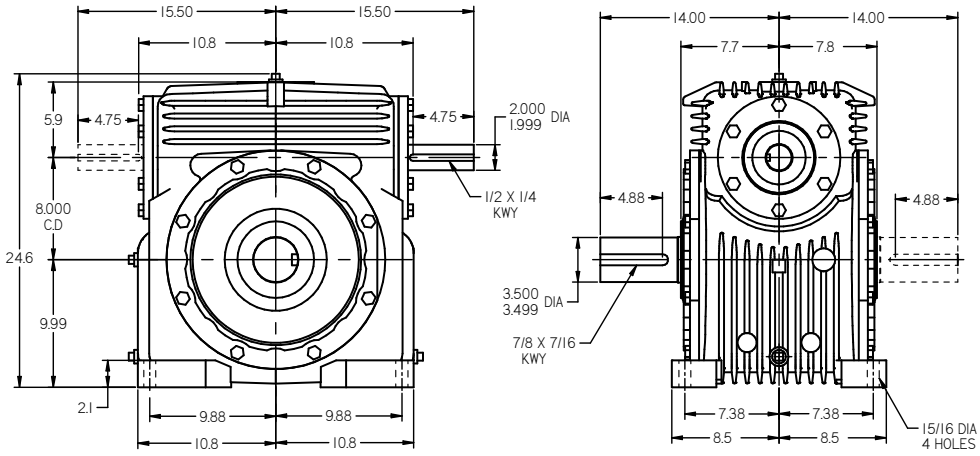


See gear shaft chart. Set screw end of shaft, may extend on either side

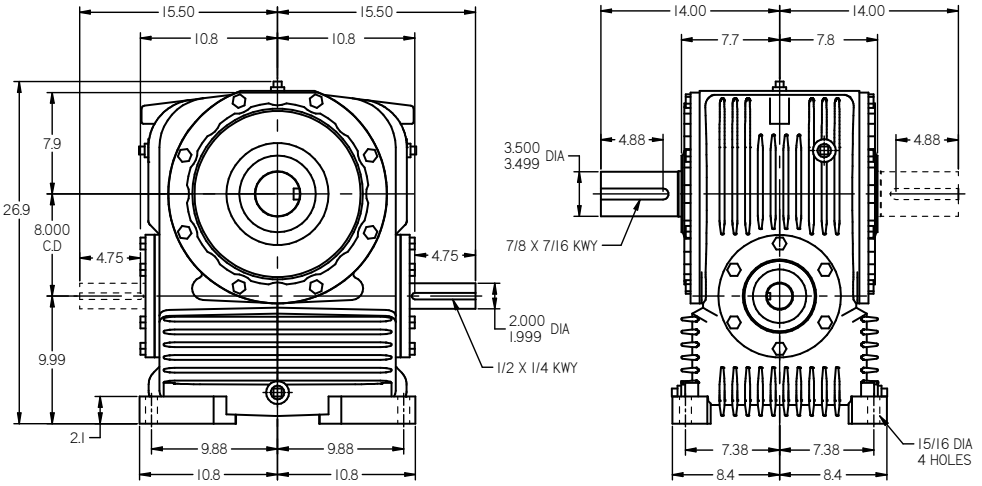
8.000" C.D. SOLID SHAFT, SIZE 80

(all dimensions in inches)

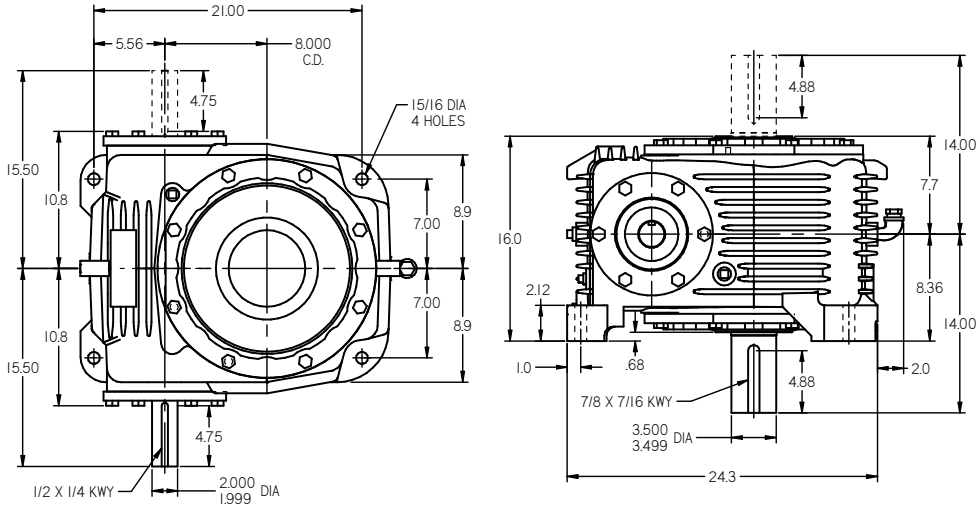
Model HO Worm Over Gear, net weight 690 lbs.



Model HU Worm Under Gear, net weight 880 lbs.



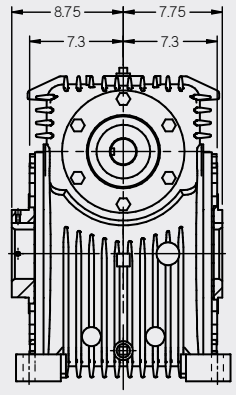
Model HV Worm Horizontal Gear Shaft Vertical, net weight 725 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

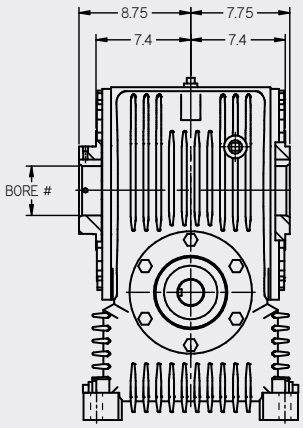
HOLLOW SHAFT

SHO net weight 720 lbs.



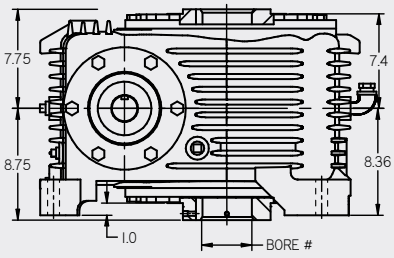
See gear shaft chart. Set screw end of shaft, may extend on either side

SHU net weight 910 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

SHV net weight 755 lbs.



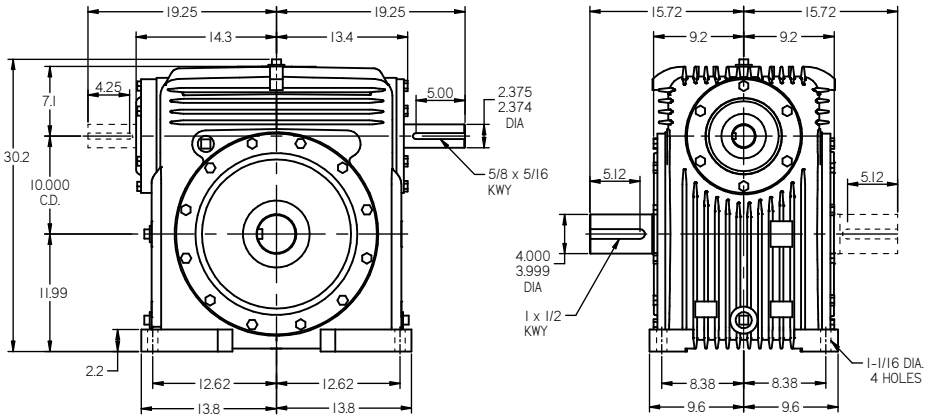
See gear shaft chart. Set screw end of shaft, may extend on either side

Size 100 Single Reduction Dimensions

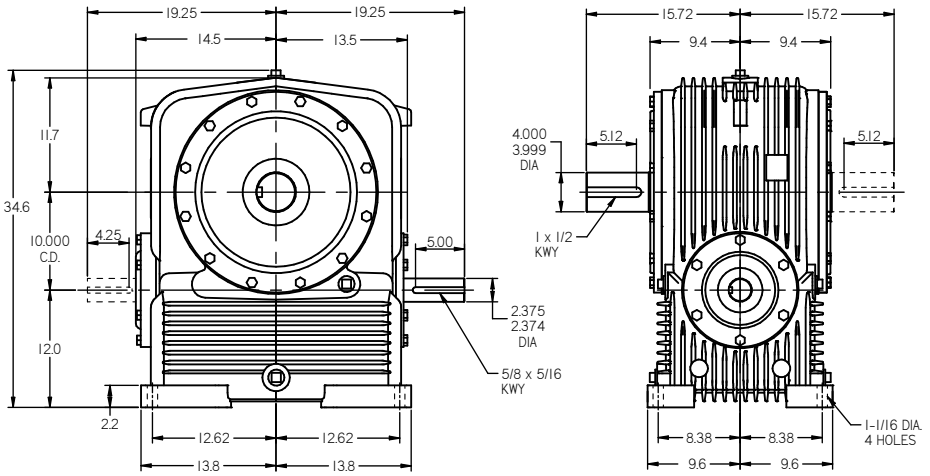
10.000" C.D. SOLID SHAFT, SIZE 100

(all dimensions in inches)

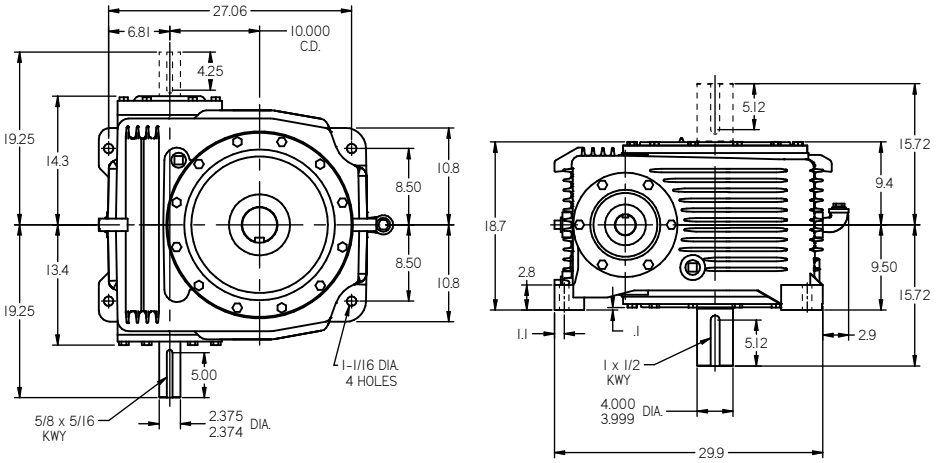
Model HO Worm Over Gear, net weight 1360 lbs.



Model HU Worm Under Gear, net weight 1680 lbs.



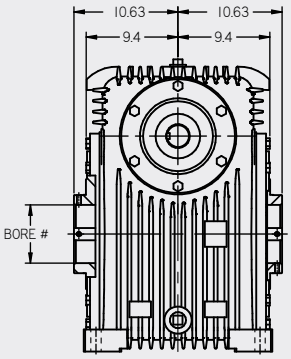
Model HV Worm Horizontal Gear Shaft Vertical, net weight 1550 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

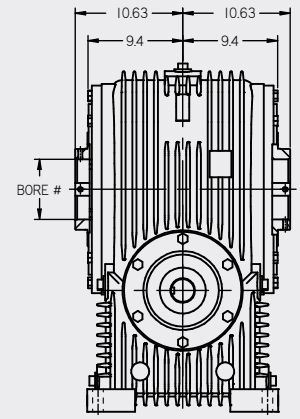
HOLLOW SHAFT

SHO net weight 1435 lbs.



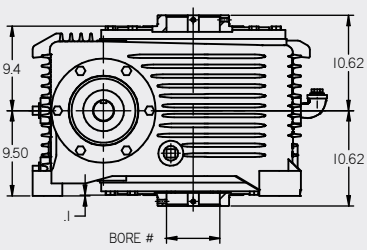
See gear shaft chart.

SHU net weight 1755 lbs.



See gear shaft chart.

SHV net weight 1625 lbs.

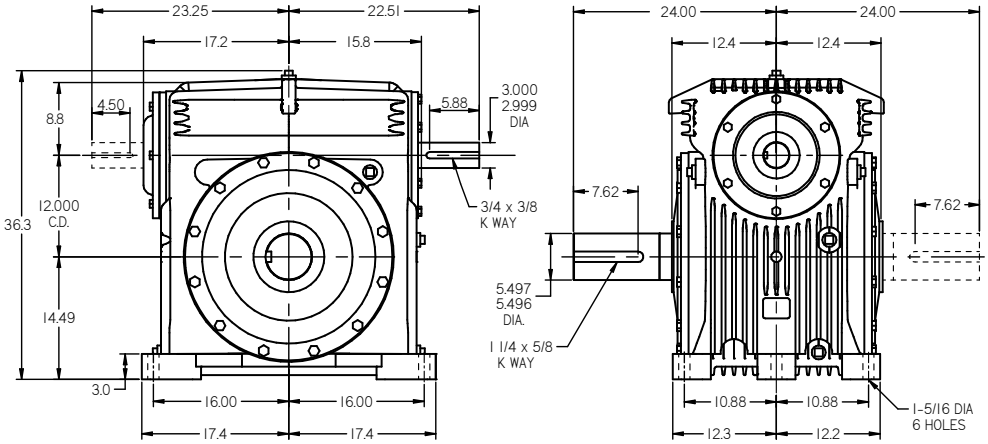


See gear shaft chart.

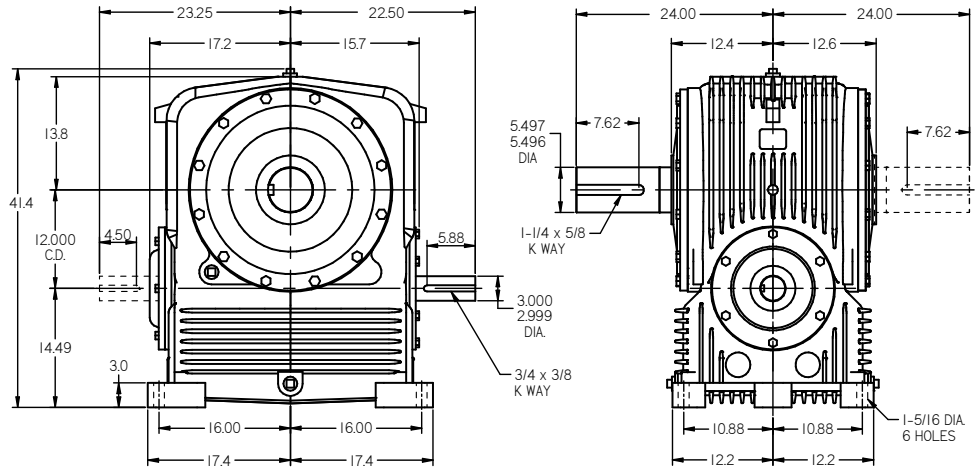
12.000" C.D. SOLID SHAFT, SIZE 120

(all dimensions in inches)

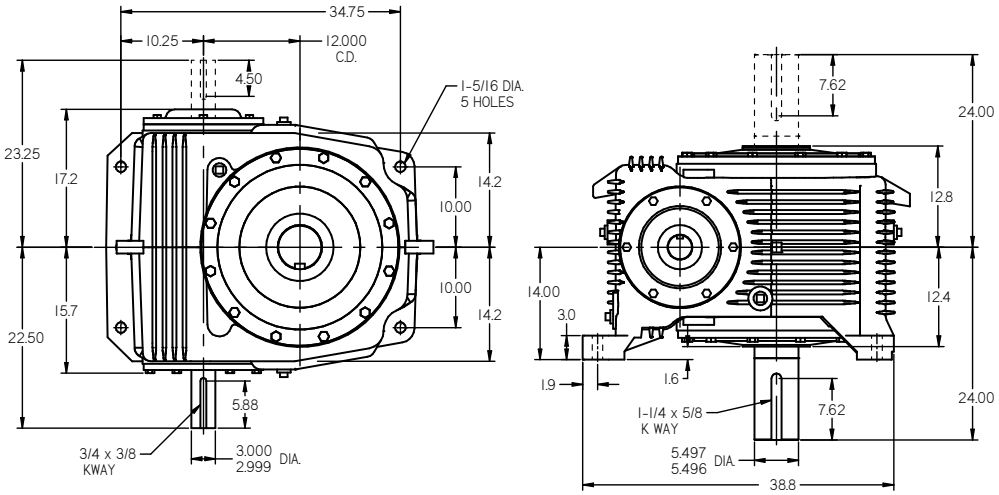
Model HO Worm Over Gear, net weight 2635 lbs.



Model HU Worm Under Gear, net weight 2775 lbs.



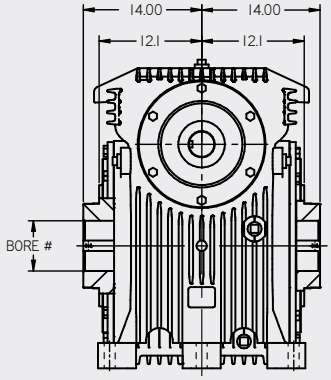
Model HV Worm Horizontal Gear Shaft Vertical, net weight 2995 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

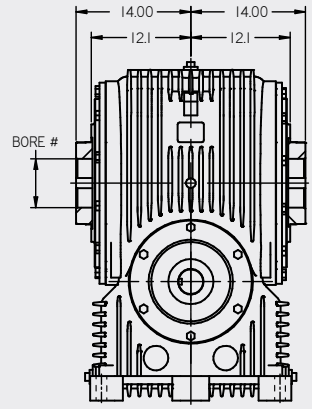
HOLLOW SHAFT

SHO net weight 2635 lbs.



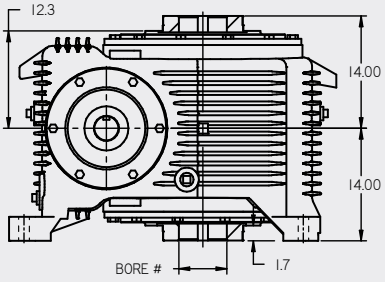
See gear shaft chart.

SHU net weight 2775 lbs.



See gear shaft chart.

SHV net weight 2995 lbs.

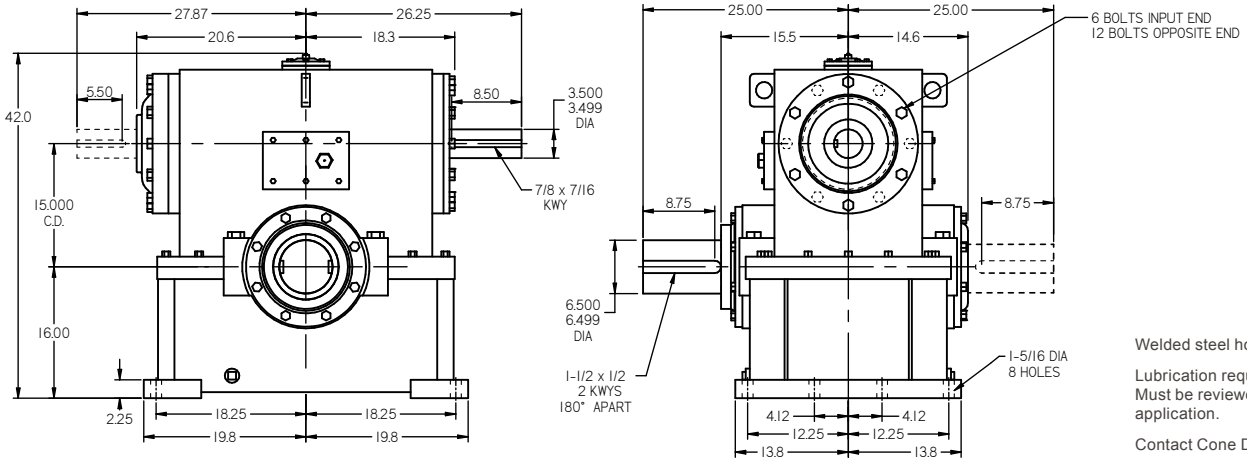


See gear shaft chart.

15.000" C.D. SOLID SHAFT, SIZE 150

(all dimensions in inches)

Model HO Worm Over Gear, net weight 4000 lbs.

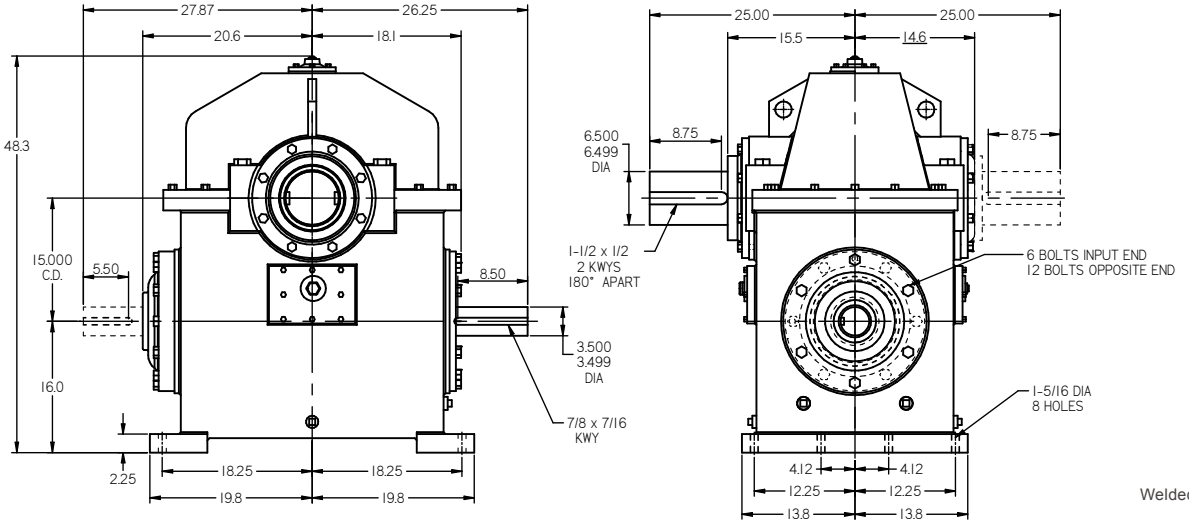


Welded steel housing only.

Lubrication requirements Must be reviewed for each application.

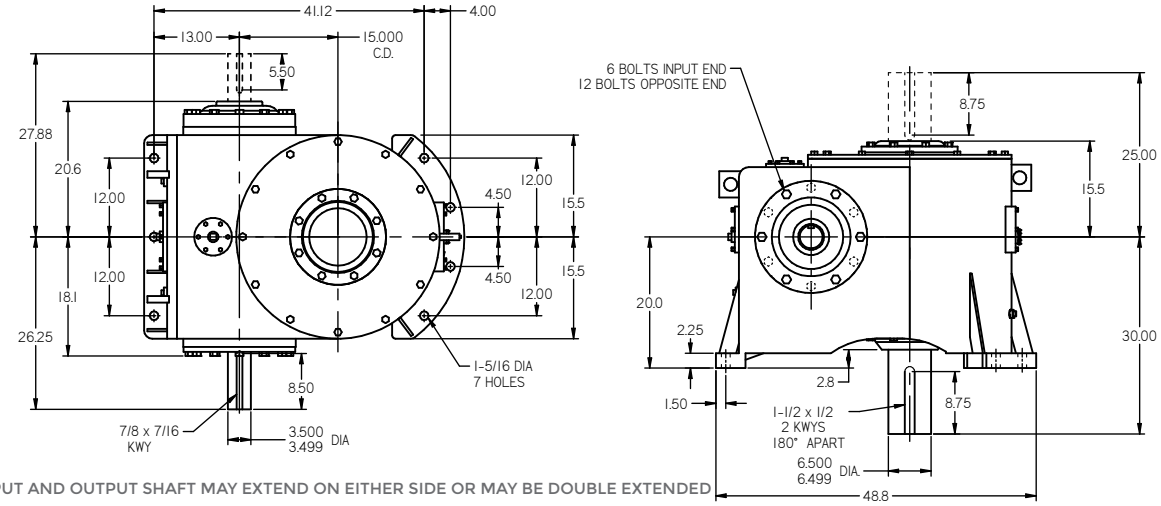
Contact Cone Drive.

Model HU Worm Under Gear, net weight 4000 lbs.



Welded steel housing only.

Model HV Worm Horizontal Gear Shaft Vertical, net weight 4000 lbs.



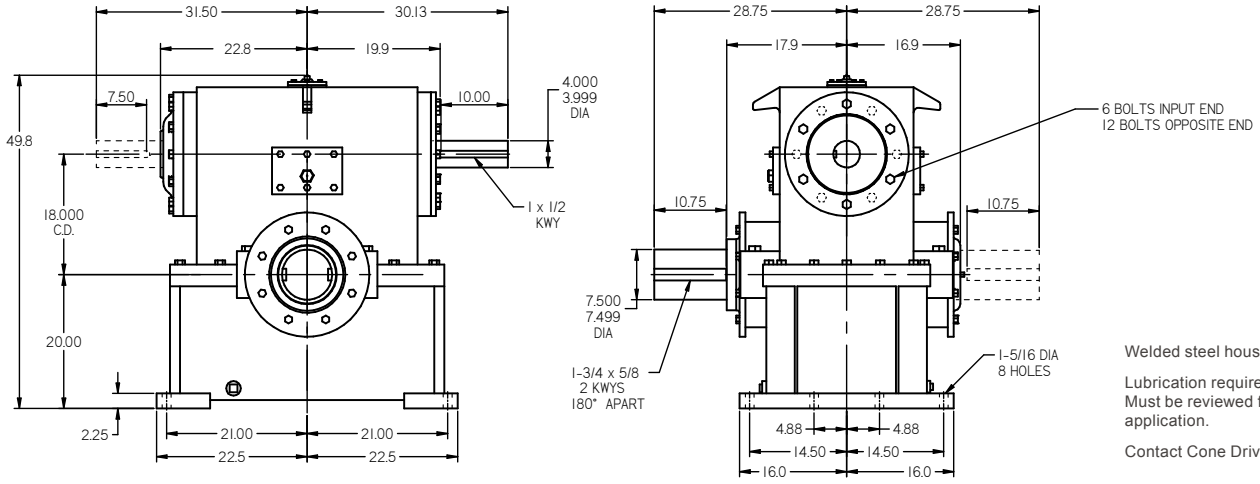
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

Welded steel housing only.

18.000" C.D. SOLID SHAFT, SIZE 180

(all dimensions in inches)

Model HO Worm Over Gear, net weight 5500 lbs.

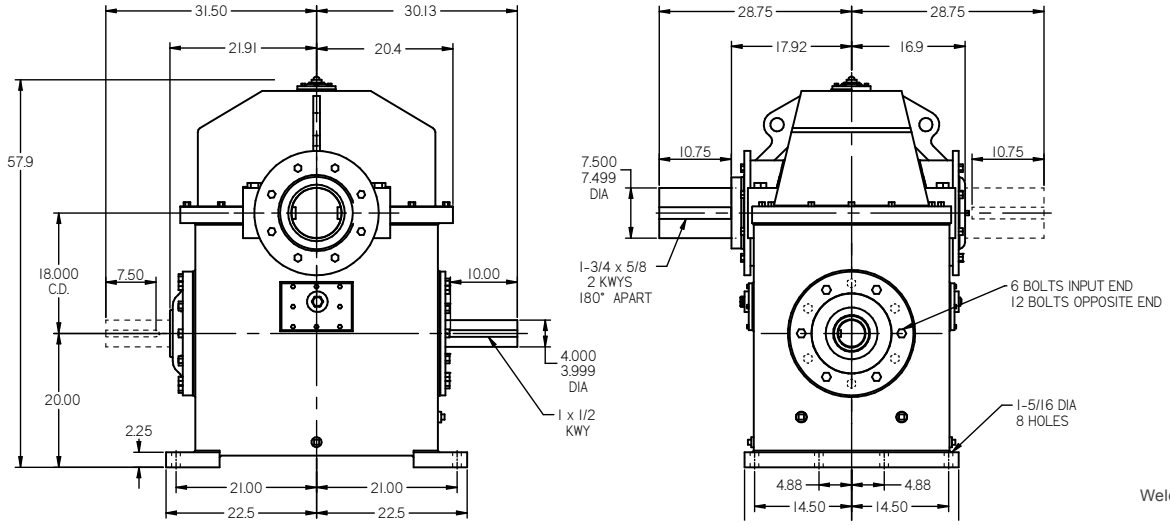


Welded steel housing only.

Lubrication requirements Must be reviewed for each application.

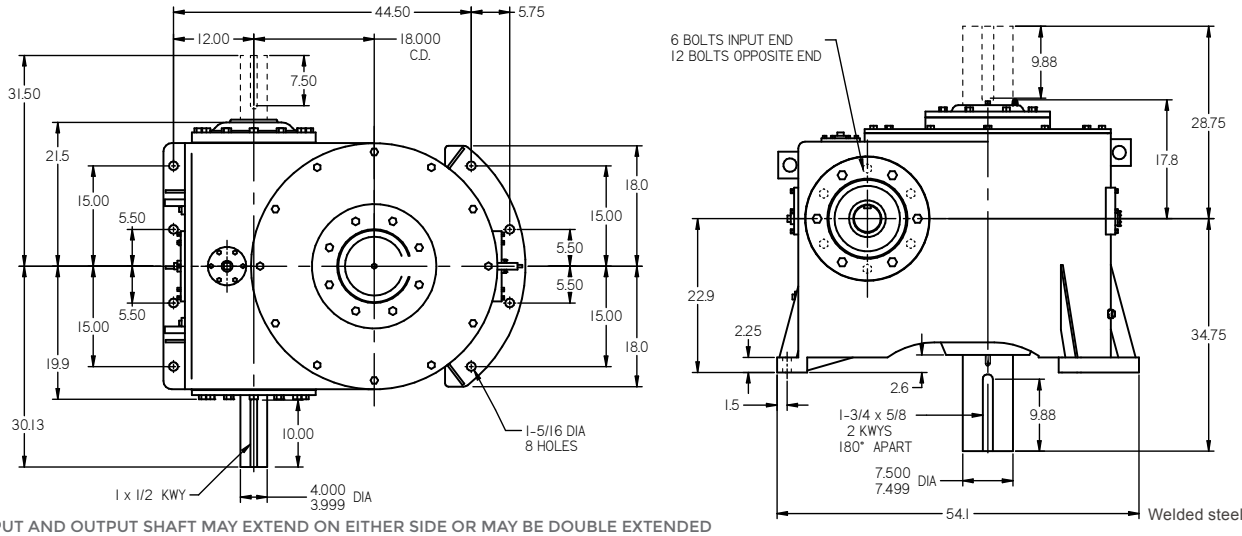
Contact Cone Drive.

Model HU Worm Under Gear, net weight 5500 lbs.



Welded steel housing only.

Model HV Worm Horizontal Gear Shaft Vertical, net weight 5500 lbs.



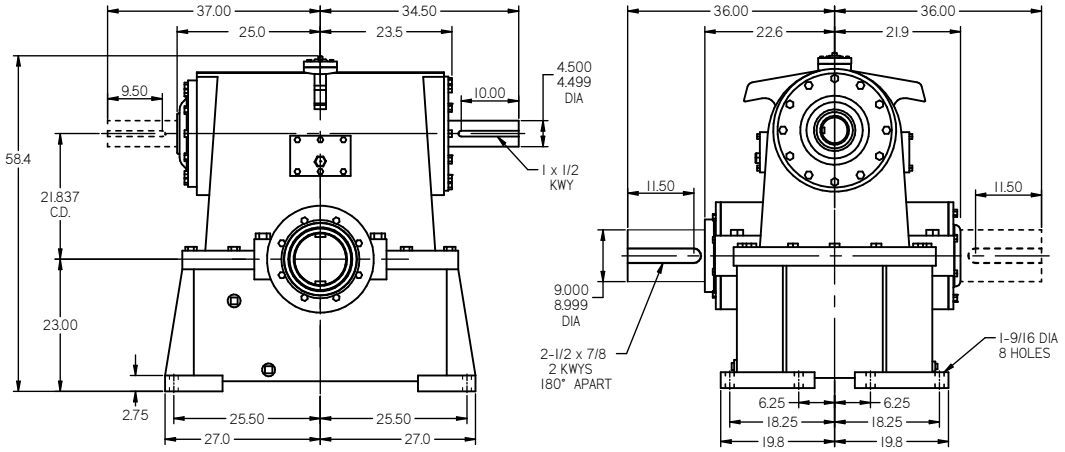
Welded steel housing only.

INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

21.837" C.D. SOLID SHAFT, SIZE 220

(all dimensions in inches)

Model HO Worm Over Gear, net weight 8700 lbs.

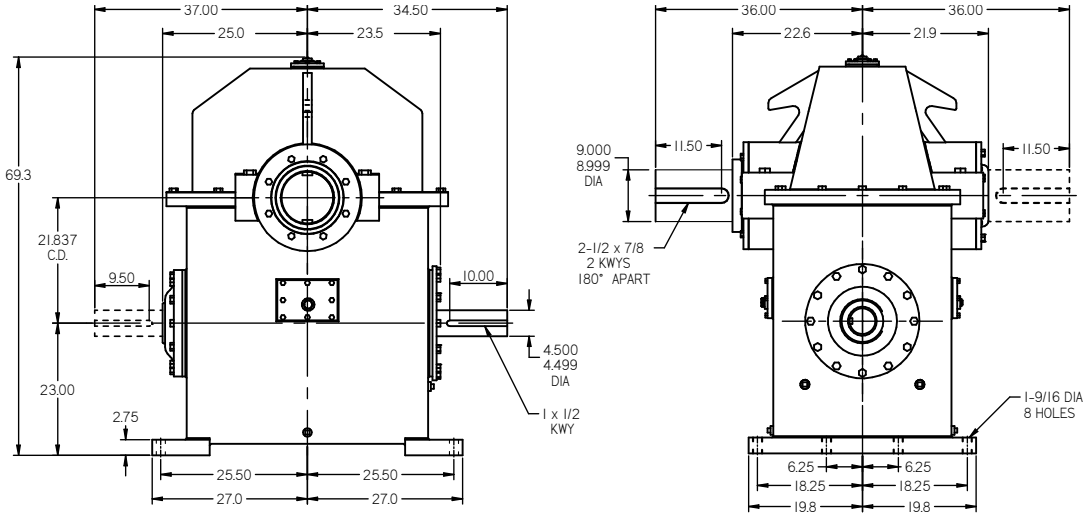


Welded steel housing only.

Lubrication requirements Must be reviewed for each application.

Contact Cone Drive.

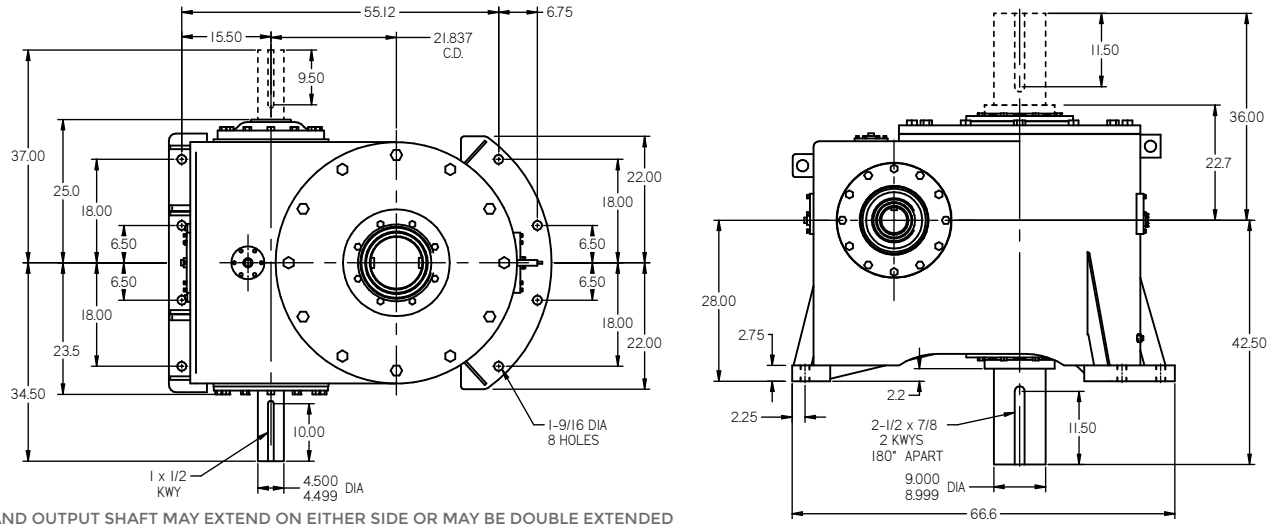
Model HU Worm Under Gear, net weight 8700 lbs.



Welded steel housing only.

Model HV Worm Horizontal Gear Shaft Vertical, net weight 8700 lbs.

Welded steel housing only.

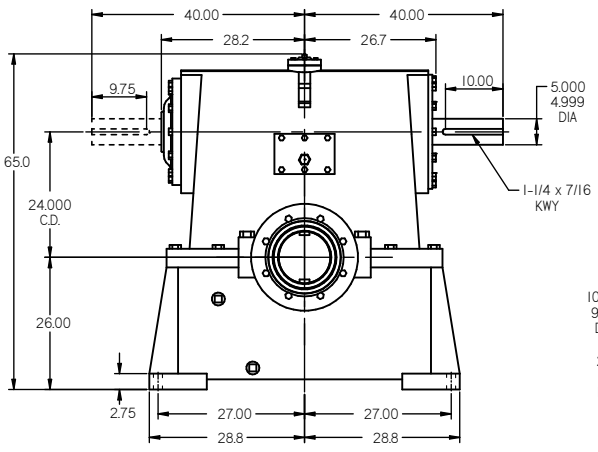


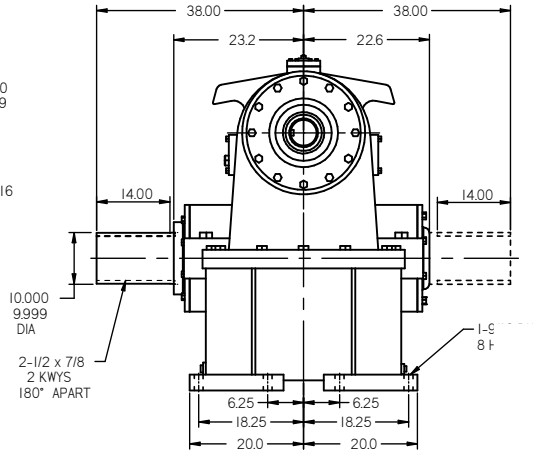
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

24.000" C.D. SOLID SHAFT, SIZE 240

(all dimensions in inches)

Model HO Worm Over Gear, net weight 11,000 lbs.



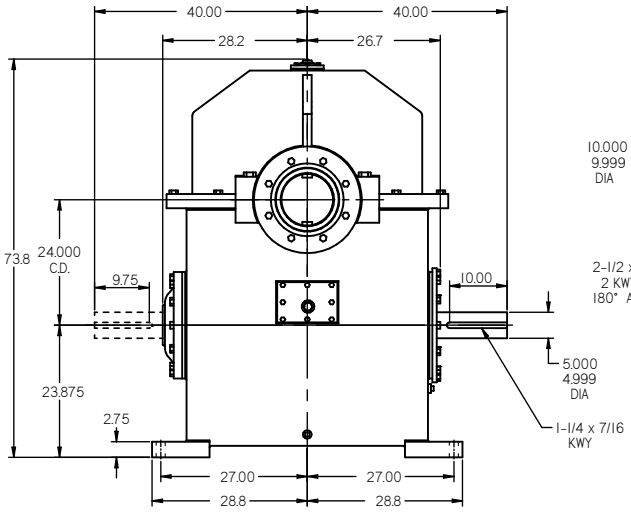


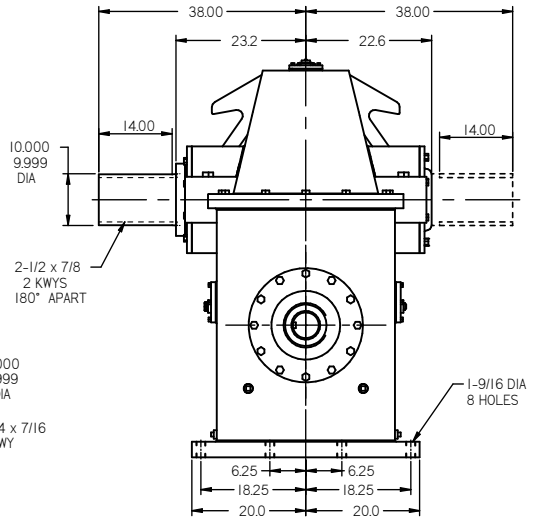
Welded steel housing only.

Lubrication requirements Must be reviewed for each application.

Contact Cone Drive.

Model HU Worm Under Gear, net weight 11,000 lbs.

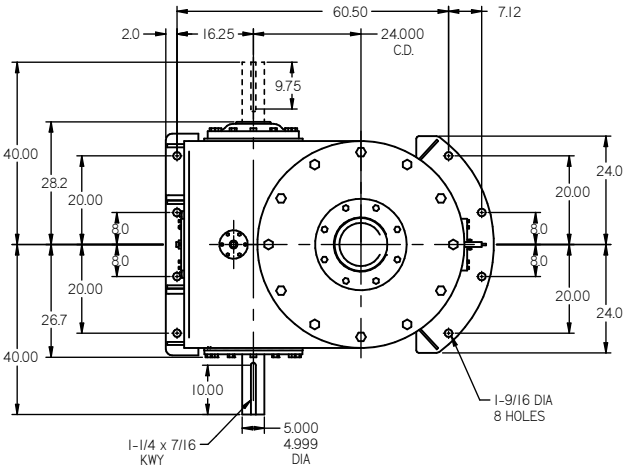


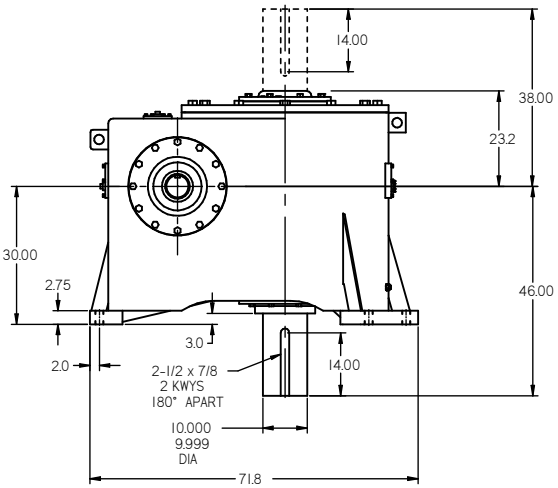


Welded steel housing only.

Model HV Worm Horizontal Gear Shaft Vertical, net weight 11,000 lbs.

Welded steel housing only.



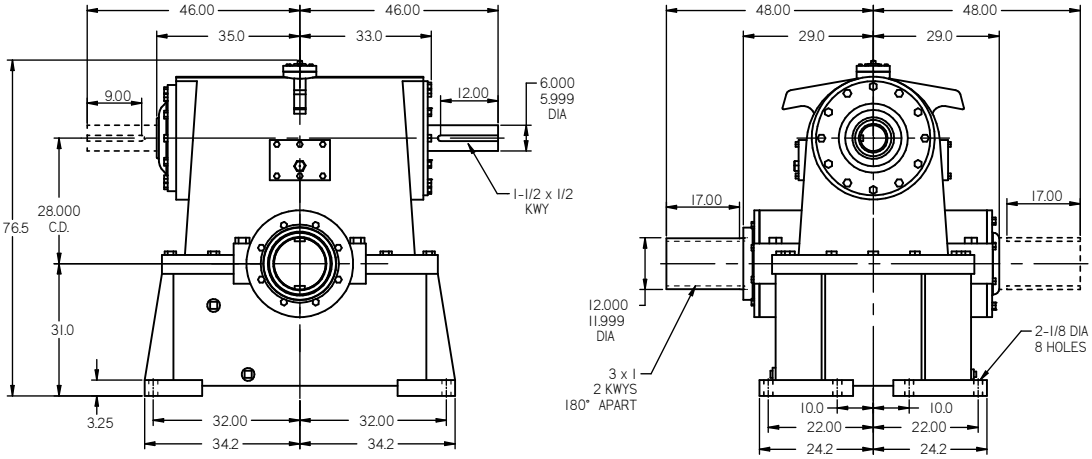


INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

28.000" C.D. SOLID SHAFT, SIZE 280

(all dimensions in inches)

Model HO Worm Over Gear, net weight 18,500 lbs.

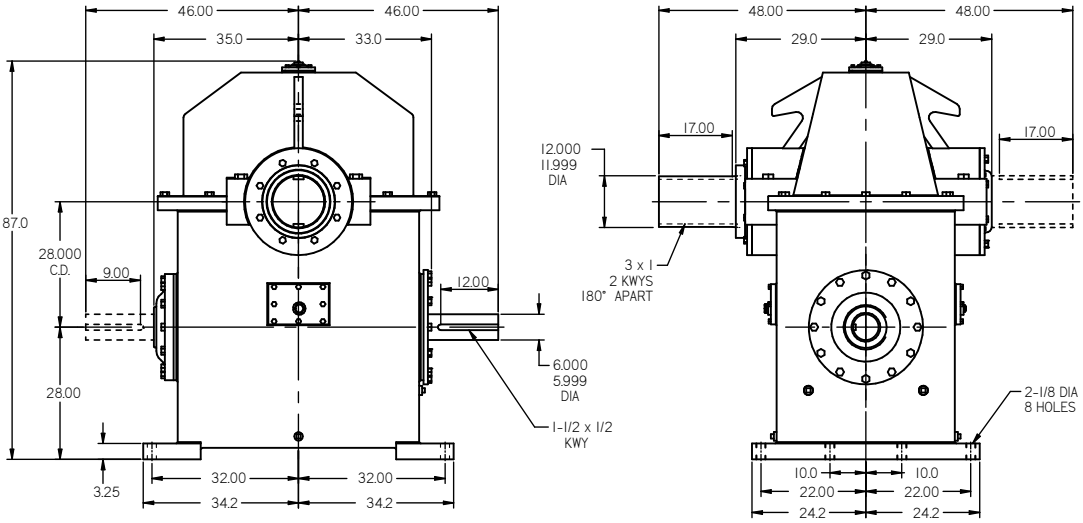


Welded steel housing only.

Lubrication requirements Must be reviewed for each application.

Contact Cone Drive.

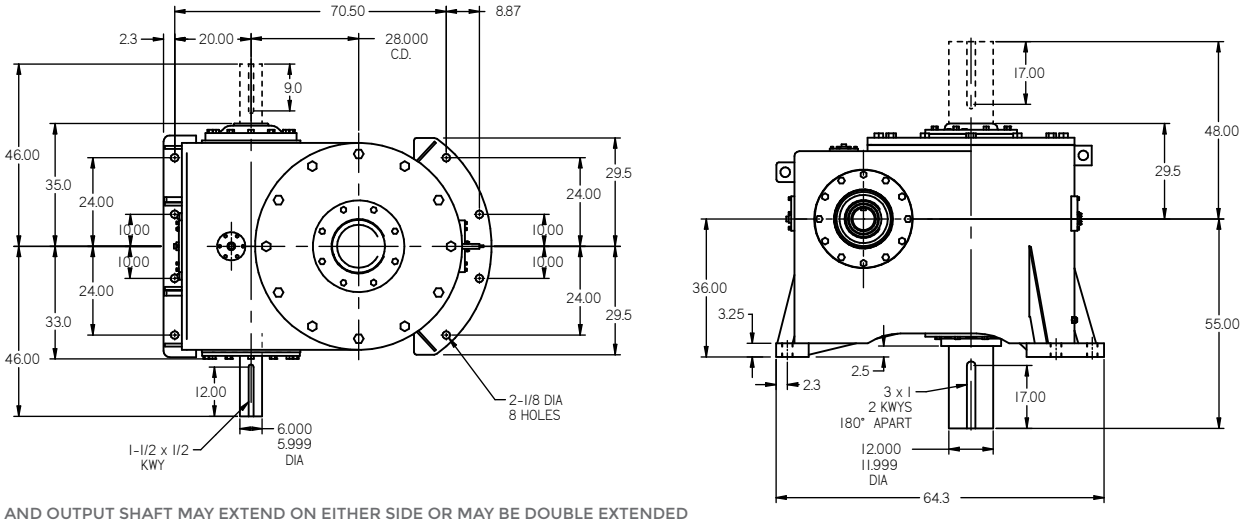
Model HU Worm Under Gear, net weight 18,500 lbs.



Welded steel housing only.

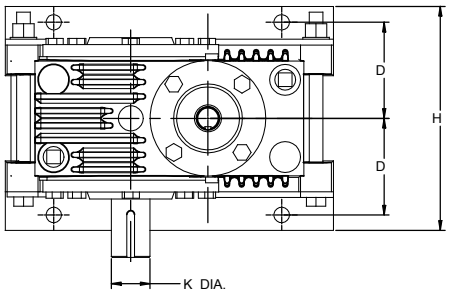
Model HV Worm Horizontal Gear Shaft Vertical, net weight 18,500 lbs.

Welded steel housing only.



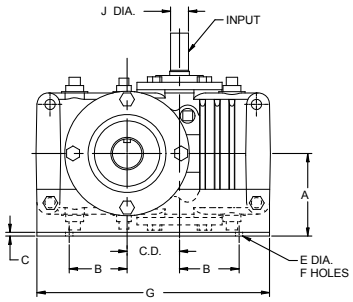
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

Model VH



Model SVH

Hollow Shaft

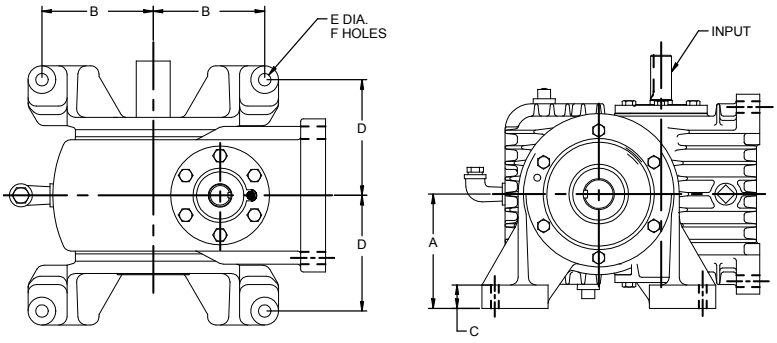


Size	C.D.	A	B	C	D	E	F	G	H	J	K
	(in)										
20	2.000	3.12	2.06	0.187	2.750	0.406	4	9.00	6.50	0.6875	1.125
25	2.500	3.87	2.62	0.187	3.187	0.406	4	10.75	7.25	0.7500	1.250

For dimensions not shown see this section. Size 20 & 25.

Standard unit with special foot angles detail – 13VR & 13VL.

Model VHU

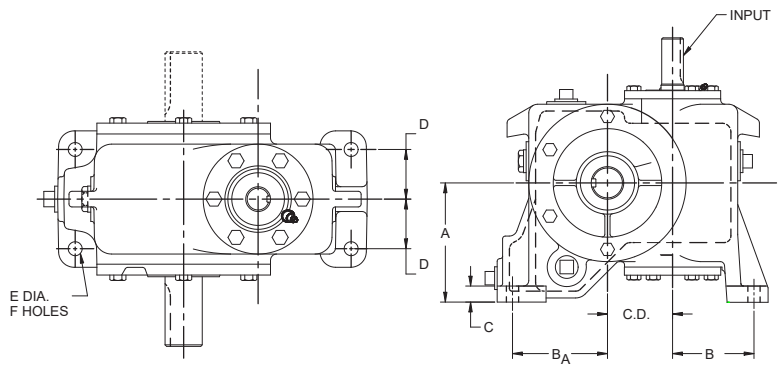


MODEL SVHU Hollow Shaft

Standard HU or SHU units with foot brackets detail No. 16. For dimensions not shown see this section for reducer and foot brackets. For ceiling and wall mounted units see assembly and mounting positions following in this section.

Size	C.D.	A	B	C	D	E	F
	(in)						
30	3.000	5.50	5.00	1.2	5.25	0.562	4
35	3.500	6.50	6.000	1.3	6.50	0.562	4
40	4.000	7.50	6.75	1.5	7.75	0.687	4
50	5.000	8.50	7.50	1.8	8.25	0.812	4
60	6.000	8.50	8.25	1.5	9.00	0.812	4
70	7.000	13.75	10.00	1.5	9.75	0.937	4
80	8.000	15.50	11.50	1.8	10.31	0.937	4

Model VH



MODEL SVH Hollow Shaft

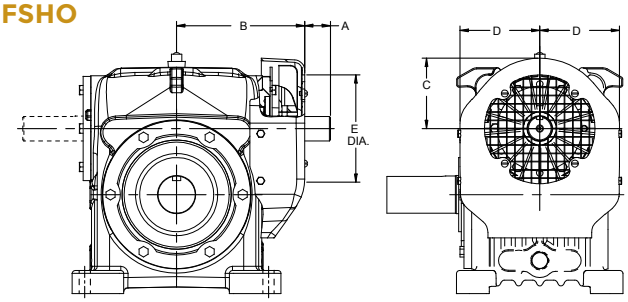
All details are standard stocked items except for housings which are manufactured only as required. All dimensions subject to change at final design. Refer to this section for shaft and carrier dimensions.

Ceiling and wall mounted units follow in this section.

Size	C.D.	A	B	BA	C	D	E	F
	(in)							
30	3.000	5.500	3.750	4.375	0.75	2.000	0.562	4
35	3.500	6.500	4.000	5.000	0.75	3.000	0.562	4
40	4.000	7.250	5.000	5.500	1.50	3.250	0.687	4
50	5.000	8.000	5.625	6.750	1.70	3.750	0.812	4
60	6.000	9.000	6.125	7.500	1.70	4.375	0.812	4
70	7.000	11.000	6.750	8.875	2.12	5.250	0.937	4
80	8.000	12.500	7.125	9.875	2.12	5.250	0.937	4
100	10.000	16.000	8.250	11.750	2.37	7.000	1.062	4
120	12.000	18.500	10.125	14.000	2.75	9.250	1.312	6

Fan Cooling Single Reduction Dimensions

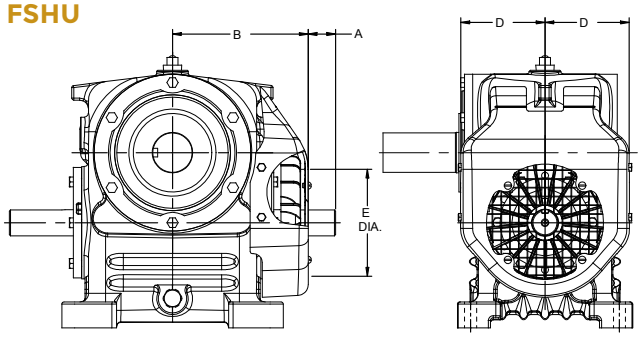
Models FHO, FSHO



Size	A	B	C	D	E
	(in)				
30	0.89	5.80	3.18	3.18	4.94
35	1.31	6.44	3.24	3.67	4.94
40	1.56	7.75	4,26	4.82	6.69
50	1.62	8.88	4.47	5.00	6.88
60	2.05	9.70	5.81	6.13	7.75
70	2.81	11.69	6.83	7.21	10.00
80	2.60	12.90	7.37	7.84	10.50
100	3.40	15.85	8.31	9.38	10.50

For dimensions not shown see Models HV & SHV.
Fan and cover can be mounted at either end of reducer.
Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.

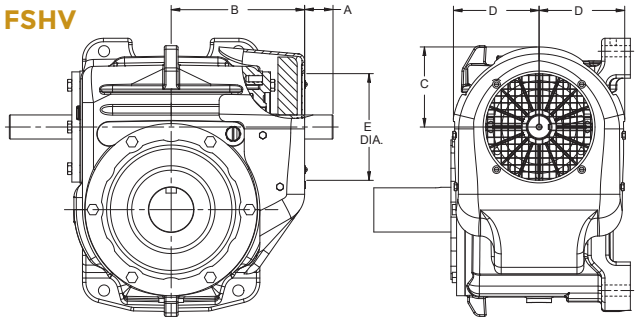
Models FHU, FSHU



Size	A	B	D	E
	(in)			
30	0.89	5.80	3.18	4.94
35	1.31	6.44	3.69	4.94
40	1.56	7.75	4.84	6.59
50	1.62	8.88	5.00	6.88
60	2.05	9.70	6.44	8.00
70	2.81	11.73	7.56	7.75
80	2.37	13.13	8.50	10.50
100	3.40	15.85	9.00	10.50

For dimensions not shown see Models HV & SHV.
Fan and cover can be mounted at either end of reducer.
Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.

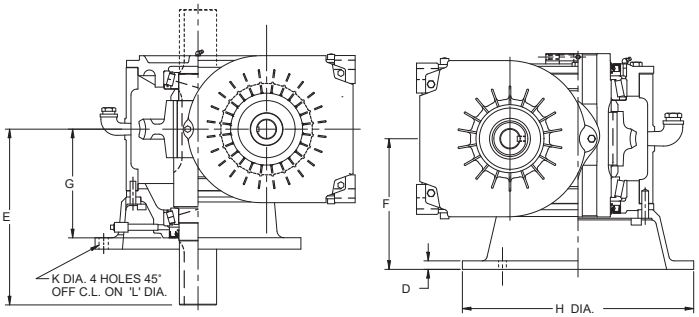
Models FHV, FSHV



Size	A	B	C	D	E
	(in)				
30	0.89	6.69	3.18	3.18	4.94
35	0.91	6.41	3.24	3.69	4.94
40	1.56	7.75	4.26	4.82	6.59
50	1.75	8.75	4.47	5.00	6.88
60	2.05	9.70	5.55	6.13	7.75
70	2.80	11.70	6.83	7.20	10.00
80	2.30	13.20	7.10	7.85	10.50
100	3.35	15.90	8.32	9.37	10.50

For dimensions not shown see Models HV & SHV.
Fan and cover can be mounted at either end of reducer.
Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.

Models FHUV, FSHUV



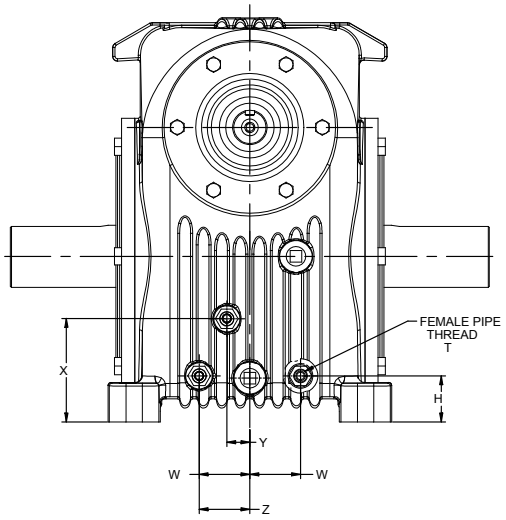
Note: State on order when double extended worm is through fan cover or cut flush.

Size	D	E	F	G	H	K	L
	(in)						
35	0.44	10.25	7.25	6.81	11.75	0.562	10.50
40	0.50	11.25	7.70	6.62	12.75	0.687	11.50
50	0.62	13.62	9.58	8.96	17.00	0.812	15.50
60	1.00	15.38	10.50	9.50	18.00	0.812	16.50
70	1.25	19.38	14.00	12.75	22.00	0.937	20.25
80	1.25	19.38	14.00	12.75	24.00	0.937	22.25
100	1.56	24.00	17.56	16.00	29.25	1.062	27.00

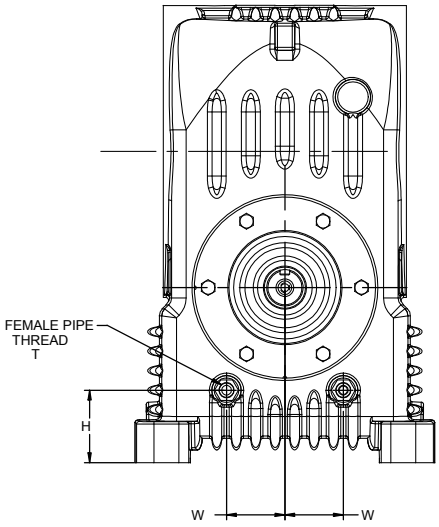
For dimensions not shown see Models HV & SHV.
Fan and cover can be mounted at either end of reducer.
Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.

Inlet & Outlet Locations

WHO and WSHO

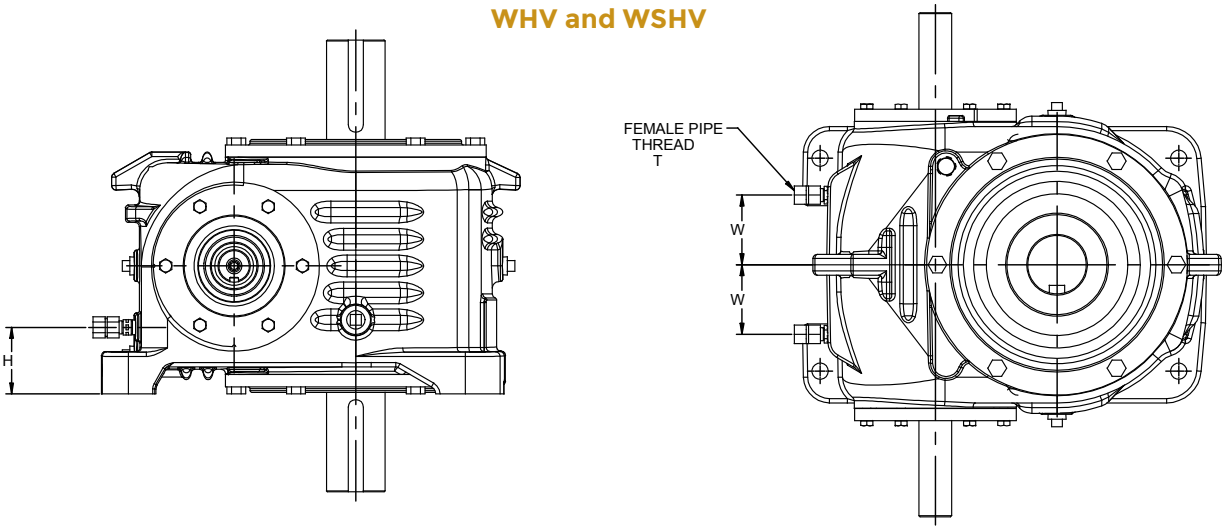


WHU and WSHU



Cooling coil inlet & outlet are located at end of housing opposite input shaft. See caution note below.

WHV and WSHV



CAUTION: Before connecting water lines to reducer read caution tag attached to reducer.

APPROX. DIM. (in)	SIZE 40			SIZE 50			SIZE 60			SIZE 70			SIZE 80			SIZE 100			SIZE 120			SIZE 150			SIZE 180			SIZE 220			SIZE 240			SIZE 280		
	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV
H	2.1	2.2	3	2.4	2.2	3	2.5	2.8	3.8	2.5	3.7	3.9	3.5	4.2	4.8	4	4	5	6.2	6.2	10.5	9	6	11.5	7.5	7.5	13.5	10.5	8.2	15.2	12	10	17.7	12	12	18
W	1.7	2.1	2.2	2	2.4	2.2	2.5	2.5	2.8	–	3	4	2.5	2.5	4.5	3.8	4.2	6	4.2	4	6.5	4	7.1	8.5	5.5	7.7	8.5	6	7.4	11	8	9.5	11	10	10	12
X	-	-	-	-	-	-	-	-	-	5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Y	–	–	–	–	–	–	–	–	–	1.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Z	-	-	-	-	-	-	-	-	-	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T	⅜ - 18 NPT																		1 - 11½ NPT																	

Size 15 Single Reduction Ratings

SIZE 15

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	0.24	1.12	1.34	1.57	1.92	2.24	2.49	1,610	181
		kW	0.18	0.84	1.00	1.17	1.44	1.67	1.86		
	$P_{1\,TH}$	hp	0.24	1.12	1.34	1.57	1.82	1.82	1.82		
		kW	0.18	0.84	1.00	1.17	1.36	1.36	1.36		
	$T_{2\,ME}$	lb-in	642	537	518	505	469	434	399		
		Nm	72.6	60.7	58.5	57.0	53.0	49.0	45.1		
	η	%	86	88	88	89	89	89	89		
10	$P_{1\,ME}$	hp	0.16	0.78	0.93	1.09	1.36	1.60	1.80	1,890	214
		kW	0.12	0.58	0.70	0.82	1.01	1.19	1.34		
	$P_{1\,TH}$	hp	0.16	0.78	0.93	1.09	1.36	1.54	1.54		
		kW	0.12	0.58	0.70	0.82	1.01	1.15	1.15		
	$T_{2\,ME}$	lb-in	819	709	703	681	647	603	563		
		Nm	92.6	80.1	79.5	76.9	73.1	68.2	63.6		
	η	%	80	84	86	86	87	87	87		
15	$P_{1\,ME}$	hp	0.13	0.63	0.76	0.89	1.10	1.30	1.47	1,890	213
		kW	0.10	0.47	0.57	0.66	0.82	0.97	1.10		
	$P_{1\,TH}$	hp	0.13	0.63	0.76	0.89	1.10	1.30	1.33		
		kW	0.10	0.47	0.57	0.66	0.82	0.97	0.99		
	$T_{2\,ME}$	lb-in	944	842	828	809	772	722	676		
		Nm	107	95.2	93.5	91.4	87.2	81.6	76.3		
	η	%	76	82	83	84	85	85	85		
20	$P_{1\,ME}$	hp	0.10	0.48	0.58	0.68	0.85	1.00	1.13	1,820	206
		kW	0.08	0.36	0.43	0.51	0.63	0.75	0.84		
	$P_{1\,TH}$	hp	0.10	0.48	0.58	0.68	0.85	1.00	1.11		
		kW	0.08	0.36	0.43	0.51	0.63	0.75	0.83		
	$T_{2\,ME}$	lb-in	911	839	814	787	751	713	667		
		Nm	103	94.8	92.0	88.9	84.9	80.5	75.4		
	η	%	72	80	80	80	81	82	82		
30	$P_{1\,ME}$	hp	0.07	0.32	0.39	0.46	0.57	0.67	0.76	1,670	189
		kW	0.05	0.24	0.29	0.34	0.43	0.50	0.57		
	$P_{1\,TH}$	hp	0.07	0.32	0.39	0.46	0.57	0.67	0.76		
		kW	0.05	0.24	0.29	0.34	0.43	0.50	0.57		
	$T_{2\,ME}$	lb-in	834	763	772	756	724	678	634		
		Nm	94.3	86.2	87.3	85.5	81.8	76.6	71.7		
	η	%	65	72	75	76	77	77	77		
40	$P_{1\,ME}$	hp	0.05	0.24	0.30	0.35	0.43	0.51	0.57	1,500	169
		kW	0.04	0.18	0.22	0.26	0.32	0.38	0.43		
	$P_{1\,TH}$	hp	0.05	0.24	0.30	0.35	0.43	0.51	0.57		
		kW	0.04	0.18	0.22	0.26	0.32	0.38	0.43		
	$T_{2\,ME}$	lb-in	748	734	745	721	690	647	604		
		Nm	84.5	82.9	84.2	81.5	77.9	73.1	68.2		
	η	%	58	69	72	72	73	73	73		
50	$P_{1\,ME}$	hp	0.04	0.20	0.24	0.28	0.35	0.41	0.46	1,320	149
		kW	0.03	0.15	0.18	0.21	0.26	0.31	0.34		
	$P_{1\,TH}$	hp	0.04	0.20	0.24	0.28	0.35	0.41	0.46		
		kW	0.03	0.15	0.18	0.21	0.26	0.31	0.34		
	$T_{2\,ME}$	lb-in	659	715	716	693	663	622	581		
		Nm	74.5	80.8	80.9	78.3	74.9	70.3	65.6		
	η	%	51	67	69	69	70	70	70		
60	$P_{1\,ME}$	hp	0.03	0.16	0.20	0.23	0.29	0.34	0.39	1,300	146
		kW	0.03	0.12	0.15	0.17	0.22	0.25	0.29		
	$P_{1\,TH}$	hp	0.03	0.16	0.20	0.23	0.29	0.34	0.39		
		kW	0.03	0.12	0.15	0.17	0.22	0.25	0.29		
	$T_{2\,ME}$	lb-in	648	673	675	664	636	596	558		
		Nm	73.2	76.1	76.3	75.0	71.8	67.4	63.0		
	η	%	50	63	65	66	67	67	67		

See Page 8.7 for Rating Definitions

SIZE 20

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	0.47	2.20	2.61	3.01	3.62	4.13	4.55	3,320	375
		kW	0.35	1.64	1.95	2.25	2.70	3.08	3.40		
	$P_{1\,TH}$	hp	0.39	1.83	2.18	2.51	3.02	3.41	3.81		
		kW	0.29	1.37	1.63	1.87	2.25	2.55	2.84		
	$T_{2\,ME}$	lb-in	1,330	1,090	1,040	1,000	913	825	754		
		Nm	150	123	118	113	103	93.2	85.3		
	η	%	89	91	91	92	92	92	92		
10	$P_{1\,ME}$	hp	0.32	1.53	1.82	2.11	2.57	2.96	3.28	3,910	442
		kW	0.24	1.14	1.36	1.58	1.92	2.21	2.45		
	$P_{1\,TH}$	hp	0.24	1.17	1.40	1.62	1.97	2.24	2.52		
		kW	0.18	0.87	1.04	1.21	1.47	1.68	1.88		
	$T_{2\,ME}$	lb-in	1,690	1,440	1,420	1,360	1,270	1,160	1,060		
		Nm	191	163	160	154	143	131	120		
	η	%	83	87	89	89	90	90	90		
15	$P_{1\,ME}$	hp	0.26	1.24	1.48	1.72	2.10	2.43	2.69	3,930	444
		kW	0.20	0.93	1.11	1.28	1.57	1.81	2.01		
	$P_{1\,TH}$	hp	0.16	0.82	0.98	1.14	1.39	1.59	1.78		
		kW	0.12	0.61	0.73	0.85	1.04	1.18	1.33		
	$T_{2\,ME}$	lb-in	1,960	1,720	1,670	1,630	1,520	1,390	1,280		
		Nm	222	194	189	184	172	157	144		
	η	%	79	85	86	87	88	88	88		
20	$P_{1\,ME}$	hp	0.20	0.95	1.13	1.32	1.61	1.86	2.07	3,800	429
		kW	0.15	0.71	0.85	0.98	1.20	1.39	1.54		
	$P_{1\,TH}$	hp	0.13	0.62	0.75	0.87	1.06	1.22	1.37		
		kW	0.10	0.46	0.56	0.65	0.79	0.91	1.02		
	$T_{2\,ME}$	lb-in	1,900	1,710	1,650	1,580	1,480	1,380	1,260		
		Nm	215	194	186	179	167	156	143		
	η	%	75	83	83	83	84	85	85		
25	$P_{1\,ME}$	hp	0.16	0.77	0.91	1.06	1.30	1.50	1.67	3,620	409
		kW	0.12	0.57	0.68	0.79	0.97	1.12	1.24		
	$P_{1\,TH}$	hp	0.11	0.51	0.61	0.70	0.86	0.98	1.10		
		kW	0.08	0.38	0.46	0.52	0.64	0.73	0.82		
	$T_{2\,ME}$	lb-in	1,810	1,680	1,620	1,600	1,490	1,370	1,260		
		Nm	205	190	183	180	169	155	142		
	η	%	71	81	81	83	84	84	84		
30	$P_{1\,ME}$	hp	0.14	0.64	0.77	0.89	1.09	1.26	1.39	3,480	393
		kW	0.10	0.48	0.57	0.66	0.81	0.94	1.04		
	$P_{1\,TH}$	hp	0.08	0.42	0.50	0.59	0.72	0.82	0.92		
		kW	0.06	0.31	0.37	0.44	0.54	0.61	0.69		
	$T_{2\,ME}$	lb-in	1,740	1,570	1,570	1,530	1,430	1,310	1,210		
		Nm	197	177	177	172	161	148	136		
	η	%	68	75	78	79	80	80	80		
40	$P_{1\,ME}$	hp	0.10	0.48	0.58	0.67	0.82	0.95	1.05	3,140	354
		kW	0.08	0.36	0.43	0.50	0.61	0.71	0.79		
	$P_{1\,TH}$	hp	0.06	0.32	0.38	0.44	0.54	0.62	0.69		
		kW	0.05	0.24	0.28	0.33	0.40	0.46	0.51		
	$T_{2\,ME}$	lb-in	1,570	1,510	1,510	1,460	1,370	1,260	1,150		
		Nm	177	171	171	165	154	142	130		
	η	%	61	72	75	75	76	76	76		
50	$P_{1\,ME}$	hp	0.08	0.39	0.46	0.54	0.66	0.76	0.84	2,780	315
		kW	0.06	0.29	0.34	0.40	0.49	0.57	0.63		
	$P_{1\,TH}$	hp	0.05	0.25	0.30	0.35	0.43	0.50	0.56		
		kW	0.04	0.19	0.22	0.26	0.32	0.37	0.42		
	$T_{2\,ME}$	lb-in	1,390	1,470	1,460	1,400	1,320	1,210	1,110		
		Nm	157	167	165	159	149	137	125		
	η	%	54	70	72	72	73	73	73		
60	$P_{1\,ME}$	hp	0.07	0.32	0.39	0.45	0.55	0.64	0.71	2,740	309
		kW	0.05	0.24	0.29	0.34	0.41	0.48	0.53		
	$P_{1\,TH}$	hp	0.05	0.22	0.26	0.30	0.37	0.42	0.47		
		kW	0.04	0.16	0.19	0.22	0.28	0.31	0.35		
	$T_{2\,ME}$	lb-in	1,370	1,390	1,380	1,350	1,270	1,160	1,070		
		Nm	155	157	156	152	143	131	121		
	η	%	53	66	68	69	70	70	70		

See Page 8.7 for Rating Definitions

Size 25 Single Reduction Ratings

SIZE 25

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	0.94	4.22	4.95	5.60	6.58	7.43	8.24	6,570	742
		kW	0.70	3.15	3.69	4.18	4.91	5.55	6.15		
	$P_{1\,TH}$	hp	0.78	3.44	3.81	4.13	4.47	4.69	4.91		
		kW	0.58	2.57	2.84	3.08	3.34	3.50	3.66		
	$T_{2\,ME}$	lb-in	2,630	2,090	1,970	1,870	1,660	1,490	1,370		
		Nm	297	236	223	211	187	168	154		
	η	%	89	91	91	92	92	92	92		
10	$P_{1\,ME}$	hp	0.64	2.94	3.47	3.96	4.70	5.33	5.90	7,770	878
		kW	0.48	2.19	2.59	2.96	3.51	3.98	4.40		
	$P_{1\,TH}$	hp	0.49	2.26	2.67	3.05	3.49	3.61	3.73		
		kW	0.37	1.69	1.99	2.28	2.60	2.69	2.78		
	$T_{2\,ME}$	lb-in	3,370	2,780	2,700	2,550	2,320	2,080	1,910		
		Nm	380	314	306	289	262	236	216		
	η	%	83	87	89	89	90	90	90		
15	$P_{1\,ME}$	hp	0.52	2.39	2.83	3.24	3.86	4.37	4.82	7,790	880
		kW	0.39	1.79	2.11	2.42	2.88	3.26	3.60		
	$P_{1\,TH}$	hp	0.35	1.59	1.89	2.16	2.57	2.76	2.94		
		kW	0.26	1.19	1.41	1.61	1.92	2.06	2.19		
	$T_{2\,ME}$	lb-in	3,900	3,320	3,190	3,070	2,790	2,510	2,290		
		Nm	440	375	361	346	315	283	259		
	η	%	79	85	86	87	88	88	88		
20	$P_{1\,ME}$	hp	0.40	1.83	2.17	2.48	2.96	3.36	3.71	7,540	851
		kW	0.30	1.37	1.62	1.85	2.21	2.50	2.77		
	$P_{1\,TH}$	hp	0.27	1.22	1.44	1.65	1.97	2.22	2.48		
		kW	0.20	0.91	1.07	1.23	1.47	1.66	1.85		
	$T_{2\,ME}$	lb-in	3,770	3,310	3,150	2,990	2,720	2,480	2,270		
		Nm	426	374	356	337	308	280	257		
	η	%	75	83	83	83	84	85	85		
25	$P_{1\,ME}$	hp	0.32	1.48	1.75	2.00	2.39	2.71	3.00	7,180	812
		kW	0.24	1.10	1.30	1.49	1.78	2.02	2.24		
	$P_{1\,TH}$	hp	0.21	0.98	1.16	1.33	1.59	1.79	2.00		
		kW	0.16	0.73	0.87	0.99	1.19	1.34	1.49		
	$T_{2\,ME}$	lb-in	3,590	3,250	3,100	3,010	2,750	2,470	2,270		
		Nm	406	367	350	340	310	279	256		
	η	%	71	81	81	83	84	84	84		
30	$P_{1\,ME}$	hp	0.27	1.23	1.46	1.68	2.00	2.27	2.51	6,900	780
		kW	0.20	0.92	1.09	1.25	1.49	1.69	1.87		
	$P_{1\,TH}$	hp	0.18	0.82	0.98	1.12	1.33	1.50	1.68		
		kW	0.13	0.61	0.73	0.84	0.99	1.12	1.25		
	$T_{2\,ME}$	lb-in	3,450	3,020	3,000	2,880	2,630	2,370	2,170		
		Nm	390	341	339	325	297	267	245		
	η	%	68	75	78	79	80	80	80		
40	$P_{1\,ME}$	hp	0.20	0.93	1.10	1.26	1.51	1.71	1.90	6,220	703
		kW	0.15	0.69	0.82	0.94	1.13	1.28	1.41		
	$P_{1\,TH}$	hp	0.13	0.62	0.73	0.84	1.00	1.13	1.26		
		kW	0.10	0.46	0.54	0.63	0.75	0.84	0.94		
	$T_{2\,ME}$	lb-in	3,110	2,910	2,900	2,740	2,510	2,260	2,070		
		Nm	351	329	327	310	284	255	234		
	η	%	61	72	75	75	76	76	76		
50	$P_{1\,ME}$	hp	0.16	0.75	0.88	1.01	1.21	1.37	1.52	5,520	624
		kW	0.12	0.56	0.66	0.76	0.90	1.03	1.13		
	$P_{1\,TH}$	hp	0.11	0.50	0.59	0.68	0.81	0.91	1.01		
		kW	0.08	0.37	0.44	0.51	0.60	0.68	0.75		
	$T_{2\,ME}$	lb-in	2,760	2,840	2,790	2,640	2,420	2,180	2,000		
		Nm	312	321	315	298	274	246	226		
	η	%	54	70	72	72	73	73	73		
60	$P_{1\,ME}$	hp	0.14	0.62	0.74	0.85	1.01	1.15	1.27	5,430	613
		kW	0.10	0.46	0.55	0.63	0.75	0.86	0.95		
	$P_{1\,TH}$	hp	0.09	0.42	0.49	0.59	0.67	0.76	0.85		
		kW	0.07	0.31	0.37	0.44	0.50	0.57	0.63		
	$T_{2\,ME}$	lb-in	2,710	2,680	2,640	2,540	2,330	2,090	1,920		
		Nm	307	303	298	286	263	237	217		
	η	%	53	66	68	69	70	70	70		

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SIZE 30

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	1.66	7.26	8.37	9.36	10.8	12.3	13.6	11,600	1,310
		kW	1.24	5.41	6.24	6.98	8.07	9.18	10.1		
	$P_{1\,TH}$	hp	1.55	4.02	4.53	4.83	5.31	5.70	6.08		
		kW	1.16	3.00	3.38	3.60	3.96	4.25	4.54		
	$P_{1\,TH\,Fan}$	hp	n/a	4.02	4.99	5.79	7.17	8.14	9.11		
		kW	n/a	3.00	3.72	4.32	5.35	6.07	6.80		
	$T_{2\,ME}$	lb-in	4,640	3,590	3,330	3,120	2,730	2,460	2,250		
		Nm	525	405	377	352	308	278	255		
	η	%	89	91	91	92	92	92	92		
10	$P_{1\,ME}$	hp	1.15	5.17	6.05	6.83	8.02	9.07	10.0	13,800	1,560
		kW	0.86	3.85	4.52	5.10	5.98	6.77	7.48		
	$P_{1\,TH}$	hp	1.00	3.53	3.77	4.10	4.39	4.63	4.87		
		kW	0.75	2.63	2.81	3.06	3.28	3.46	3.63		
	$P_{1\,TH\,Fan}$	hp	n/a	3.53	4.15	4.92	5.93	6.62	7.31		
		kW	n/a	2.63	3.10	3.67	4.43	4.94	5.46		
	$T_{2\,ME}$	lb-in	5,990	4,880	4,710	4,400	3,950	3,550	3,250		
		Nm	677	552	533	498	447	401	367		
	η	%	83	87	89	89	90	90	90		
15	$P_{1\,ME}$	hp	0.93	4.21	4.94	5.60	6.58	7.42	8.23	13,900	1,570
		kW	0.69	3.14	3.69	4.18	4.91	5.54	6.14		
	$P_{1\,TH}$	hp	0.70	3.00	3.20	3.40	3.61	3.81	4.00		
		kW	0.52	2.24	2.39	2.54	2.69	2.84	2.99		
	$P_{1\,TH\,Fan}$	hp	n/a	3.00	3.52	4.08	4.87	5.44	6.01		
		kW	n/a	2.24	2.63	3.04	3.63	4.06	4.49		
	$T_{2\,ME}$	lb-in	6,940	5,830	5,580	5,290	4,760	4,260	3,910		
		Nm	784	659	631	598	538	481	442		
	η	%	79	85	86	87	88	88	88		
20	$P_{1\,ME}$	hp	0.71	3.23	3.78	4.29	5.06	5.70	6.33	13,500	1,520
		kW	0.53	2.41	2.82	3.20	3.77	4.26	4.73		
	$P_{1\,TH}$	hp	0.54	2.38	2.82	3.10	3.25	3.37	3.49		
		kW	0.40	1.78	2.10	2.31	2.43	2.51	2.60		
	$P_{1\,TH\,Fan}$	hp	n/a	2.38	3.10	3.72	4.39	4.82	5.24		
		kW	n/a	1.78	2.31	2.78	3.28	3.59	3.91		
	$T_{2\,ME}$	lb-in	6,730	5,820	5,500	5,160	4,660	4,210	3,880		
		Nm	761	658	621	583	526	476	438		
	η	%	75	83	83	83	84	85	85		
25	$P_{1\,ME}$	hp	0.57	2.60	3.05	3.47	4.09	4.60	5.12	12,800	1,450
		kW	0.43	1.94	2.28	2.59	3.05	3.43	3.82		
	$P_{1\,TH}$	hp	0.43	1.92	2.27	2.61	2.71	2.82	2.92		
		kW	0.32	1.43	1.69	1.95	2.02	2.10	2.18		
	$P_{1\,TH\,Fan}$	hp	n/a	1.92	2.50	3.13	3.65	4.02	4.39		
		kW	n/a	1.43	1.87	2.34	2.72	3.00	3.28		
	$T_{2\,ME}$	lb-in	6,420	5,720	5,410	5,210	4,700	4,200	3,870		
		Nm	725	646	612	589	532	474	437		
	η	%	71	81	81	83	84	84	84		

See Page 8.7 for Rating Definitions

Size 30 Single Reduction Ratings

SIZE 30

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
30	$P_{1\,ME}$	hp	0.48	2.18	2.55	2.90	3.42	3.85	4.28	12,300	1,390
		kW	0.36	1.63	1.91	2.17	2.55	2.87	3.20		
	$P_{1\,TH}$	hp	0.36	1.61	1.90	2.20	2.44	2.53	2.61		
		kW	0.27	1.20	1.42	1.64	1.82	1.88	1.95		
	$P_{1\,TH\,Fan}$	hp	n/a	1.61	2.09	2.64	3.29	3.61	3.92		
		kW	n/a	1.20	1.56	1.97	2.46	2.69	2.93		
	$T_{2\,ME}$	lb-in	6,170	5,330	5,230	4,990	4,500	4,020	3,700		
		Nm	697	602	591	564	509	454	418		
	η	%	68	75	78	79	80	80	80		
40	$P_{1\,ME}$	hp	0.36	1.64	1.93	2.19	2.58	2.91	3.23	11,100	1,260
		kW	0.27	1.22	1.44	1.63	1.93	2.17	2.41		
	$P_{1\,TH}$	hp	0.27	1.21	1.43	1.66	1.99	2.16	2.33		
		kW	0.20	0.90	1.07	1.24	1.49	1.61	1.74		
	$P_{1\,TH\,Fan}$	hp	n/a	1.21	1.58	1.99	2.58	2.90	3.23		
		kW	n/a	0.90	1.18	1.49	1.93	2.17	2.41		
	$T_{2\,ME}$	lb-in	5,560	5,130	5,060	4,760	4,300	3,840	3,530		
		Nm	628	580	572	537	486	434	399		
	η	%	61	72	75	75	76	76	76		
50	$P_{1\,ME}$	hp	0.29	1.32	1.55	1.76	2.07	2.34	2.59	9,860	1,110
		kW	0.22	0.98	1.15	1.31	1.55	1.74	1.93		
	$P_{1\,TH}$	hp	0.22	0.97	1.15	1.33	1.60	1.84	2.08		
		kW	0.16	0.72	0.86	0.99	1.19	1.37	1.55		
	$P_{1\,TH\,Fan}$	hp	n/a	0.97	1.27	1.60	2.07	2.33	2.59		
		kW	n/a	0.72	0.95	1.19	1.54	1.74	1.93		
	$T_{2\,ME}$	lb-in	4,930	5,010	4,870	4,580	4,140	3,710	3,410		
		Nm	557	567	551	517	468	419	385		
	η	%	54	70	72	72	73	73	73		
60	$P_{1\,ME}$	hp	0.24	1.10	1.29	1.47	1.73	1.95	2.16	9,700	1,100
		kW	0.18	0.82	0.96	1.09	1.29	1.46	1.62		
	$P_{1\,TH}$	hp	0.18	0.81	0.96	1.11	1.33	1.53	1.74		
		kW	0.13	0.60	0.72	0.83	0.99	1.15	1.30		
	$P_{1\,TH\,Fan}$	hp	n/a	0.81	1.06	1.33	1.73	1.95	2.16		
		kW	n/a	0.60	0.79	0.99	1.29	1.45	1.61		
	$T_{2\,ME}$	lb-in	4,850	4,740	4,610	4,390	3,980	3,560	3,270		
		Nm	548	535	521	497	450	402	370		
	η	%	53	66	68	69	70	70	70		

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SIZE 35

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	3.06	12.9	14.7	16.3	19.0	21.5	23.5	21,400	2,420
		kW	2.28	9.65	11.0	12.2	14.2	16.0	17.6		
	$P_{1\,TH}$	hp	2.55	8.15	9.10	9.80	10.6	11.1	11.7		
		kW	1.90	6.08	6.79	7.31	7.91	8.32	8.73		
	$P_{1\,TH\,Fan}$	hp	n/a	8.15	10.0	11.8	14.3	15.9	17.5		
		kW	n/a	6.08	7.47	8.78	10.7	11.9	13.1		
	$P_{1\,TH\,WHV}$	hp	3.06	12.9	14.5	15.9	16.7	17.2	17.8		
		kW	2.28	9.65	10.8	11.9	12.5	12.9	13.3		
	$P_{1\,TH\,WHU}$	hp	3.06	11.1	12.1	13.1	13.9	14.5	15.0		
		kW	2.28	8.29	9.00	9.80	10.4	10.8	11.2		
	$P_{1\,TH\,WHO}$	hp	3.06	11.1	12.1	13.1	13.9	14.5	15.0		
		kW	2.28	8.29	9.00	9.80	10.4	10.8	11.2		
	$T_{2\,ME}$	lb-in	8,570	6,390	5,870	5,430	4,790	4,290	3,900		
		Nm	968	722	663	614	541	485	440		
	η	%	89	91	91	92	92	92	92		
10	$P_{1\,ME}$	hp	2.11	9.27	10.7	12.0	13.9	15.7	17.4	25,500	2,880
		kW	1.58	6.91	7.97	8.93	10.3	11.7	13.0		
	$P_{1\,TH}$	hp	1.63	6.62	7.22	7.73	8.32	8.63	8.94		
		kW	1.22	4.94	5.39	5.77	6.21	6.44	6.67		
	$P_{1\,TH\,Fan}$	hp	n/a	6.62	7.94	9.28	11.2	12.3	13.4		
		kW	n/a	4.94	5.93	6.93	8.38	9.19	10.0		
	$P_{1\,TH\,WHV}$	hp	2.11	9.27	10.7	12.0	13.2	13.5	13.8		
		kW	1.58	6.91	7.97	8.93	9.85	10.1	10.3		
	$P_{1\,TH\,WHU}$	hp	2.11	8.67	9.64	10.1	11.0	11.3	11.6		
		kW	1.58	6.47	7.19	7.57	8.20	8.43	8.66		
	$P_{1\,TH\,WHO}$	hp	2.11	8.67	9.64	10.1	11.0	11.3	11.6		
		kW	1.58	6.47	7.19	7.57	8.20	8.43	8.66		
	$T_{2\,ME}$	lb-in	11,100	8,760	8,320	7,720	6,840	6,160	5,640		
		Nm	1,250	990	941	872	773	696	637		
	η	%	83	87	89	89	90	90	90		
15	$P_{1\,ME}$	hp	1.71	7.57	8.75	9.81	11.4	12.9	14.3	25,600	2,890
		kW	1.28	5.65	6.53	7.32	8.50	9.64	10.7		
	$P_{1\,TH}$	hp	1.14	5.05	5.85	6.20	6.54	6.80	7.05		
		kW	0.85	3.77	4.37	4.63	4.88	5.07	5.26		
	$P_{1\,TH\,Fan}$	hp	n/a	5.05	6.44	7.44	8.83	9.70	10.6		
		kW	n/a	3.77	4.81	5.55	6.59	7.24	7.90		
	$P_{1\,TH\,WHV}$	hp	1.71	7.57	8.75	9.81	10.6	10.9	11.1		
		kW	1.28	5.65	6.53	7.32	7.92	8.11	8.30		
	$P_{1\,TH\,WHU}$	hp	1.71	6.82	7.75	8.25	8.76	9.01	9.27		
		kW	1.28	5.09	5.78	6.15	6.54	6.73	6.92		
	$P_{1\,TH\,WHO}$	hp	1.71	6.82	7.75	8.25	8.76	9.01	9.27		
		kW	1.28	5.09	5.78	6.15	6.54	6.73	6.92		
	$T_{2\,ME}$	lb-in	12,800	10,500	9,880	9,270	8,240	7,410	6,790		
		Nm	1,450	1,180	1,120	1,050	931	837	767		
	η	%	79	85	86	87	88	88	88		
20	$P_{1\,ME}$	hp	1.31	5.79	6.72	7.54	8.76	9.92	11.0	24,800	2,800
		kW	0.98	4.32	5.01	5.63	6.54	7.41	8.20		
	$P_{1\,TH}$	hp	0.88	3.87	4.49	5.03	5.60	5.72	5.85		
		kW	0.66	2.89	3.35	3.75	4.18	4.27	4.37		
	$P_{1\,TH\,Fan}$	hp	n/a	3.87	4.94	6.04	7.56	8.17	8.78		
		kW	n/a	2.89	3.69	4.51	5.64	6.10	6.55		
	$P_{1\,TH\,WHV}$	hp	1.31	5.79	6.72	7.54	8.65	8.98	9.10		
		kW	0.98	4.32	5.01	5.63	6.46	6.70	6.79		
	$P_{1\,TH\,WHU}$	hp	1.31	5.44	6.06	6.60	7.26	7.50	7.62		
		kW	0.98	4.06	4.52	4.92	5.42	5.60	5.69		
	$P_{1\,TH\,WHO}$	hp	1.31	5.44	6.06	6.60	7.26	7.50	7.62		
		kW	0.98	4.06	4.52	4.92	5.42	5.60	5.69		
	$T_{2\,ME}$	lb-in	12,400	10,400	9,760	9,070	8,060	7,330	6,720		
		Nm	1,400	1,180	1,100	1,020	911	829	760		
	η	%	75	83	83	83	84	85	85		
25	$P_{1\,ME}$	hp	1.06	4.68	5.42	6.09	7.06	8.02	8.87	23,600	2,670
		kW	0.79	3.49	4.05	4.54	5.27	5.98	6.62		
	$P_{1\,TH}$	hp	0.71	3.13	3.62	4.06	4.73	4.82	4.92		
		kW	0.53	2.34	2.70	3.03	3.53	3.60	3.67		
	$P_{1\,TH\,Fan}$	hp	n/a	3.13	3.98	4.87	6.39	6.89	7.38		
		kW	n/a	2.34	2.97	3.63	4.77	5.14	5.51		
	$P_{1\,TH\,WHV}$	hp	1.06	4.68	5.42	6.09	7.06	7.87	7.97		
		kW	0.79	3.49	4.05	4.54	5.27	5.88	5.95		
	$P_{1\,TH\,WHU}$	hp	1.06	4.53	5.02	5.63	6.39	6.49	6.58		
		kW	0.79	3.38	3.75	4.20	4.77	4.84	4.91		
	$P_{1\,TH\,WHO}$	hp	1.06	4.53	5.02	5.63	6.39	6.49	6.58		
		kW	0.79	3.38	3.75	4.20	4.77	4.84	4.91		
	$T_{2\,ME}$	lb-in	11,800	10,300	9,610	9,150	8,130	7,320	6,710		
		Nm	1,330	1,160	1,090	1,030	919	827	758		
	η	%	71	81	81	83	84	84	84		

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Size 35 Single Reduction Ratings

SIZE 35

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
30	$P_{1\,ME}$	hp	0.88	3.92	4.53	5.09	5.91	6.71	7.42	22,700	2,570
		kW	0.66	2.92	3.38	3.80	4.41	5.01	5.54		
	$P_{1\,TH}$	hp	0.59	2.62	3.04	3.40	3.96	4.06	4.16		
		kW	0.44	1.96	2.27	2.54	2.96	3.03	3.10		
	$P_{1\,TH\,Fan}$	hp	n/a	2.62	3.34	4.08	5.35	5.80	6.24		
		kW	n/a	1.96	2.49	3.04	3.99	4.32	4.66		
	$P_{1\,TH\,WHV}$	hp	0.88	3.92	4.53	5.09	5.91	6.50	6.60		
		kW	0.66	2.92	3.38	3.80	4.41	4.85	4.93		
	$P_{1\,TH\,WHU}$	hp	0.88	3.68	4.25	4.67	5.29	5.39	5.49		
		kW	0.66	2.75	3.17	3.48	3.95	4.02	4.10		
	$P_{1\,TH\,WHO}$	hp	0.88	3.68	4.25	4.67	5.29	5.39	5.49		
		kW	0.66	2.75	3.17	3.48	3.95	4.02	4.10		
	$T_{2\,ME}$	lb-in	11,400	9,580	9,290	8,740	7,770	7,000	6,420		
		Nm	1,280	1,080	1,050	988	878	791	725		
	η	%	68	75	78	79	80	80	80		
40	$P_{1\,ME}$	hp	0.67	2.95	3.42	3.84	4.46	5.07	5.60	20,500	2,310
		kW	0.50	2.20	2.55	2.87	3.33	3.78	4.18		
	$P_{1\,TH}$	hp	0.44	1.97	2.29	2.56	2.99	3.33	3.67		
		kW	0.33	1.47	1.71	1.91	2.23	2.49	2.74		
	$P_{1\,TH\,Fan}$	hp	n/a	1.97	2.52	3.07	4.04	4.78	5.51		
		kW	n/a	1.47	1.88	2.29	3.01	3.56	4.11		
	$P_{1\,TH\,WHV}$	hp	0.67	2.95	3.42	3.84	4.46	5.07	5.60		
		kW	0.50	2.20	2.55	2.87	3.33	3.78	4.18		
	$P_{1\,TH\,WHU}$	hp	0.67	2.92	3.35	3.62	4.10	4.44	4.78		
		kW	0.50	2.18	2.50	2.70	3.06	3.31	3.57		
	$P_{1\,TH\,WHO}$	hp	0.67	2.92	3.35	3.62	4.10	4.44	4.78		
		kW	0.50	2.18	2.50	2.70	3.06	3.31	3.57		
	$T_{2\,ME}$	lb-in	10,200	9,240	8,990	8,350	7,430	6,690	6,130		
		Nm	1,160	1,040	1,020	944	840	756	693		
	η	%	61	72	75	75	76	76	76		
50	$P_{1\,ME}$	hp	0.53	2.37	2.74	3.08	3.58	4.06	4.50	18,200	2,050
		kW	0.40	1.77	2.05	2.30	2.67	3.03	3.36		
	$P_{1\,TH}$	hp	0.36	1.58	1.83	2.06	2.40	2.70	3.00		
		kW	0.27	1.18	1.37	1.54	1.79	2.01	2.24		
	$P_{1\,TH\,Fan}$	hp	n/a	1.58	2.01	2.47	3.24	3.87	4.50		
		kW	n/a	1.18	1.50	1.84	2.42	2.89	3.36		
	$P_{1\,TH\,WHV}$	hp	0.53	2.37	2.74	3.08	3.58	4.06	4.50		
		kW	0.40	1.77	2.05	2.30	2.67	3.03	3.36		
	$P_{1\,TH\,WHU}$	hp	0.53	2.37	2.74	3.01	3.39	3.69	3.99		
		kW	0.40	1.77	2.05	2.25	2.53	2.75	2.97		
	$P_{1\,TH\,WHO}$	hp	0.53	2.37	2.74	3.01	3.39	3.69	3.99		
		kW	0.40	1.77	2.05	2.25	2.53	2.75	2.97		
	$T_{2\,ME}$	lb-in	9,080	9,000	8,650	8,040	7,160	6,450	5,910		
		Nm	1,030	1,020	977	908	809	728	668		
	η	%	54	70	72	72	73	73	73		
60	$P_{1\,ME}$	hp	0.45	1.98	2.29	2.57	2.99	3.39	3.75	17,900	2,020
		kW	0.33	1.47	1.71	1.92	2.23	2.53	2.80		
	$P_{1\,TH}$	hp	0.30	1.32	1.53	1.72	2.00	2.26	2.51		
		kW	0.22	0.99	1.14	1.28	1.49	1.68	1.87		
	$P_{1\,TH\,Fan}$	hp	n/a	1.32	1.68	2.06	2.70	3.22	3.75		
		kW	n/a	0.99	1.25	1.54	2.01	2.41	2.80		
	$P_{1\,TH\,WHV}$	hp	0.45	1.98	2.29	2.57	2.99	3.39	3.75		
		kW	0.33	1.47	1.71	1.92	2.23	2.53	2.80		
	$P_{1\,TH\,WHU}$	hp	0.45	1.98	2.29	2.57	2.89	3.14	3.40		
		kW	0.33	1.47	1.71	1.92	2.15	2.34	2.54		
	$P_{1\,TH\,WHO}$	hp	0.45	1.98	2.29	2.57	2.89	3.14	3.40		
		kW	0.33	1.47	1.71	1.92	2.15	2.34	2.54		
	$T_{2\,ME}$	lb-in	8,930	8,500	8,180	7,720	6,890	6,190	5,680		
		Nm	1,010	961	925	872	778	700	642		
	η	%	53	66	68	69	70	70	70		

See Page 8.7 for Rating Definitions

SIZE 40

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	4.39	18.0	20.3	22.4	26.1	29.4	32.0	31,800	3,590
		kW	3.27	13.4	15.1	16.7	19.5	21.9	23.8		
	$P_{1\,TH}$	hp	3.50	9.60	10.7	11.5	12.5	13.1	13.8		
		kW	2.61	7.16	7.99	8.58	9.33	9.81	10.3		
	$P_{1\,TH\,Fan}$	hp	n/a	11.0	13.2	14.9	17.9	19.5	21.1		
		kW	n/a	8.24	9.82	11.2	13.3	14.5	15.8		
	$P_{1\,TH\,WHV}$	hp	4.39	18.0	20.3	22.4	26.1	27.0	27.6		
		kW	3.27	13.4	15.1	16.7	19.5	20.1	20.6		
	$P_{1\,TH\,WHU}$	hp	4.39	18.0	20.3	22.4	26.1	28.5	29.2		
		kW	3.27	13.4	15.1	16.7	19.5	21.3	21.8		
	$P_{1\,TH\,WHO}$	hp	4.39	18.0	20.3	22.4	26.1	27.3	28.0		
		kW	3.27	13.4	15.1	16.7	19.5	20.4	20.9		
	$T_{2\,ME}$	lb-in	12,700	9,190	8,350	7,710	6,790	6,070	5,470		
		Nm	1,440	1,040	944	871	768	686	618		
	η	%	92	94	94	95	95	95	95		
10	$P_{1\,ME}$	hp	3.05	13.1	14.9	16.5	19.3	21.8	23.9	38,200	4,320
		kW	2.28	9.74	11.1	12.3	14.4	16.3	17.9		
	$P_{1\,TH}$	hp	2.35	7.80	8.50	9.10	9.80	10.1	10.5		
		kW	1.75	5.82	6.34	6.79	7.31	7.57	7.84		
	$P_{1\,TH\,Fan}$	hp	n/a	8.97	10.5	11.8	14.0	15.0	16.1		
		kW	n/a	6.69	7.81	8.83	10.5	11.2	12.0		
	$P_{1\,TH\,WHV}$	hp	3.05	13.1	14.9	16.5	19.3	20.0	20.4		
		kW	2.28	9.74	11.1	12.3	14.4	15.0	15.2		
	$P_{1\,TH\,WHU}$	hp	3.05	13.1	14.9	16.5	19.3	21.1	21.5		
		kW	2.28	9.74	11.1	12.3	14.4	15.8	16.0		
	$P_{1\,TH\,WHO}$	hp	3.05	13.1	14.9	16.5	19.3	20.3	20.6		
		kW	2.28	9.74	11.1	12.3	14.4	15.1	15.4		
	$T_{2\,ME}$	lb-in	16,500	12,800	12,000	11,000	9,830	8,820	8,020		
		Nm	1,870	1,440	1,360	1,250	1,110	996	906		
	η	%	86	90	92	92	93	93	93		
15	$P_{1\,ME}$	hp	2.48	10.7	12.2	13.6	15.8	17.9	19.7	38,500	4,350
		kW	1.85	7.96	9.14	10.1	11.8	13.3	14.7		
	$P_{1\,TH}$	hp	1.65	6.40	6.90	7.30	7.70	8.00	8.30		
		kW	1.23	4.78	5.15	5.45	5.75	5.97	6.19		
	$P_{1\,TH\,Fan}$	hp	n/a	7.36	8.49	9.49	11.0	11.9	12.7		
		kW	n/a	5.49	6.34	7.08	8.22	8.85	9.48		
	$P_{1\,TH\,WHV}$	hp	2.48	10.7	12.2	13.6	15.4	15.7	16.0		
		kW	1.85	7.96	9.14	10.1	11.5	11.7	11.9		
	$P_{1\,TH\,WHU}$	hp	2.48	10.7	12.2	13.6	15.8	16.5	16.8		
		kW	1.85	7.96	9.14	10.1	11.8	12.3	12.6		
	$P_{1\,TH\,WHO}$	hp	2.48	10.7	12.2	13.6	15.6	15.9	16.2		
		kW	1.85	7.96	9.14	10.1	11.6	11.9	12.1		
	$T_{2\,ME}$	lb-in	19,300	15,300	14,300	13,300	11,800	10,600	9,670		
		Nm	2,180	1,730	1,620	1,500	1,330	1,200	1,090		
	η	%	82	88	89	90	91	91	91		
20	$P_{1\,ME}$	hp	1.90	8.20	9.40	10.4	12.1	13.7	15.1	37,300	4,220
		kW	1.42	6.12	7.01	7.80	9.04	10.3	11.3		
	$P_{1\,TH}$	hp	1.26	5.45	6.26	6.30	6.60	6.75	6.90		
		kW	0.94	4.07	4.67	4.70	4.93	5.04	5.15		
	$P_{1\,TH\,Fan}$	hp	n/a	6.27	7.70	8.19	9.44	10.0	10.6		
		kW	n/a	4.68	5.75	6.11	7.04	7.46	7.88		
	$P_{1\,TH\,WHV}$	hp	1.90	8.20	9.40	10.4	11.9	12.5	12.7		
		kW	1.42	6.12	7.01	7.80	8.90	9.34	9.45		
	$P_{1\,TH\,WHU}$	hp	1.90	8.20	9.40	10.4	12.1	13.2	13.3		
		kW	1.42	6.12	7.01	7.80	9.04	9.82	9.93		
	$P_{1\,TH\,WHO}$	hp	1.90	8.20	9.40	10.4	12.1	12.7	12.8		
		kW	1.42	6.12	7.01	7.80	9.00	9.45	9.56		
	$T_{2\,ME}$	lb-in	18,700	15,300	14,100	13,000	11,500	10,500	9,580		
		Nm	2,110	1,730	1,600	1,470	1,300	1,190	1,080		
	η	%	78	86	86	86	87	88	88		
25	$P_{1\,ME}$	hp	1.53	6.62	7.59	8.44	9.79	11.1	12.2	35,600	4,030
		kW	1.14	4.94	5.66	6.30	7.31	8.28	9.10		
	$P_{1\,TH}$	hp	1.02	4.40	5.05	5.30	5.50	5.65	5.80		
		kW	0.76	3.28	3.77	3.96	4.10	4.22	4.33		
	$P_{1\,TH\,Fan}$	hp	n/a	5.06	6.21	6.89	7.87	8.37	8.87		
		kW	n/a	3.78	4.63	5.14	5.87	6.25	6.62		
	$P_{1\,TH\,WHV}$	hp	1.53	6.62	7.59	8.44	9.79	11.0	11.1		
		kW	1.14	4.94	5.66	6.30	7.31	8.19	8.30		
	$P_{1\,TH\,WHU}$	hp	1.53	6.62	7.59	8.44	9.79	11.1	11.7		
		kW	1.14	4.94	5.66	6.30	7.31	8.28	8.74		
	$P_{1\,TH\,WHO}$	hp	1.53	6.62	7.59	8.44	9.79	11.1	11.3		
		kW	1.14	4.94	5.66	6.30	7.31	8.28	8.40		
	$T_{2\,ME}$	lb-in	17,800	15,100	13,900	13,100	11,700	10,500	9,550		
		Nm	2,010	1,710	1,580	1,480	1,320	1,190	1,080		
	η	%	74	84	84	86	87	87	87		

See Page 8.7 for Rating Definitions

Size 40 Single Reduction Ratings

SIZE 40

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
30	$P_{1\,ME}$	hp	1.28	5.53	6.36	7.06	8.20	9.29	10.2	34,300	3,880
		kW	0.95	4.13	4.74	5.27	6.12	6.93	7.61		
	$P_{1\,TH}$	hp	0.85	3.69	4.24	4.71	4.80	4.85	4.90		
		kW	0.63	2.75	3.16	3.51	3.58	3.62	3.66		
	$P_{1\,TH\,Fan}$	hp	n/a	4.24	5.22	6.12	6.86	7.18	7.50		
		kW	n/a	3.16	3.90	4.57	5.12	5.36	5.60		
	$P_{1\,TH\,WHV}$	hp	1.28	5.53	6.36	7.06	8.20	8.92	8.97		
		kW	0.95	4.13	4.74	5.27	6.12	6.66	6.69		
	$P_{1\,TH\,WHU}$	hp	1.28	5.53	6.36	7.06	8.20	9.29	9.42		
		kW	0.95	4.13	4.74	5.27	6.12	6.93	7.03		
	$P_{1\,TH\,WHO}$	hp	1.28	5.53	6.36	7.06	8.20	9.03	9.08		
		kW	0.95	4.13	4.74	5.27	6.12	6.74	6.77		
	$T_{2\,ME}$	lb-in	17,200	14,100	13,500	12,600	11,200	10,100	9,150		
		Nm	1,940	1,590	1,530	1,420	1,260	1,140	1,030		
	η	%	71	78	81	82	83	83	83		
40	$P_{1\,ME}$	hp	0.96	4.17	4.79	5.33	6.20	7.01	7.69	31,100	3,520
		kW	0.72	3.11	3.57	3.98	4.62	5.23	5.74		
	$P_{1\,TH}$	hp	0.64	2.78	3.19	3.55	4.12	4.22	4.32		
		kW	0.48	2.07	2.38	2.65	3.07	3.15	3.22		
	$P_{1\,TH\,Fan}$	hp	n/a	3.20	3.92	4.62	5.89	6.25	6.61		
		kW	n/a	2.39	2.93	3.45	4.40	4.66	4.93		
	$P_{1\,TH\,WHV}$	hp	0.96	4.17	4.79	5.33	6.20	7.01	7.62		
		kW	0.72	3.11	3.57	3.98	4.62	5.23	5.68		
	$P_{1\,TH\,WHU}$	hp	0.96	4.17	4.79	5.33	6.20	7.01	7.69		
		kW	0.72	3.11	3.57	3.98	4.62	5.23	5.74		
	$P_{1\,TH\,WHO}$	hp	0.96	4.17	4.79	5.33	6.20	7.01	7.69		
		kW	0.72	3.11	3.57	3.98	4.62	5.23	5.74		
	$T_{2\,ME}$	lb-in	15,600	13,600	13,100	12,000	10,700	9,630	8,760		
		Nm	1,760	1,540	1,480	1,360	1,210	1,090	989		
	η	%	64	75	78	78	79	79	79		
50	$P_{1\,ME}$	hp	0.77	3.34	3.84	4.28	4.97	5.63	6.17	27,800	3,140
		kW	0.58	2.50	2.87	3.19	3.71	4.20	4.61		
	$P_{1\,TH}$	hp	0.51	2.23	2.56	2.85	3.31	3.58	3.85		
		kW	0.38	1.66	1.91	2.13	2.47	2.67	2.87		
	$P_{1\,TH\,Fan}$	hp	n/a	2.56	3.15	3.71	4.73	5.31	5.89		
		kW	n/a	1.91	2.35	2.77	3.53	3.96	4.40		
	$P_{1\,TH\,WHV}$	hp	0.77	3.34	3.84	4.28	4.97	5.63	6.17		
		kW	0.58	2.50	2.87	3.19	3.71	4.20	4.61		
	$P_{1\,TH\,WHU}$	hp	0.77	3.34	3.84	4.28	4.97	5.63	6.17		
		kW	0.58	2.50	2.87	3.19	3.71	4.20	4.61		
	$P_{1\,TH\,WHO}$	hp	0.77	3.34	3.84	4.28	4.97	5.63	6.17		
		kW	0.58	2.50	2.87	3.19	3.71	4.20	4.61		
	$T_{2\,ME}$	lb-in	13,900	13,300	12,600	11,600	10,300	9,290	8,450		
		Nm	1,570	1,500	1,430	1,310	1,170	1,050	955		
	η	%	57	73	75	75	76	76	76		
60	$P_{1\,ME}$	hp	0.65	2.79	3.21	3.57	4.15	4.70	5.16	27,400	3,090
		kW	0.48	2.08	2.40	2.67	3.10	3.50	3.85		
	$P_{1\,TH}$	hp	0.43	1.86	2.14	2.38	2.76	3.10	3.44		
		kW	0.32	1.39	1.60	1.78	2.06	2.31	2.57		
	$P_{1\,TH\,Fan}$	hp	n/a	2.14	2.63	3.09	3.95	4.55	5.16		
		kW	n/a	1.60	1.96	2.31	2.95	3.40	3.85		
	$P_{1\,TH\,WHV}$	hp	0.65	2.79	3.21	3.57	4.15	4.70	5.16		
		kW	0.48	2.08	2.40	2.67	3.10	3.50	3.85		
	$P_{1\,TH\,WHU}$	hp	0.65	2.79	3.21	3.57	4.15	4.70	5.16		
		kW	0.48	2.08	2.40	2.67	3.10	3.50	3.85		
	$P_{1\,TH\,WHO}$	hp	0.65	2.79	3.21	3.57	4.15	4.70	5.16		
		kW	0.48	2.08	2.40	2.67	3.10	3.50	3.85		
	$T_{2\,ME}$	lb-in	13,700	12,600	12,000	11,200	9,960	8,940	8,130		
		Nm	1,550	1,420	1,350	1,260	1,130	1,010	919		
	η	%	56	69	71	72	73	73	73		

See Page 8.7 for Rating Definitions

SIZE 50

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	8.60	32.9	36.8	40.8	47.2	52.7	56.7	62,300	7,040
		kW	6.42	24.6	27.5	30.5	35.3	39.3	42.3		
	$P_{1\,TH}$	hp	4.40	11.9	13.3	14.3	15.5	16.2	17.0		
		kW	3.28	8.88	9.93	10.7	11.6	12.1	12.7		
	$P_{1\,TH\,Fan}$	hp	n/a	15.5	18.0	20.0	23.2	24.8	26.4		
		kW	n/a	11.5	13.4	14.9	17.4	18.5	19.7		
	$P_{1\,TH\,WHV}$	hp	8.60	26.7	28.1	32.0	33.2	34.0	34.7		
		kW	6.42	19.9	21.0	23.9	24.8	25.4	25.9		
	$P_{1\,TH\,WHU}$	hp	8.60	29.6	31.0	35.6	36.8	37.5	38.3		
		kW	6.42	22.1	23.2	26.6	27.5	28.0	28.6		
	$P_{1\,TH\,WHO}$	hp	8.60	29.6	31.0	35.6	36.8	37.5	38.3		
		kW	6.42	22.1	23.2	26.6	27.5	28.0	28.6		
	$T_{2\,ME}$	lb-in	24,900	16,800	15,200	14,100	12,300	10,900	9,700		
		Nm	2,820	1,900	1,710	1,590	1,390	1,230	1,100		
	η	%	92	94	94	95	95	95	95		
10	$P_{1\,ME}$	hp	5.98	24.3	27.3	30.2	35.2	39.5	43.1	74,800	8,450
		kW	4.46	18.1	20.4	22.5	26.3	29.4	32.2		
	$P_{1\,TH}$	hp	3.80	9.65	10.5	11.2	12.1	12.5	12.9		
		kW	2.84	7.20	7.84	8.36	9.03	9.33	9.63		
	$P_{1\,TH\,Fan}$	hp	n/a	12.6	14.2	15.7	18.1	19.1	20.0		
		kW	n/a	9.37	10.6	11.7	13.5	14.2	14.9		
	$P_{1\,TH\,WHV}$	hp	5.98	18.5	21.6	22.3	24.8	25.2	25.6		
		kW	4.46	13.8	16.1	16.6	18.5	18.8	19.1		
	$P_{1\,TH\,WHU}$	hp	5.98	20.3	23.8	24.5	27.3	27.7	28.1		
		kW	4.46	15.1	17.8	18.3	20.4	20.7	21.0		
	$P_{1\,TH\,WHO}$	hp	5.98	20.3	23.8	24.5	27.3	27.7	28.1		
		kW	4.46	15.1	17.8	18.3	20.4	20.7	21.0		
	$T_{2\,ME}$	lb-in	32,400	23,800	22,000	20,100	17,900	15,900	14,400		
		Nm	3,660	2,690	2,490	2,280	2,030	1,800	1,630		
	η	%	86	90	92	92	93	93	93		
15	$P_{1\,ME}$	hp	4.85	19.9	22.4	24.8	28.8	32.5	35.3	75,200	8,490
		kW	3.62	14.9	16.7	18.5	21.5	24.3	26.4		
	$P_{1\,TH}$	hp	3.25	7.95	8.55	8.96	9.50	9.85	10.2		
		kW	2.43	5.93	6.38	6.69	7.09	7.35	7.61		
	$P_{1\,TH\,Fan}$	hp	n/a	10.3	11.5	12.5	14.2	15.0	15.8		
		kW	n/a	7.72	8.61	9.36	10.6	11.2	11.8		
	$P_{1\,TH\,WHV}$	hp	4.85	15.3	16.6	17.8	19.4	19.7	20.1		
		kW	3.62	11.5	12.4	13.3	14.4	14.7	15.0		
	$P_{1\,TH\,WHU}$	hp	4.85	16.8	18.2	19.6	21.3	21.7	22.0		
		kW	3.62	12.6	13.6	14.6	15.9	16.2	16.4		
	$P_{1\,TH\,WHO}$	hp	4.85	16.8	18.2	19.6	21.3	21.7	22.0		
		kW	3.62	12.6	13.6	14.6	15.9	16.2	16.4		
	$T_{2\,ME}$	lb-in	37,600	28,600	26,200	24,200	21,600	19,300	17,400		
		Nm	4,250	3,230	2,960	2,740	2,440	2,180	1,960		
	η	%	82	88	89	90	91	91	91		
20	$P_{1\,ME}$	hp	3.71	15.3	17.2	19.0	22.2	25.0	27.2	73,000	8,240
		kW	2.77	11.4	12.9	14.2	16.5	18.6	20.3		
	$P_{1\,TH}$	hp	2.49	7.00	7.47	7.82	8.15	8.32	8.50		
		kW	1.86	5.22	5.57	5.84	6.08	6.21	6.34		
	$P_{1\,TH\,Fan}$	hp	n/a	9.10	10.1	10.9	12.2	12.7	13.2		
		kW	n/a	6.79	7.52	8.17	9.13	9.48	9.84		
	$P_{1\,TH\,WHV}$	hp	3.71	13.3	13.8	14.2	15.0	15.7	15.9		
		kW	2.77	9.95	10.3	10.6	11.2	11.7	11.9		
	$P_{1\,TH\,WHU}$	hp	3.71	14.6	15.1	15.4	16.3	17.2	17.4		
		kW	2.77	10.9	11.2	11.5	12.2	12.8	13.0		
	$P_{1\,TH\,WHO}$	hp	3.71	14.6	15.1	15.4	16.3	17.2	17.4		
		kW	2.77	10.9	11.2	11.5	12.2	12.8	13.0		
	$T_{2\,ME}$	lb-in	36,500	28,600	25,900	23,700	21,100	19,100	17,300		
		Nm	4,120	3,230	2,930	2,670	2,390	2,160	1,950		
	η	%	78	86	86	86	87	88	88		
25	$P_{1\,ME}$	hp	2.99	12.3	13.9	15.4	17.9	20.2	22.0	69,700	7,880
		kW	2.23	9.21	10.4	11.5	13.3	15.0	16.4		
	$P_{1\,TH}$	hp	2.01	6.12	6.40	6.60	6.80	6.97	7.15		
		kW	1.50	4.57	4.78	4.93	5.07	5.21	5.34		
	$P_{1\,TH\,Fan}$	hp	n/a	7.96	8.64	9.24	10.2	10.6	11.1		
		kW	n/a	5.94	6.45	6.90	7.61	7.94	8.27		
	$P_{1\,TH\,WHV}$	hp	2.99	11.7	11.9	12.9	13.6	13.8	14.0		
		kW	2.23	8.71	8.91	9.65	10.2	10.3	10.4		
	$P_{1\,TH\,WHU}$	hp	2.99	12.3	13.1	14.2	15.0	15.2	15.3		
		kW	2.23	9.21	9.74	10.6	11.2	11.3	11.4		
	$P_{1\,TH\,WHO}$	hp	2.99	12.3	13.1	14.2	15.0	15.2	15.3		
		kW	2.23	9.21	9.74	10.6	11.2	11.3	11.4		
	$T_{2\,ME}$	lb-in	34,800	28,200	25,600	24,000	21,300	19,100	17,200		
		Nm	3,940	3,180	2,890	2,710	2,410	2,150	1,950		
	η	%	74	84	84	86	87	87	87		

See Page 8.7 for Rating Definitions

Size 50 Single Reduction Ratings

SIZE 50

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
30	$P_{1\,ME}$	hp	1.67	6.89	7.77	8.58	9.98	11.2	12.3	67,100	7,580
		kW	1.24	5.15	5.80	6.40	7.45	8.40	9.16		
	$P_{1\,TH}$	hp	1.67	5.30	5.57	5.77	5.92	6.02	6.12		
		kW	1.24	3.96	4.16	4.31	4.42	4.49	4.57		
	$P_{1\,TH\,Fan}$	hp	N/A	6.89	7.52	8.08	8.88	9.18	9.49		
		kW	N/A	5.14	5.61	6.03	6.63	6.85	7.08		
	$P_{1\,TH\,WHV}$	hp	1.67	6.89	7.77	8.58	9.98	11.2	12.3		
		kW	1.24	5.15	5.80	6.40	7.45	8.40	9.16		
	$P_{1\,TH\,WHU}$	hp	1.67	6.89	7.77	8.58	9.98	11.2	12.3		
		kW	1.24	5.15	5.80	6.40	7.45	8.40	9.16		
	$P_{1\,TH\,WHO}$	hp	1.67	6.89	7.77	8.58	9.98	11.2	11.3		
		kW	1.24	5.15	5.80	6.40	7.45	8.39	8.46		
	$T_{2\,ME}$	lb-in	22,400	17,500	16,500	15,300	13,600	12,200	11,000		
		Nm	2,530	1,980	1,870	1,730	1,540	1,380	1,240		
	η	%	71	78	81	82	83	83	83		
40	$P_{1\,ME}$	hp	1.26	5.19	5.86	6.47	7.52	8.49	9.26	60,800	6,870
		kW	0.94	3.88	4.38	4.83	5.61	6.34	6.91		
	$P_{1\,TH}$	hp	1.26	4.48	4.75	4.95	5.16	5.26	5.37		
		kW	0.94	3.34	3.54	3.69	3.85	3.93	4.01		
	$P_{1\,TH\,Fan}$	hp	N/A	5.19	5.86	6.47	7.52	8.03	8.32		
		kW	N/A	3.88	4.38	4.83	5.61	5.99	6.21		
	$P_{1\,TH\,WHV}$	hp	1.26	5.19	5.86	6.47	7.52	8.49	9.26		
		kW	0.94	3.88	4.38	4.83	5.61	6.34	6.91		
	$P_{1\,TH\,WHU}$	hp	1.26	5.19	5.86	6.47	7.52	8.49	9.26		
		kW	0.94	3.88	4.38	4.83	5.61	6.34	6.91		
	$P_{1\,TH\,WHO}$	hp	1.26	5.19	5.86	6.47	7.52	8.49	9.26		
		kW	0.94	3.88	4.38	4.83	5.61	6.34	6.91		
	$T_{2\,ME}$	lb-in	20,300	16,900	16,000	14,600	13,000	11,700	10,500		
		Nm	2,290	1,910	1,810	1,650	1,470	1,320	1,190		
	η	%	64	75	78	78	79	79	79		
50	$P_{1\,ME}$	hp	1.01	4.18	4.70	5.19	6.04	6.82	7.43	54,300	6,130
		kW	0.75	3.12	3.51	3.87	4.51	5.09	5.54		
	$P_{1\,TH}$	hp	1.01	3.74	3.94	4.15	4.42	4.59	4.75		
		kW	0.75	2.79	2.94	3.10	3.30	3.42	3.54		
	$P_{1\,TH\,Fan}$	hp	N/A	4.18	4.70	5.19	6.04	6.82	7.36		
		kW	N/A	3.12	3.51	3.87	4.51	5.09	5.49		
	$P_{1\,TH\,WHV}$	hp	1.01	4.18	4.70	5.19	6.04	6.82	7.43		
		kW	0.75	3.12	3.51	3.87	4.51	5.09	5.54		
	$P_{1\,TH\,WHU}$	hp	1.01	4.18	4.70	5.19	6.04	6.82	7.43		
		kW	0.75	3.12	3.51	3.87	4.51	5.09	5.54		
	$P_{1\,TH\,WHO}$	hp	1.01	4.18	4.70	5.19	6.04	6.82	7.43		
		kW	0.75	3.12	3.51	3.87	4.51	5.09	5.54		
	$T_{2\,ME}$	lb-in	18,100	16,600	15,400	14,100	12,600	11,300	10,200		
		Nm	2,040	1,870	1,740	1,590	1,420	1,270	1,150		
	η	%	57	73	75	75	76	76	76		
60	$P_{1\,ME}$	hp	0.84	3.49	3.93	4.33	5.05	5.69	6.20	53,400	6,030
		kW	0.63	2.60	2.93	3.23	3.77	4.25	4.63		
	$P_{1\,TH}$	hp	0.84	3.26	3.46	3.67	4.01	4.14	4.28		
		kW	0.63	2.43	2.58	2.74	2.99	3.09	3.19		
	$P_{1\,TH\,Fan}$	hp	N/A	3.49	3.93	4.33	5.05	5.69	6.20		
		kW	N/A	2.60	2.93	3.23	3.77	4.25	4.63		
	$P_{1\,TH\,WHV}$	hp	0.84	3.49	3.93	4.33	5.05	5.69	6.20		
		kW	0.63	2.60	2.93	3.23	3.77	4.25	4.63		
	$P_{1\,TH\,WHU}$	hp	0.84	3.49	3.93	4.33	5.05	5.69	6.20		
		kW	0.63	2.60	2.93	3.23	3.77	4.25	4.63		
	$P_{1\,TH\,WHO}$	hp	0.84	3.49	3.93	4.33	5.05	5.69	6.20		
		kW	0.63	2.60	2.93	3.23	3.77	4.25	4.63		
	$T_{2\,ME}$	lb-in	17,800	15,700	14,600	13,600	12,100	10,800	9,780		
		Nm	2,010	1,770	1,650	1,530	1,370	1,220	1,110		
	η	%	56	69	71	72	73	73	73		
70	$P_{1\,ME}$	hp	0.72	2.99	3.37	3.72	4.33	4.89	5.33	52,700	5,950
		kW	0.54	2.23	2.52	2.77	3.23	3.65	3.97		
	$P_{1\,TH}$	hp	0.72	2.99	3.26	3.40	3.67	3.73	3.80		
		kW	0.54	2.23	2.43	2.54	2.74	2.79	2.84		
	$P_{1\,TH\,Fan}$	hp	N/A	2.99	3.37	3.72	4.33	4.89	5.33		
		kW	N/A	2.23	2.52	2.77	3.23	3.65	3.97		
	$P_{1\,TH\,WHV}$	hp	0.72	2.99	3.37	3.72	4.33	4.89	5.33		
		kW	0.54	2.23	2.52	2.77	3.23	3.65	3.97		
	$P_{1\,TH\,WHU}$	hp	0.72	2.99	3.37	3.72	4.33	4.89	5.33		
		kW	0.54	2.23	2.52	2.77	3.23	3.65	3.97		
	$P_{1\,TH\,WHO}$	hp	0.72	2.99	3.37	3.72	4.33	4.89	5.33		
		kW	0.54	2.23	2.52	2.77	3.23	3.65	3.97		
	$T_{2\,ME}$	lb-in	17,600	15,500	14,500	13,400	12,000	10,700	9,670		
		Nm	1,980	1,750	1,640	1,510	1,350	1,210	1,090		
	η	%	55	68	70	71	72	72	72		

See Page 8.7 for Rating Definitions

SIZE 60

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	13.3	48.3	54.3	60.2	68.9	76.0	79.9	96,500	10,900
		kW	9.93	36.0	40.5	44.9	51.4	56.7	59.6		
	$P_{1\,TH}$	hp	6.30	17.5	19.5	21.0	22.8	23.9	25.0		
		kW	4.70	13.1	14.6	15.7	17.0	17.8	18.7		
	$P_{1\,TH\,Fan}$	hp	n/a	22.8	26.3	29.4	34.2	36.5	38.8		
		kW	n/a	17.0	19.6	21.9	25.5	27.2	28.9		
	$P_{1\,TH\,WHV}$	hp	13.3	35.2	37.2	42.3	44.1	45.2	46.3		
		kW	9.93	26.3	27.8	31.6	32.9	33.7	34.5		
	$P_{1\,TH\,WHU}$	hp	13.3	37.2	39.2	44.7	46.5	47.6	48.7		
		kW	9.93	27.8	29.3	33.3	34.7	35.5	36.3		
	$P_{1\,TH\,WHO}$	hp	13.3	38.2	40.2	45.8	47.6	48.7	49.8		
		kW	9.93	28.5	30.0	34.2	35.6	36.4	37.2		
	$T_{2\,ME}$	lb-in	38,600	24,700	22,300	20,700	17,900	15,700	13,700		
		Nm	4,360	2,790	2,520	2,340	2,030	1,770	1,540		
	η	%	92	94	94	95	95	95	95		
10	$P_{1\,ME}$	hp	9.22	35.3	39.5	43.8	50.7	56.5	60.8	115,000	13,000
		kW	6.88	26.3	29.5	32.7	37.8	42.1	45.3		
	$P_{1\,TH}$	hp	5.60	14.2	15.5	16.5	17.8	18.4	19.0		
		kW	4.18	10.6	11.6	12.3	13.3	13.7	14.2		
	$P_{1\,TH\,Fan}$	hp	n/a	18.5	20.9	23.1	26.7	28.1	29.5		
		kW	n/a	13.8	15.6	17.2	19.9	21.0	22.0		
	$P_{1\,TH\,WHV}$	hp	9.22	24.8	28.8	29.8	33.0	33.6	34.2		
		kW	6.88	18.5	21.5	22.2	24.6	25.1	25.5		
	$P_{1\,TH\,WHU}$	hp	9.22	26.0	30.3	31.3	34.7	35.3	35.9		
		kW	6.88	19.4	22.6	23.3	25.9	26.3	26.8		
	$P_{1\,TH\,WHO}$	hp	9.22	26.6	31.0	32.0	35.5	36.1	36.7		
		kW	6.88	19.9	23.2	23.9	26.5	27.0	27.4		
	$T_{2\,ME}$	lb-in	50,000	34,500	31,800	29,200	25,800	22,800	20,400		
		Nm	5,640	3,900	3,590	3,300	2,920	2,580	2,300		
	η	%	86	90	92	92	93	93	93		
15	$P_{1\,ME}$	hp	7.47	28.9	32.3	35.8	41.4	46.2	50.0	116,000	13,100
		kW	5.58	21.5	24.1	26.7	30.9	34.5	37.3		
	$P_{1\,TH}$	hp	4.98	11.7	12.6	13.2	14.0	14.5	15.0		
		kW	3.72	8.73	9.40	9.85	10.4	10.8	11.2		
	$P_{1\,TH\,Fan}$	hp	n/a	15.2	17.0	18.5	21.0	22.1	23.2		
		kW	n/a	11.4	12.7	13.8	15.7	16.5	17.4		
	$P_{1\,TH\,WHV}$	hp	7.47	20.6	22.3	23.8	25.8	26.3	26.8		
		kW	5.58	15.4	16.6	17.8	19.3	19.6	20.0		
	$P_{1\,TH\,WHU}$	hp	7.47	21.6	23.4	25.0	27.1	27.6	28.1		
		kW	5.58	16.1	17.4	18.7	20.3	20.6	21.0		
	$P_{1\,TH\,WHO}$	hp	7.47	22.1	23.9	25.6	27.8	28.3	28.8		
		kW	5.58	16.5	17.8	19.1	20.7	21.1	21.5		
	$T_{2\,ME}$	lb-in	57,900	41,400	37,800	35,000	31,000	27,400	24,600		
		Nm	6,550	4,680	4,270	3,960	3,500	3,100	2,780		
	η	%	82	88	89	90	91	91	91		
20	$P_{1\,ME}$	hp	5.73	22.2	24.8	27.6	31.8	35.6	38.6	113,000	12,700
		kW	4.28	16.6	18.5	20.6	23.7	26.6	28.8		
	$P_{1\,TH}$	hp	3.81	10.3	11.0	11.5	12.0	12.2	12.5		
		kW	2.84	7.69	8.21	8.58	8.96	9.14	9.33		
	$P_{1\,TH\,Fan}$	hp	n/a	13.4	14.9	16.1	18.0	18.7	19.4		
		kW	n/a	9.99	11.1	12.0	13.4	13.9	14.5		
	$P_{1\,TH\,WHV}$	hp	5.73	17.9	18.6	19.1	20.2	21.1	21.4		
		kW	4.28	13.4	13.9	14.3	15.1	15.8	15.9		
	$P_{1\,TH\,WHU}$	hp	5.73	18.7	19.4	19.9	21.1	22.1	22.4		
		kW	4.28	14.0	14.5	14.9	15.7	16.5	16.7		
	$P_{1\,TH\,WHO}$	hp	5.73	19.2	19.9	20.4	21.6	22.6	22.9		
		kW	4.28	14.3	14.8	15.2	16.1	16.9	17.1		
	$T_{2\,ME}$	lb-in	56,300	41,500	37,300	34,400	30,300	27,200	24,500		
		Nm	6,370	4,690	4,220	3,890	3,420	3,080	2,760		
	η	%	78	86	86	86	87	88	88		
25	$P_{1\,ME}$	hp	4.62	17.9	20.1	22.3	25.7	28.7	31.2	108,000	12,200
		kW	3.44	13.4	15.0	16.6	19.2	21.4	23.3		
	$P_{1\,TH}$	hp	3.07	9.00	9.40	9.70	10.0	10.2	10.5		
		kW	2.29	6.72	7.01	7.24	7.46	7.65	7.84		
	$P_{1\,TH\,Fan}$	hp	n/a	11.7	12.7	13.6	15.0	15.6	16.3		
		kW	n/a	8.73	9.47	10.1	11.2	11.7	12.1		
	$P_{1\,TH\,WHV}$	hp	4.62	15.7	16.1	17.3	18.2	18.4	18.7		
		kW	3.44	11.7	12.0	12.9	13.6	13.8	13.9		
	$P_{1\,TH\,WHU}$	hp	4.62	16.4	16.8	18.1	19.1	19.3	19.6		
		kW	3.44	12.2	12.5	13.5	14.3	14.4	14.6		
	$P_{1\,TH\,WHO}$	hp	4.62	16.8	17.2	18.6	19.6	19.8	20.1		
		kW	3.44	12.5	12.8	13.9	14.6	14.8	15.0		
	$T_{2\,ME}$	lb-in	53,800	40,900	36,900	34,700	30,600	27,200	24,400		
		Nm	6,080	4,630	4,160	3,920	3,460	3,070	2,760		
	η	%	74	84	84	86	87	87	87		

See Page 8.7 for Rating Definitions

Size 60 Single Reduction Ratings

SIZE 60

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
30	$P_{1\,ME}$	hp	3.86	15.0	16.8	18.6	21.5	24.1	26.1	104,000	11,700
		kW	2.88	11.2	12.5	13.9	16.0	18.0	19.5		
	$P_{1\,TH}$	hp	2.57	7.80	8.20	8.50	8.70	8.85	9.00		
		kW	1.92	5.82	6.12	6.34	6.49	6.60	6.72		
	$P_{1\,TH\,Fan}$	hp	n/a	10.1	11.1	11.9	13.1	13.5	13.9		
		kW	n/a	7.57	8.26	8.88	9.74	10.1	10.4		
	$P_{1\,TH\,WHV}$	hp	3.86	12.6	13.8	14.4	15.0	15.1	15.3		
		kW	2.88	9.43	10.3	10.8	11.2	11.3	11.4		
	$P_{1\,TH\,WHU}$	hp	3.86	13.2	14.4	15.1	15.7	15.8	16.0		
		kW	2.88	9.83	10.8	11.2	11.7	11.8	11.9		
	$P_{1\,TH\,WHO}$	hp	3.86	13.4	14.7	15.4	16.0	16.2	16.3		
		kW	2.88	10.0	11.0	11.5	11.9	12.1	12.2		
	$T_{2\,ME}$	lb-in	51,800	38,100	35,700	33,200	29,300	26,000	23,400		
		Nm	5,850	4,310	4,040	3,760	3,310	2,940	2,640		
	η	%	71	78	81	82	83	83	83		
40	$P_{1\,ME}$	hp	2.91	11.3	12.7	14.1	16.2	18.1	19.7	94,000	10,600
		kW	2.17	8.45	9.47	10.5	12.1	13.5	14.7		
	$P_{1\,TH}$	hp	1.94	6.60	7.00	7.30	7.60	7.75	7.90		
		kW	1.45	4.93	5.22	5.45	5.67	5.78	5.90		
	$P_{1\,TH\,Fan}$	hp	n/a	8.58	9.45	10.2	11.4	11.8	12.2		
		kW	n/a	6.40	7.05	7.63	8.51	8.82	9.14		
	$P_{1\,TH\,WHV}$	hp	2.91	10.9	11.8	12.1	12.7	12.8	13.0		
		kW	2.17	8.10	8.84	9.06	9.46	9.57	9.68		
	$P_{1\,TH\,WHU}$	hp	2.91	11.3	12.4	12.7	13.2	13.4	13.5		
		kW	2.17	8.45	9.24	9.46	9.88	9.99	10.1		
	$P_{1\,TH\,WHO}$	hp	2.91	11.3	12.6	12.9	13.5	13.7	13.8		
		kW	2.17	8.45	9.44	9.66	10.1	10.2	10.3		
	$T_{2\,ME}$	lb-in	47,000	36,900	34,600	31,800	28,100	24,900	22,400		
		Nm	5,310	4,170	3,910	3,590	3,170	2,820	2,530		
	η	%	64	75	78	78	79	79	79		
50	$P_{1\,ME}$	hp	2.34	9.09	10.2	11.3	13.0	14.6	15.8	83,900	9,480
		kW	1.74	6.78	7.59	8.43	9.71	10.9	11.8		
	$P_{1\,TH}$	hp	1.55	5.50	5.80	6.10	6.50	6.75	7.00		
		kW	1.16	4.10	4.33	4.55	4.85	5.04	5.22		
	$P_{1\,TH\,Fan}$	hp	n/a	7.15	7.83	8.54	9.75	10.3	10.9		
		kW	n/a	5.34	5.84	6.37	7.28	7.69	8.10		
	$P_{1\,TH\,WHV}$	hp	2.34	9.09	10.1	10.4	10.9	11.2	11.4		
		kW	1.74	6.78	7.51	7.73	8.16	8.35	8.53		
	$P_{1\,TH\,WHU}$	hp	2.34	9.09	10.2	10.8	11.4	11.7	11.9		
		kW	1.74	6.78	7.59	8.08	8.53	8.72	8.90		
	$P_{1\,TH\,WHO}$	hp	2.34	9.09	10.2	11.1	11.7	11.9	12.2		
		kW	1.74	6.78	7.59	8.26	8.71	8.90	9.09		
	$T_{2\,ME}$	lb-in	42,000	36,000	33,400	30,700	27,100	24,100	21,600		
		Nm	4,740	4,070	3,770	3,470	3,060	2,720	2,440		
	η	%	57	73	75	75	76	76	76		
60	$P_{1\,ME}$	hp	1.95	7.60	8.49	9.43	10.9	12.2	13.2	82,600	9,330
		kW	1.46	5.67	6.34	7.04	8.11	9.08	9.85		
	$P_{1\,TH}$	hp	1.30	4.80	5.10	5.40	5.90	6.10	6.30		
		kW	0.97	3.58	3.81	4.03	4.40	4.55	4.70		
	$P_{1\,TH\,Fan}$	hp	n/a	6.24	6.89	7.56	8.85	9.31	9.77		
		kW	n/a	4.66	5.14	5.64	6.60	6.95	7.29		
	$P_{1\,TH\,WHV}$	hp	1.95	7.60	8.49	9.20	9.84	10.0	10.2		
		kW	1.46	5.67	6.34	6.87	7.35	7.49	7.64		
	$P_{1\,TH\,WHU}$	hp	1.95	7.60	8.49	9.43	10.3	10.5	10.7		
		kW	1.46	5.67	6.34	7.04	7.67	7.82	7.97		
	$P_{1\,TH\,WHO}$	hp	1.95	7.60	8.49	9.43	10.5	10.7	10.9		
		kW	1.46	5.67	6.34	7.04	7.84	7.99	8.13		
	$T_{2\,ME}$	lb-in	41,300	34,200	31,700	29,500	26,100	23,200	20,800		
		Nm	4,670	3,860	3,580	3,340	2,950	2,620	2,350		
	η	%	56	69	71	72	73	73	73		
70	$P_{1\,ME}$	hp	1.67	6.52	7.29	8.10	9.33	10.4	11.3	81,200	9,180
		kW	1.25	4.86	5.44	6.04	6.96	7.79	8.45		
	$P_{1\,TH}$	hp	1.11	4.34	4.87	5.00	5.40	5.50	5.60		
		kW	0.83	3.24	3.63	3.73	4.03	4.10	4.18		
	$P_{1\,TH\,Fan}$	hp	n/a	5.64	6.57	7.00	8.10	8.39	8.68		
		kW	n/a	4.21	4.90	5.22	6.04	6.26	6.48		
	$P_{1\,TH\,WHV}$	hp	1.67	6.52	7.29	8.10	9.20	9.30	9.40		
		kW	1.25	4.86	5.44	6.04	6.87	6.94	7.02		
	$P_{1\,TH\,WHU}$	hp	1.67	6.52	7.29	8.10	9.33	9.72	9.82		
		kW	1.25	4.86	5.44	6.04	6.96	7.26	7.33		
	$P_{1\,TH\,WHO}$	hp	1.67	6.52	7.29	8.10	9.33	9.94	10.0		
		kW	1.25	4.86	5.44	6.04	6.96	7.42	7.49		
	$T_{2\,ME}$	lb-in	40,600	33,700	31,300	29,200	25,800	22,900	20,600		
		Nm	4,590	3,810	3,530	3,290	2,910	2,580	2,320		
	η	%	55	68	70	71	72	72	72		

See Page 8.7 for Rating Definitions

SIZE 70

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	20.9	72.0	80.6	88.4	100	107	115	151,000	17,100
		kW	15.6	53.7	60.2	66.0	74.8	80.1	86.1		
	$P_{1\,TH}$	hp	8.50	23.6	26.3	28.4	30.8	32.3	33.8		
		kW	6.34	17.6	19.6	21.2	23.0	24.1	25.2		
	$P_{1\,TH\,Fan}$	hp	n/a	32.3	37.3	41.8	48.7	51.9	55.1		
		kW	n/a	24.1	27.9	31.2	36.3	38.7	41.1		
	$P_{1\,TH\,WHV}$	hp	20.9	61.1	63.8	73.4	75.8	77.3	78.8		
		kW	15.6	45.6	47.6	54.7	56.5	57.7	58.8		
	$P_{1\,TH\,WHU}$	hp	20.9	45.3	48.0	54.4	56.8	58.3	59.8		
		kW	15.6	33.8	35.8	40.6	42.4	43.5	44.6		
	$P_{1\,TH\,WHO}$	hp	20.9	43.3	46.0	52.1	54.5	56.0	57.5		
		kW	15.6	32.3	34.3	38.9	40.6	41.8	42.9		
	$T_{2\,ME}$	lb-in	60,600	36,800	33,200	30,400	26,100	22,200	19,700		
		Nm	6,840	4,150	3,750	3,440	2,950	2,500	2,230		
	η	%	92	94	94	95	95	95	95		
10	$P_{1\,ME}$	hp	14.6	53.5	60.2	66.6	76.3	84.4	89.1	182,000	20,600
		kW	10.9	39.9	44.9	49.7	57.0	63.0	66.5		
	$P_{1\,TH}$	hp	7.55	19.1	20.9	22.4	24.0	24.9	25.7		
		kW	5.63	14.3	15.6	16.7	17.9	18.5	19.2		
	$P_{1\,TH\,Fan}$	hp	n/a	26.2	29.7	32.9	37.9	39.9	41.9		
		kW	n/a	19.5	22.1	24.6	28.3	29.8	31.3		
	$P_{1\,TH\,WHV}$	hp	14.6	41.6	49.0	50.5	56.1	57.0	57.8		
		kW	10.9	31.0	36.6	37.7	41.9	42.5	43.1		
	$P_{1\,TH\,WHU}$	hp	14.6	32.1	37.2	38.7	42.6	43.4	44.3		
		kW	10.9	24.0	27.7	28.9	31.8	32.4	33.1		
	$P_{1\,TH\,WHO}$	hp	14.6	30.9	35.7	37.2	40.9	41.7	42.6		
		kW	10.9	23.1	26.6	27.8	30.5	31.2	31.8		
	$T_{2\,ME}$	lb-in	79,000	52,300	48,500	44,400	38,900	34,100	29,800		
		Nm	8,920	5,910	5,480	5,020	4,400	3,860	3,370		
	η	%	86	90	92	92	93	93	93		
15	$P_{1\,ME}$	hp	11.8	44.1	49.6	54.8	63.0	69.8	74.3	184,000	20,700
		kW	8.83	32.9	37.0	40.9	47.0	52.1	55.4		
	$P_{1\,TH}$	hp	6.60	15.8	17.0	17.8	18.9	19.5	20.2		
		kW	4.93	11.8	12.7	13.3	14.1	14.6	15.1		
	$P_{1\,TH\,Fan}$	hp	n/a	21.6	24.1	26.2	29.9	31.4	32.9		
		kW	n/a	16.2	18.0	19.5	22.3	23.4	24.6		
	$P_{1\,TH\,WHV}$	hp	11.8	34.5	37.4	40.3	43.9	44.5	45.2		
		kW	8.83	25.8	27.9	30.1	32.7	33.2	33.7		
	$P_{1\,TH\,WHU}$	hp	11.8	26.6	28.8	30.8	33.4	34.0	34.7		
		kW	8.83	19.9	21.5	23.0	24.9	25.4	25.9		
	$P_{1\,TH\,WHO}$	hp	11.8	25.7	27.8	29.6	32.0	32.7	33.3		
		kW	8.83	19.1	20.7	22.1	23.9	24.4	24.9		
	$T_{2\,ME}$	lb-in	91,800	63,200	58,000	53,600	47,100	41,400	36,500		
		Nm	10,400	7,140	6,550	6,060	5,320	4,680	4,130		
	η	%	82	88	89	90	91	91	91		
20	$P_{1\,ME}$	hp	9.06	33.8	38.1	42.1	48.4	53.8	57.2	178,000	20,100
		kW	6.76	25.3	28.4	31.4	36.1	40.1	42.7		
	$P_{1\,TH}$	hp	6.03	13.9	14.9	15.5	16.2	16.5	16.9		
		kW	4.50	10.4	11.1	11.6	12.1	12.4	12.6		
	$P_{1\,TH\,Fan}$	hp	n/a	19.0	21.2	22.8	25.6	26.6	27.5		
		kW	n/a	14.2	15.8	17.0	19.1	19.8	20.6		
	$P_{1\,TH\,WHV}$	hp	9.06	30.0	31.0	31.6	33.5	35.3	35.6		
		kW	6.76	22.4	23.1	23.5	25.0	26.3	26.6		
	$P_{1\,TH\,WHU}$	hp	9.06	23.2	24.2	24.8	26.2	27.4	27.7		
		kW	6.76	17.3	18.1	18.5	19.6	20.4	20.7		
	$P_{1\,TH\,WHO}$	hp	9.06	22.3	23.3	23.9	25.3	26.4	26.8		
		kW	6.76	16.7	17.4	17.9	18.9	19.7	20.0		
	$T_{2\,ME}$	lb-in	89,100	63,200	57,300	52,400	46,200	41,200	36,200		
		Nm	10,100	7,150	6,480	5,930	5,220	4,650	4,100		
	η	%	78	86	86	86	87	88	88		
25	$P_{1\,ME}$	hp	7.30	27.4	30.7	34.0	39.1	43.5	46.3	170,000	19,200
		kW	5.44	20.4	22.9	25.4	29.2	32.5	34.5		
	$P_{1\,TH}$	hp	4.86	12.2	12.7	13.1	13.5	13.9	14.2		
		kW	3.63	9.10	9.48	9.78	10.1	10.3	10.6		
	$P_{1\,TH\,Fan}$	hp	n/a	16.7	18.0	19.3	21.3	22.2	23.1		
		kW	n/a	12.5	13.5	14.4	15.9	16.6	17.3		
	$P_{1\,TH\,WHV}$	hp	7.30	26.2	26.7	29.2	30.8	31.1	31.5		
		kW	5.44	19.6	20.0	21.8	23.0	23.2	23.5		
	$P_{1\,TH\,WHU}$	hp	7.30	20.3	20.8	22.4	23.5	23.9	24.2		
		kW	5.44	15.2	15.5	16.7	17.5	17.8	18.1		
	$P_{1\,TH\,WHO}$	hp	7.30	19.6	20.1	21.5	22.6	22.9	23.3		
		kW	5.44	14.6	15.0	16.1	16.9	17.1	17.4		
	$T_{2\,ME}$	lb-in	85,100	62,400	56,500	53,000	46,600	41,100	36,200		
		Nm	9,610	7,050	6,390	5,990	5,270	4,650	4,100		
	η	%	74	84	84	86	87	87	87		

See Page 8.7 for Rating Definitions

Size 70 Single Reduction Ratings

SIZE 70

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
30	$P_{1\,ME}$	hp	6.10	22.9	25.7	28.5	32.7	36.4	38.8	164,000	18,500
		kW	4.55	17.1	19.2	21.3	24.4	27.2	28.9		
	$P_{1\,TH}$	hp	4.07	10.0	10.1	10.5	11.7	11.9	12.2		
		kW	3.04	7.46	7.54	7.84	8.73	8.92	9.10		
	$P_{1\,TH\,Fan}$	hp	n/a	13.7	14.3	15.4	18.5	19.2	19.9		
		kW	n/a	10.2	10.7	11.5	13.8	14.3	14.8		
	$P_{1\,TH\,WHV}$	hp	6.10	20.2	21.9	23.0	24.9	25.2	25.4		
		kW	4.55	15.1	16.4	17.2	18.6	18.8	19.0		
	$P_{1\,TH\,WHU}$	hp	6.10	15.9	16.9	17.7	19.4	19.6	19.9		
		kW	4.55	11.9	12.6	13.2	14.4	14.6	14.8		
	$P_{1\,TH\,WHO}$	hp	6.10	15.4	16.3	17.1	18.7	18.9	19.2		
		kW	4.55	11.5	12.2	12.7	13.9	14.1	14.3		
	$T_{2\,ME}$	lb-in	81,900	58,300	54,800	50,800	44,700	39,400	34,800		
		Nm	9,260	6,580	6,190	5,740	5,050	4,460	3,930		
	η	%	71	78	81	82	83	83	83		
40	$P_{1\,ME}$	hp	4.60	17.3	19.4	21.5	24.7	27.5	29.3	148,000	16,800
		kW	3.43	12.9	14.5	16.0	18.4	20.5	21.8		
	$P_{1\,TH}$	hp	3.06	8.90	9.45	9.85	10.3	10.5	10.7		
		kW	2.28	6.64	7.05	7.35	7.69	7.84	7.99		
	$P_{1\,TH\,Fan}$	hp	n/a	12.2	13.4	14.5	16.3	16.9	17.4		
		kW	n/a	9.10	10.0	10.8	12.1	12.6	13.0		
	$P_{1\,TH\,WHV}$	hp	4.60	17.3	19.4	20.1	21.0	21.2	21.4		
		kW	3.43	12.9	14.5	15.0	15.7	15.8	16.0		
	$P_{1\,TH\,WHU}$	hp	4.60	14.1	15.4	15.8	16.5	16.7	16.9		
		kW	3.43	10.5	11.5	11.8	12.3	12.5	12.6		
	$P_{1\,TH\,WHO}$	hp	4.60	13.6	14.8	15.2	15.9	16.1	16.3		
		kW	3.43	10.2	11.1	11.4	11.9	12.0	12.2		
	$T_{2\,ME}$	lb-in	74,200	56,300	53,000	48,600	42,800	37,700	33,300		
		Nm	8,380	6,360	5,990	5,490	4,840	4,260	3,760		
	η	%	64	75	78	78	79	79	79		
50	$P_{1\,ME}$	hp	3.69	13.9	15.6	17.2	19.8	22.1	23.5	132,000	15,000
		kW	2.75	10.3	11.6	12.9	14.8	16.5	17.5		
	$P_{1\,TH}$	hp	2.46	7.43	7.83	8.25	8.77	9.11	9.45		
		kW	1.84	5.54	5.84	6.16	6.54	6.80	7.05		
	$P_{1\,TH\,Fan}$	hp	n/a	10.2	11.1	12.1	13.9	14.6	15.4		
		kW	n/a	7.60	8.30	9.05	10.3	10.9	11.5		
	$P_{1\,TH\,WHV}$	hp	3.69	13.9	15.6	17.2	18.1	18.5	18.8		
		kW	2.75	10.3	11.6	12.9	13.5	13.8	14.0		
	$P_{1\,TH\,WHU}$	hp	3.69	12.2	13.0	13.5	14.2	14.5	14.9		
		kW	2.75	9.14	9.73	10.0	10.6	10.8	11.1		
	$P_{1\,TH\,WHO}$	hp	3.69	11.8	12.6	13.0	13.7	14.0	14.4		
		kW	2.75	8.81	9.37	9.69	10.2	10.5	10.7		
	$T_{2\,ME}$	lb-in	66,200	55,000	51,100	46,900	41,300	36,400	32,200		
		Nm	7,480	6,210	5,770	5,290	4,670	4,120	3,630		
	η	%	57	73	75	75	76	76	76		
60	$P_{1\,ME}$	hp	3.08	11.6	13.0	14.4	16.6	18.4	19.6	130,000	14,700
		kW	2.30	8.64	9.69	10.8	12.4	13.7	14.7		
	$P_{1\,TH}$	hp	2.05	6.48	6.90	7.30	7.95	8.23	8.50		
		kW	1.53	4.84	5.15	5.45	5.93	6.14	6.34		
	$P_{1\,TH\,Fan}$	hp	n/a	8.88	9.80	10.7	12.6	13.2	13.9		
		kW	n/a	6.63	7.31	8.01	9.37	9.86	10.3		
	$P_{1\,TH\,WHV}$	hp	3.08	11.6	13.0	14.4	16.3	16.5	16.8		
		kW	2.30	8.64	9.69	10.8	12.1	12.4	12.6		
	$P_{1\,TH\,WHU}$	hp	3.08	10.7	11.4	11.9	12.8	13.0	13.3		
		kW	2.30	7.97	8.50	8.92	9.53	9.73	9.94		
	$P_{1\,TH\,WHO}$	hp	3.08	10.3	11.0	11.5	12.3	12.6	12.9		
		kW	2.30	7.68	8.19	8.60	9.20	9.41	9.61		
	$T_{2\,ME}$	lb-in	65,200	52,100	48,400	45,100	39,800	35,100	31,000		
		Nm	7,360	5,880	5,470	5,100	4,500	3,960	3,500		
	η	%	56	69	71	72	73	73	73		
70	$P_{1\,ME}$	hp	2.65	9.93	11.1	12.4	14.2	15.8	16.9	128,000	14,500
		kW	1.97	7.41	8.32	9.23	10.6	11.8	12.6		
	$P_{1\,TH}$	hp	1.76	6.08	6.48	6.75	7.30	7.50	7.70		
		kW	1.31	4.54	4.84	5.04	5.45	5.60	5.75		
	$P_{1\,TH\,Fan}$	hp	n/a	8.33	9.20	9.92	11.5	12.0	12.6		
		kW	n/a	6.22	6.87	7.40	8.60	8.99	9.37		
	$P_{1\,TH\,WHV}$	hp	2.65	9.93	11.1	12.4	14.2	15.5	15.7		
		kW	1.97	7.41	8.32	9.23	10.6	11.6	11.7		
	$P_{1\,TH\,WHU}$	hp	2.65	9.93	10.8	11.2	11.9	12.1	12.3		
		kW	1.97	7.41	8.07	8.39	8.92	9.07	9.21		
	$P_{1\,TH\,WHO}$	hp	2.65	9.78	10.4	10.8	11.5	11.7	11.9		
		kW	1.97	7.30	7.78	8.08	8.60	8.75	8.90		
	$T_{2\,ME}$	lb-in	64,200	51,400	47,800	44,500	39,300	34,600	30,600		
		Nm	7,250	5,800	5,400	5,030	4,440	3,910	3,460		
	η	%	55	68	70	71	72	72	72		

See Page 8.7 for Rating Definitions

SIZE 80

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	30.7	101	113	124	138	149	160	223,000	25,200
		kW	22.9	75.4	84.4	92.4	103	111	119		
	$P_{1\,TH}$	hp	12.8	35.9	40.0	42.1	46.7	49.0	51.3		
		kW	9.55	26.8	29.9	31.4	34.9	36.6	38.3		
	$P_{1\,TH\,Fan}$	hp	n/a	51.3	59.6	64.8	77.1	82.4	87.7		
		kW	n/a	38.3	44.5	48.4	57.5	61.5	65.5		
	$P_{1\,TH\,WHV}$	hp	30.7	79.3	83.4	94.2	98.8	101	103		
		kW	22.9	59.2	62.2	70.3	73.7	75.4	77.1		
	$P_{1\,TH\,WHU}$	hp	30.7	75.3	79.4	89.4	94.0	96.3	98.6		
		kW	22.9	56.2	59.3	66.7	70.2	71.9	73.6		
	$P_{1\,TH\,WHO}$	hp	30.7	63.5	67.6	75.2	79.8	82.1	84.4		
		kW	22.9	47.4	50.4	56.1	59.6	61.3	63.0		
	$T_{2\,ME}$	lb-in	89,100	51,600	46,600	42,600	36,100	30,700	27,400		
		Nm	10,100	5,830	5,260	4,820	4,070	3,470	3,090		
	η	%	92	94	94	95	95	95	95		
10	$P_{1\,ME}$	hp	21.5	77.1	86.7	96.0	110	120	127	269,000	30,400
		kW	16.1	57.5	64.7	71.6	81.7	89.9	95.0		
	$P_{1\,TH}$	hp	11.4	29.1	31.8	33.3	36.4	37.7	39.0		
		kW	8.51	21.7	23.7	24.9	27.2	28.1	29.1		
	$P_{1\,TH\,Fan}$	hp	n/a	41.6	47.4	51.3	60.1	63.4	66.7		
		kW	n/a	31.1	35.4	38.3	44.8	47.3	49.8		
	$P_{1\,TH\,WHV}$	hp	21.5	55.1	64.3	65.8	73.6	74.9	76.2		
		kW	16.1	41.1	48.0	49.1	54.9	55.9	56.9		
	$P_{1\,TH\,WHU}$	hp	21.5	52.8	61.4	62.9	70.2	71.5	72.8		
		kW	16.1	39.4	45.8	46.9	52.4	53.4	54.3		
	$P_{1\,TH\,WHO}$	hp	21.5	45.7	52.5	54.0	60.1	61.4	62.7		
		kW	16.1	34.1	39.2	40.3	44.8	45.8	46.8		
	$T_{2\,ME}$	lb-in	117,000	75,400	69,800	64,000	55,800	48,700	42,600		
		Nm	13,200	8,520	7,890	7,230	6,310	5,500	4,820		
	η	%	86	90	92	92	93	93	93		
15	$P_{1\,ME}$	hp	17.5	63.8	71.6	79.3	90.7	100	105	272,000	30,700
		kW	13.1	47.6	53.4	59.2	67.7	74.8	78.7		
	$P_{1\,TH}$	hp	10.1	24.0	25.8	26.5	28.5	30.0	31.6		
		kW	7.54	17.9	19.3	19.8	21.3	22.4	23.6		
	$P_{1\,TH\,Fan}$	hp	n/a	34.3	38.4	40.8	47.0	50.5	54.0		
		kW	n/a	25.6	28.7	30.5	35.1	37.7	40.3		
	$P_{1\,TH\,WHV}$	hp	17.5	45.7	49.5	52.5	57.4	59.0	60.5		
		kW	13.1	34.1	36.9	39.2	42.8	44.0	45.2		
	$P_{1\,TH\,WHU}$	hp	17.5	43.7	47.3	50.2	54.8	56.3	57.9		
		kW	13.1	32.6	35.3	37.4	40.9	42.0	43.2		
	$P_{1\,TH\,WHO}$	hp	17.5	37.8	40.9	43.1	46.9	48.5	50.0		
		kW	13.1	28.2	30.5	32.1	35.0	36.2	37.3		
	$T_{2\,ME}$	lb-in	136,000	91,500	83,600	77,600	67,900	59,500	51,800		
		Nm	15,300	10,300	9,450	8,760	7,670	6,720	5,860		
	η	%	82	88	89	90	91	91	91		
20	$P_{1\,ME}$	hp	13.4	48.9	55.0	61.0	69.8	77.0	81.2	263,000	29,700
		kW	9.99	36.5	41.1	45.5	52.1	57.5	60.6		
	$P_{1\,TH}$	hp	9.00	21.1	22.4	23.1	24.8	26.6	28.4		
		kW	6.72	15.7	16.7	17.2	18.5	19.9	21.2		
	$P_{1\,TH\,Fan}$	hp	n/a	30.2	33.4	35.6	40.9	44.7	48.6		
		kW	n/a	22.5	24.9	26.5	30.5	33.4	36.2		
	$P_{1\,TH\,WHV}$	hp	13.4	39.7	41.0	41.7	44.8	48.3	50.1		
		kW	9.99	29.6	30.6	31.1	33.4	36.0	37.4		
	$P_{1\,TH\,WHU}$	hp	13.4	38.0	39.3	40.0	43.0	46.3	48.1		
		kW	9.99	28.4	29.3	29.9	32.1	34.6	35.9		
	$P_{1\,TH\,WHO}$	hp	13.4	32.9	34.2	34.9	37.5	40.4	42.2		
		kW	9.99	24.6	25.5	26.1	28.0	30.2	31.5		
	$T_{2\,ME}$	lb-in	132,000	91,400	82,800	75,900	66,600	58,900	51,500		
		Nm	14,900	10,300	9,360	8,580	7,520	6,660	5,820		
	η	%	78	86	86	86	87	88	88		
25	$P_{1\,ME}$	hp	10.8	39.6	44.6	49.3	56.4	62.3	65.8	252,000	28,400
		kW	8.06	29.6	33.3	36.8	42.1	46.5	49.1		
	$P_{1\,TH}$	hp	7.26	18.4	19.2	19.4	21.0	21.2	21.5		
		kW	5.42	13.7	14.3	14.5	15.7	15.9	16.0		
	$P_{1\,TH\,Fan}$	hp	n/a	26.3	28.6	29.9	34.7	35.7	36.8		
		kW	n/a	19.6	21.4	22.3	25.9	26.6	27.4		
	$P_{1\,TH\,WHV}$	hp	10.8	34.7	35.5	38.0	41.0	41.3	41.5		
		kW	8.06	25.9	26.5	28.4	30.6	30.8	31.0		
	$P_{1\,TH\,WHU}$	hp	10.8	33.2	34.0	36.3	39.2	39.4	39.7		
		kW	8.06	24.8	25.4	27.1	29.3	29.4	29.6		
	$P_{1\,TH\,WHO}$	hp	10.8	28.8	29.6	31.2	33.7	34.0	34.2		
		kW	8.06	21.5	22.1	23.3	25.2	25.4	25.6		
	$T_{2\,ME}$	lb-in	126,000	90,400	81,900	76,800	67,300	58,900	51,500		
		Nm	14,200	10,200	9,260	8,670	7,600	6,660	5,820		
	η	%	74	84	84	86	87	87	87		

See Page 8.7 for Rating Definitions

Size 80 Single Reduction Ratings

SIZE 80

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
30	$P_{1\,ME}$	hp	9.03	33.2	37.3	41.3	47.3	52.3	55.2	242,000	27,400
		kW	6.74	24.8	27.9	30.8	35.3	39.0	41.2		
	$P_{1\,TH}$	hp	6.08	16.0	16.8	17.1	17.8	18.1	18.5		
		kW	4.54	11.9	12.5	12.8	13.3	13.5	13.8		
	$P_{1\,TH\,Fan}$	hp	n/a	22.9	25.0	26.3	29.4	30.5	31.6		
		kW	n/a	17.1	18.7	19.6	21.9	22.8	23.6		
	$P_{1\,TH\,WHV}$	hp	9.03	27.8	30.5	31.6	33.1	33.5	33.8		
		kW	6.74	20.8	22.8	23.6	24.7	25.0	25.2		
	$P_{1\,TH\,WHU}$	hp	9.03	26.8	29.3	30.2	31.7	32.1	32.4		
		kW	6.74	20.0	21.8	22.6	23.7	23.9	24.2		
	$P_{1\,TH\,WHO}$	hp	9.03	23.5	25.5	26.3	27.5	27.9	28.2		
		kW	6.74	17.6	19.0	19.6	20.6	20.8	21.1		
	$T_{2\,ME}$	lb-in	121,000	84,300	79,400	73,600	64,500	56,600	49,500		
		Nm	13,700	9,530	8,970	8,320	7,290	6,390	5,590		
	η	%	71	78	81	82	83	83	83		
40	$P_{1\,ME}$	hp	6.80	25.0	28.2	31.1	35.7	39.5	41.6	219,000	24,800
		kW	5.08	18.7	21.0	23.2	26.6	29.5	31.1		
	$P_{1\,TH}$	hp	4.58	13.5	14.4	14.7	15.7	15.9	16.2		
		kW	3.42	10.1	10.7	11.0	11.7	11.9	12.1		
	$P_{1\,TH\,Fan}$	hp	n/a	19.3	21.5	22.6	25.9	26.8	27.7		
		kW	n/a	14.4	16.0	16.9	19.3	20.0	20.7		
	$P_{1\,TH\,WHV}$	hp	6.80	23.9	26.2	26.5	28.1	28.3	28.6		
		kW	5.08	17.8	19.6	19.8	21.0	21.2	21.3		
	$P_{1\,TH\,WHU}$	hp	6.80	23.0	25.2	25.5	27.0	27.2	27.5		
		kW	5.08	17.1	18.8	19.0	20.1	20.3	20.5		
	$P_{1\,TH\,WHO}$	hp	6.80	20.1	21.9	22.2	23.6	23.8	24.1		
		kW	5.08	15.0	16.4	16.6	17.6	17.8	18.0		
	$T_{2\,ME}$	lb-in	110,000	81,600	76,900	70,400	61,800	54,200	47,400		
		Nm	12,400	9,220	8,690	7,950	6,990	6,130	5,350		
	η	%	64	75	78	78	79	79	79		
50	$P_{1\,ME}$	hp	5.46	20.1	22.7	25.0	28.7	31.8	33.5	196,000	22,100
		kW	4.07	15.0	16.9	18.7	21.4	23.7	25.0		
	$P_{1\,TH}$	hp	3.67	11.3	11.9	12.2	13.3	13.9	14.4		
		kW	2.74	8.43	8.88	9.10	9.93	10.3	10.7		
	$P_{1\,TH\,Fan}$	hp	n/a	16.2	17.7	18.8	22.0	23.3	24.6		
		kW	n/a	12.1	13.2	14.0	16.4	17.4	18.4		
	$P_{1\,TH\,WHV}$	hp	5.46	20.1	22.3	22.6	24.1	24.7	25.2		
		kW	4.07	15.0	16.6	16.9	18.0	18.4	18.8		
	$P_{1\,TH\,WHU}$	hp	5.46	20.1	21.4	21.7	23.2	23.7	24.3		
		kW	4.07	15.0	15.9	16.2	17.3	17.7	18.1		
	$P_{1\,TH\,WHO}$	hp	5.46	17.4	18.5	18.8	20.2	20.8	21.3		
		kW	4.07	13.0	13.8	14.0	15.1	15.5	15.9		
	$T_{2\,ME}$	lb-in	98,000	79,700	74,400	67,900	59,700	52,400	45,800		
		Nm	11,100	9,010	8,400	7,670	6,750	5,930	5,180		
	η	%	57	73	75	75	76	76	76		
60	$P_{1\,ME}$	hp	4.55	16.8	18.9	20.9	24.0	26.5	28.0	193,000	21,800
		kW	3.40	12.5	14.1	15.6	17.9	19.8	20.9		
	$P_{1\,TH}$	hp	3.07	9.85	10.5	10.9	12.2	12.6	12.9		
		kW	2.29	7.35	7.84	8.13	9.10	9.37	9.63		
	$P_{1\,TH\,Fan}$	hp	n/a	14.1	15.6	16.8	20.1	21.1	22.1		
		kW	n/a	10.5	11.7	12.5	15.0	15.7	16.5		
	$P_{1\,TH\,WHV}$	hp	4.55	16.8	18.9	20.2	21.8	22.2	22.5		
		kW	3.40	12.5	14.1	15.1	16.3	16.6	16.8		
	$P_{1\,TH\,WHU}$	hp	4.55	16.8	18.7	19.3	21.0	21.3	21.7		
		kW	3.40	12.5	13.9	14.4	15.6	15.9	16.2		
	$P_{1\,TH\,WHO}$	hp	4.55	15.2	16.2	16.8	18.3	18.7	19.0		
		kW	3.40	11.3	12.1	12.5	13.7	13.9	14.2		
	$T_{2\,ME}$	lb-in	96,500	75,500	70,500	65,400	57,500	50,500	44,100		
		Nm	10,900	8,530	7,970	7,380	6,500	5,710	4,990		
	η	%	56	69	71	72	73	73	73		
70	$P_{1\,ME}$	hp	3.92	14.4	16.2	17.9	20.6	22.8	24.0	190,000	21,500
		kW	2.92	10.7	12.1	13.4	15.3	17.0	17.9		
	$P_{1\,TH}$	hp	2.63	9.69	9.85	10.1	11.1	11.3	11.5		
		kW	1.96	7.23	7.35	7.54	8.28	8.43	8.58		
	$P_{1\,TH\,Fan}$	hp	n/a	13.9	14.7	15.6	18.3	19.0	19.7		
		kW	n/a	10.3	11.0	11.6	13.7	14.2	14.7		
	$P_{1\,TH\,WHV}$	hp	3.92	14.4	16.2	17.9	20.4	20.6	20.8		
		kW	2.92	10.7	12.1	13.4	15.2	15.4	15.5		
	$P_{1\,TH\,WHU}$	hp	3.92	14.4	16.2	17.9	19.5	19.7	19.9		
		kW	2.92	10.7	12.1	13.4	14.6	14.7	14.9		
	$P_{1\,TH\,WHO}$	hp	3.92	14.4	15.4	15.8	17.0	17.2	17.4		
		kW	2.92	10.7	11.5	11.8	12.7	12.8	13.0		
	$T_{2\,ME}$	lb-in	95,000	74,500	69,600	64,500	56,800	49,900	43,600		
		Nm	10,700	8,410	7,870	7,290	6,420	5,640	4,930		
	η	%	55	68	70	71	72	72	72		

See Page 8.7 for Rating Definitions

SIZE 100

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5	$P_{1\,ME}$	hp	57.6	176	195	211	230	251	269	426,000	48,200
		kW	43.0	131	146	158	172	188	201		
	$P_{1\,TH}$	hp	23.6	65.5	73.0	78.5	85.4	105	125		
		kW	17.6	48.9	54.5	58.6	63.7	78.5	93.3		
	$P_{1\,TH\,Fan}$	hp	n/a	98.2	114	127	149	186	224		
		kW	n/a	73.3	85.0	94.9	111	139	167		
	$P_{1\,TH\,WHV}$	hp	57.6	148	156	189	196	216	235		
		kW	43.0	111	116	141	146	161	176		
	$P_{1\,TH\,WHU}$	hp	57.6	131	138	165	172	192	212		
		kW	43.0	97.4	103	123	128	143	158		
	$T_{2\,ME}$	lb-in	171,000	91,800	82,000	74,300	61,100	53,000	47,000		
		Nm	19,300	10,400	9,260	8,390	6,900	5,990	5,310		
	η	%	94	96	96	97	97	97	97		
10	$P_{1\,ME}$	hp	40.6	135	151	166	186	200	215	519,000	58,600
		kW	30.3	101	113	124	139	150	160		
	$P_{1\,TH}$	hp	21.0	53.1	58.0	61.3	66.6	68.8	71.0		
		kW	15.7	39.6	43.3	45.7	49.7	51.3	53.0		
	$P_{1\,TH\,Fan}$	hp	n/a	79.7	90.5	99.3	116	121	127		
		kW	n/a	59.4	67.5	74.1	86.5	90.7	94.8		
	$P_{1\,TH\,WHV}$	hp	40.6	94.5	113	117	133	135	137		
		kW	30.3	70.5	84.5	86.9	99.1	101	102		
	$P_{1\,TH\,WHU}$	hp	40.6	85.6	101	105	119	121	123		
		kW	30.3	63.9	75.7	78.1	88.5	90.2	91.8		
	$T_{2\,ME}$	lb-in	225,000	135,000	124,000	113,000	97,000	82,700	73,400		
		Nm	25,400	15,300	14,000	12,800	11,000	9,350	8,300		
	η	%	88	92	94	94	95	95	95		
15	$P_{1\,ME}$	hp	32.9	111	125	137	155	166	178	522,000	59,000
		kW	24.5	83.1	93.2	102	115	124	133		
	$P_{1\,TH}$	hp	18.3	43.8	47.2	49.5	52.4	54.2	56.1		
		kW	13.7	32.7	35.2	36.9	39.1	40.5	41.9		
	$P_{1\,TH\,Fan}$	hp	n/a	65.7	73.6	80.2	91.2	95.8	100		
		kW	n/a	49.0	54.9	59.8	68.0	71.5	74.9		
	$P_{1\,TH\,WHV}$	hp	32.9	76.9	84.0	90.9	99.7	102	103		
		kW	24.5	57.4	62.7	67.8	74.4	75.8	77.2		
	$P_{1\,TH\,WHU}$	hp	32.9	69.8	76.1	82.0	89.6	91.4	93.3		
		kW	24.5	52.1	56.8	61.2	66.9	68.2	69.6		
	$T_{2\,ME}$	lb-in	261,000	163,000	149,000	137,000	118,000	100,000	89,300		
		Nm	29,500	18,400	16,900	15,500	13,300	11,300	10,100		
	η	%	84	90	91	92	93	93	93		
20	$P_{1\,ME}$	hp	25.2	85.7	96.1	105	119	128	137	508,000	57,400
		kW	18.8	63.9	71.7	78.6	88.9	95.3	102		
	$P_{1\,TH}$	hp	16.5	38.6	41.2	43.0	45.0	45.9	46.8		
		kW	12.3	28.8	30.7	32.1	33.6	34.3	34.9		
	$P_{1\,TH\,Fan}$	hp	n/a	57.9	64.3	69.7	78.3	81.0	83.8		
		kW	n/a	43.2	48.0	52.0	58.4	60.5	62.5		
	$P_{1\,TH\,WHV}$	hp	25.2	66.2	68.8	70.6	75.1	79.0	79.9		
		kW	18.8	49.4	51.3	52.7	56.1	59.0	59.6		
	$P_{1\,TH\,WHU}$	hp	25.2	60.3	62.9	64.7	68.7	71.9	72.8		
		kW	18.8	45.0	46.9	48.3	51.2	53.7	54.3		
	$T_{2\,ME}$	lb-in	254,000	164,000	148,000	134,000	116,000	99,900	88,900		
		Nm	28,700	18,500	16,700	15,200	13,100	11,300	10,000		
	η	%	80	88	88	88	89	90	90		
25	$P_{1\,ME}$	hp	20.3	69.2	77.7	85.2	96.5	103	111	486,000	54,900
		kW	15.1	51.6	58.0	63.6	72.0	77.2	82.7		
	$P_{1\,TH}$	hp	13.6	33.7	35.2	36.3	37.4	38.3	39.3		
		kW	10.1	25.1	26.3	27.1	27.9	28.6	29.3		
	$P_{1\,TH\,Fan}$	hp	n/a	50.5	54.9	58.8	65.1	67.7	70.3		
		kW	n/a	37.7	41.0	43.9	48.6	50.5	52.5		
	$P_{1\,TH\,WHV}$	hp	20.3	57.4	58.9	63.9	67.5	68.5	69.4		
		kW	15.1	42.8	43.9	47.7	50.4	51.1	51.8		
	$P_{1\,TH\,WHU}$	hp	20.3	52.3	53.8	58.0	61.1	62.0	63.0		
		kW	15.1	39.0	40.1	43.3	45.6	46.3	47.0		
	$T_{2\,ME}$	lb-in	243,000	162,000	146,000	136,000	118,000	100,000	88,800		
		Nm	27,400	18,300	16,500	15,300	13,300	11,300	10,000		
	η	%	76	86	86	88	89	89	89		

See Page 8.7 for Rating Definitions

Size 100 Single Reduction Ratings

SIZE 100

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
30	$P_{1\,ME}$	hp	17.0	58.0	65.1	71.3	80.9	86.5	92.9	469,000	53,000
		kW	12.7	43.3	48.6	53.2	60.4	64.5	69.3		
	$P_{1\,TH}$	hp	11.4	29.2	30.6	31.8	32.5	33.0	33.6		
		kW	8.51	21.8	22.8	23.7	24.3	24.7	25.1		
	$P_{1\,TH\,Fan}$	hp	n/a	43.8	47.7	51.5	56.5	58.3	60.1		
		kW	n/a	32.7	35.6	38.4	42.2	43.5	44.9		
	$P_{1\,TH\,WHV}$	hp	17.0	45.8	50.1	52.5	54.6	55.1	55.7		
		kW	12.7	34.2	37.4	39.2	40.7	41.1	41.6		
	$P_{1\,TH\,WHU}$	hp	17.0	42.2	45.9	48.1	49.9	50.4	51.0		
		kW	12.7	31.5	34.3	35.9	37.2	37.6	38.0		
	$T_{2\,ME}$	lb-in	234,000	151,000	142,000	130,000	113,000	95,800	85,300		
		Nm	26,500	17,100	16,000	14,700	12,800	10,800	9,640		
	η	%	73	80	83	84	85	85	85		
40	$P_{1\,ME}$	hp	12.8	43.8	49.1	53.8	61.0	65.2	70.2	426,000	48,100
		kW	9.55	32.7	36.6	40.2	45.5	48.6	52.4		
	$P_{1\,TH}$	hp	8.60	24.7	26.2	37.3	38.4	34.0	29.5		
		kW	6.42	18.4	19.6	27.8	28.7	25.3	22.0		
	$P_{1\,TH\,Fan}$	hp	n/a	37.0	40.9	53.8	61.0	56.9	52.8		
		kW	n/a	27.6	30.5	40.1	45.5	42.5	39.4		
	$P_{1\,TH\,WHV}$	hp	12.8	39.1	42.8	53.8	55.8	51.4	46.9		
		kW	9.55	29.2	31.9	40.2	41.7	38.3	35.0		
	$P_{1\,TH\,WHU}$	hp	12.8	36.0	39.2	50.3	52.1	47.6	43.2		
		kW	9.55	26.9	29.3	37.5	38.9	35.6	32.2		
	$T_{2\,ME}$	lb-in	213,000	147,000	138,000	125,000	108,000	91,800	81,900		
		Nm	24,100	16,600	15,500	14,100	12,200	10,400	9,250		
	η	%	66	77	80	80	81	81	81		
50	$P_{1\,ME}$	hp	10.3	35.2	39.4	43.2	49.0	52.4	56.3	382,000	43,100
		kW	7.66	26.2	29.4	32.2	36.6	39.1	42.0		
	$P_{1\,TH}$	hp	6.90	20.6	21.7	22.8	24.3	25.2	26.2		
		kW	5.15	15.4	16.2	17.0	18.1	18.8	19.6		
	$P_{1\,TH\,Fan}$	hp	n/a	30.9	33.8	36.9	42.3	44.6	46.9		
		kW	n/a	23.1	25.3	27.6	31.6	33.3	35.0		
	$P_{1\,TH\,WHV}$	hp	10.3	33.8	36.1	37.2	39.4	40.3	41.3		
		kW	7.66	25.3	26.9	27.8	29.4	30.1	30.8		
	$P_{1\,TH\,WHU}$	hp	10.3	31.0	33.0	34.1	36.1	37.1	38.0		
		kW	7.66	23.1	24.6	25.5	27.0	27.7	28.4		
	$T_{2\,ME}$	lb-in	191,000	143,000	133,000	120,000	105,000	88,700	79,100		
		Nm	21,600	16,200	15,000	13,600	11,800	10,000	8,930		
	η	%	59	75	77	77	78	78	78		
60	$P_{1\,ME}$	hp	8.57	29.4	32.9	36.1	40.9	43.7	47.0	376,000	42,500
		kW	6.40	21.9	24.6	26.9	30.5	32.6	35.1		
	$P_{1\,TH}$	hp	5.76	18.0	19.1	20.2	22.1	22.9	23.6		
		kW	4.30	13.4	14.3	15.1	16.5	17.1	17.6		
	$P_{1\,TH\,Fan}$	hp	n/a	27.0	29.8	32.7	38.5	40.3	42.2		
		kW	n/a	20.1	22.2	24.4	28.7	30.1	31.5		
	$P_{1\,TH\,WHV}$	hp	8.57	29.4	31.4	32.9	35.3	36.1	36.8		
		kW	6.40	21.9	23.4	24.6	26.4	26.9	27.5		
	$P_{1\,TH\,WHU}$	hp	8.57	27.0	28.7	30.2	32.5	33.3	34.0		
		kW	6.40	20.1	21.4	22.5	24.3	24.8	25.4		
	$T_{2\,ME}$	lb-in	188,000	136,000	126,000	116,000	101,000	85,600	76,200		
		Nm	21,200	15,400	14,300	13,100	11,400	9,670	8,610		
	η	%	58	71	73	74	75	75	75		
70	$P_{1\,ME}$	hp	7.35	25.2	28.3	31.0	35.1	37.6	40.3	370,000	41,800
		kW	5.49	18.8	21.1	23.1	26.2	28.0	30.1		
	$P_{1\,TH}$	hp	4.94	16.9	18.0	18.7	20.2	20.8	21.3		
		kW	3.69	12.6	13.4	14.0	15.1	15.5	15.9		
	$P_{1\,TH\,Fan}$	hp	n/a	25.2	28.1	30.3	35.1	36.6	38.1		
		kW	n/a	18.8	21.0	22.6	26.2	27.3	28.5		
	$P_{1\,TH\,WHV}$	hp	7.35	25.2	28.3	31.0	32.9	33.5	34.0		
		kW	5.49	18.8	21.1	23.1	24.6	25.0	25.4		
	$P_{1\,TH\,WHU}$	hp	7.35	25.2	27.3	28.3	30.2	30.8	31.3		
		kW	5.49	18.8	20.4	21.1	22.5	23.0	23.4		
	$T_{2\,ME}$	lb-in	185,000	134,000	125,000	115,000	99,700	84,600	75,200		
		Nm	20,900	15,200	14,100	13,000	11,300	9,560	8,500		
	η	%	57	70	72	73	74	74	74		

See Page 8.7 for Rating Definitions

SIZE 120

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm					$T_{2\,MAX}$	
			100	580	720	870	1,150	lb-in	Nm
5	$P_{1\,ME}$	hp	97.2	279	306	322	358	720,000	81,300
		kW	72.5	208	229	241	267		
	$P_{1\,TH}$	hp	33.0	92.0	105	110	120		
		kW	24.6	68.7	78.4	82.1	89.6		
	$P_{1\,TH\,Fan}$	hp	n/a	138	164	178	209		
		kW	n/a	103	122	133	156		
	$P_{1\,TH\,WHV}$	hp	97.2	190	203	240	250		
		kW	72.5	141	151	179	187		
	$P_{1\,TH\,WHU}$	hp	97.2	216	229	276	286		
		kW	72.5	161	171	206	213		
	$T_{2\,ME}$	lb-in	288,000	146,000	129,000	113,000	95,200		
		Nm	32,500	16,500	14,500	12,800	10,800		
	η	%	94	96	96	97	97		
10	$P_{1\,ME}$	hp	69.0	217	241	263	287	883,000	99,800
		kW	51.5	162	180	196	214		
	$P_{1\,TH}$	hp	29.4	74.5	83.5	87.0	93.4		
		kW	21.9	55.6	62.3	64.9	69.7		
	$P_{1\,TH\,Fan}$	hp	n/a	112	130	141	163		
		kW	n/a	83.6	97.0	105	122		
	$P_{1\,TH\,WHV}$	hp	61.9	123	149	152	171		
		kW	46.2	92.0	111	113	128		
	$P_{1\,TH\,WHU}$	hp	69.0	137	166	170	193		
		kW	51.5	102	124	127	144		
	$T_{2\,ME}$	lb-in	383,000	217,000	199,000	179,000	149,000		
		Nm	43,200	24,500	22,400	20,200	16,900		
	η	%	88	92	94	94	95		
15	$P_{1\,ME}$	hp	56.1	179	199	217	238	891,000	101,000
		kW	41.9	134	149	162	177		
	$P_{1\,TH}$	hp	25.7	61.5	67.9	69.5	73.0		
		kW	19.2	45.9	50.7	51.9	54.5		
	$P_{1\,TH\,Fan}$	hp	n/a	92.3	106	113	127		
		kW	n/a	68.9	79.1	84.3	94.8		
	$P_{1\,TH\,WHV}$	hp	50.1	101	111	118	129		
		kW	37.4	75.0	83.0	88.3	96.1		
	$P_{1\,TH\,WHU}$	hp	56.1	111	123	132	144		
		kW	41.9	83.0	91.9	98.2	107		
	$T_{2\,ME}$	lb-in	445,000	263,000	238,000	217,000	182,000		
		Nm	50,300	29,700	26,900	24,500	20,500		
	η	%	84	90	91	92	93		
20	$P_{1\,ME}$	hp	43.0	138	153	167	184	867,000	98,000
		kW	32.1	103	114	125	137		
	$P_{1\,TH}$	hp	23.1	54.3	58.8	60.4	63.3		
		kW	17.2	40.5	43.9	45.1	47.2		
	$P_{1\,TH\,Fan}$	hp	n/a	81.5	91.7	97.8	110		
		kW	n/a	60.8	68.4	73.0	82.1		
	$P_{1\,TH\,WHV}$	hp	42.6	86.8	91.3	92.9	98.8		
		kW	31.8	64.8	68.2	69.4	73.7		
	$P_{1\,TH\,WHU}$	hp	43.0	95.7	100	102	108		
		kW	32.1	71.4	74.8	76.0	80.9		
	$T_{2\,ME}$	lb-in	434,000	263,000	235,000	213,000	179,000		
		Nm	49,000	29,700	26,600	24,100	20,300		
	η	%	80	88	88	88	89		
25	$P_{1\,ME}$	hp	34.6	111	124	135	149	830,000	93,700
		kW	25.8	83.0	92.4	101	111		
	$P_{1\,TH}$	hp	19.4	47.4	50.5	50.6	52.5		
		kW	14.5	35.4	37.7	37.8	39.2		
	$P_{1\,TH\,Fan}$	hp	n/a	71.1	78.8	82.0	91.4		
		kW	n/a	53.1	58.8	61.2	68.2		
	$P_{1\,TH\,WHV}$	hp	34.6	75.3	78.4	83.1	88.0		
		kW	25.8	56.2	58.5	62.0	65.7		
	$P_{1\,TH\,WHU}$	hp	34.6	82.9	86.0	92.0	97.7		
		kW	25.8	61.9	64.2	68.7	72.9		
	$T_{2\,ME}$	lb-in	415,000	260,000	233,000	216,000	182,000		
		Nm	46,900	29,400	26,300	24,400	20,500		
	η	%	76	86	86	88	89		

See Page 8.7 for Rating Definitions

Size 120 Single Reduction Ratings

SIZE 120

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm					$T_{2\,MAX}$	
			100	580	720	870	1,150	lb-in	Nm
30	$P_{1\,ME}$	hp	29.0	93.2	104	113	125	800,000	90,300
		kW	21.6	69.6	77.4	84.6	93.3		
	$P_{1\,TH}$	hp	14.7	41.0	44.1	44.6	45.6		
		kW	11.0	30.6	32.9	33.3	34.0		
	$P_{1\,TH\,Fan}$	hp	n/a	61.5	68.8	72.3	79.3		
		kW	n/a	45.9	51.3	54.0	59.2		
	$P_{1\,TH\,WHV}$	hp	29.0	60.5	67.1	69.0	71.6		
		kW	21.6	45.2	50.0	51.5	53.5		
	$P_{1\,TH\,WHU}$	hp	29.0	65.8	73.3	75.7	78.7		
		kW	21.6	49.1	54.7	56.5	58.7		
	$T_{2\,ME}$	lb-in	400,000	243,000	226,000	207,000	175,000		
		Nm	45,200	27,500	25,600	23,400	19,700		
	η	%	73	80	83	84	85		
40	$P_{1\,ME}$	hp	21.9	70.3	78.2	85.5	94.3	727,000	82,200
		kW	16.3	52.5	58.4	63.8	70.3		
	$P_{1\,TH}$	hp	12.0	35.0	37.8	38.3	40.0		
		kW	8.96	26.1	28.2	28.6	29.9		
	$P_{1\,TH\,Fan}$	hp	n/a	52.5	59.0	62.0	69.6		
		kW	n/a	39.2	44.0	46.3	51.9		
	$P_{1\,TH\,WHV}$	hp	21.9	52.0	57.3	57.8	60.5		
		kW	16.3	38.8	42.8	43.1	45.2		
	$P_{1\,TH\,WHU}$	hp	21.9	56.6	62.6	63.1	66.2		
		kW	16.3	42.2	46.7	47.1	49.4		
	$T_{2\,ME}$	lb-in	364,000	235,000	219,000	198,000	167,000		
		Nm	41,100	26,600	24,800	22,400	18,900		
	η	%	66	77	80	80	81		
50	$P_{1\,ME}$	hp	17.5	56.5	62.8	68.6	75.8	652,000	73,700
		kW	13.1	42.1	46.9	51.2	56.5		
	$P_{1\,TH}$	hp	10.5	29.0	31.2	31.9	34.1		
		kW	7.84	21.6	23.3	23.8	25.4		
	$P_{1\,TH\,Fan}$	hp	n/a	43.5	48.7	51.7	59.3		
		kW	n/a	32.5	36.3	38.6	44.3		
	$P_{1\,TH\,WHV}$	hp	17.5	44.6	48.2	48.9	51.8		
		kW	13.1	33.3	36.0	36.5	38.7		
	$P_{1\,TH\,WHU}$	hp	17.5	48.9	52.8	53.5	56.7		
		kW	13.1	36.5	39.4	39.9	42.3		
	$T_{2\,ME}$	lb-in	326,000	230,000	212,000	191,000	162,000		
		Nm	36,800	26,000	23,900	21,600	18,300		
	η	%	59	75	77	77	78		
60	$P_{1\,ME}$	hp	14.6	47.2	52.4	57.3	63.3	642,000	72,500
		kW	10.9	35.2	39.1	42.8	47.2		
	$P_{1\,TH}$	hp	8.40	25.3	27.3	28.4	31.1		
		kW	6.27	18.9	20.4	21.2	23.2		
	$P_{1\,TH\,Fan}$	hp	n/a	38.0	42.6	46.0	54.1		
		kW	n/a	28.4	31.8	34.3	40.4		
	$P_{1\,TH\,WHV}$	hp	14.6	38.8	41.8	43.4	46.7		
		kW	10.9	28.9	31.2	32.4	34.9		
	$P_{1\,TH\,WHU}$	hp	14.6	42.4	45.7	47.5	51.0		
		kW	10.9	31.7	34.1	35.5	38.0		
	$T_{2\,ME}$	lb-in	321,000	218,000	201,000	184,000	156,000		
		Nm	36,300	24,700	22,700	20,800	17,600		
	η	%	58	71	73	74	75		
70	$P_{1\,ME}$	hp	12.6	40.5	45.0	49.2	54.3	632,000	71,400
		kW	9.37	30.2	33.6	36.7	40.5		
	$P_{1\,TH}$	hp	7.32	23.9	25.8	26.2	28.7		
		kW	5.46	17.8	19.3	19.6	21.4		
	$P_{1\,TH\,Fan}$	hp	n/a	35.9	40.2	42.4	49.9		
		kW	n/a	26.8	30.0	31.6	37.2		
	$P_{1\,TH\,WHV}$	hp	12.6	36.9	39.7	40.7	43.7		
		kW	9.37	27.5	29.7	30.3	32.6		
	$P_{1\,TH\,WHU}$	hp	12.6	40.5	43.5	44.6	47.8		
		kW	9.37	30.2	32.5	33.3	35.7		
	$T_{2\,ME}$	lb-in	316,000	216,000	199,000	182,000	154,000		
		Nm	35,700	24,400	22,400	20,600	17,400		
	η	%	57	70	72	73	74		

See Page 8.7 for Rating Definitions

SIZE 150

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm					$T_{2\,MAX}$	
			100	580	720	870	1,150	lb-in	Nm
5	$P_{1\,ME}$	hp	168	447	476	511	565	1,310,000	148,000
		kW	126	334	355	381	422		
	$P_{1\,TH}$	hp	23.6	65.5	73.0	78.5	85.4		
		kW	17.6	48.9	54.5	58.6	63.7		
	$T_{2\,ME}$	lb-in	498,000	233,000	200,000	180,000	150,000		
		Nm	56,300	26,300	22,600	20,300	17,000		
	η	%	94	96	96	97	97		
10	$P_{1\,ME}$	hp	119	349	386	410	452	1,630,000	184,000
		kW	88.4	261	288	306	337		
	$P_{1\,TH}$	hp	21.0	53.1	58.0	61.3	66.6		
		kW	15.7	39.6	43.3	45.7	49.7		
	$T_{2\,ME}$	lb-in	657,000	349,000	317,000	279,000	235,000		
		Nm	74,300	39,500	35,900	31,600	26,600		
	η	%	88	92	94	94	95		
15	$P_{1\,ME}$	hp	93.2	279	310	331	362	1,650,000	186,000
		kW	69.6	208	231	247	270		
	$P_{1\,TH}$	hp	18.3	43.8	47.2	49.5	52.4		
		kW	13.7	32.7	35.2	36.9	39.1		
	$T_{2\,ME}$	lb-in	740,000	409,000	370,000	331,000	277,000		
		Nm	83,700	46,200	41,800	37,400	31,300		
	η	%	84	90	91	92	93		
20	$P_{1\,ME}$	hp	71.5	215	238	256	279	1,610,000	181,000
		kW	53.4	161	178	191	208		
	$P_{1\,TH}$	hp	16.5	38.6	41.2	43.0	45.0		
		kW	12.3	28.8	30.7	32.1	33.6		
	$T_{2\,ME}$	lb-in	721,000	412,000	367,000	326,000	272,000		
		Nm	81,500	46,500	41,500	36,900	30,800		
	η	%	80	88	88	88	89		
25	$P_{1\,ME}$	hp	57.7	174	192	207	226	1,540,000	174,000
		kW	43.1	130	144	155	169		
	$P_{1\,TH}$	hp	13.9	33.7	35.2	36.3	37.4		
		kW	10.4	25.1	26.3	27.1	27.9		
	$T_{2\,ME}$	lb-in	691,000	406,000	362,000	330,000	276,000		
		Nm	78,100	45,900	40,900	37,300	31,200		
	η	%	76	86	86	88	89		
30	$P_{1\,ME}$	hp	48.3	146	161	174	190	1,480,000	168,000
		kW	36.0	109	120	130	142		
	$P_{1\,TH}$	hp	10.5	29.2	30.6	31.8	32.5		
		kW	7.84	21.8	22.8	23.7	24.3		
	$T_{2\,ME}$	lb-in	666,000	380,000	352,000	317,000	265,000		
		Nm	75,300	43,000	39,700	35,800	29,900		
	η	%	73	80	83	84	85		
40	$P_{1\,ME}$	hp	36.3	110	122	131	143	1,350,000	152,000
		kW	27.1	82.2	90.8	97.9	107		
	$P_{1\,TH}$	hp	8.60	24.7	26.2	27.3	28.4		
		kW	6.42	18.4	19.6	20.4	21.2		
	$T_{2\,ME}$	lb-in	605,000	369,000	341,000	304,000	254,000		
		Nm	68,300	41,600	38,500	34,400	28,700		
	η	%	66	77	80	80	81		
50	$P_{1\,ME}$	hp	29.2	88.4	97.7	105	115	1,210,000	136,000
		kW	21.8	66.0	72.9	78.6	85.7		
	$P_{1\,TH}$	hp	7.50	20.6	21.7	22.8	24.3		
		kW	5.60	15.4	16.2	17.0	18.1		
	$T_{2\,ME}$	lb-in	542,000	360,000	329,000	294,000	245,000		
		Nm	61,300	40,700	37,200	33,200	27,700		
	η	%	59	75	77	77	78		
60	$P_{1\,ME}$	hp	24.3	73.9	81.6	88.0	96.0	1,190,000	134,000
		kW	18.2	55.1	60.9	65.7	71.6		
	$P_{1\,TH}$	hp	6.00	18.0	19.1	20.2	22.1		
		kW	4.48	13.4	14.3	15.1	16.5		
	$T_{2\,ME}$	lb-in	534,000	342,000	313,000	283,000	237,000		
		Nm	60,300	38,600	35,300	32,000	26,700		
	η	%	58	71	73	74	75		

Gold shaded cells represent combinations which may require special lubrication considerations. Please contact Cone Drive Application Engineering for additional information.

See Page 8.7 for Rating Definitions

Size 180 Single Reduction Ratings

SIZE 180

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm					$T_{2\,MAX}$	
			100	580	720	870	1,150	lb-in	Nm
5	$P_{1\,ME}$	hp	258	626	679	728	798	2,130,000	240,000
		kW	192	467	507	543	596		
	$P_{1\,TH}$	hp	33.0	92.0	105	110	120		
		kW	24.6	68.7	78.4	82.1	89.6		
	$T_{2\,ME}$	lb-in	764,000	327,000	285,000	256,000	212,000		
		Nm	86,300	36,900	32,200	28,900	24,000		
	η	%	94	96	96	97	97		
8	$P_{1\,ME}$	hp	215	599	647	683	759	2,670,000	301,000
		kW	160	447	483	510	567		
	$P_{1\,TH}$	hp	30.8	81.5	92.1	96.2	104		
		kW	23.0	60.8	68.7	71.8	77.6		
	$T_{2\,ME}$	lb-in	980,000	487,000	429,000	377,000	319,000		
		Nm	111,000	55,100	48,500	42,600	36,000		
	η	%	90	94	95	95	96		
10	$P_{1\,ME}$	hp	182	512	559	591	656	2,710,000	306,000
		kW	136	382	417	441	489		
	$P_{1\,TH}$	hp	29.4	74.5	83.5	87.0	93.4		
		kW	21.9	55.6	62.3	64.9	69.7		
	$T_{2\,ME}$	lb-in	1,010,000	512,000	460,000	402,000	341,000		
		Nm	114,000	57,900	52,000	45,500	38,600		
	η	%	88	92	94	94	95		
15	$P_{1\,ME}$	hp	138	395	434	456	507	2,750,000	311,000
		kW	103	295	324	340	379		
	$P_{1\,TH}$	hp	25.7	61.5	67.9	69.5	73.0		
		kW	19.2	45.9	50.7	51.9	54.5		
	$T_{2\,ME}$	lb-in	1,100,000	580,000	518,000	456,000	388,000		
		Nm	124,000	65,500	58,600	51,500	43,800		
	η	%	84	90	91	92	93		
20	$P_{1\,ME}$	hp	106	305	335	353	392	2,680,000	303,000
		kW	78.9	228	250	264	292		
	$P_{1\,TH}$	hp	23.1	54.3	58.8	60.4	63.3		
		kW	17.2	40.5	43.9	45.1	47.2		
	$T_{2\,ME}$	lb-in	1,070,000	583,000	516,000	451,000	382,000		
		Nm	121,000	65,900	58,300	50,900	43,200		
	η	%	80	88	88	88	89		
25	$P_{1\,ME}$	hp	85.2	247	271	286	318	2,560,000	289,000
		kW	63.6	184	203	214	237		
	$P_{1\,TH}$	hp	19.4	47.4	50.5	50.6	52.5		
		kW	14.5	35.4	37.7	37.8	39.2		
	$T_{2\,ME}$	lb-in	1,020,000	577,000	511,000	456,000	387,000		
		Nm	115,000	65,200	57,700	51,500	43,800		
	η	%	76	86	86	88	89		
30	$P_{1\,ME}$	hp	71.4	207	228	241	266	2,470,000	279,000
		kW	53.3	155	170	180	199		
	$P_{1\,TH}$	hp	14.7	41.0	44.1	44.6	45.6		
		kW	11.0	30.6	32.9	33.3	34.0		
	$T_{2\,ME}$	lb-in	985,000	540,000	497,000	439,000	372,000		
		Nm	111,000	61,100	56,100	49,600	42,000		
	η	%	73	80	83	84	85		
40	$P_{1\,ME}$	hp	53.8	156	172	182	201	2,250,000	254,000
		kW	40.1	117	128	136	150		
	$P_{1\,TH}$	hp	12.0	35.0	37.8	38.3	40.0		
		kW	8.96	26.1	28.2	28.6	29.9		
	$T_{2\,ME}$	lb-in	895,000	523,000	482,000	423,000	357,000		
		Nm	101,000	59,100	54,400	47,800	40,400		
	η	%	66	77	80	80	81		
50	$P_{1\,ME}$	hp	43.1	125	138	147	161	2,010,000	227,000
		kW	32.2	93.7	103	109	120		
	$P_{1\,TH}$	hp	10.5	29.0	31.2	31.9	34.1		
		kW	7.84	21.6	23.3	23.8	25.4		
	$T_{2\,ME}$	lb-in	802,000	511,000	466,000	409,000	345,000		
		Nm	90,600	57,800	52,600	46,200	39,000		
	η	%	59	75	77	77	78		
60	$P_{1\,ME}$	hp	36.0	105	115	122	135	1,980,000	224,000
		kW	26.9	78.2	86.1	91.4	101		
	$P_{1\,TH}$	hp	8.40	25.3	27.3	28.4	31.1		
		kW	6.27	18.9	20.4	21.2	23.2		
	$T_{2\,ME}$	lb-in	790,000	485,000	443,000	394,000	332,000		
		Nm	89,200	54,800	50,000	44,500	37,500		
	η	%	58	71	73	74	75		

Gold shaded cells represent combinations which may require special lubrication considerations. Please contact Cone Drive Application Engineering for additional information.

See Page 8.7 for Rating Definitions

SIZE 220

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm					$T_{2\,MAX}$	
			100	580	720	870	1,150	lb-in	Nm
4	$P_{1\,ME}$	hp	433	998	1,080	1,140	1,220	3,080,000	348,000
		kW	323	744	803	853	910		
	$P_{1\,TH}$	hp	52.1	147	165	177	193		
		kW	38.9	110	123	132	144		
	$T_{2\,ME}$	lb-in	1,030,000	416,000	362,000	321,000	259,000		
		Nm	116,000	47,000	40,900	36,300	29,300		
	η	%	94	96	96	97	97		
5.625	$P_{1\,ME}$	hp	390	946	1,030	1,100	1,200	3,870,000	437,000
		kW	291	706	766	819	896		
	$P_{1\,TH}$	hp	50.3	138	154	165	180		
		kW	37.5	103	115	123	134		
	$T_{2\,ME}$	lb-in	1,290,000	552,000	484,000	432,000	358,000		
		Nm	146,000	62,400	54,700	48,800	40,500		
	η	%	93	96	96	97	97		
7	$P_{1\,ME}$	hp	350	888	952	1,020	1,120	4,250,000	480,000
		kW	261	662	710	764	837		
	$P_{1\,TH}$	hp	48.7	131	145	155	169		
		kW	36.3	97.8	108	116	126		
	$T_{2\,ME}$	lb-in	1,420,000	637,000	555,000	497,000	414,000		
		Nm	160,000	72,000	62,700	56,200	46,800		
	η	%	92	94	95	96	96		
10	$P_{1\,ME}$	hp	278	756	811	865	960	4,620,000	522,000
		kW	207	564	605	646	716		
	$P_{1\,TH}$	hp	45.3	115	126	134	144		
		kW	33.8	85.8	94.0	100	107		
	$T_{2\,ME}$	lb-in	1,540,000	756,000	667,000	589,000	500,000		
		Nm	174,000	85,400	75,400	66,600	56,500		
	η	%	88	92	94	94	95		
14	$P_{1\,ME}$	hp	209	579	624	663	736	4,690,000	530,000
		kW	156	432	466	495	549		
	$P_{1\,TH}$	hp	40.7	98.8	107	112	120		
		kW	30.4	73.7	79.9	83.6	89.6		
	$T_{2\,ME}$	lb-in	1,560,000	797,000	701,000	621,000	527,000		
		Nm	177,000	90,000	79,200	70,200	59,600		
	η	%	85	90	92	92	93		
20	$P_{1\,ME}$	hp	149	404	434	463	513	4,500,000	508,000
		kW	111	302	324	345	383		
	$P_{1\,TH}$	hp	35.5	83.6	89.0	92.9	97.1		
		kW	26.5	62.4	66.4	69.3	72.5		
	$T_{2\,ME}$	lb-in	1,500,000	773,000	668,000	590,000	501,000		
		Nm	169,000	87,400	75,500	66,700	56,600		
	η	%	80	88	88	88	89		
25	$P_{1\,ME}$	hp	171	993	1,230	1,490	1,970	6,150,000	695,000
		kW	128	741	920	1,110	1,470		
	$P_{1\,TH}$	hp	30.0	72.8	76.0	78.5	81.0		
		kW	22.4	54.3	56.7	58.6	60.4		
	$T_{2\,ME}$	lb-in	2,050,000	2,320,000	2,320,000	2,370,000	2,400,000		
		Nm	232,000	262,000	262,000	268,000	271,000		
	η	%	76	86	86	88	89		
30	$P_{1\,ME}$	hp	100	275	295	314	347	4,160,000	470,000
		kW	74.9	205	220	235	259		
	$P_{1\,TH}$	hp	22.6	63.2	66.4	68.8	70.5		
		kW	16.9	47.2	49.6	51.3	52.6		
	$T_{2\,ME}$	lb-in	1,390,000	717,000	643,000	574,000	485,000		
		Nm	157,000	81,000	72,700	64,800	54,800		
	η	%	73	80	83	84	85		
40	$P_{1\,ME}$	hp	75.8	208	223	238	263	3,780,000	427,000
		kW	56.5	155	167	177	196		
	$P_{1\,TH}$	hp	18.6	53.4	56.7	59.1	61.5		
		kW	13.9	39.9	42.3	44.1	45.9		
	$T_{2\,ME}$	lb-in	1,260,000	695,000	625,000	551,000	467,000		
		Nm	142,000	78,500	70,600	62,300	52,700		
	η	%	66	77	80	80	81		
45	$P_{1\,ME}$	hp	96.0	557	691	835	1,100	5,100,000	577,000
		kW	71.6	415	516	623	824		
	$P_{1\,TH}$	hp	17.4	49.0	51.8	54.2	57.1		
		kW	13.0	36.6	38.7	40.4	42.6		
	$T_{2\,ME}$	lb-in	1,700,000	2,070,000	2,140,000	2,140,000	2,160,000		
		Nm	192,000	234,000	241,000	241,000	245,000		
	η	%	63	76	79	79	80		
50	$P_{1\,ME}$	hp	60.8	167	179	191	211	3,390,000	383,000
		kW	45.4	124	134	142	158		
	$P_{1\,TH}$	hp	16.2	44.5	47.0	49.4	52.6		
		kW	12.1	33.2	35.1	36.9	39.3		
	$T_{2\,ME}$	lb-in	1,130,000	679,000	604,000	532,000	451,000		
		Nm	128,000	76,800	68,300	60,100	51,000		
	η	%	59	75	77	77	78		

Gold shaded cells represent combinations which may require special lubrication considerations. Please contact Cone Drive Application Engineering for additional information.

See Page 8.7 for Rating Definitions

Size 240 Single Reduction Ratings

SIZE 240

i : 1	Ratings	Units	$N_{1\ NOM}$ rpm					$T_{2\ MAX}$	
			100	580	720	870	1,150	lb-in	Nm
5	$P_{1\ ME}$	hp	495	1,120	1,210	1,280	1,350	4,400,000	497,000
		kW	369	833	902	956	1,010		
	$P_{1\ TH}$	hp	59.5	165	184	198	216		
		kW	44.4	123	137	148	161		
	$T_{2\ ME}$	lb-in	1,470,000	583,000	508,000	450,000	358,000		
		Nm	166,000	65,800	57,400	50,900	40,500		
	η	%	94	96	96	97	97		
8	$P_{1\ ME}$	hp	412	1,000	1,090	1,170	1,280	5,630,000	636,000
		kW	307	749	813	870	954		
	$P_{1\ TH}$	hp	55.5	146	162	172	187		
		kW	41.4	109	121	128	140		
	$T_{2\ ME}$	lb-in	1,880,000	817,000	723,000	643,000	537,000		
		Nm	212,000	92,300	81,700	72,700	60,700		
	η	%	90	94	95	95	96		
15	$P_{1\ ME}$	hp	245	623	667	717	786	5,830,000	659,000
		kW	183	465	497	535	587		
	$P_{1\ TH}$	hp	46.3	111	119	125	132		
		kW	34.6	82.8	88.8	93.3	98.5		
	$T_{2\ ME}$	lb-in	1,940,000	913,000	796,000	717,000	601,000		
		Nm	220,000	103,000	90,000	81,000	67,900		
	η	%	84	90	91	92	93		
20	$P_{1\ ME}$	hp	188	481	513	552	606	5,680,000	642,000
		kW	140	359	383	412	452		
	$P_{1\ TH}$	hp	41.5	97.3	104	109	113		
		kW	31.0	72.6	77.6	81.3	84.3		
	$T_{2\ ME}$	lb-in	1,890,000	920,000	791,000	704,000	591,000		
		Nm	214,000	104,000	89,400	79,600	66,800		
	η	%	80	88	88	88	89		
25	$P_{1\ ME}$	hp	152	390	417	448	492	5,460,000	616,000
		kW	113	291	311	334	367		
	$P_{1\ TH}$	hp	34.9	85.0	88.8	91.6	94.4		
		kW	26.0	63.4	66.3	68.4	70.4		
	$T_{2\ ME}$	lb-in	1,820,000	911,000	785,000	714,000	600,000		
		Nm	205,000	103,000	88,700	80,600	67,800		
	η	%	76	86	86	88	89		
30	$P_{1\ ME}$	hp	127	327	349	376	413	5,260,000	594,000
		kW	94.8	244	261	280	308		
	$P_{1\ TH}$	hp	26.4	73.6	77.4	80.3	82.2		
		kW	19.7	54.9	57.8	59.9	61.3		
	$T_{2\ ME}$	lb-in	1,750,000	853,000	761,000	686,000	577,000		
		Nm	198,000	96,400	86,000	77,500	65,200		
	η	%	73	80	83	84	85		
40	$P_{1\ ME}$	hp	95.9	247	263	283	312	4,790,000	541,000
		kW	71.5	184	197	212	233		
	$P_{1\ TH}$	hp	21.7	62.4	66.1	68.9	71.8		
		kW	16.2	46.6	49.3	51.4	53.6		
	$T_{2\ ME}$	lb-in	1,600,000	826,000	738,000	657,000	555,000		
		Nm	180,000	93,400	83,300	74,200	62,700		
	η	%	66	77	80	80	81		
50	$P_{1\ ME}$	hp	78.9	212	226	243	268	4,400,000	497,000
		kW	58.8	158	169	181	200		
	$P_{1\ TH}$	hp	18.9	51.9	54.8	57.6	61.3		
		kW	14.1	38.7	40.9	43.0	45.7		
	$T_{2\ ME}$	lb-in	1,470,000	865,000	762,000	678,000	573,000		
		Nm	166,000	97,800	86,100	76,600	64,800		
	η	%	59	75	77	77	78		

Gold shaded cells represent combinations which may require special lubrication considerations. Please contact Cone Drive Application Engineering for additional information.

See Page 8.7 for Rating Definitions

SIZE 280

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm			$T_{2\,MAX}$	
			100	580	720	lb-in	Nm
10	$P_{1\,ME}$	hp	513	1,210	1,320	8,530,000	964,000
		kW	383	904	984		
	$T_{2\,ME}$	lb-in	2,840,000	1,210,000	1,080,000		
		Nm	321,000	137,000	123,000		
	η	%	88	92	94		
15	$P_{1\,ME}$	hp	365	877	949	8,680,000	981,000
		kW	272	655	708		
	$T_{2\,ME}$	lb-in	2,890,000	1,290,000	1,130,000		
		Nm	327,000	145,000	128,000		
	η	%	84	90	91		
20	$P_{1\,ME}$	hp	280	676	733	8,480,000	958,000
		kW	209	504	547		
	$T_{2\,ME}$	lb-in	2,830,000	1,290,000	1,130,000		
		Nm	319,000	146,000	128,000		
	η	%	80	88	88		
25	$P_{1\,ME}$	hp	348	2,020	2,500	12,500,000	1,410,000
		kW	259	1,500	1,870		
	$T_{2\,ME}$	lb-in	4,160,000	4,710,000	4,710,000		
		Nm	470,000	532,000	532,000		
	η	%	76	86	86		
30	$P_{1\,ME}$	hp	190	460	499	7,850,000	887,000
		kW	141	343	372		
	$T_{2\,ME}$	lb-in	2,620,000	1,200,000	1,090,000		
		Nm	296,000	135,000	123,000		
	η	%	73	80	83		
40	$P_{1\,ME}$	hp	219	1,270	1,580	10,900,000	1,240,000
		kW	163	948	1,180		
	$T_{2\,ME}$	lb-in	3,640,000	4,250,000	4,420,000		
		Nm	412,000	480,000	499,000		
	η	%	66	77	80		
50	$P_{1\,ME}$	hp	115	278	302	6,400,000	723,000
		kW	85.6	208	225		
	$T_{2\,ME}$	lb-in	2,130,000	1,130,000	1,020,000		
		Nm	241,000	128,000	115,000		
	η	%	59	75	77		

See Page 8.7 for Rating Definitions

3

Cone Drive
BY TIMKEN

SERIES HP

Continuous & Steady Speed Applications

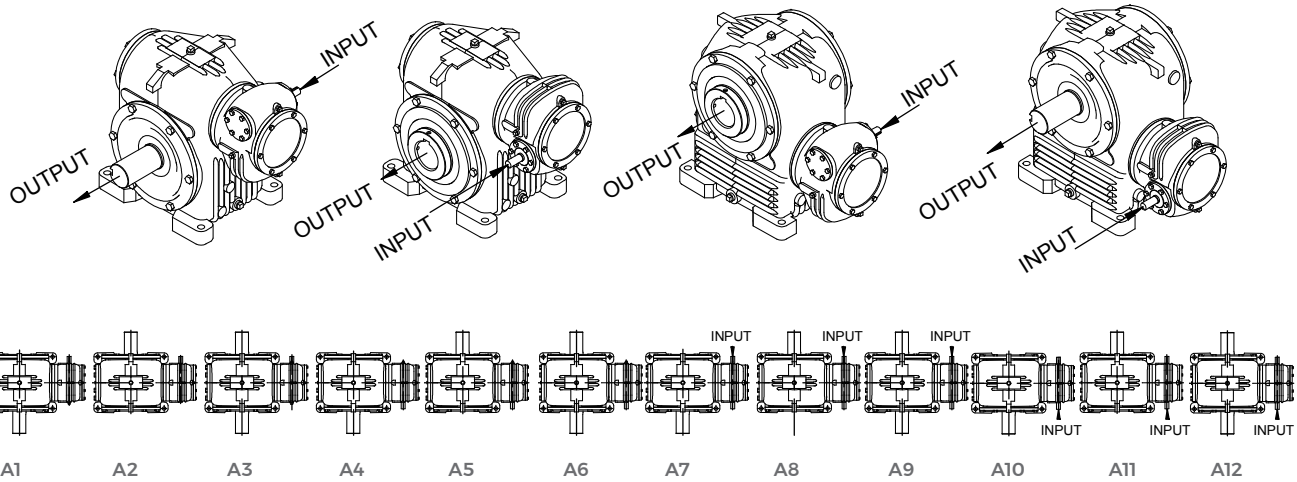
DOUBLE REDUCTION

3.2 Assembly & Mounting Position Numbers
3.8 Dimensions
3.23 Ratings

FLOOR MOUNTED: MODELS OO, OOS, UO, UOS, OU, OUS, UU, UUS

Model Prefixes: F = Fan cooled W = Water cooled M = Motorized

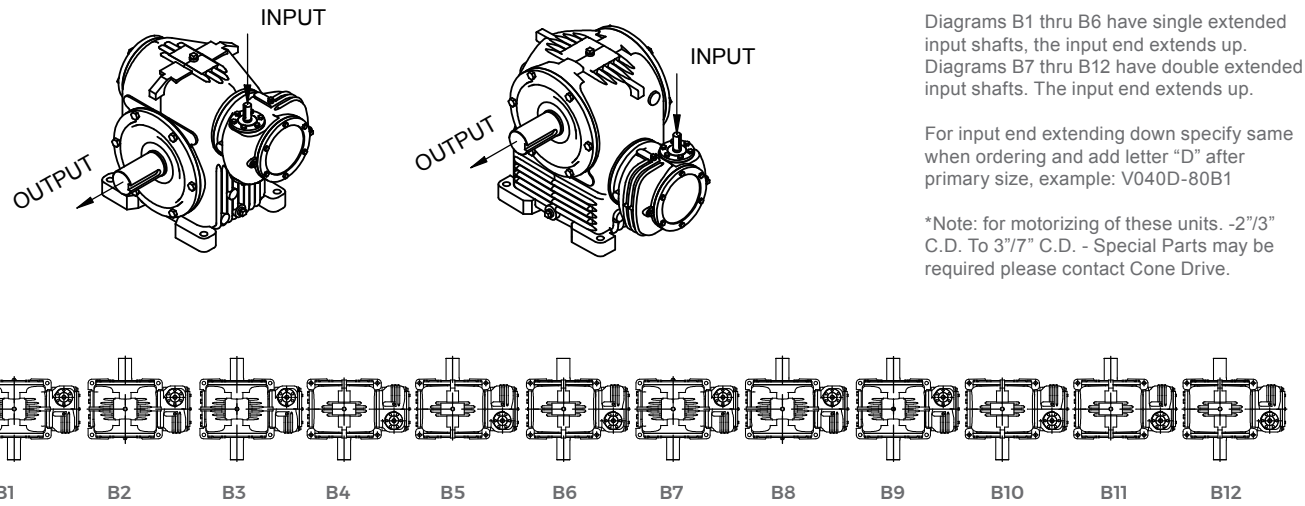
All diagrams show reducer with feet on far side.



FLOOR MOUNTED: MODELS VO, VOS, VU*, VUS*

Model Prefixes: F = Fan cooled W = Water cooled M = Motorized

All diagrams show reducer with feet on far side.



Diagrams B1 thru B6 have single extended input shafts, the input end extends up. Diagrams B7 thru B12 have double extended input shafts. The input end extends up.

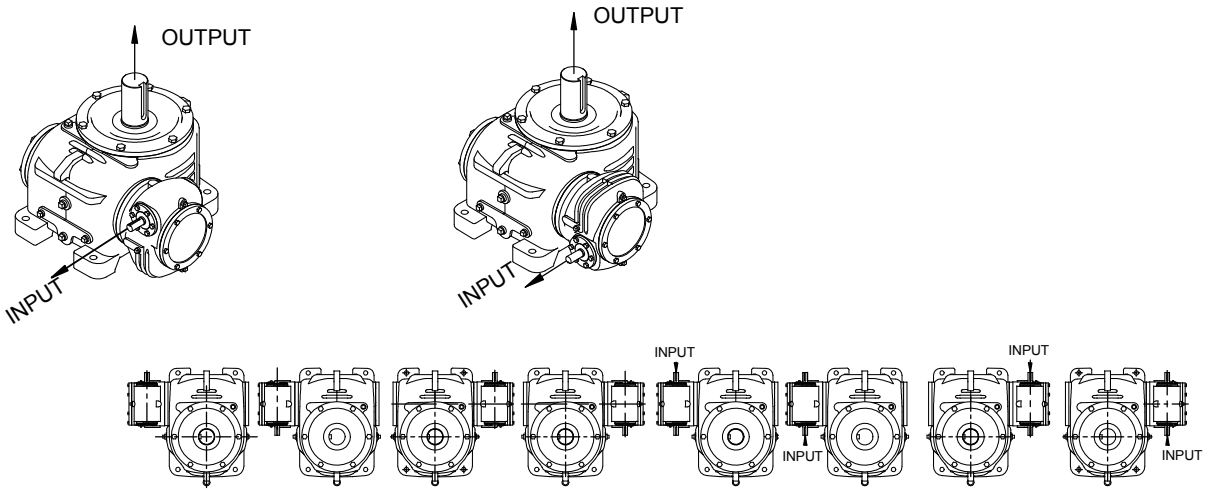
For input end extending down specify same when ordering and add letter “D” after primary size, example: V040D-80B1

*Note: for motorizing of these units. -2”/3” C.D. To 3”/7” C.D. - Special Parts may be required please contact Cone Drive.

FLOOR MOUNTED: MODELS OV, OVS, UV, UVS

Model Prefixes: F = Fan cooled W = Water cooled M = Motorized

All diagrams show reducer with feet on far side.



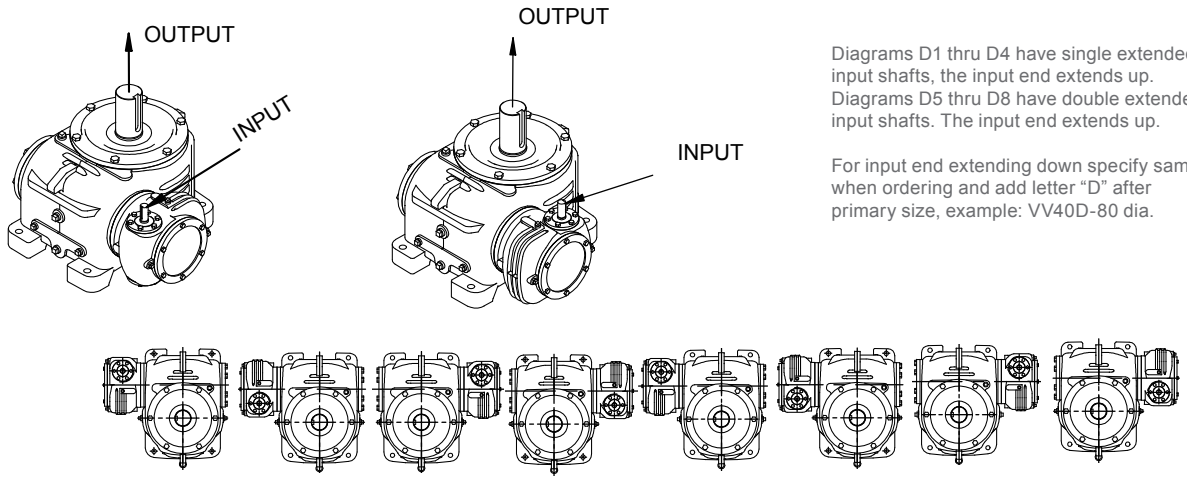
OPPOSITE FEET	C1A	C2A*	C3A	C4A*	C5A	C6A*	C7A	C8A*
THROUGH FEET	C1B	C2B*	C3B	C4B*	C5B	C6B*	C7B	C8B*
DOUBLE EXTENDED	C1C	C2C*	C3C	C4C*	C5C	C6C*	C7C	C8C*

*May require special parts for motorizing. Please contact Cone Drive.

FLOOR MOUNTED: MODELS VV, VVS

Model Prefixes: F = Fan cooled W = Water cooled M = Motorized

All diagrams show reducer with feet on far side.



Diagrams D1 thru D4 have single extended input shafts, the input end extends up. Diagrams D5 thru D8 have double extended input shafts. The input end extends up.

For input end extending down specify same when ordering and add letter “D” after primary size, example: VV40D-80 dia.

OPPOSITE FEET	D1A	D2A	D3A	D4A	D5A	D6A	D7A	D8A
THROUGH FEET	D1B	D2B	D3B	D4B	D5B	D6B	D7B	D8B
DOUBLE EXTENDED	D1C	D2C	D3C	D4C	D5C	D6C	D7C	D8C

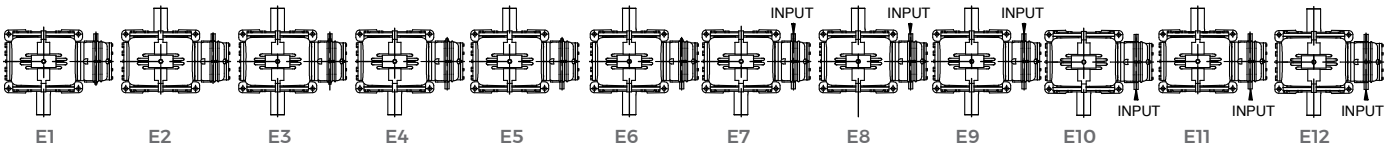
MODELS 00, 00S, OU, OUS, UO, UOS, UU, UUS, VO, VOS, VU, VUS

Note distinction between vertical worm primaries and others.

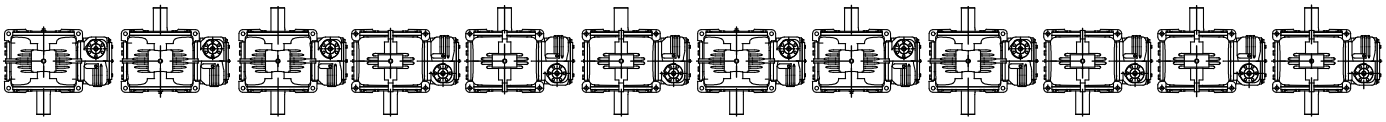
All diagrams show reducer with feet on fair side. Diagrams 7 thru 12 double extended input.

CEILING MOUNTED - Output Shaft Horizontal

MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS

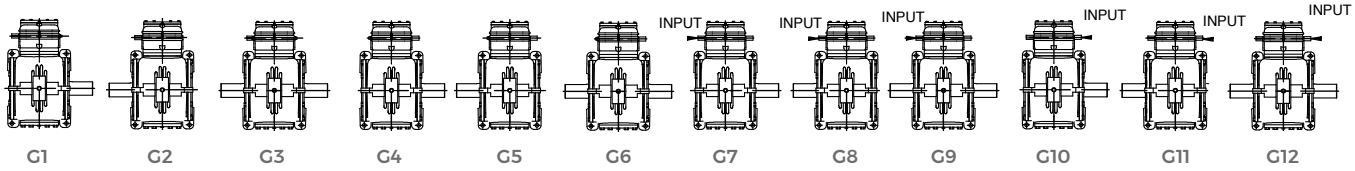


MODELS VO, VOS, VU, VUS

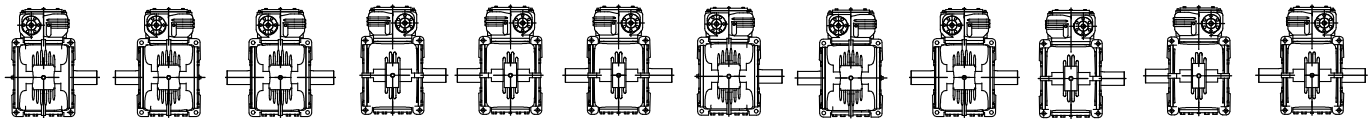


WALL MOUNTED - Primary Under Secondary, All Shafts Horizontal

MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS



MODELS VO, VOS, VU, VUS



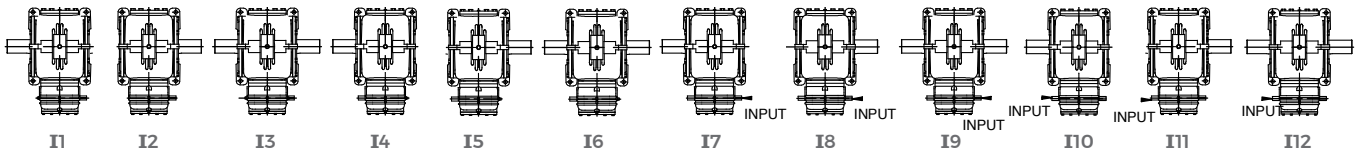
MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS, VO, VOS, VU, US

Note distinction between vertical worm primaries and others.

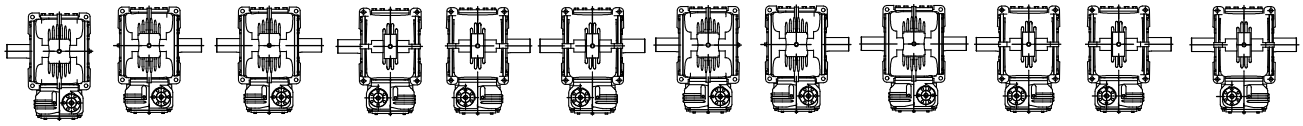
All diagrams show reducer with feet on fair side. Diagrams 7 thru 12 double extended input.

WALL MOUNTED - Primary Under Secondary, All Shafts Horizontal

MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS

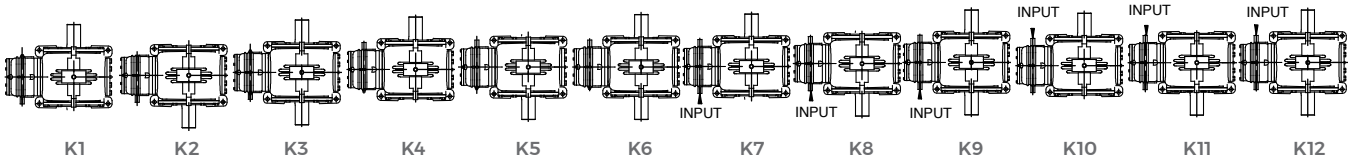


MODELS VO, VOS, VU, VUS

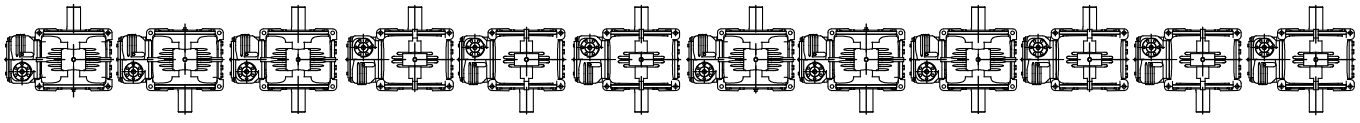


WALL MOUNTED - Primary to Left of Secondary, Output Shaft Vertical

MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS

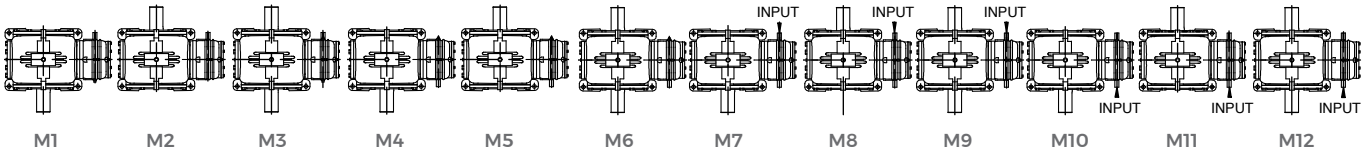


MODELS VO, VOS, VU, VUS

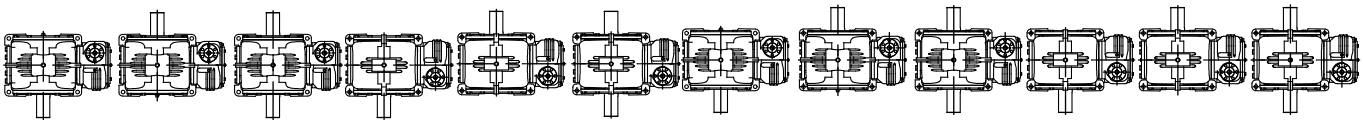


WALL MOUNTED - Primary to Right of Secondary, Output Shaft Vertical

MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS



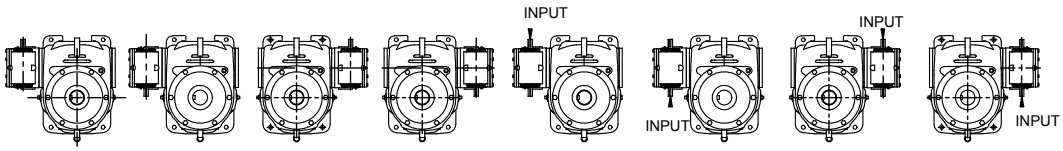
MODELS VO, VOS, VU, VUS



MODELS OV, VV, VVS, OVS, UV, UVS

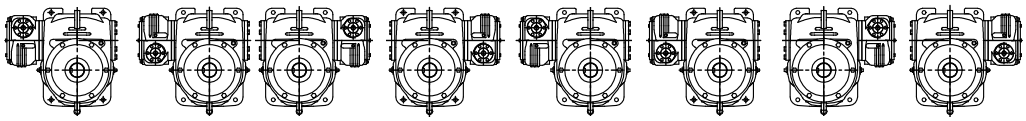
All diagrams show reducer with feet on far side. Diagram 5 thru 8 double extended input.

CEILING MOUNTED - Output Shafts Vertical



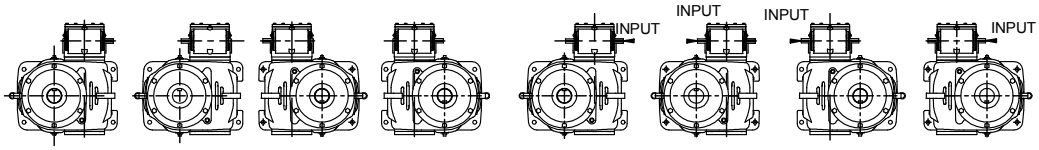
OV, OVS, UV, UVS								
OPPOSITE FEET	O1A	O2A*	O3A	O4A*	O5A	O6A*	O7A	O8A*
THROUGH FEET	O1B	O2B*	O3B	O4B*	O5B	O6B*	O7B	O8B*
DOUBLE EXTENDED	O1C	O2C*	O3C	O4C*	O5C	O6C*	O7C	O8C*

*May require special parts for motorizing. Please contact Cone Drive.



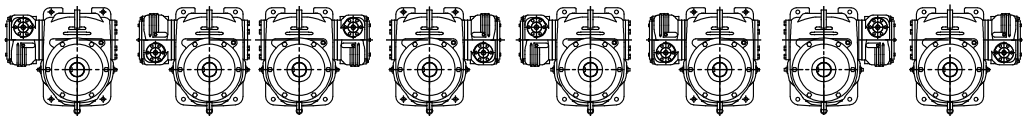
VV, VVS								
OPPOSITE FEET	P1A	P2A	P3A	P4A	P5A	P6A	P7A	P8A
THROUGH FEET	P1B	P2B	P3B	P4B	P5B	P6B	P7B	P8B
DOUBLE EXTENDED	P1C	P2C	P3C	P4C	P5C	P6C	P7C	P8C

WALL MOUNTED - Primary Over Secondary, All Shafts Horizontal



OV, OVS, UV, UVS								
OPPOSITE FEET	Q1A	Q2A*	Q3A	Q4A*	Q5A	Q6A*	Q7A	Q8A*
THROUGH FEET	Q1B	Q2B*	Q3B	Q4B*	Q5B	Q6B*	Q7B	Q8B*
DOUBLE EXTENDED	Q1C	Q2C*	Q3C	Q4C*	Q5C	Q6C*	Q7C	Q8C*

*May require special parts for motorizing. Please contact Cone Drive.

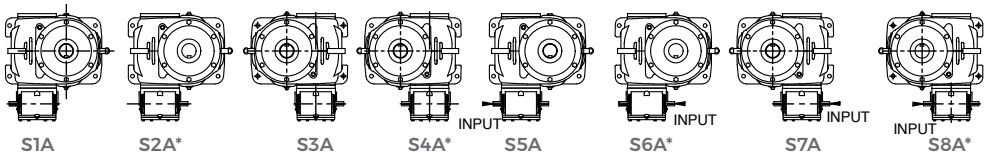


VV, VVS								
OPPOSITE FEET	R1A	R2A	R3A	R4A	R5A	R6A	R7A	R8A
THROUGH FEET	R1B	R2B	R3B	R4B	R5B	R6B	R7B	R8B
DOUBLE EXTENDED	R1C	R2C	R3C	R4C	R5C	R6C	R7C	R8C

MODELS OV, VV, VVS, OVS, UV, UVS

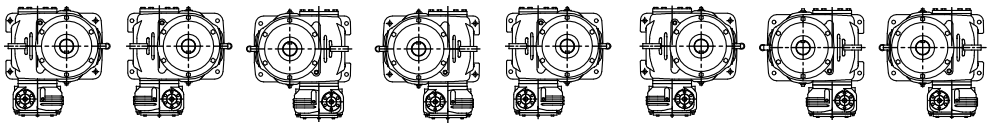
All diagrams show reducer with feet on far side. Diagram 5 thru 8 double extended input.

WALL MOUNTED - Primary Under Secondary, All Shafts Horizontal



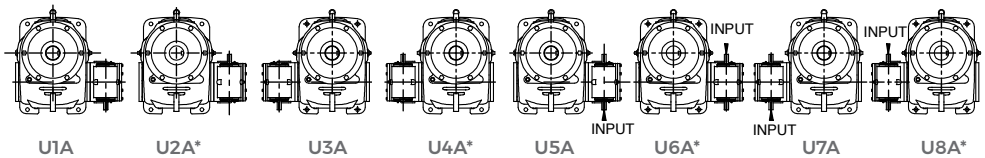
OV, OVS, UV, UVS								
OPPOSITE FEET	S1A	S2A*	S3A	S4A*	S5A	S6A*	S7A	S8A*
THROUGH FEET	S1B	S2B*	S3B	S4B*	S5B	S6B*	S7B	S8B*
DOUBLE EXTENDED	S1C	S2C*	S3C	S4C*	S5C	S6C*	S7C	S8C*

*May require special parts for motorizing. Please contact Cone Drive.



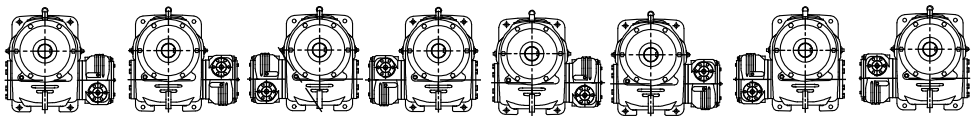
VV, VVS								
OPPOSITE FEET	T1A	T2A	T3A	T4A	T5A	T6A	T7A	T8A
THROUGH FEET	T1B	T2B	T3B	T4B	T5B	T6B	T7B	T8B
DOUBLE EXTENDED	T1C	T2C	T3C	T4C	T5C	T6C	T7C	T8C

WALL MOUNTED - Secondary Worm Under, Output Shafts Horizontal



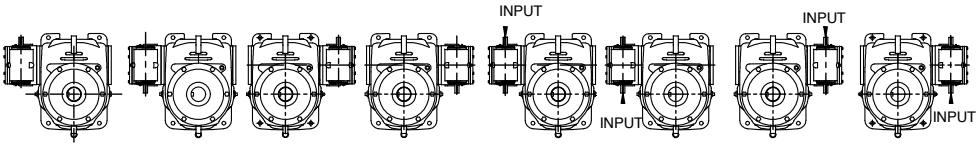
OV, OVS, UV, UVS								
OPPOSITE FEET	U1A	U2A*	U3A	U4A*	U5A	U6A*	U7A	U8A*
THROUGH FEET	U1B	U2B*	U3B	U4B*	U5B	U6B*	U7B	U8B*
DOUBLE EXTENDED	U1C	U2C*	U3C	U4C*	U5C	U6C*	U7C	U8C*

*May require special parts for motorizing. Please contact Cone Drive.



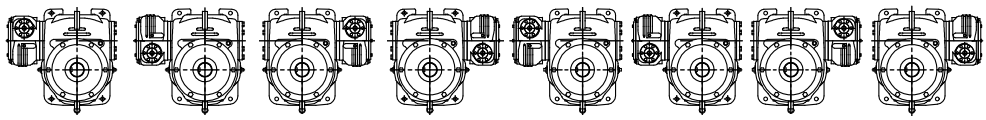
VV, VVS								
OPPOSITE FEET	V1A	V2A	V3A	V4A	V5A	V6A	V7A	V8A
THROUGH FEET	V1B	V2B	V3B	V4B	V5B	V6B	V7B	V8B
DOUBLE EXTENDED	V1C	V2C	V3C	V4C	V5C	V6C	V7C	V8C

WALL MOUNTED - Secondary Worm Under, Output Shafts Horizontal



OV, OVS, UV, UVS								
OPPOSITE FEET	W1A	W2A*	W3A	W4A*	W5A	W6A*	W7A	W8A*
THROUGH FEET	W1B	W2B*	W3B	W4B*	W5B	W6B*	W7B	W8B*
DOUBLE EXTENDED	W1C	W2C*	W3C	W4C*	W5C	W6C*	W7C	W8C*

*May require special parts for motorizing. Please contact Cone Drive.

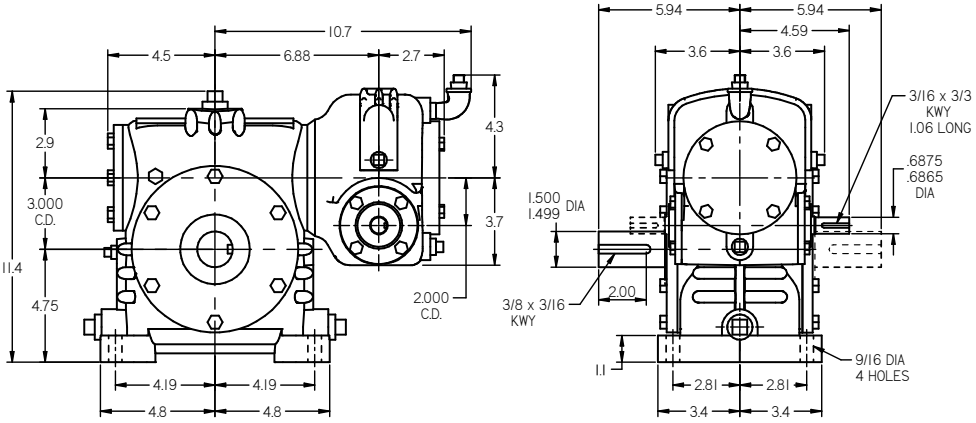


VV, VVS								
OPPOSITE FEET	X1A	X2A	X3A	X4A	X5A	X6A	X7A	X8A
THROUGH FEET	X1B	X2B	X3B	X4B	X5B	X6B	X7B	X8B
DOUBLE EXTENDED	X1C	X2C	X3C	X4C	X5C	X6C	X7C	X8C

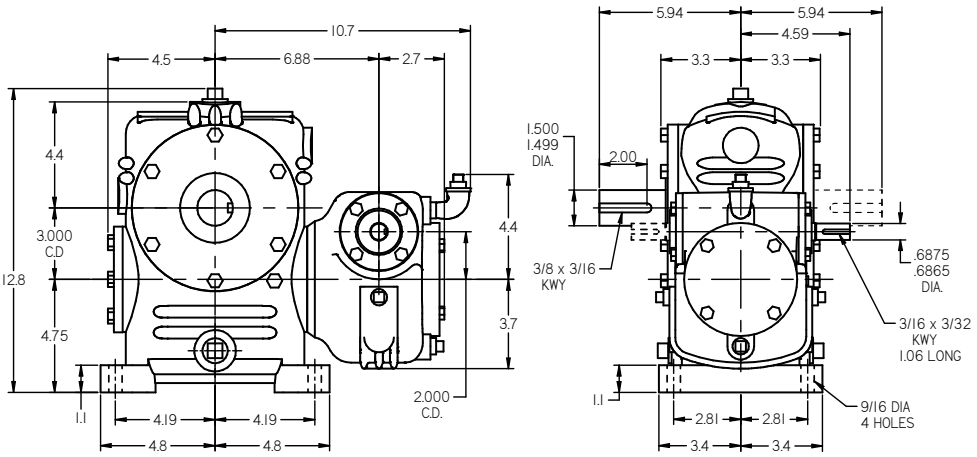
2.000" C.D. PRI./3.000" C.D SEC.

(all dimensions in inches)

Model UO Shown net weight 111 lbs. for all models

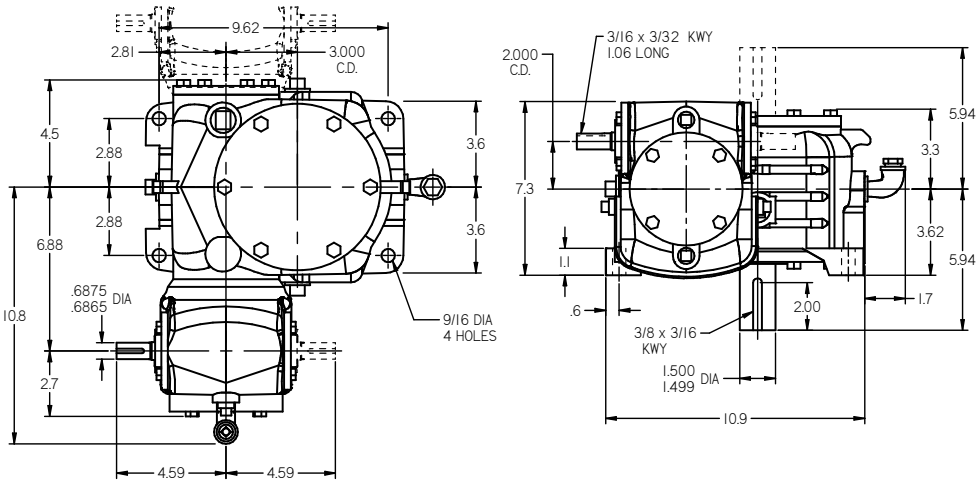


Model OU Shown net weight 111 lbs. for all models



Model OV Shown net weight 108 lbs. for all models

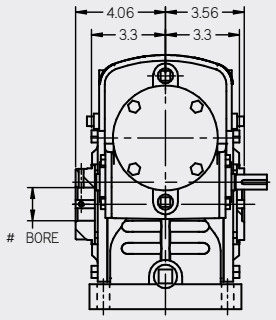
UU and VU configurations follow in this section.



PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

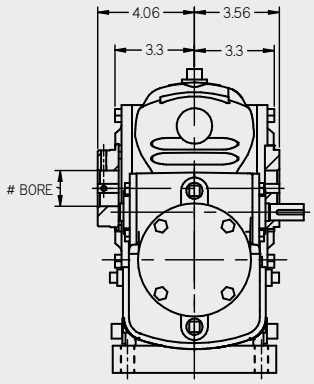
HOLLOW SHAFT

UOS net weight 120 lbs.



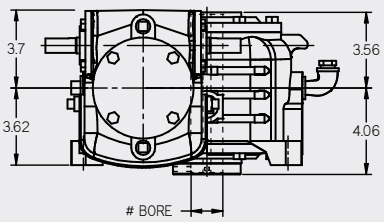
See gear shaft chart. Set screw end of shaft, may extend on either side

OUS net weight 120 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OVS net weight 120 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

Size 20-35 Double Reduction Dimensions

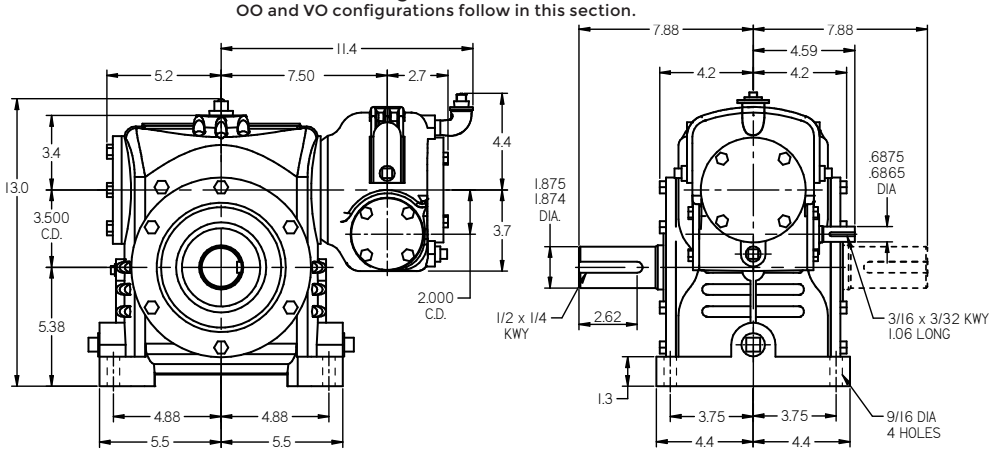
2.000" C.D. PRI./3.500" C.D SEC.

(all dimensions in inches)

Model UO

Shown net weight 151 lbs. for all models

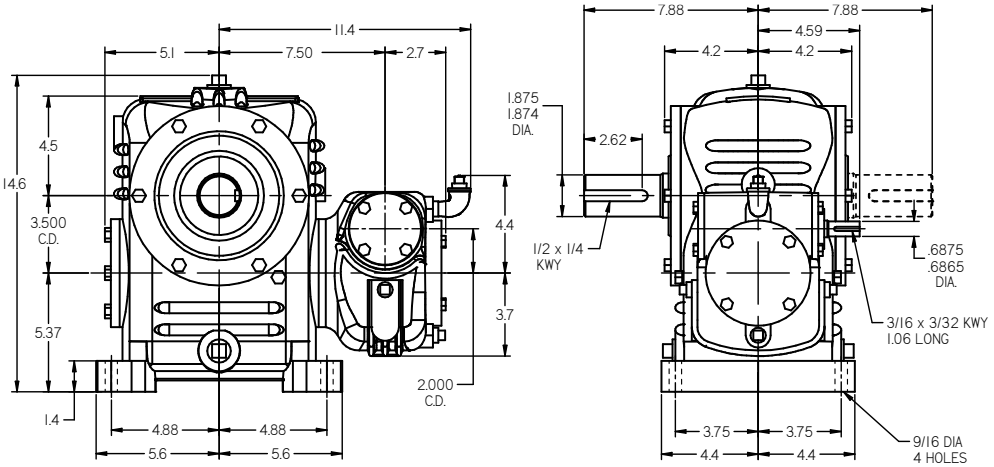
OO and VO configurations follow in this section.



Model OU

Shown net weight 151 lbs. for all models

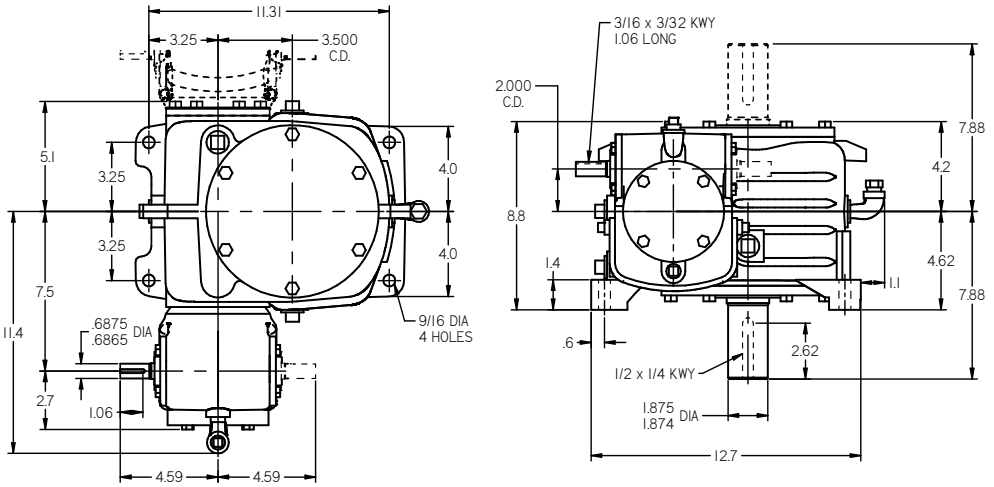
UU and VU configurations follow in this section.



Model OV

Shown net weight 148 lbs. for all models

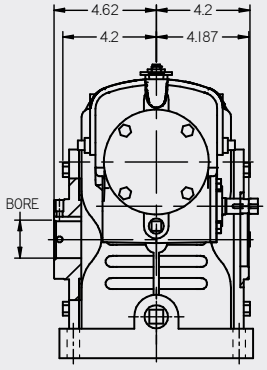
UV and VV configurations follow in this section.



PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

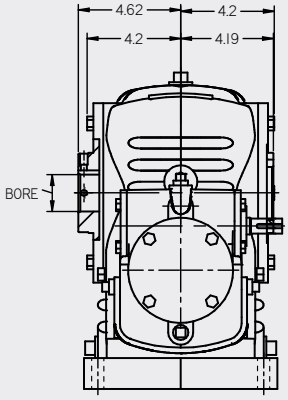
HOLLOW SHAFT

UOS net weight 158 lbs.



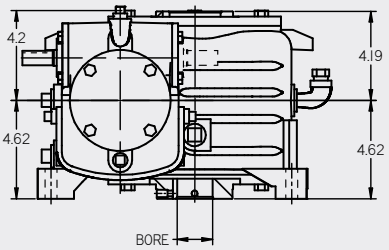
See gear shaft chart. Set screw end of shaft, may extend on either side

OUS net weight 165 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OVS net weight 155 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

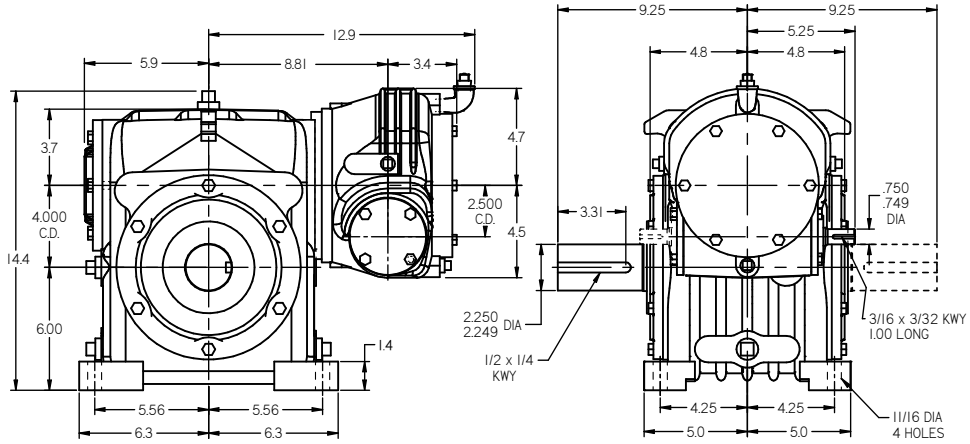
2.500" C.D. PRI./4.000" C.D SEC.

(all dimensions in inches)

Model UO

Shown net weight 212 lbs. for all models

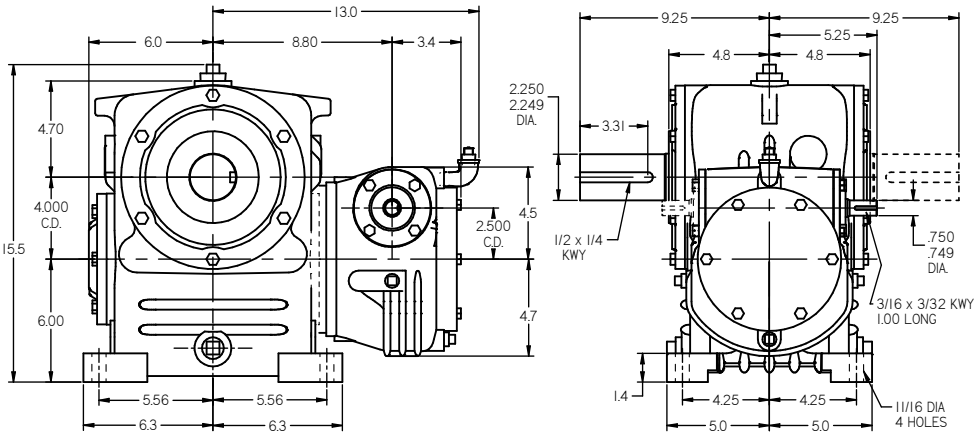
OO and VO configurations follow in this section..



Model OU

Shown net weight 220 lbs. for all models

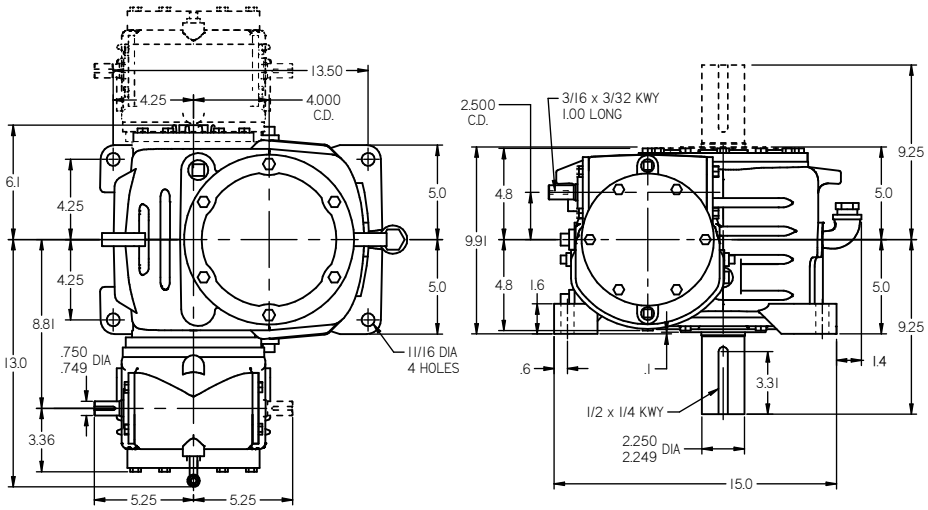
UU and VU configurations follow in this section.



Model OV

Shown net weight 246 lbs. for all models

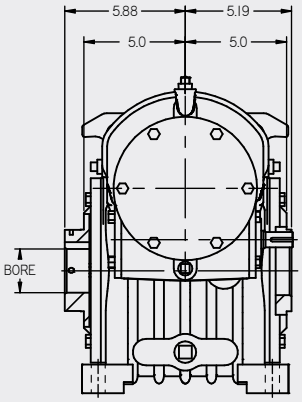
UV and VV configurations follow in this section



PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

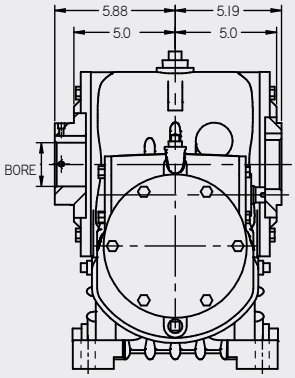
HOLLOW SHAFT

UOS net weight 222 lbs.



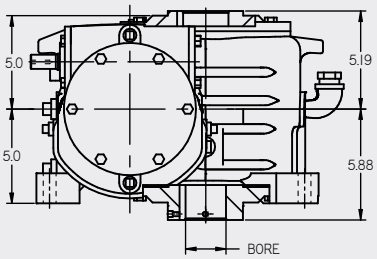
See gear shaft chart. Set screw end of shaft, may extend on either side

OUS net weight 230 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OVS net weight 256 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

Size 25-50 Double Reduction Dimensions

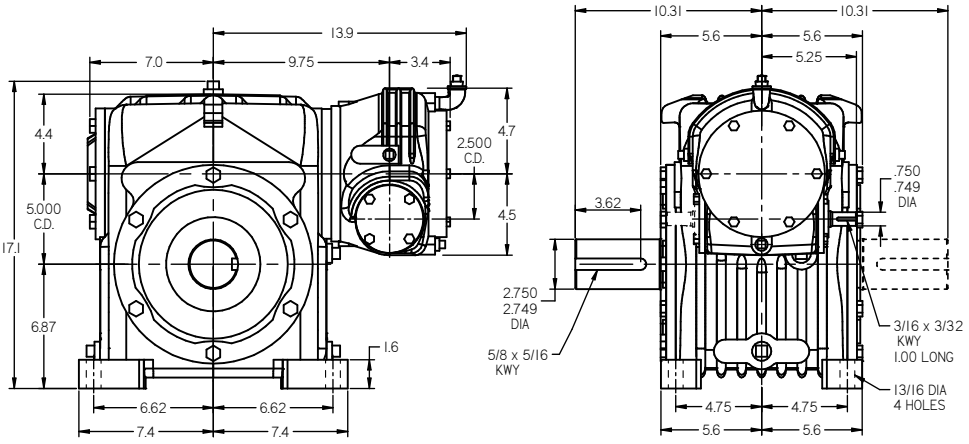
2.500" C.D. PRI./5.000" C.D SEC.

(all dimensions in inches)

Model UO

Shown net weight 315 lbs. for all models

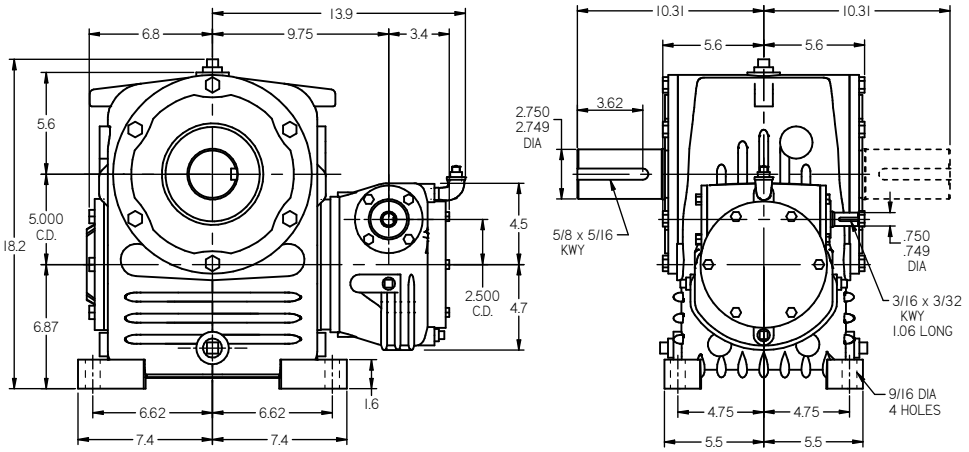
OO and VO configurations follow in this section..



Model OU

Shown net weight 324 lbs. for all models

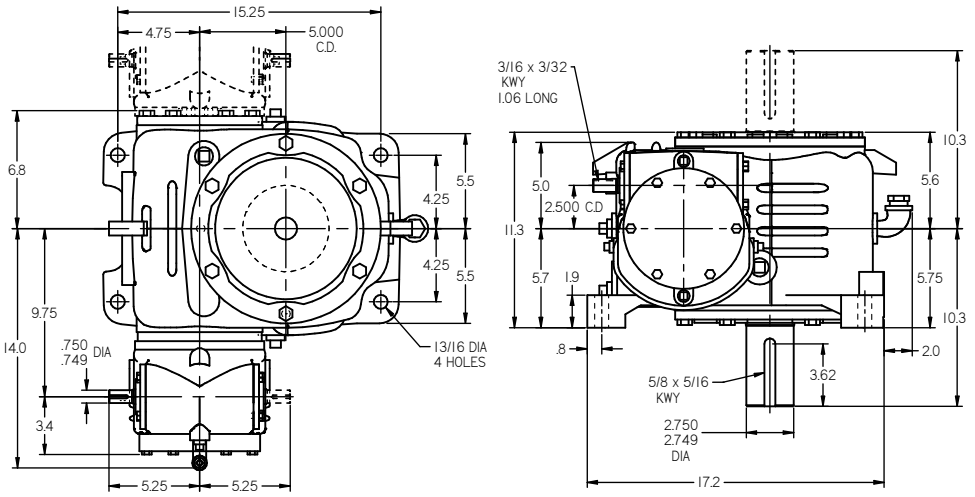
UU and VU configurations follow in this section.



Model OV

Shown net weight 333 lbs. for all models

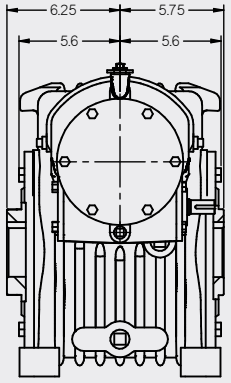
UV and VV configurations follow in this section



PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

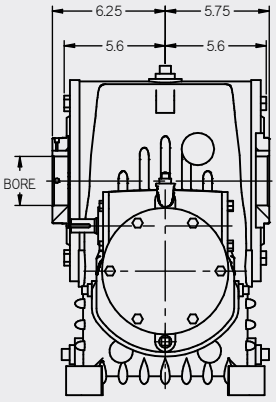
HOLLOW SHAFT

UOS net weight 327 lbs.



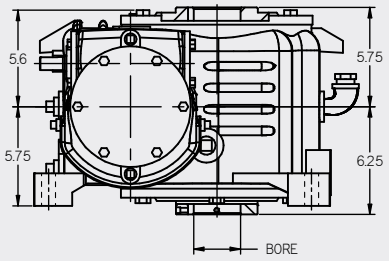
See gear shaft chart. Set screw end of shaft, may extend on either side

OUS net weight 336 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OVS net weight 345 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

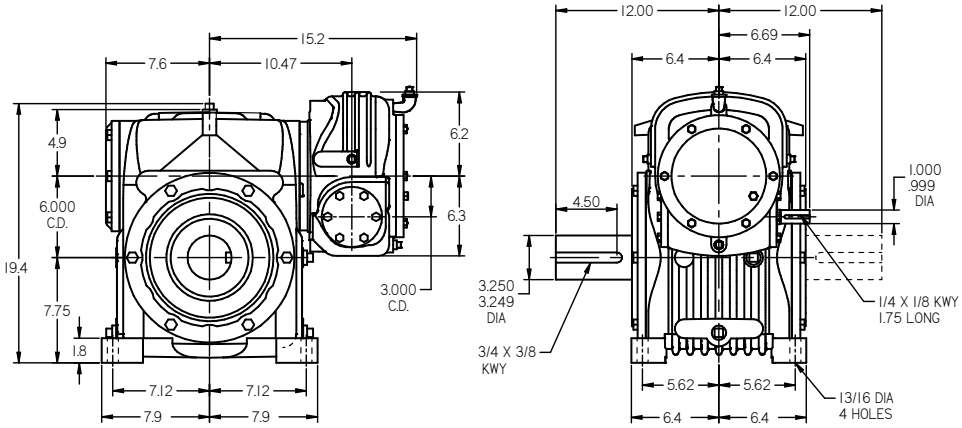
3.000" C.D. PRI./6.000" C.D SEC.

(all dimensions in inches)

Model UO

Shown net weight 441 lbs. for all models

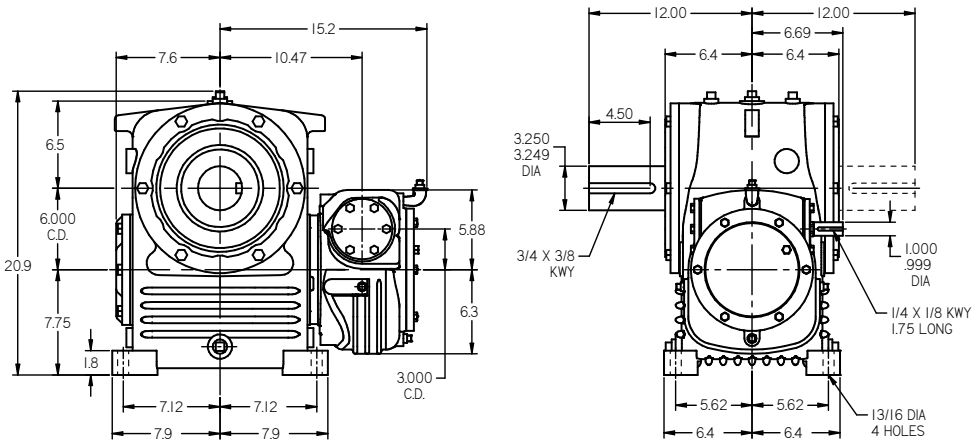
OO and VO configurations follow in this section.



Model OU

Shown net weight 425 lbs. for all models

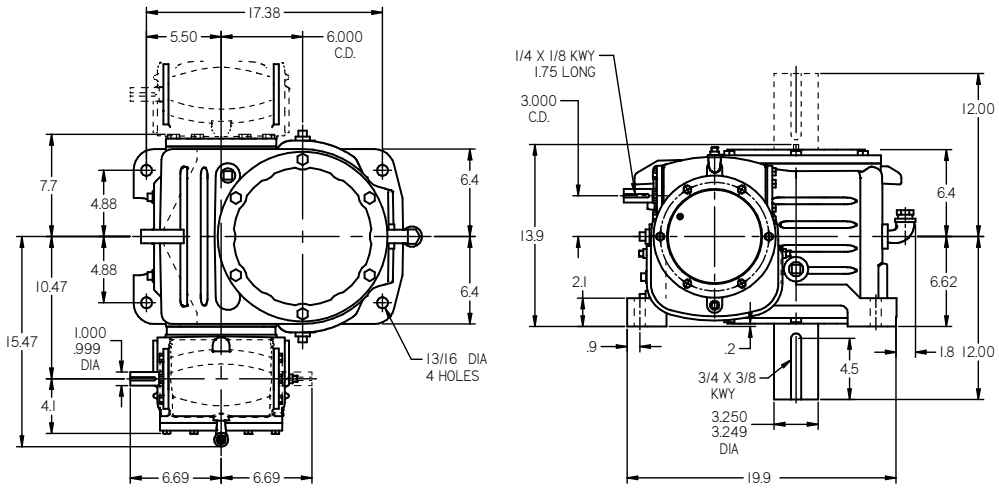
UU and VU configurations follow in this section.



Model OV

Shown net weight 478 lbs. for all models

UV and VV configurations follow in this section.

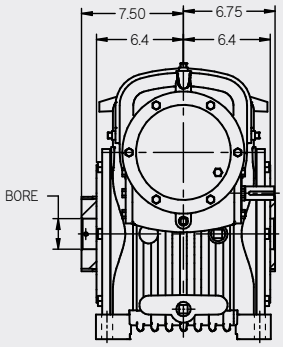


PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

HOLLOW SHAFT

UOS

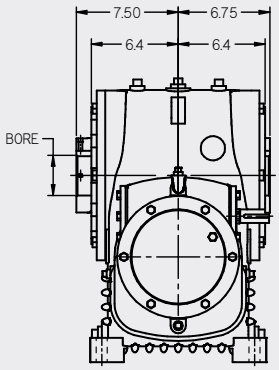
net weight 456 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OUS

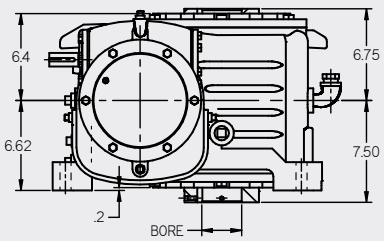
net weight 440 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OVS

net weight 493 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

Size 30-70 Double Reduction Dimensions

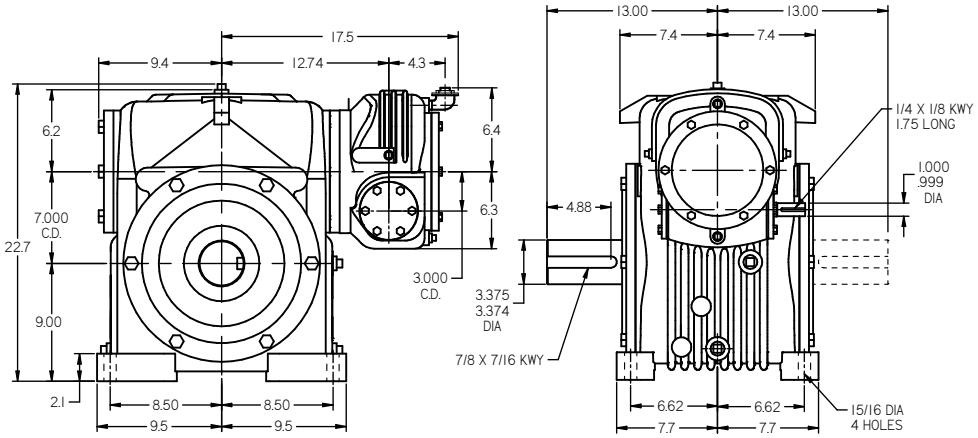
3.000" C.D. PRI./7.000" C.D SEC.

(all dimensions in inches)

Model UO

Shown net weight 653 lbs. for all models

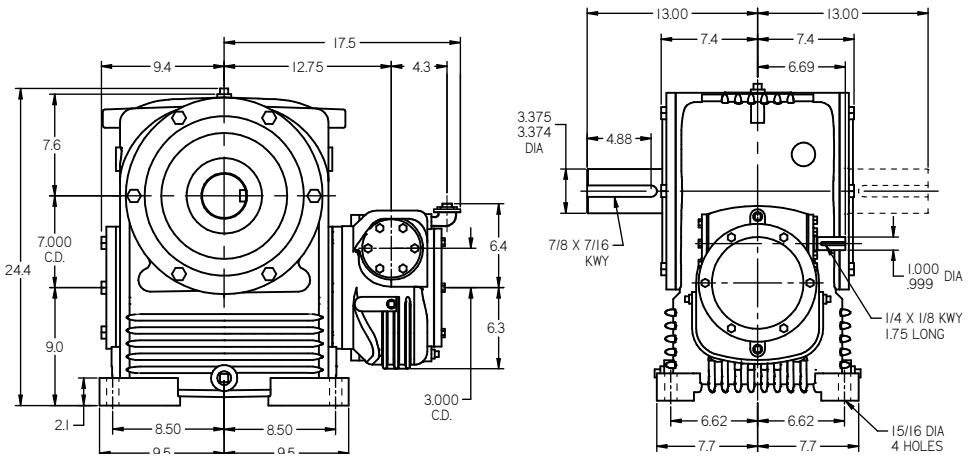
OO and VO configurations follow in this section..



Model OU

Shown net weight 672 lbs. for all models

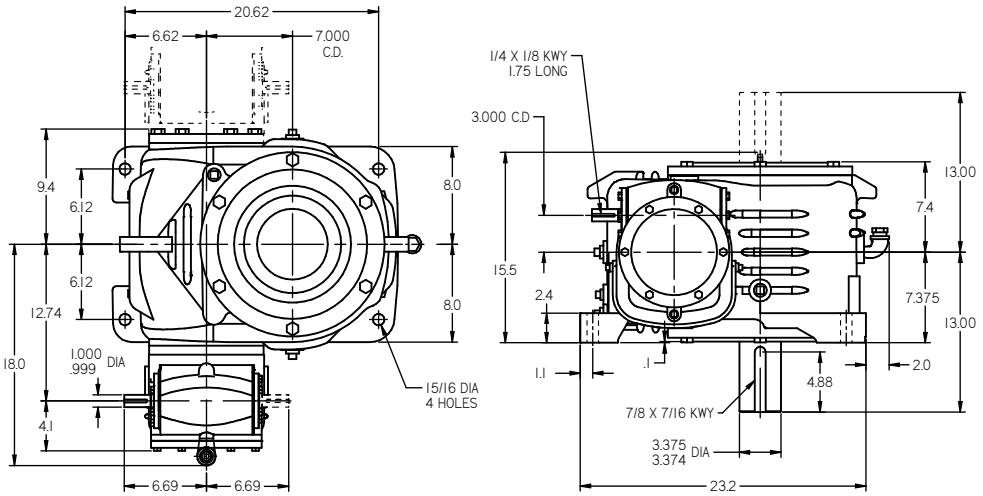
UU and VU configurations follow in this section.



Model OV

Shown net weight 684 lbs. for all models

UV and VV configurations follow in this section

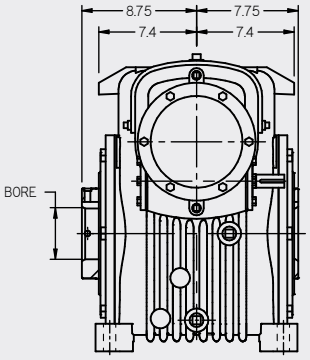


PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

HOLLOW SHAFT

UOS

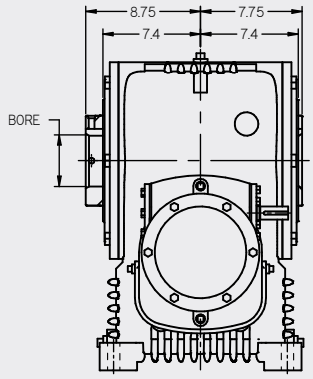
net weight 678 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OUS

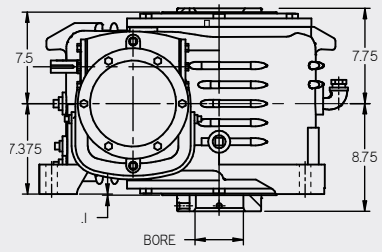
net weight 697 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OVS

net weight 709 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

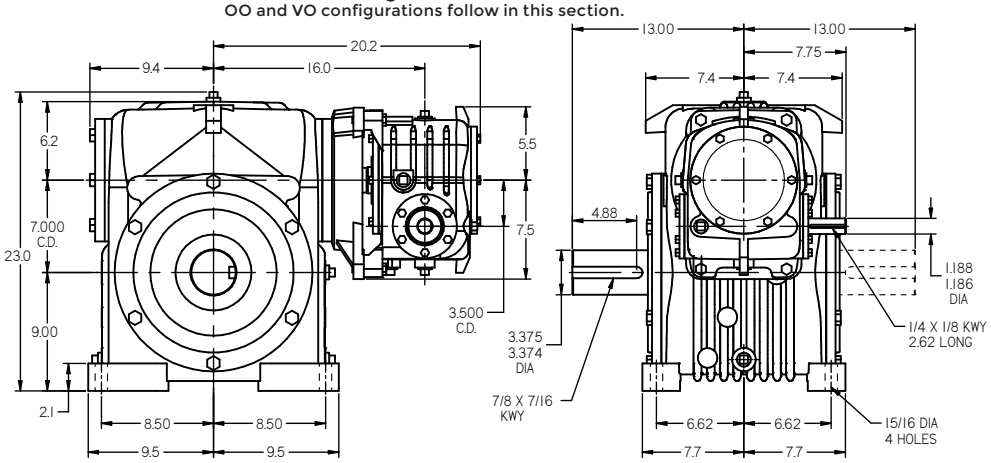
3.500" C.D. PRI./7.000" C.D SEC.

(all dimensions in inches)

Model UO

Shown net weight 740 lbs. for all models

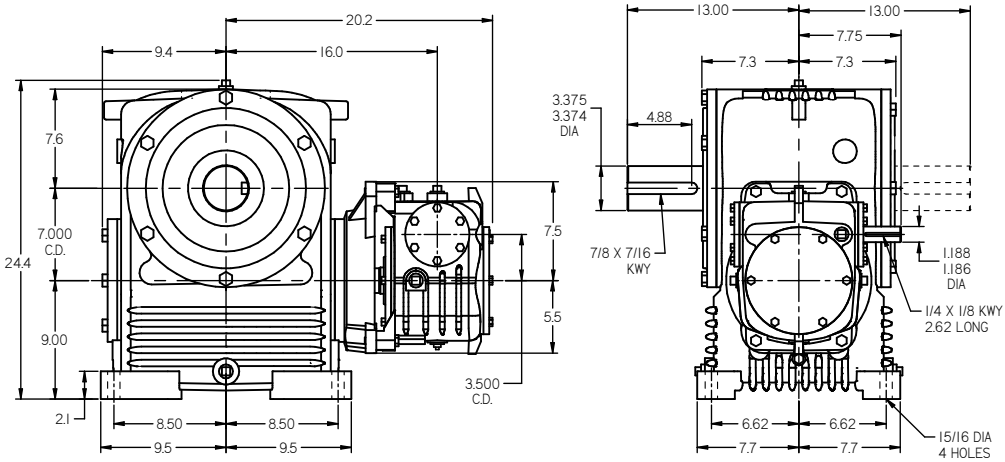
OO and VO configurations follow in this section.



Model OU

Shown net weight 800 lbs. for all models

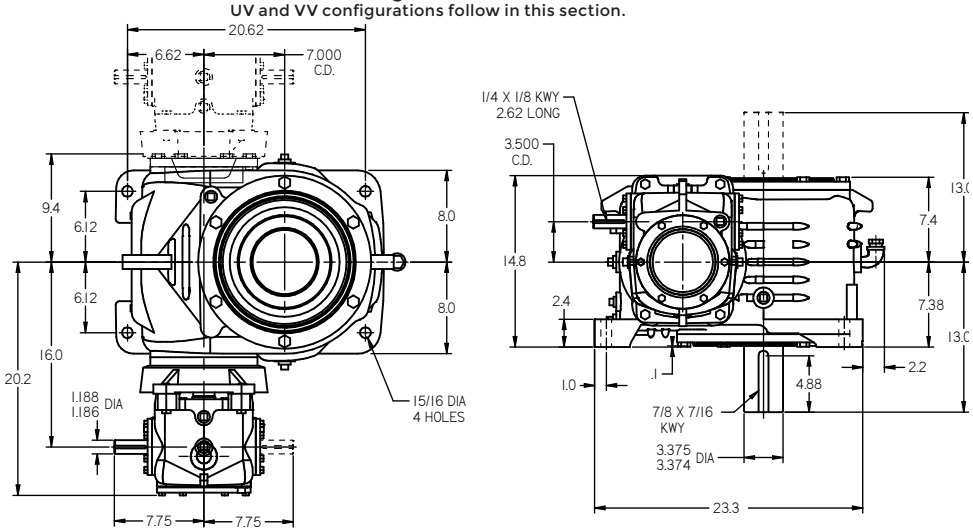
UU and VU configurations follow in this section.



Model OV

Shown net weight 800 lbs. for all models

UV and VV configurations follow in this section.

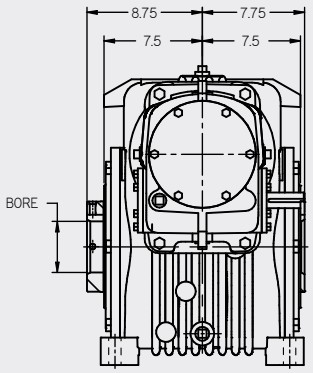


PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

HOLLOW SHAFT

UOS

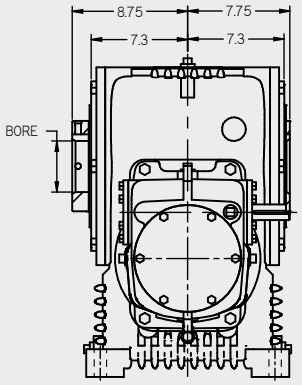
net weight 765 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OUS

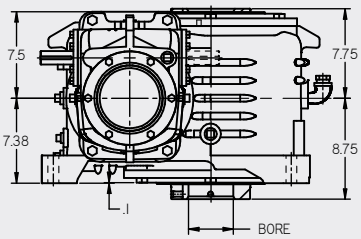
net weight 825 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OVS

net weight 825 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

Size 40-80 Double Reduction Dimensions

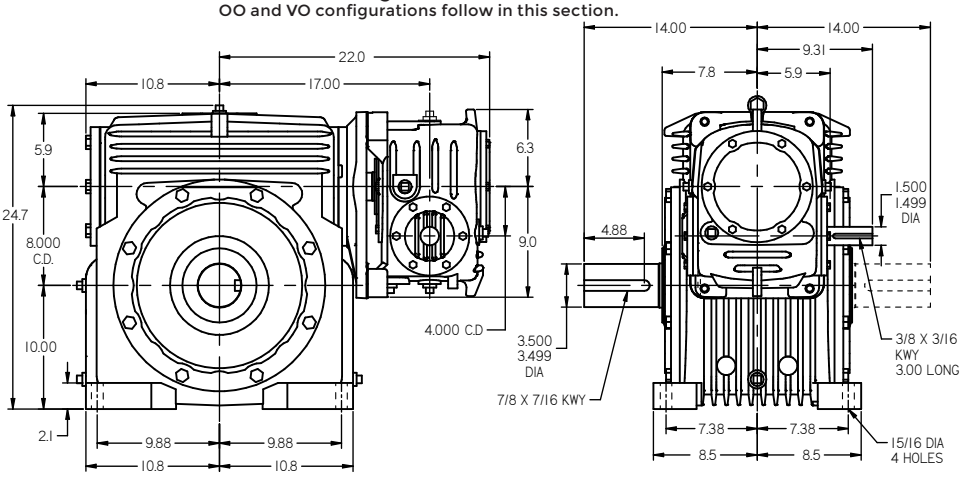
4.000" C.D. PRI./8.000" C.D SEC.

(all dimensions in inches)

Model UO

Shown net weight 950 lbs. for all models

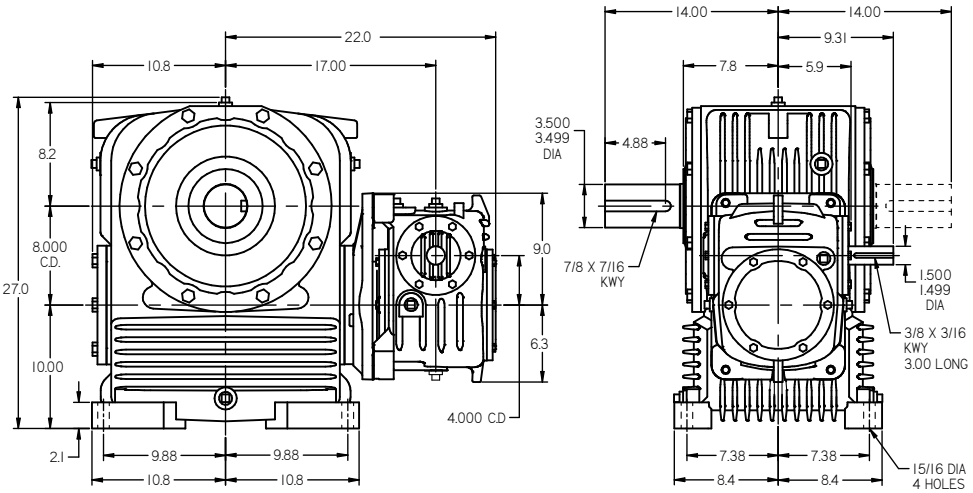
OO and VO configurations follow in this section.



Model OU

Shown net weight 1050 lbs. for all models

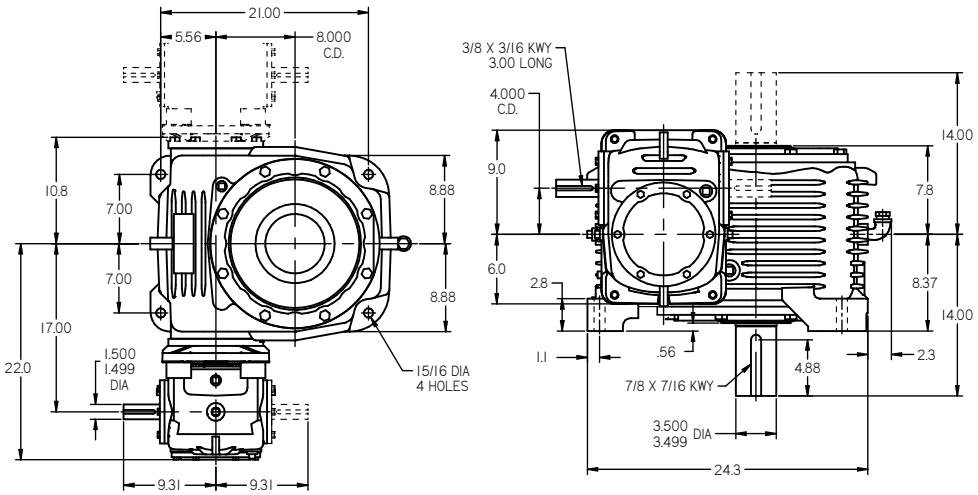
UU and VU configurations follow in this section.



Model OV

Shown net weight 965 lbs. for all models

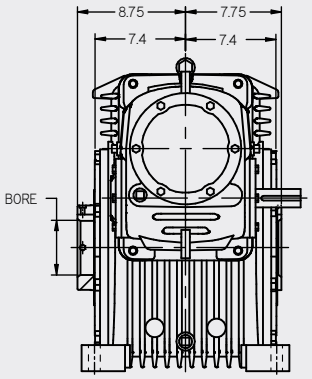
UV and VV configurations follow in this section.



PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

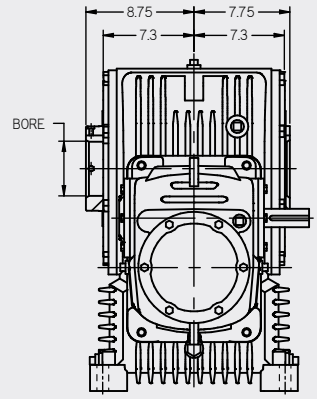
HOLLOW SHAFT

UOS net weight 980 lbs.



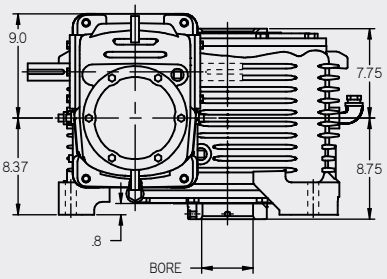
See gear shaft chart. Set screw end of shaft, may extend on either side

OUS net weight 1080 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OVS net weight 995 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

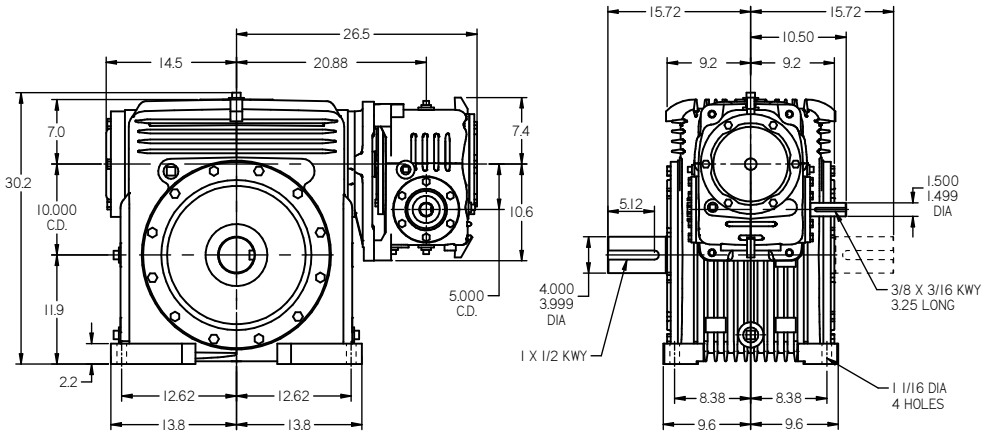
5.000" C.D. PRI./10.000" C.D SEC.

(all dimensions in inches)

Model UO

Shown net weight 1755 lbs. for all models

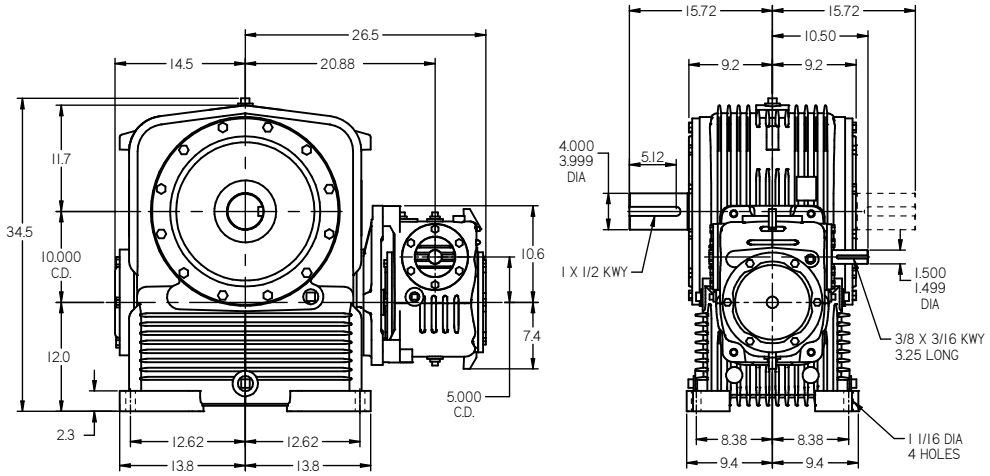
OO and VO configurations follow in this section.



Model OU

Shown net weight 1995 lbs. for all models

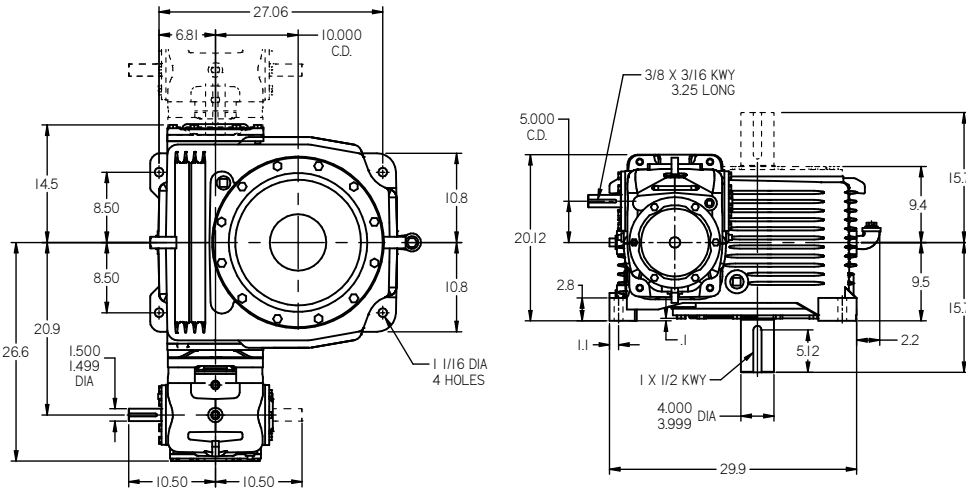
UU and VU configurations follow in this section.



Model OV

Shown net weight 1940 lbs. for all models

UV and VV configurations follow in this section.

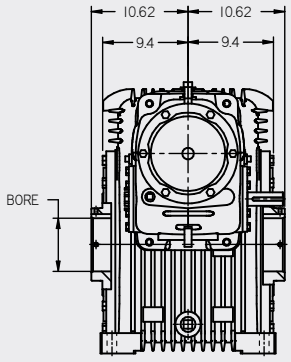


PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

HOLLOW SHAFT

UOS

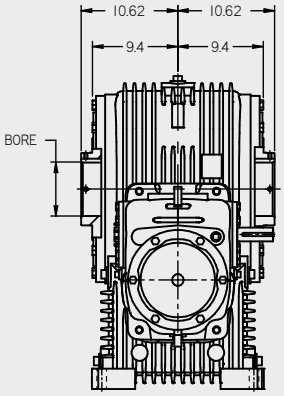
net weight 1805 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OUS

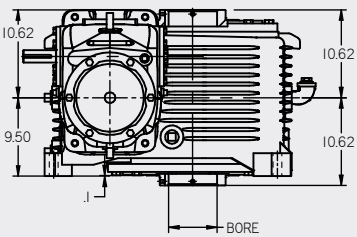
net weight 2045 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OVS

net weight 1990 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

Size 60-120 Double Reduction Dimensions

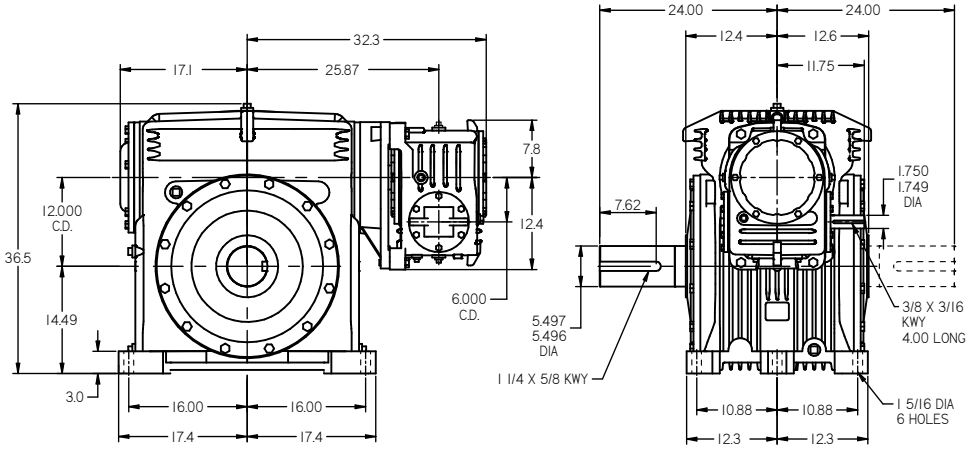
6.000" C.D. PRI./12.000" C.D SEC.

(all dimensions in inches)

Model UO

Shown net weight 3370 lbs. for all models

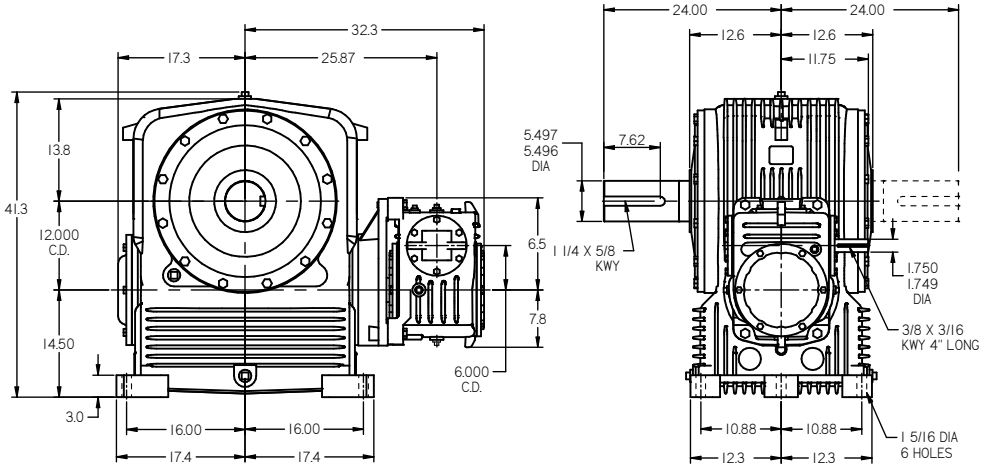
OO and VO configurations follow in this section.



Model OU

Shown net weight 3510 lbs. for all models

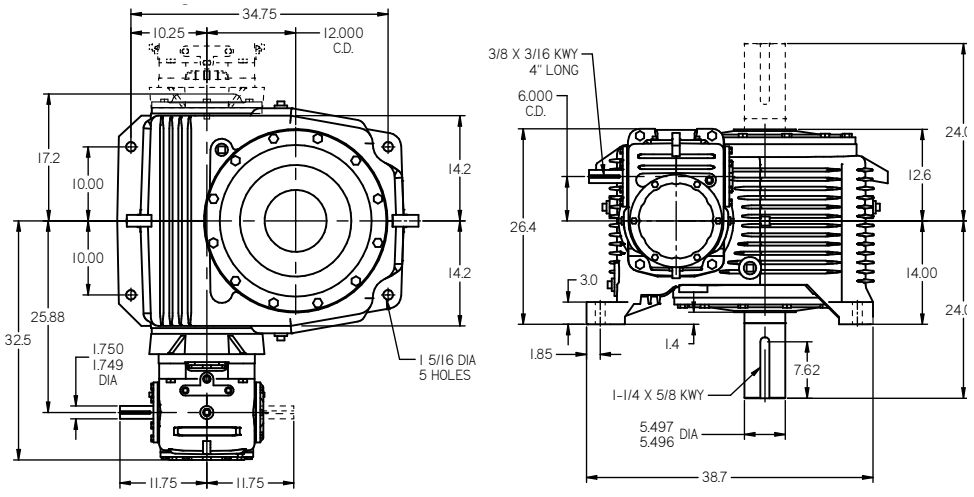
UU and VU configurations follow in this section.



Model OV

Shown net weight 3315 lbs. for all models

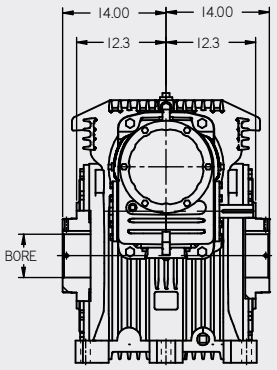
UV and VV configurations follow in this section.



PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

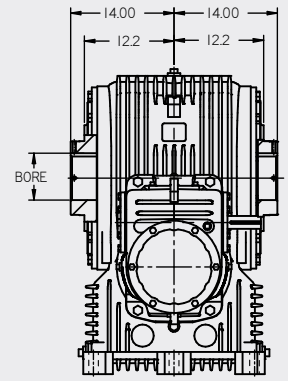
HOLLOW SHAFT

UOS net weight 3420 lbs.



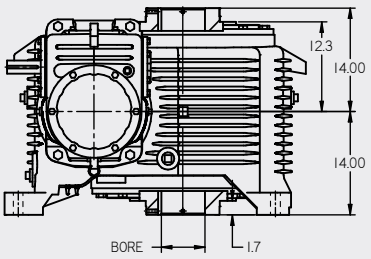
See gear shaft chart. Set screw end of shaft, may extend on either side

OUS net weight 3560 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

OVS net weight 3400 lbs.



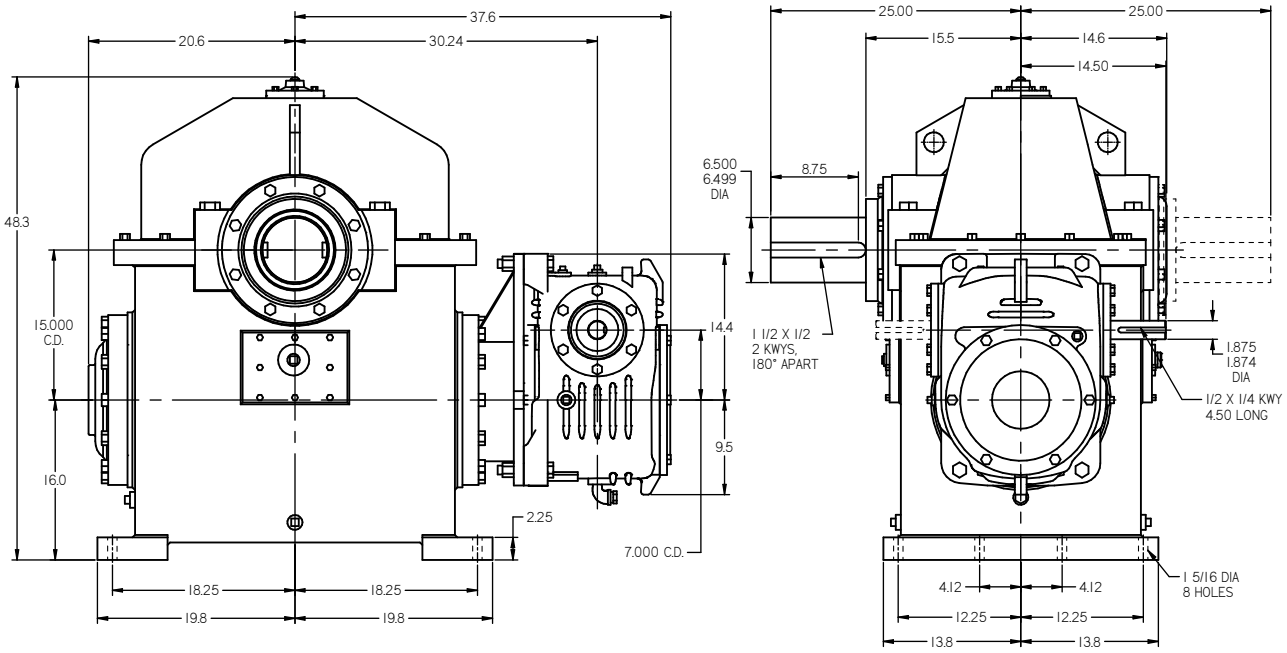
See gear shaft chart. Set screw end of shaft, may extend on either side

7.000” C.D. PRI./15.000” C.D SEC.

(all dimensions in inches)

Model OU

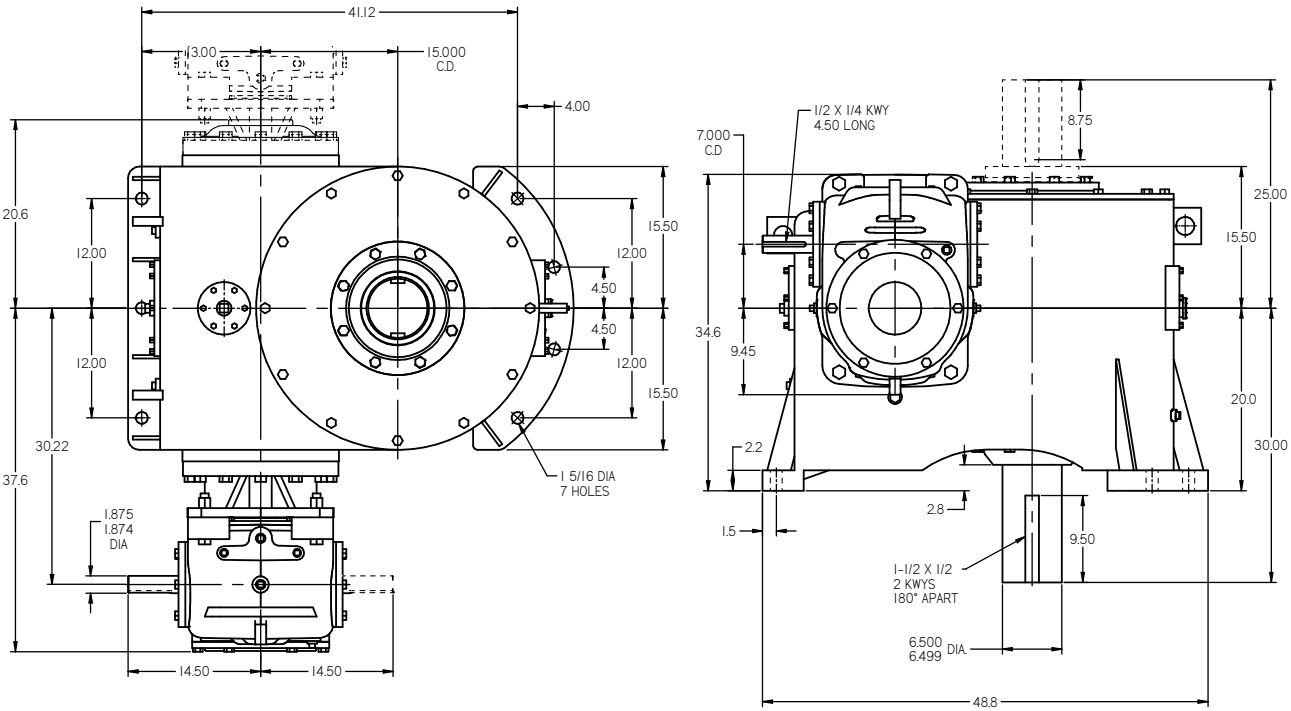
Shown net weight approximate 4500 lbs.
Alternate: UU & VU



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Model OV

Shown net weight approximate 4500 lbs.
Alternate: UV & VV

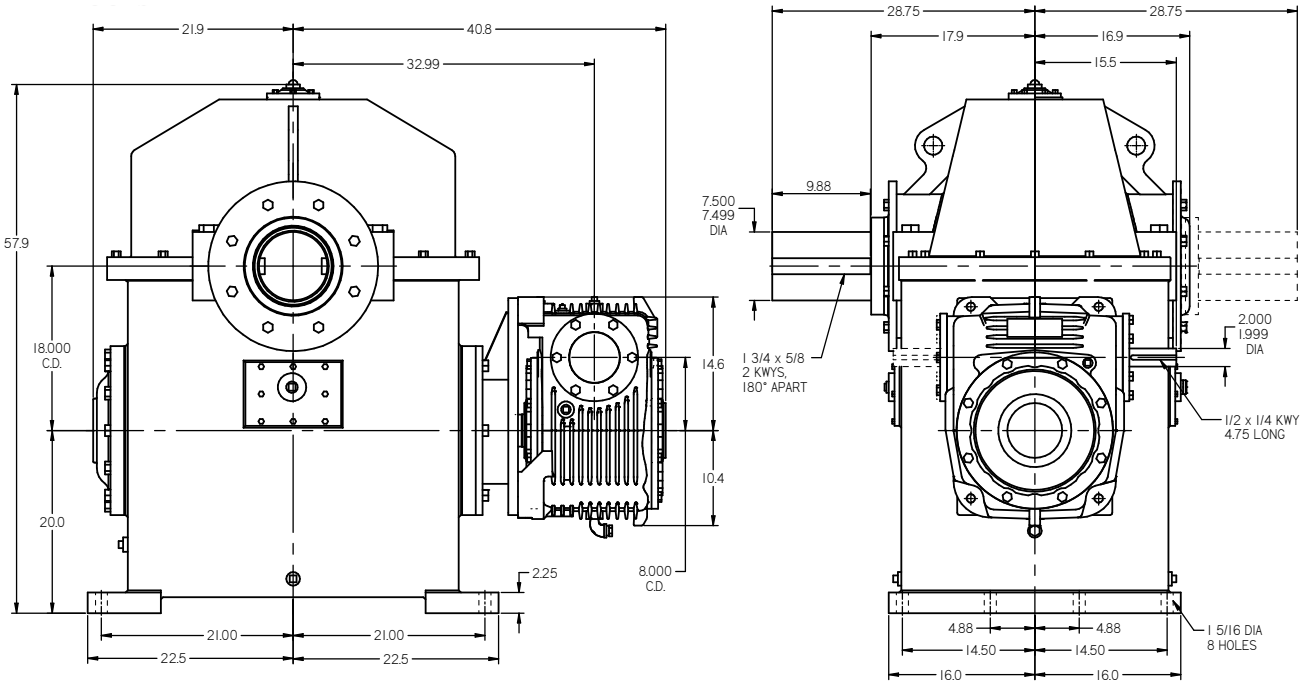


PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

8.000" C.D. PRI./18.000" C.D SEC.

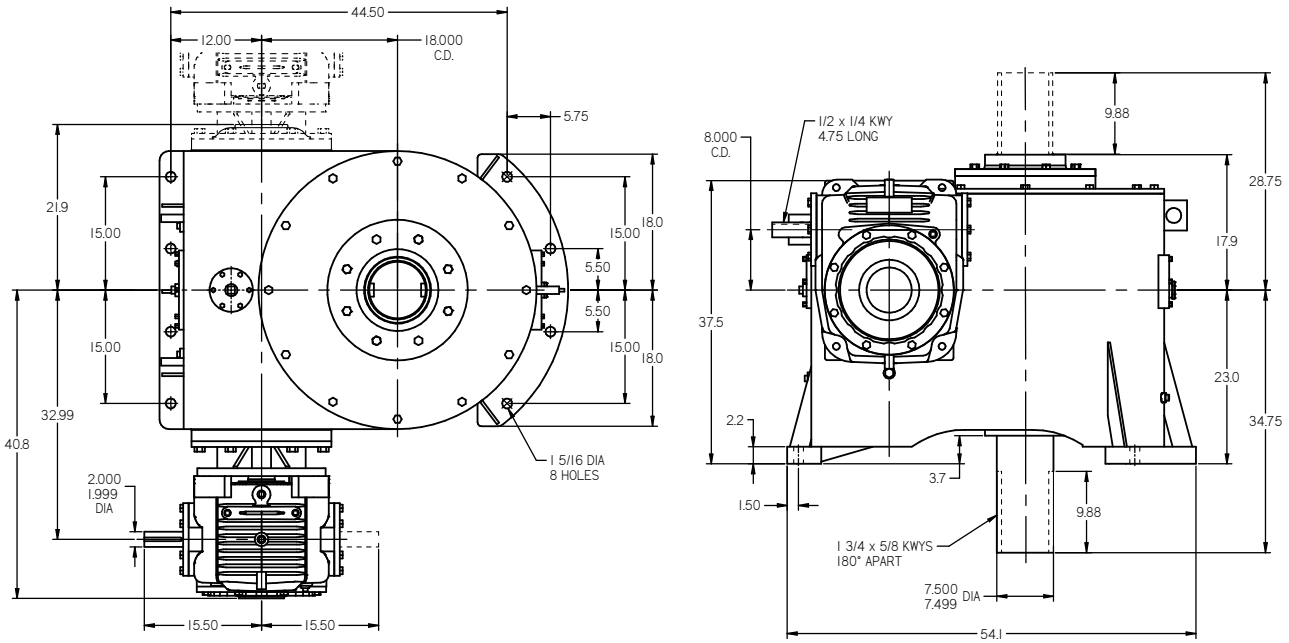
(all dimensions in inches)

Model OU Shown net weight approximate 5750 lbs.
Alternate: UU & VU



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Model OV Shown net weight approximate 5750 lbs.
Alternate: UV & VV



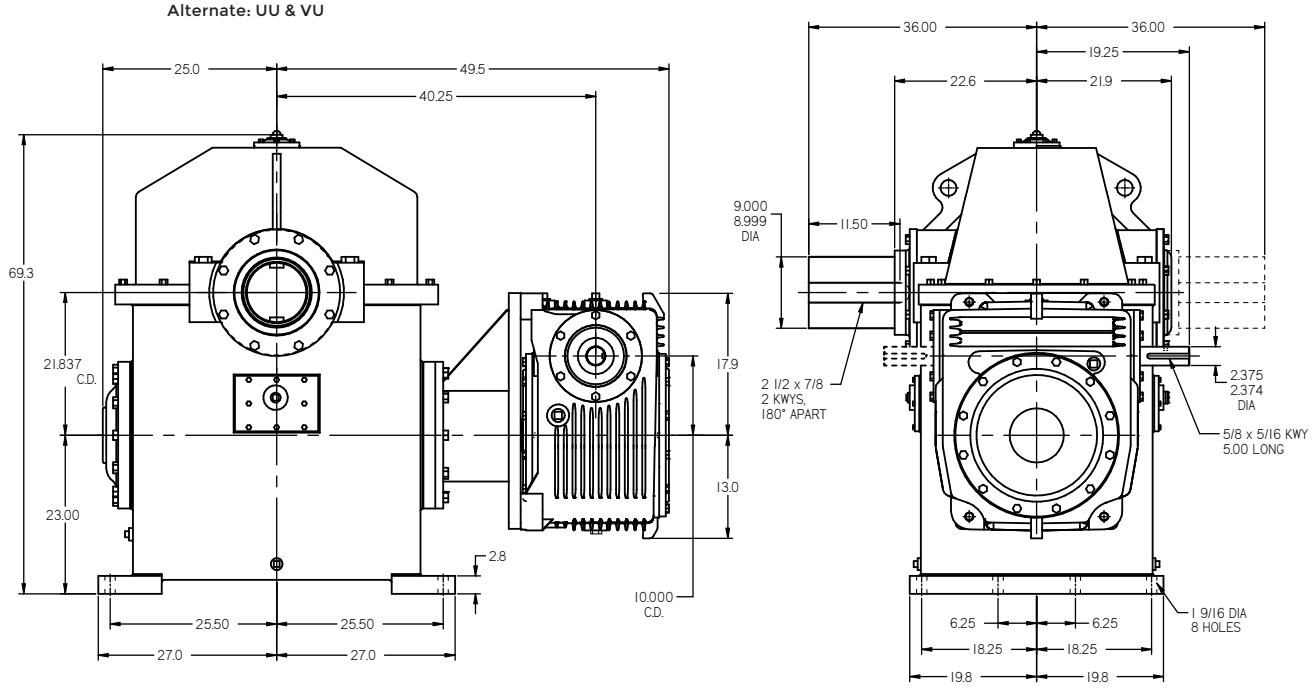
PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

10.000" C.D. PRI./21.837" C.D SEC.

(all dimensions in inches)

Model OU Shown

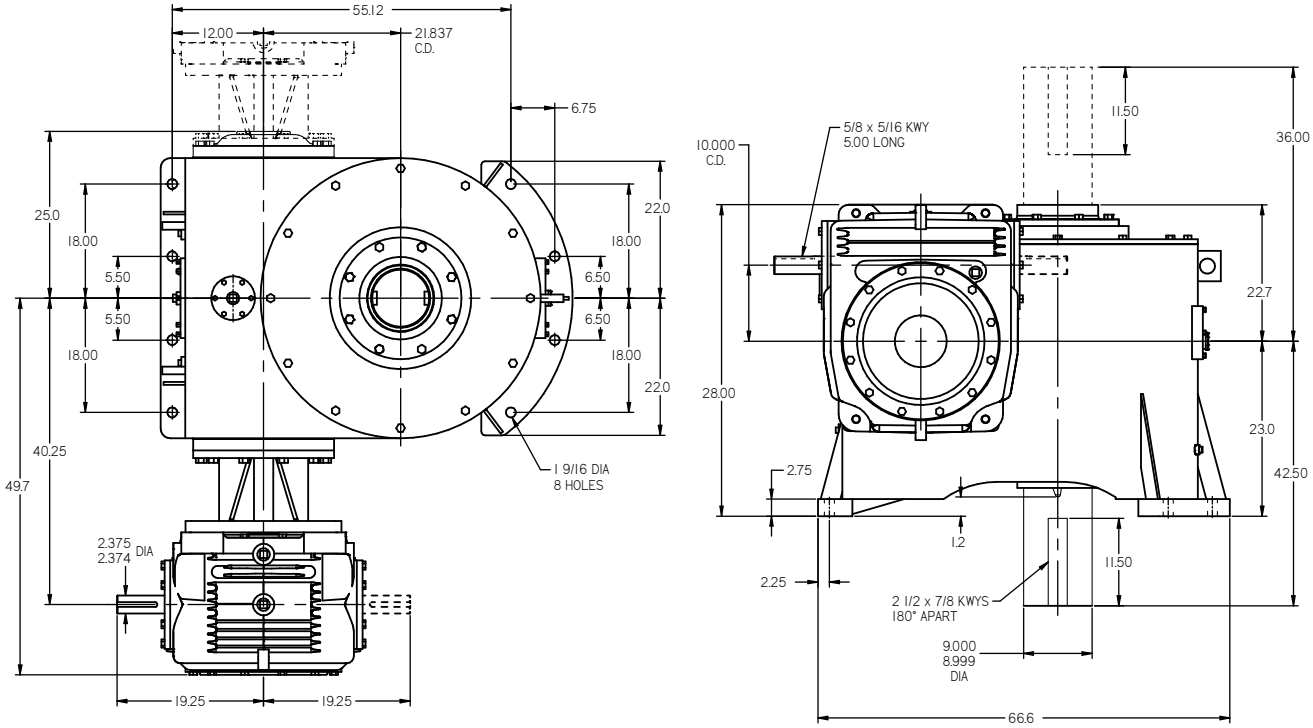
Alternate: UU & VU



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Model OV Shown

Alternate: UV & VV



PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

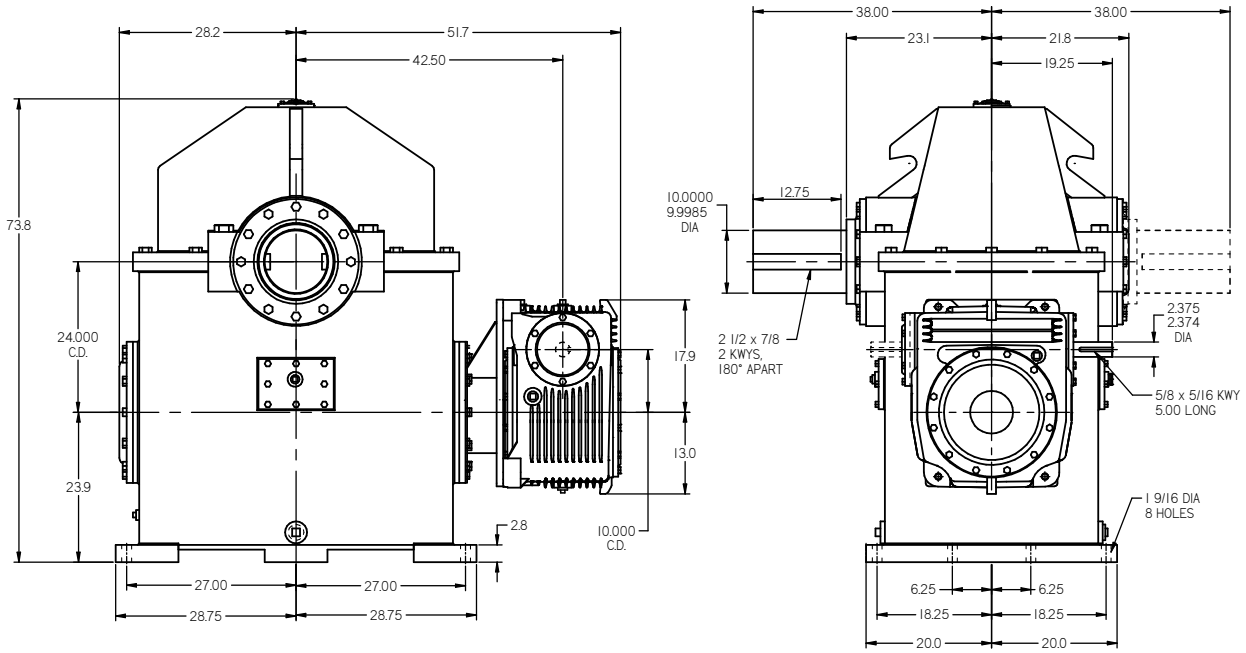
Size 100-240 Double Reduction Dimensions

10.000" C.D. PRI./24.000" C.D SEC.

(all dimensions in inches)

Model OU Shown

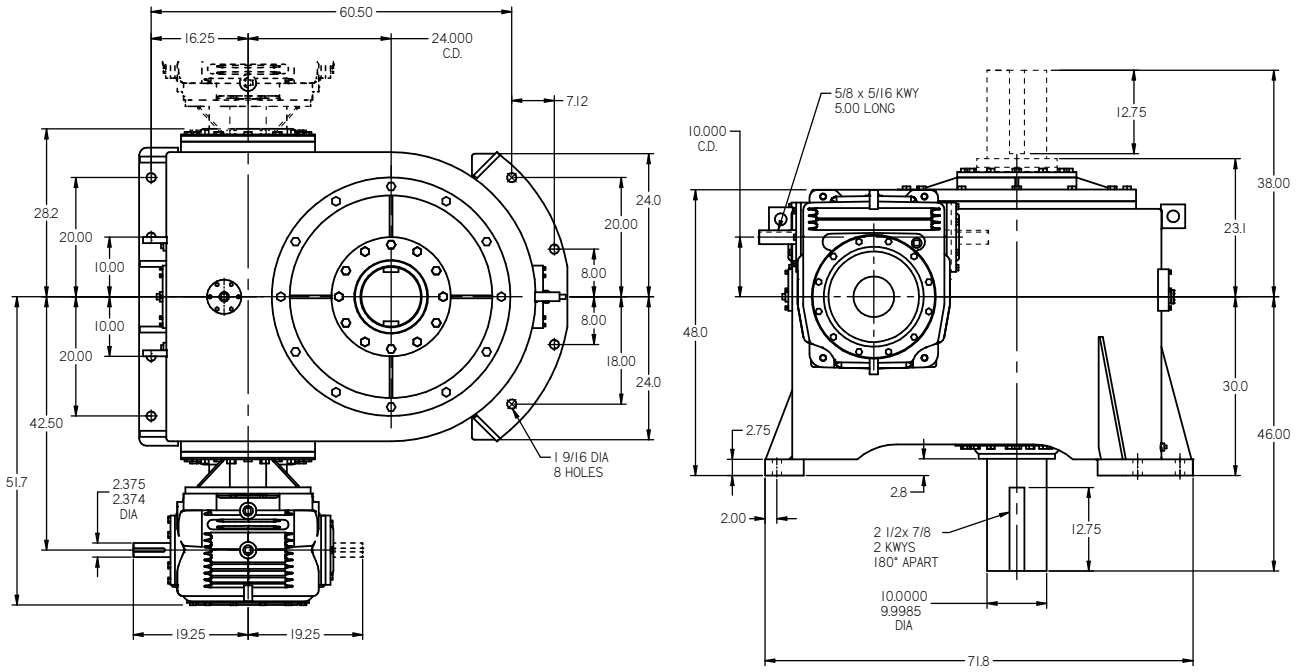
Alternate: UU & VU



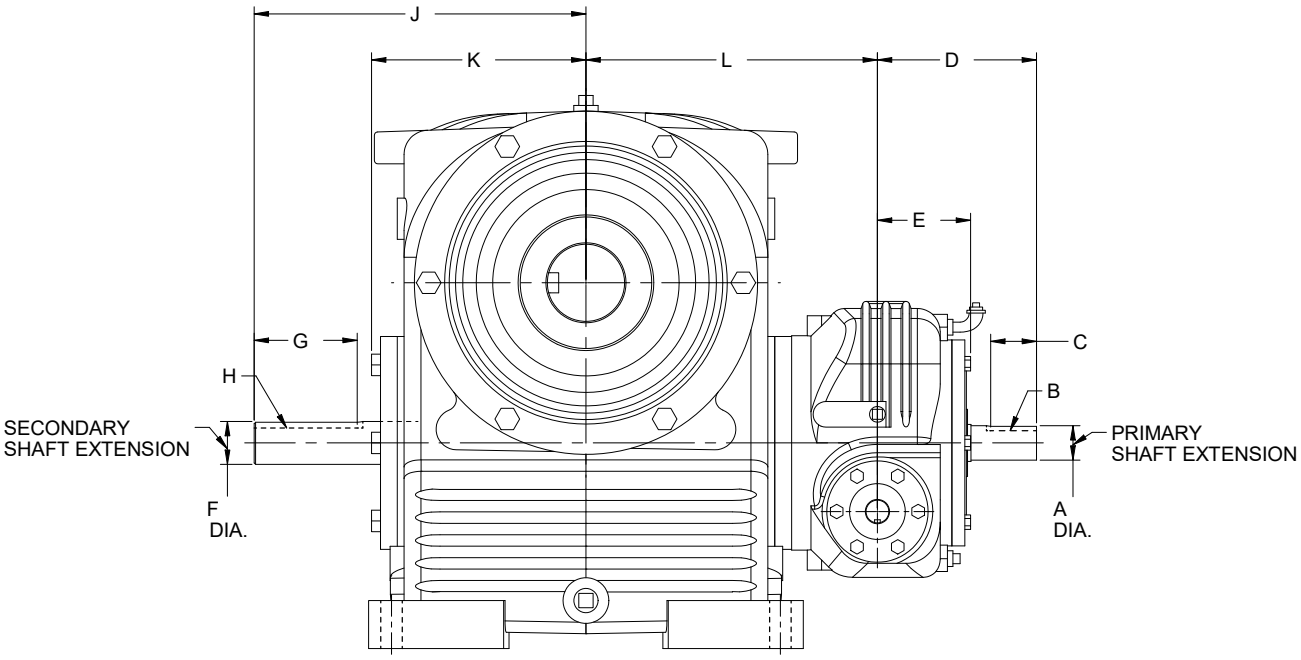
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Model OV Shown net weight approximate 5750 lbs.

Alternate: UV & VV



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.



Worm shafts with extensions shown are non-stocked items manufactured to the individual order. When ordering add shaft extension numer in front of mounting number.

EXAMPLE:

OU30-60-3A4 EXTENSION FROM PRIMARY

OU30-60-4A4 EXTENSION FROM SECONDARY

OU30-60-5A4 EXTENSION FROM BOTH PRIMARY & SECONDARY

Unit Size	PRIMARY SHAFT EXTENSION					SECONDARY SHAFT EXTENSION					
	A DIA	B KEYWAY	C	D	E	F DIA	G KEYWAY	H	J	K	L
	(in)					(in)					
20-30	0.7495	3/16 x 3/32	1.25	4.37	2.8	0.9995	1/4 x 1/8	1.75	6.68	4.6	6.88
20-35	0.7495	3/16 x 3/32	1.25	4.37	2.8	1.1870	1/4 x 1/8	2.62	7.75	5.2	7.50
25-40	0.8745	3/16 x 3/32	1.50	4.87	3.3	1.4995	3/8 x 3/16	3.00	9.31	6.1	8.81
25-50	0.8745	3/16 x 3/32	1.50	4.87	3.3	1.4995	3/8 x 3/16	3.25	10.50	7.0	9.75
30-60	0.9995	1/4 x 1/8	1.75	6.37	4.1	1.7495	3/8 x 3/16	4.00	11.75	7.6	10.47
30-70	0.9995	1/4 x 1/8	1.75	6.37	4.1	1.8745	1/2 x 1/4	4.50	14.50	9.4	12.75
35-70	1.8745	1/2 x 1/4	2.68	7.87	4.2	1.8745	1/2 x 1/4	4.50	14.50	9.4	16.00
40-80	2.2495	1/2 x 1/4	3.31	9.25	4.9	1.9995	1/2 x 1/4	4.75	15.50	10.8	17.00
50-100	2.7495	5/8 x 5/16	3.62	10.31	5.7	2.3745	5/8 x 5/16	4.25	19.25	14.5	20.88
60-120	3.2495	3/4 x 3/8	4.50	12.00	6.4	2.9995	3/4 x 3/8	4.50	23.25	17.3	25.88
70-150	3.3745	7/8 x 7/16	4.87	13.00	7.4	3.4995	7/8 x 7/16	5.50	27.87	20.6	30.25
80-180	3.4995	7/8 x 7/16	4.87	14.00	7.8	3.9995	1 x 1/2	7.50	31.50	21.9	32.50
100-220	3.9995	1 x 1/2	5.12	15.72	9.4	4.4995	1 x 1/2	9.50	37.00	25.0	40.25
100-240	3.9995	1 x 1/2	5.12	15.72	9.4	4.9995	1-1/4 x 7/16	9.75	40.00	28.2	42.50

Size 20-30 Double Reduction Ratings

2.000" CD PRI. / 3.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	0.22	1.16	1.41	1.65	2.10	2.57	3.03	13,900	1,570
		kW	0.17	0.87	1.05	1.23	1.56	1.92	2.26		
	$P_{1\,TH}$	hp	0.22	0.87	1.06	1.24	1.59	1.95	2.23		
		kW	0.17	0.65	0.79	0.93	1.19	1.46	1.67		
	$T_{2\,ME}$	lb-in	6,940	6,820	6,750	6,670	6,420	6,320	6,250		
		Nm	784	771	763	753	725	714	706		
	η	%	66	72	73	75	75	75	76		
100 5 x 20	$P_{1\,ME}$	hp	0.17	0.89	1.08	1.26	1.60	1.96	2.32	13,500	1,520
		kW	0.13	0.67	0.81	0.94	1.20	1.46	1.73		
	$P_{1\,TH}$	hp	0.17	0.67	0.82	0.96	1.22	1.50	1.73		
		kW	0.13	0.50	0.61	0.71	0.91	1.12	1.29		
	$T_{2\,ME}$	lb-in	6,730	6,620	6,560	6,470	6,230	6,120	6,080		
		Nm	761	748	741	731	704	692	686		
	η	%	61	68	69	71	71	72	73		
125 5 x 25	$P_{1\,ME}$	hp	0.14	0.72	0.87	1.01	1.29	1.58	1.87	12,800	1,450
		kW	0.11	0.54	0.65	0.76	0.97	1.18	1.39		
	$P_{1\,TH}$	hp	0.14	0.54	0.65	0.76	0.98	1.20	1.39		
		kW	0.11	0.40	0.49	0.57	0.73	0.90	1.04		
	$T_{2\,ME}$	lb-in	6,420	6,310	6,250	6,220	6,120	6,030	6,040		
		Nm	725	713	707	703	691	681	682		
	η	%	58	65	66	68	69	70	72		
150 10 x 15	$P_{1\,ME}$	hp	0.12	0.64	0.76	0.92	1.17	1.44	1.69	13,900	1,570
		kW	0.09	0.48	0.57	0.68	0.87	1.07	1.26		
	$P_{1\,TH}$	hp	0.12	0.64	0.74	0.76	0.88	1.08	1.28		
		kW	0.09	0.48	0.55	0.57	0.66	0.80	0.95		
	$T_{2\,ME}$	lb-in	6,940	6,940	6,940	6,940	6,850	6,750	6,640		
		Nm	784	784	784	784	773	763	751		
	η	%	59	66	69	70	71	72	73		
200 10 x 20	$P_{1\,ME}$	hp	0.10	0.50	0.59	0.70	0.89	1.10	1.29	13,500	1,520
		kW	0.07	0.37	0.44	0.52	0.67	0.82	0.97		
	$P_{1\,TH}$	hp	0.10	0.50	0.58	0.59	0.68	0.83	0.98		
		kW	0.07	0.37	0.43	0.44	0.50	0.62	0.73		
	$T_{2\,ME}$	lb-in	6,730	6,730	6,730	6,730	6,620	6,540	6,460		
		Nm	761	761	761	761	748	738	729		
	η	%	54	62	66	66	67	68	69		
225 15 x 15	$P_{1\,ME}$	hp	0.09	0.44	0.54	0.64	0.82	1.02	1.21	13,900	1,570
		kW	0.07	0.33	0.40	0.48	0.61	0.76	0.90		
	$P_{1\,TH}$	hp	0.09	0.44	0.54	0.64	0.76	0.79	0.91		
		kW	0.07	0.33	0.40	0.48	0.57	0.59	0.68		
	$T_{2\,ME}$	lb-in	6,940	6,940	6,940	6,940	6,940	6,940	6,820		
		Nm	784	784	784	784	784	784	771		
	η	%	55	65	65	66	69	69	70		
250 10 x 25	$P_{1\,ME}$	hp	0.08	0.40	0.47	0.57	0.72	0.89	1.04	12,800	1,450
		kW	0.06	0.30	0.35	0.42	0.54	0.66	0.78		
	$P_{1\,TH}$	hp	0.08	0.40	0.46	0.47	0.54	0.66	0.79		
		kW	0.06	0.30	0.34	0.35	0.40	0.49	0.59		
	$T_{2\,ME}$	lb-in	6,420	6,420	6,420	6,420	6,310	6,250	6,220		
		Nm	725	725	725	725	713	707	703		
	η	%	51	59	62	63	64	65	66		
300 15 x 20	$P_{1\,ME}$	hp	0.07	0.34	0.42	0.50	0.63	0.78	0.93	13,500	1,520
		kW	0.05	0.26	0.31	0.37	0.47	0.59	0.69		
	$P_{1\,TH}$	hp	0.07	0.34	0.42	0.50	0.59	0.61	0.70		
		kW	0.05	0.26	0.31	0.37	0.44	0.45	0.52		
	$T_{2\,ME}$	lb-in	6,730	6,730	6,730	6,730	6,730	6,730	6,620		
		Nm	761	761	761	761	761	761	748		
	η	%	50	60	61	62	65	66	66		
375 15 x 25	$P_{1\,ME}$	hp	0.06	0.28	0.34	0.40	0.51	0.63	0.75	12,800	1,450
		kW	0.04	0.21	0.25	0.30	0.38	0.47	0.56		
	$P_{1\,TH}$	hp	0.06	0.28	0.34	0.40	0.47	0.49	0.56		
		kW	0.04	0.21	0.25	0.30	0.35	0.36	0.42		
	$T_{2\,ME}$	lb-in	6,420	6,420	6,420	6,420	6,420	6,420	6,310		
		Nm	725	725	725	725	725	725	713		
	η	%	47	57	58	59	62	62	62		

See Page 8.7 for Rating Definitions

2.000" CD PRI. / 3.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
400 20 x 20	$P_{1\,ME}$	hp	0.06	0.27	0.33	0.39	0.51	0.62	0.74	13,500	1,520
		kW	0.04	0.20	0.24	0.29	0.38	0.46	0.55		
	$P_{1\,TH}$	hp	0.06	0.27	0.33	0.39	0.51	0.60	0.62		
		kW	0.04	0.20	0.24	0.29	0.38	0.45	0.46		
	$T_{2\,ME}$	lb-in	6,730	6,730	6,730	6,730	6,730	6,730	6,730		
		Nm	761	761	761	761	761	761	761		
	η	%	47	58	59	59	60	63	63		
450 15 x 30	$P_{1\,ME}$	hp	0.05	0.23	0.28	0.34	0.42	0.53	0.63	12,300	1,390
		kW	0.04	0.17	0.21	0.25	0.32	0.39	0.47		
	$P_{1\,TH}$	hp	0.05	0.23	0.28	0.34	0.40	0.41	0.47		
		kW	0.04	0.17	0.21	0.25	0.30	0.30	0.35		
	$T_{2\,ME}$	lb-in	6,170	6,170	6,170	6,170	6,170	6,170	6,070		
		Nm	697	697	697	697	697	697	685		
	η	%	44	54	55	56	59	60	60		
500 25 x 20	$P_{1\,ME}$	hp	0.05	0.22	0.27	0.32	0.41	0.52	0.61	13,500	1,520
		kW	0.04	0.16	0.20	0.24	0.31	0.39	0.45		
	$P_{1\,TH}$	hp	0.05	0.22	0.27	0.32	0.41	0.52	0.60		
		kW	0.04	0.16	0.20	0.24	0.31	0.39	0.45		
	$T_{2\,ME}$	lb-in	6,730	6,730	6,730	6,730	6,730	6,730	6,730		
		Nm	761	761	761	761	761	761	761		
	η	%	43	56	57	59	60	60	62		
600 30 x 20	$P_{1\,ME}$	hp	0.04	0.20	0.24	0.28	0.36	0.45	0.55	13,500	1,520
		kW	0.03	0.15	0.18	0.21	0.27	0.34	0.41		
	$P_{1\,TH}$	hp	0.04	0.20	0.24	0.28	0.36	0.45	0.55		
		kW	0.03	0.15	0.18	0.21	0.27	0.34	0.41		
	$T_{2\,ME}$	lb-in	6,730	6,730	6,730	6,730	6,730	6,730	6,730		
		Nm	761	761	761	761	761	761	761		
	η	%	41	52	54	56	57	57	57		
625 25 x 25	$P_{1\,ME}$	hp	0.04	0.18	0.22	0.26	0.33	0.42	0.49	12,800	1,450
		kW	0.03	0.13	0.16	0.19	0.25	0.31	0.37		
	$P_{1\,TH}$	hp	0.04	0.18	0.22	0.26	0.33	0.42	0.48		
		kW	0.03	0.13	0.16	0.19	0.25	0.31	0.36		
	$T_{2\,ME}$	lb-in	6,420	6,420	6,420	6,420	6,420	6,420	6,420		
		Nm	725	725	725	725	725	725	725		
	η	%	39	53	54	55	56	57	58		
750 30 x 25	$P_{1\,ME}$	hp	0.04	0.16	0.19	0.23	0.29	0.37	0.44	12,800	1,450
		kW	0.03	0.12	0.14	0.17	0.22	0.27	0.33		
	$P_{1\,TH}$	hp	0.04	0.16	0.19	0.23	0.29	0.37	0.44		
		kW	0.03	0.12	0.14	0.17	0.22	0.27	0.33		
	$T_{2\,ME}$	lb-in	6,420	6,420	6,420	6,420	6,420	6,420	6,420		
		Nm	725	725	725	725	725	725	725		
	η	%	37	49	51	52	54	54	54		
800 40 x 20	$P_{1\,ME}$	hp	0.04	0.16	0.19	0.22	0.29	0.36	0.43	13,500	1,520
		kW	0.03	0.12	0.14	0.17	0.21	0.27	0.32		
	$P_{1\,TH}$	hp	0.04	0.16	0.19	0.22	0.29	0.36	0.43		
		kW	0.03	0.12	0.14	0.17	0.21	0.27	0.32		
	$T_{2\,ME}$	lb-in	6,730	6,730	6,730	6,730	6,730	6,730	6,730		
		Nm	761	761	761	761	761	761	761		
	η	%	35	49	51	52	53	54	54		
900 30 x 30	$P_{1\,ME}$	hp	0.03	0.14	0.16	0.19	0.24	0.31	0.37	12,300	1,390
		kW	0.02	0.10	0.12	0.14	0.18	0.23	0.28		
	$P_{1\,TH}$	hp	0.03	0.14	0.16	0.19	0.24	0.31	0.37		
		kW	0.02	0.10	0.12	0.14	0.18	0.23	0.28		
	$T_{2\,ME}$	lb-in	6,170	6,170	6,170	6,170	6,170	6,170	6,170		
		Nm	697	697	697	697	697	697	697		
	η	%	35	46	49	50	51	51	52		
1000 50 x 20	$P_{1\,ME}$	hp	0.04	0.13	0.16	0.19	0.24	0.30	0.36	13,500	1,520
		kW	0.03	0.10	0.12	0.14	0.18	0.23	0.27		
	$P_{1\,TH}$	hp	0.04	0.13	0.16	0.19	0.24	0.30	0.36		
		kW	0.03	0.10	0.12	0.14	0.18	0.23	0.27		
	$T_{2\,ME}$	lb-in	6,730	6,730	6,730	6,730	6,730	6,730	6,730		
		Nm	761	761	761	761	761	761	761		
	η	%	31	46	49	49	51	51	52		

See Page 8.7 for Rating Definitions

Size 20-30 Double Reduction Ratings

2.000" CD PRI. / 3.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1200 40 x 30	$P_{1\,ME}$	hp	0.03	0.11	0.13	0.15	0.20	0.24	0.29	12,300	1,390
		kW	0.02	0.08	0.10	0.11	0.15	0.18	0.22		
	$P_{1\,TH}$	hp	0.03	0.11	0.13	0.15	0.20	0.24	0.29		
		kW	0.02	0.08	0.10	0.11	0.15	0.18	0.22		
	$T_{2\,ME}$	lb-in	6,170	6,170	6,170	6,170	6,170	6,170	6,170		
		Nm	697	697	697	697	697	697	697		
	η	%	30	43	46	47	48	48	49		
1250 50 x 25	$P_{1\,ME}$	hp	0.03	0.11	0.13	0.15	0.20	0.24	0.29	12,800	1,450
		kW	0.02	0.08	0.10	0.11	0.15	0.18	0.22		
	$P_{1\,TH}$	hp	0.03	0.11	0.13	0.15	0.20	0.24	0.29		
		kW	0.02	0.08	0.10	0.11	0.15	0.18	0.22		
	$T_{2\,ME}$	lb-in	6,420	6,420	6,420	6,420	6,420	6,420	6,420		
		Nm	725	725	725	725	725	725	725		
	η	%	27	43	46	46	48	48	49		
1500 50 x 30	$P_{1\,ME}$	hp	0.03	0.09	0.11	0.13	0.16	0.20	0.25	12,300	1,390
		kW	0.02	0.07	0.08	0.10	0.12	0.15	0.18		
	$P_{1\,TH}$	hp	0.03	0.09	0.11	0.13	0.16	0.20	0.25		
		kW	0.02	0.07	0.08	0.10	0.12	0.15	0.18		
	$T_{2\,ME}$	lb-in	6,170	6,170	6,170	6,170	6,170	6,170	6,170		
		Nm	697	697	697	697	697	697	697		
	η	%	26	41	43	44	46	46	46		
1600 40 x 40	$P_{1\,ME}$	hp	0.02	0.09	0.10	0.12	0.15	0.19	0.22	11,100	1,260
		kW	0.02	0.06	0.07	0.09	0.11	0.14	0.17		
	$P_{1\,TH}$	hp	0.02	0.09	0.10	0.12	0.15	0.19	0.22		
		kW	0.02	0.06	0.07	0.09	0.11	0.14	0.17		
	$T_{2\,ME}$	lb-in	5,560	5,560	5,560	5,560	5,560	5,560	5,560		
		Nm	628	628	628	628	628	628	628		
	η	%	25	37	40	41	43	43	43		
1800 60 x 30	$P_{1\,ME}$	hp	0.02	0.08	0.10	0.11	0.15	0.18	0.21	12,300	1,390
		kW	0.02	0.06	0.07	0.09	0.11	0.13	0.16		
	$P_{1\,TH}$	hp	0.02	0.08	0.10	0.11	0.15	0.18	0.21		
		kW	0.02	0.06	0.07	0.09	0.11	0.13	0.16		
	$T_{2\,ME}$	lb-in	6,170	6,170	6,170	6,170	6,170	6,170	6,170		
		Nm	697	697	697	697	697	697	697		
	η	%	25	38	40	41	43	44	44		
2000 50 x 40	$P_{1\,ME}$	hp	0.02	0.07	0.09	0.10	0.13	0.16	0.19	11,100	1,260
		kW	0.02	0.06	0.06	0.08	0.09	0.12	0.14		
	$P_{1\,TH}$	hp	0.02	0.07	0.09	0.10	0.13	0.16	0.19		
		kW	0.02	0.06	0.06	0.08	0.09	0.12	0.14		
	$T_{2\,ME}$	lb-in	5,560	5,560	5,560	5,560	5,560	5,560	5,560		
		Nm	628	628	628	628	628	628	628		
	η	%	21	35	37	38	40	41	41		
2400 60 x 40	$P_{1\,ME}$	hp	0.02	0.07	0.08	0.09	0.11	0.14	0.16	11,100	1,260
		kW	0.01	0.05	0.06	0.07	0.08	0.10	0.12		
	$P_{1\,TH}$	hp	0.02	0.07	0.08	0.09	0.11	0.14	0.16		
		kW	0.01	0.05	0.06	0.07	0.08	0.10	0.12		
	$T_{2\,ME}$	lb-in	5,560	5,560	5,560	5,560	5,560	5,560	5,560		
		Nm	628	628	628	628	628	628	628		
	η	%	20	32	34	36	38	39	39		
2500 50 x 50	$P_{1\,ME}$	hp	0.02	0.06	0.07	0.08	0.10	0.13	0.15	9,860	1,110
		kW	0.01	0.04	0.05	0.06	0.08	0.09	0.11		
	$P_{1\,TH}$	hp	0.02	0.06	0.07	0.08	0.10	0.13	0.15		
		kW	0.01	0.04	0.05	0.06	0.08	0.09	0.11		
	$T_{2\,ME}$	lb-in	4,930	4,930	4,930	4,930	4,930	4,930	4,930		
		Nm	557	557	557	557	557	557	557		
	η	%	18	31	33	34	35	36	36		
3000 60 x 50	$P_{1\,ME}$	hp	0.02	0.05	0.06	0.07	0.09	0.11	0.13	9,860	1,110
		kW	0.01	0.04	0.05	0.05	0.07	0.08	0.10		
	$P_{1\,TH}$	hp	0.02	0.05	0.06	0.07	0.09	0.11	0.13		
		kW	0.01	0.04	0.05	0.05	0.07	0.08	0.10		
	$T_{2\,ME}$	lb-in	4,930	4,930	4,930	4,930	4,930	4,930	4,930		
		Nm	557	557	557	557	557	557	557		
	η	%	17	28	30	32	33	34	34		
3600 60 x 60	$P_{1\,ME}$	hp	0.02	0.05	0.05	0.06	0.08	0.09	0.11	9,700	1,100
		kW	0.01	0.03	0.04	0.05	0.06	0.07	0.08		
	$P_{1\,TH}$	hp	0.02	0.05	0.05	0.06	0.08	0.09	0.11		
		kW	0.01	0.03	0.04	0.05	0.06	0.07	0.08		
	$T_{2\,ME}$	lb-in	4,850	4,850	4,850	4,850	4,850	4,850	4,850		
		Nm	548	548	548	548	548	548	548		
	η	%	14	27	29	31	32	33	34		

See Page 8.7 for Rating Definitions

2.000" CD PRI. / 3.500" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	0.41	2.15	2.59	3.01	3.62	4.13	4.55	25,600	2,890
		kW	0.31	1.60	1.93	2.25	2.70	3.08	3.40		
	$P_{1\,TH}$	hp	0.39	1.42	1.72	2.01	2.57	3.15	3.65		
		kW	0.29	1.06	1.28	1.50	1.92	2.35	2.72		
	$T_{2\,ME}$	lb-in	12,800	12,600	12,400	12,200	11,100	10,100	9,390		
		Nm	1,450	1,420	1,400	1,380	1,250	1,150	1,060		
	η	%	66	72	73	75	75	75	76		
100 5 x 20	$P_{1\,ME}$	hp	0.32	1.65	1.98	2.31	2.95	3.61	4.24	24,800	2,800
		kW	0.24	1.23	1.48	1.73	2.20	2.70	3.16		
	$P_{1\,TH}$	hp	0.32	1.09	1.32	1.54	1.96	2.40	2.79		
		kW	0.24	0.82	0.98	1.15	1.46	1.79	2.08		
	$T_{2\,ME}$	lb-in	12,400	12,200	12,000	11,900	11,400	11,300	11,100		
		Nm	1,400	1,380	1,360	1,340	1,290	1,270	1,260		
	η	%	61	68	69	71	71	72	73		
125 5 x 25	$P_{1\,ME}$	hp	0.26	1.33	1.60	1.86	2.37	2.91	3.42	23,600	2,670
		kW	0.19	0.99	1.19	1.39	1.77	2.17	2.55		
	$P_{1\,TH}$	hp	0.26	0.88	1.06	1.24	1.58	1.94	2.25		
		kW	0.19	0.66	0.79	0.92	1.18	1.45	1.68		
	$T_{2\,ME}$	lb-in	11,800	11,600	11,400	11,400	11,200	11,100	11,000		
		Nm	1,330	1,310	1,290	1,290	1,270	1,250	1,250		
	η	%	58	65	66	68	69	70	72		
150 10 x 15	$P_{1\,ME}$	hp	0.23	1.18	1.41	1.69	2.16	2.63	3.10	25,600	2,890
		kW	0.17	0.88	1.05	1.26	1.61	1.97	2.31		
	$P_{1\,TH}$	hp	0.23	1.16	1.20	1.24	1.43	1.75	2.07		
		kW	0.17	0.86	0.90	0.93	1.06	1.30	1.54		
	$T_{2\,ME}$	lb-in	12,800	12,800	12,800	12,800	12,600	12,400	12,200		
		Nm	1,450	1,450	1,450	1,450	1,430	1,400	1,380		
	η	%	59	66	69	70	71	72	73		
200 10 x 20	$P_{1\,ME}$	hp	0.18	0.92	1.08	1.29	1.65	2.02	2.37	24,800	2,800
		kW	0.14	0.69	0.81	0.96	1.23	1.50	1.77		
	$P_{1\,TH}$	hp	0.18	0.88	0.94	0.96	1.10	1.34	1.58		
		kW	0.14	0.66	0.70	0.72	0.82	1.00	1.18		
	$T_{2\,ME}$	lb-in	12,400	12,400	12,400	12,400	12,200	12,000	11,800		
		Nm	1,400	1,400	1,400	1,400	1,380	1,350	1,340		
	η	%	54	62	66	66	67	68	69		
225 15 x 15	$P_{1\,ME}$	hp	0.16	0.81	0.99	1.18	1.51	1.89	2.23	25,600	2,890
		kW	0.12	0.61	0.74	0.88	1.13	1.41	1.67		
	$P_{1\,TH}$	hp	0.16	0.81	0.98	1.14	1.24	1.29	1.48		
		kW	0.12	0.61	0.73	0.85	0.92	0.96	1.10		
	$T_{2\,ME}$	lb-in	12,800	12,800	12,800	12,800	12,800	12,800	12,600		
		Nm	1,450	1,450	1,450	1,450	1,450	1,450	1,420		
	η	%	55	65	65	66	69	69	70		
250 10 x 25	$P_{1\,ME}$	hp	0.15	0.74	0.87	1.04	1.33	1.63	1.92	23,600	2,670
		kW	0.11	0.55	0.65	0.78	0.99	1.21	1.43		
	$P_{1\,TH}$	hp	0.15	0.73	0.76	0.78	0.89	1.08	1.27		
		kW	0.11	0.54	0.57	0.58	0.66	0.81	0.95		
	$T_{2\,ME}$	lb-in	11,800	11,800	11,800	11,800	11,700	11,400	11,400		
		Nm	1,330	1,330	1,330	1,330	1,320	1,290	1,290		
	η	%	51	59	62	63	64	65	66		
300 15 x 20	$P_{1\,ME}$	hp	0.13	0.63	0.77	0.92	1.16	1.44	1.71	24,800	2,800
		kW	0.10	0.47	0.58	0.69	0.86	1.08	1.28		
	$P_{1\,TH}$	hp	0.13	0.63	0.77	0.88	0.96	0.99	1.14		
		kW	0.10	0.47	0.58	0.66	0.72	0.74	0.85		
	$T_{2\,ME}$	lb-in	12,400	12,400	12,400	12,400	12,400	12,400	12,200		
		Nm	1,400	1,400	1,400	1,400	1,400	1,400	1,380		
	η	%	50	60	61	62	65	66	66		
375 15 x 25	$P_{1\,ME}$	hp	0.11	0.51	0.62	0.74	0.93	1.16	1.38	23,600	2,670
		kW	0.08	0.38	0.47	0.55	0.70	0.87	1.03		
	$P_{1\,TH}$	hp	0.11	0.51	0.62	0.73	0.78	0.80	0.92		
		kW	0.08	0.38	0.47	0.54	0.58	0.60	0.68		
	$T_{2\,ME}$	lb-in	11,800	11,800	11,800	11,800	11,800	11,800	11,600		
		Nm	1,330	1,330	1,330	1,330	1,330	1,330	1,310		
	η	%	47	57	58	59	62	62	62		

See Page 8.7 for Rating Definitions

Size 20-35 Double Reduction Ratings

2.000" CD PRI. / 3.500" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
400 20 x 20	$P_{1\,ME}$	hp	0.10	0.49	0.60	0.73	0.94	1.14	1.36	24,800	2,800
		kW	0.08	0.36	0.45	0.54	0.70	0.85	1.02		
	$P_{1\,TH}$	hp	0.10	0.49	0.60	0.73	0.91	0.98	1.01		
		kW	0.08	0.36	0.45	0.54	0.68	0.73	0.75		
	$T_{2\,ME}$	lb-in	12,400	12,400	12,400	12,400	12,400	12,400	12,400		
		Nm	1,400	1,400	1,400	1,400	1,400	1,400	1,400		
	η	%	47	58	59	59	60	63	63		
450 15 x 30	$P_{1\,ME}$	hp	0.09	0.43	0.52	0.62	0.78	0.97	1.15	22,700	2,570
		kW	0.07	0.32	0.39	0.46	0.58	0.73	0.86		
	$P_{1\,TH}$	hp	0.09	0.43	0.52	0.61	0.65	0.67	0.76		
		kW	0.07	0.32	0.39	0.45	0.49	0.50	0.57		
	$T_{2\,ME}$	lb-in	11,400	11,400	11,400	11,400	11,400	11,400	11,200		
		Nm	1,280	1,280	1,280	1,280	1,280	1,280	1,260		
	η	%	44	54	55	56	59	60	60		
500 25 x 20	$P_{1\,ME}$	hp	0.09	0.40	0.50	0.58	0.76	0.95	1.12	24,800	2,800
		kW	0.07	0.30	0.37	0.44	0.57	0.71	0.83		
	$P_{1\,TH}$	hp	0.09	0.40	0.50	0.58	0.76	0.91	0.98		
		kW	0.07	0.30	0.37	0.44	0.57	0.68	0.73		
	$T_{2\,ME}$	lb-in	12,400	12,400	12,400	12,400	12,400	12,400	12,400		
		Nm	1,400	1,400	1,400	1,400	1,400	1,400	1,400		
	η	%	43	56	57	59	60	60	62		
600 30 x 20	$P_{1\,ME}$	hp	0.08	0.37	0.43	0.51	0.66	0.84	1.00	24,800	2,800
		kW	0.06	0.27	0.32	0.38	0.50	0.62	0.75		
	$P_{1\,TH}$	hp	0.08	0.37	0.43	0.51	0.66	0.82	0.92		
		kW	0.06	0.27	0.32	0.38	0.50	0.61	0.69		
	$T_{2\,ME}$	lb-in	12,400	12,400	12,400	12,400	12,400	12,400	12,400		
		Nm	1,400	1,400	1,400	1,400	1,400	1,400	1,400		
	η	%	40	52	54	56	57	57	57		
625 25 x 25	$P_{1\,ME}$	hp	0.08	0.33	0.40	0.47	0.61	0.77	0.90	23,600	2,670
		kW	0.06	0.24	0.30	0.35	0.46	0.57	0.67		
	$P_{1\,TH}$	hp	0.08	0.33	0.40	0.47	0.61	0.75	0.80		
		kW	0.06	0.24	0.30	0.35	0.46	0.56	0.60		
	$T_{2\,ME}$	lb-in	11,800	11,800	11,800	11,800	11,800	11,800	11,800		
		Nm	1,330	1,330	1,330	1,330	1,330	1,330	1,330		
	η	%	39	53	54	55	56	57	58		
750 30 x 25	$P_{1\,ME}$	hp	0.07	0.30	0.35	0.42	0.54	0.68	0.81	23,600	2,670
		kW	0.05	0.22	0.26	0.31	0.40	0.50	0.61		
	$P_{1\,TH}$	hp	0.07	0.30	0.35	0.42	0.54	0.68	0.79		
		kW	0.05	0.22	0.26	0.31	0.40	0.50	0.59		
	$T_{2\,ME}$	lb-in	11,800	11,800	11,800	11,800	11,800	11,800	11,800		
		Nm	1,330	1,330	1,330	1,330	1,330	1,330	1,330		
	η	%	36	49	51	52	54	54	54		
800 40 x 20	$P_{1\,ME}$	hp	0.07	0.29	0.34	0.41	0.53	0.66	0.80	24,800	2,800
		kW	0.05	0.22	0.26	0.31	0.40	0.49	0.59		
	$P_{1\,TH}$	hp	0.06	0.29	0.34	0.41	0.53	0.62	0.69		
		kW	0.05	0.22	0.26	0.31	0.40	0.46	0.51		
	$T_{2\,ME}$	lb-in	12,400	12,400	12,400	12,400	12,400	12,400	12,400		
		Nm	1,400	1,400	1,400	1,400	1,400	1,400	1,400		
	η	%	35	49	51	52	53	54	54		
900 30 x 30	$P_{1\,ME}$	hp	0.06	0.25	0.29	0.35	0.45	0.57	0.68	22,700	2,570
		kW	0.04	0.19	0.22	0.26	0.34	0.42	0.51		
	$P_{1\,TH}$	hp	0.06	0.25	0.29	0.35	0.45	0.57	0.66		
		kW	0.04	0.19	0.22	0.26	0.34	0.42	0.50		
	$T_{2\,ME}$	lb-in	11,400	11,400	11,400	11,400	11,400	11,400	11,400		
		Nm	1,280	1,280	1,280	1,280	1,280	1,280	1,280		
	η	%	35	46	49	50	51	51	52		
1000 50 x 20	$P_{1\,ME}$	hp	0.07	0.25	0.29	0.35	0.45	0.56	0.67	24,800	2,800
		kW	0.05	0.18	0.22	0.26	0.33	0.41	0.50		
	$P_{1\,TH}$	hp	0.05	0.25	0.29	0.35	0.43	0.50	0.56		
		kW	0.04	0.18	0.22	0.26	0.32	0.37	0.42		
	$T_{2\,ME}$	lb-in	12,400	12,400	12,400	12,400	12,400	12,400	12,400		
		Nm	1,400	1,400	1,400	1,400	1,400	1,400	1,400		
	η	%	30	46	49	49	51	51	52		

See Page 8.7 for Rating Definitions

2.000" CD PRI. / 3.500" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1200 40 x 30	$P_{1\,ME}$	hp	0.05	0.20	0.24	0.28	0.36	0.45	0.54	22,700	2,570
		kW	0.04	0.15	0.18	0.21	0.27	0.34	0.40		
	$P_{1\,TH}$	hp	0.05	0.20	0.24	0.28	0.36	0.45	0.54		
		kW	0.04	0.15	0.18	0.21	0.27	0.34	0.40		
	$T_{2\,ME}$	lb-in	11,400	11,400	11,400	11,400	11,400	11,400	11,400		
		Nm	1,280	1,280	1,280	1,280	1,280	1,280	1,280		
	η	%	30	43	46	47	48	48	49		
1250 50 x 25	$P_{1\,ME}$	hp	0.06	0.20	0.24	0.28	0.36	0.45	0.54	23,600	2,670
		kW	0.04	0.15	0.18	0.21	0.27	0.34	0.40		
	$P_{1\,TH}$	hp	0.05	0.20	0.24	0.28	0.36	0.45	0.54		
		kW	0.04	0.15	0.18	0.21	0.27	0.34	0.40		
	$T_{2\,ME}$	lb-in	11,800	11,800	11,800	11,800	11,800	11,800	11,800		
		Nm	1,330	1,330	1,330	1,330	1,330	1,330	1,330		
	η	%	27	43	46	46	48	48	49		
1500 50 x 30	$P_{1\,ME}$	hp	0.05	0.17	0.20	0.24	0.30	0.38	0.45	22,700	2,570
		kW	0.04	0.13	0.15	0.18	0.23	0.28	0.34		
	$P_{1\,TH}$	hp	0.05	0.17	0.20	0.24	0.30	0.38	0.45		
		kW	0.04	0.13	0.15	0.18	0.23	0.28	0.34		
	$T_{2\,ME}$	lb-in	11,400	11,400	11,400	11,400	11,400	11,400	11,400		
		Nm	1,280	1,280	1,280	1,280	1,280	1,280	1,280		
	η	%	26	41	43	44	46	46	46		
1600 40 x 40	$P_{1\,ME}$	hp	0.04	0.16	0.18	0.22	0.27	0.34	0.41	20,500	2,310
		kW	0.03	0.12	0.14	0.16	0.20	0.25	0.31		
	$P_{1\,TH}$	hp	0.04	0.16	0.18	0.22	0.27	0.34	0.41		
		kW	0.03	0.12	0.14	0.16	0.20	0.25	0.31		
	$T_{2\,ME}$	lb-in	10,200	10,200	10,200	10,200	10,200	10,200	10,200		
		Nm	1,160	1,160	1,160	1,160	1,160	1,160	1,160		
	η	%	24	37	40	41	43	43	43		
1800 60 x 30	$P_{1\,ME}$	hp	0.04	0.15	0.18	0.21	0.27	0.33	0.40	22,700	2,570
		kW	0.03	0.12	0.14	0.16	0.20	0.25	0.30		
	$P_{1\,TH}$	hp	0.04	0.15	0.18	0.21	0.27	0.33	0.40		
		kW	0.03	0.12	0.14	0.16	0.20	0.25	0.30		
	$T_{2\,ME}$	lb-in	11,400	11,400	11,400	11,400	11,400	11,400	11,400		
		Nm	1,280	1,280	1,280	1,280	1,280	1,280	1,280		
	η	%	25	38	40	41	43	44	44		
2000 50 x 40	$P_{1\,ME}$	hp	0.04	0.13	0.16	0.19	0.23	0.29	0.34	20,500	2,310
		kW	0.03	0.10	0.12	0.14	0.17	0.21	0.26		
	$P_{1\,TH}$	hp	0.04	0.13	0.16	0.19	0.23	0.29	0.34		
		kW	0.03	0.10	0.12	0.14	0.17	0.21	0.26		
	$T_{2\,ME}$	lb-in	10,200	10,200	10,200	10,200	10,200	10,200	10,200		
		Nm	1,160	1,160	1,160	1,160	1,160	1,160	1,160		
	η	%	21	35	37	38	40	41	41		
2400 60 x 40	$P_{1\,ME}$	hp	0.03	0.12	0.14	0.16	0.21	0.25	0.30	20,500	2,310
		kW	0.03	0.09	0.11	0.12	0.15	0.19	0.22		
	$P_{1\,TH}$	hp	0.03	0.12	0.14	0.16	0.21	0.25	0.30		
		kW	0.03	0.09	0.11	0.12	0.15	0.19	0.22		
	$T_{2\,ME}$	lb-in	10,200	10,200	10,200	10,200	10,200	10,200	10,200		
		Nm	1,160	1,160	1,160	1,160	1,160	1,160	1,160		
	η	%	20	32	34	36	38	39	39		
2500 50 x 50	$P_{1\,ME}$	hp	0.03	0.11	0.13	0.15	0.19	0.23	0.28	18,200	2,050
		kW	0.03	0.08	0.09	0.11	0.14	0.17	0.21		
	$P_{1\,TH}$	hp	0.03	0.11	0.13	0.15	0.19	0.23	0.28		
		kW	0.03	0.08	0.09	0.11	0.14	0.17	0.21		
	$T_{2\,ME}$	lb-in	9,080	9,080	9,080	9,080	9,080	9,080	9,080		
		Nm	1,030	1,030	1,030	1,030	1,030	1,030	1,030		
	η	%	17	31	33	34	35	36	36		
3000 60 x 50	$P_{1\,ME}$	hp	0.03	0.10	0.12	0.13	0.17	0.20	0.24	18,200	2,050
		kW	0.02	0.07	0.09	0.10	0.12	0.15	0.18		
	$P_{1\,TH}$	hp	0.03	0.10	0.12	0.13	0.17	0.20	0.24		
		kW	0.02	0.07	0.09	0.10	0.12	0.15	0.18		
	$T_{2\,ME}$	lb-in	9,080	9,080	9,080	9,080	9,080	9,080	9,080		
		Nm	1,030	1,030	1,030	1,030	1,030	1,030	1,030		
	η	%	17	28	30	32	33	34	34		
3600 60 x 60	$P_{1\,ME}$	hp	0.03	0.08	0.10	0.11	0.14	0.17	0.20	17,900	2,020
		kW	0.02	0.06	0.07	0.08	0.10	0.13	0.15		
	$P_{1\,TH}$	hp	0.03	0.08	0.10	0.11	0.14	0.17	0.20		
		kW	0.02	0.06	0.07	0.08	0.10	0.13	0.15		
	$T_{2\,ME}$	lb-in	8,930	8,930	8,930	8,930	8,930	8,930	8,930		
		Nm	1,010	1,010	1,010	1,010	1,010	1,010	1,010		
	η	%	14	27	29	31	32	33	34		

See Page 8.7 for Rating Definitions

Size 25-40 Double Reduction Ratings

2.500" CD PRI. / 4.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	0.59	3.10	3.74	4.36	5.57	6.79	7.93	38,500	4,350
		kW	0.44	2.32	2.79	3.25	4.15	5.07	5.92		
	$P_{1\,TH}$	hp	0.59	2.05	2.48	2.90	3.70	4.53	4.91		
		kW	0.44	1.53	1.85	2.16	2.76	3.38	3.66		
	$T_{2\,ME}$	lb-in	19,300	18,900	18,600	18,300	17,700	17,300	16,900		
		Nm	2,180	2,130	2,100	2,070	2,000	1,960	1,910		
	η	%	69	75	76	77	77	78	79		
100 5 x 20	$P_{1\,ME}$	hp	0.46	2.37	2.86	3.33	4.26	5.20	6.07	37,300	4,220
		kW	0.34	1.77	2.14	2.49	3.18	3.88	4.53		
	$P_{1\,TH}$	hp	0.46	1.57	1.89	2.21	2.83	3.46	3.99		
		kW	0.34	1.17	1.41	1.65	2.11	2.58	2.97		
	$T_{2\,ME}$	lb-in	18,700	18,300	18,000	17,800	17,200	16,900	16,500		
		Nm	2,110	2,070	2,040	2,010	1,940	1,900	1,860		
	η	%	64	71	72	74	74	75	75		
125 5 x 25	$P_{1\,ME}$	hp	0.37	1.92	2.31	2.69	3.43	4.19	4.90	35,600	4,030
		kW	0.28	1.43	1.72	2.00	2.56	3.13	3.66		
	$P_{1\,TH}$	hp	0.37	1.27	1.53	1.78	2.28	2.79	3.22		
		kW	0.28	0.95	1.14	1.33	1.70	2.09	2.40		
	$T_{2\,ME}$	lb-in	17,800	17,500	17,200	17,100	16,900	16,600	16,400		
		Nm	2,010	1,980	1,950	1,930	1,910	1,870	1,860		
	η	%	61	67	68	70	72	73	75		
150 10 x 15	$P_{1\,ME}$	hp	0.33	1.71	2.04	2.45	3.11	3.80	4.47	38,500	4,350
		kW	0.25	1.28	1.52	1.83	2.32	2.84	3.34		
	$P_{1\,TH}$	hp	0.33	1.64	1.72	1.79	2.06	2.52	2.98		
		kW	0.25	1.22	1.29	1.34	1.54	1.88	2.22		
	$T_{2\,ME}$	lb-in	19,300	19,300	19,300	19,300	18,900	18,500	18,300		
		Nm	2,180	2,180	2,180	2,180	2,130	2,090	2,060		
	η	%	61	69	72	72	74	75	76		
200 10 x 20	$P_{1\,ME}$	hp	0.26	1.33	1.56	1.87	2.38	2.91	3.42	37,300	4,220
		kW	0.20	0.99	1.17	1.40	1.78	2.17	2.55		
	$P_{1\,TH}$	hp	0.26	1.24	1.33	1.38	1.58	1.92	2.27		
		kW	0.20	0.93	0.99	1.03	1.18	1.44	1.70		
	$T_{2\,ME}$	lb-in	18,700	18,700	18,700	18,700	18,300	18,000	17,700		
		Nm	2,110	2,110	2,110	2,110	2,070	2,030	2,010		
	η	%	56	65	68	69	70	71	72		
225 15 x 15	$P_{1\,ME}$	hp	0.24	1.17	1.44	1.71	2.19	2.73	3.22	38,500	4,350
		kW	0.18	0.88	1.07	1.28	1.63	2.04	2.40		
	$P_{1\,TH}$	hp	0.24	1.17	1.44	1.64	1.78	1.86	2.13		
		kW	0.18	0.88	1.07	1.22	1.33	1.39	1.59		
	$T_{2\,ME}$	lb-in	19,300	19,300	19,300	19,300	19,300	19,300	18,800		
		Nm	2,180	2,180	2,180	2,180	2,180	2,180	2,120		
	η	%	57	67	68	69	71	72	72		
250 10 x 25	$P_{1\,ME}$	hp	0.21	1.07	1.26	1.51	1.92	2.35	2.76	35,600	4,030
		kW	0.16	0.80	0.94	1.12	1.43	1.75	2.06		
	$P_{1\,TH}$	hp	0.21	1.03	1.09	1.12	1.27	1.55	1.83		
		kW	0.16	0.77	0.81	0.83	0.95	1.16	1.37		
	$T_{2\,ME}$	lb-in	17,800	17,800	17,800	17,800	17,500	17,200	17,100		
		Nm	2,010	2,010	2,010	2,010	1,980	1,950	1,940		
	η	%	53	61	65	65	67	67	69		
300 15 x 20	$P_{1\,ME}$	hp	0.19	0.91	1.12	1.33	1.67	2.09	2.47	37,300	4,220
		kW	0.14	0.68	0.83	0.99	1.25	1.56	1.84		
	$P_{1\,TH}$	hp	0.19	0.91	1.12	1.24	1.37	1.42	1.63		
		kW	0.14	0.68	0.83	0.93	1.02	1.06	1.22		
	$T_{2\,ME}$	lb-in	18,700	18,700	18,700	18,700	18,700	18,700	18,300		
		Nm	2,110	2,110	2,110	2,110	2,110	2,110	2,070		
	η	%	53	63	64	65	68	68	69		
375 15 x 25	$P_{1\,ME}$	hp	0.15	0.74	0.90	1.07	1.35	1.68	1.99	35,600	4,030
		kW	0.11	0.55	0.67	0.80	1.01	1.26	1.48		
	$P_{1\,TH}$	hp	0.15	0.74	0.90	1.03	1.12	1.15	1.32		
		kW	0.11	0.55	0.67	0.77	0.83	0.86	0.98		
	$T_{2\,ME}$	lb-in	17,800	17,800	17,800	17,800	17,800	17,800	17,500		
		Nm	2,010	2,010	2,010	2,010	2,010	2,010	1,970		
	η	%	49	59	60	61	64	65	65		

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2.500" CD PRI. / 4.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
400 20 x 20	$P_{1\,ME}$	hp	0.15	0.71	0.87	1.05	1.36	1.65	1.97	37,300	4,220
		kW	0.11	0.53	0.65	0.78	1.02	1.23	1.47		
	$P_{1\,TH}$	hp	0.15	0.71	0.87	1.05	1.28	1.40	1.44		
		kW	0.11	0.53	0.65	0.78	0.96	1.04	1.08		
	$T_{2\,ME}$	lb-in	18,700	18,700	18,700	18,700	18,700	18,700	18,700		
		Nm	2,110	2,110	2,110	2,110	2,110	2,110	2,110		
	η	%	50	61	61	61	62	65	66		
450 15 x 30	$P_{1\,ME}$	hp	0.13	0.62	0.76	0.90	1.13	1.41	1.66	34,300	3,880
		kW	0.10	0.46	0.56	0.67	0.84	1.05	1.24		
	$P_{1\,TH}$	hp	0.13	0.62	0.76	0.87	0.93	0.96	1.10		
		kW	0.10	0.46	0.56	0.65	0.70	0.72	0.82		
	$T_{2\,ME}$	lb-in	17,200	17,200	17,200	17,200	17,200	17,200	16,800		
		Nm	1,940	1,940	1,940	1,940	1,940	1,940	1,900		
	η	%	46	57	58	59	62	62	62		
500 25 x 20	$P_{1\,ME}$	hp	0.13	0.58	0.72	0.84	1.10	1.37	1.61	37,300	4,220
		kW	0.10	0.44	0.54	0.63	0.82	1.03	1.21		
	$P_{1\,TH}$	hp	0.13	0.58	0.72	0.84	1.10	1.29	1.40		
		kW	0.10	0.44	0.54	0.63	0.82	0.96	1.04		
	$T_{2\,ME}$	lb-in	18,700	18,700	18,700	18,700	18,700	18,700	18,700		
		Nm	2,110	2,110	2,110	2,110	2,110	2,110	2,110		
	η	%	45	59	59	61	62	62	64		
600 30 x 20	$P_{1\,ME}$	hp	0.12	0.53	0.63	0.74	0.96	1.21	1.45	37,300	4,220
		kW	0.09	0.40	0.47	0.55	0.72	0.90	1.08		
	$P_{1\,TH}$	hp	0.12	0.53	0.63	0.74	0.96	1.21	1.35		
		kW	0.09	0.40	0.47	0.55	0.72	0.90	1.01		
	$T_{2\,ME}$	lb-in	18,700	18,700	18,700	18,700	18,700	18,700	18,700		
		Nm	2,110	2,110	2,110	2,110	2,110	2,110	2,110		
	η	%	43	54	57	58	59	59	60		
625 25 x 25	$P_{1\,ME}$	hp	0.11	0.47	0.58	0.68	0.88	1.11	1.30	35,600	4,030
		kW	0.08	0.35	0.43	0.51	0.66	0.83	0.97		
	$P_{1\,TH}$	hp	0.11	0.47	0.58	0.68	0.88	1.07	1.14		
		kW	0.08	0.35	0.43	0.51	0.66	0.79	0.85		
	$T_{2\,ME}$	lb-in	17,800	17,800	17,800	17,800	17,800	17,800	17,800		
		Nm	2,010	2,010	2,010	2,010	2,010	2,010	2,010		
	η	%	42	56	56	58	59	59	61		
750 30 x 25	$P_{1\,ME}$	hp	0.10	0.43	0.51	0.60	0.78	0.98	1.17	35,600	4,030
		kW	0.07	0.32	0.38	0.45	0.58	0.73	0.87		
	$P_{1\,TH}$	hp	0.10	0.43	0.51	0.60	0.78	0.98	1.12		
		kW	0.07	0.32	0.38	0.45	0.58	0.73	0.84		
	$T_{2\,ME}$	lb-in	17,800	17,800	17,800	17,800	17,800	17,800	17,800		
		Nm	2,010	2,010	2,010	2,010	2,010	2,010	2,010		
	η	%	39	51	54	55	56	56	56		
800 40 x 20	$P_{1\,ME}$	hp	0.10	0.42	0.50	0.59	0.76	0.96	1.15	37,300	4,220
		kW	0.07	0.31	0.37	0.44	0.57	0.71	0.86		
	$P_{1\,TH}$	hp	0.10	0.42	0.50	0.59	0.76	0.96	1.15		
		kW	0.07	0.31	0.37	0.44	0.57	0.71	0.86		
	$T_{2\,ME}$	lb-in	18,700	18,700	18,700	18,700	18,700	18,700	18,700		
		Nm	2,110	2,110	2,110	2,110	2,110	2,110	2,110		
	η	%	37	51	54	54	56	56	56		
900 30 x 30	$P_{1\,ME}$	hp	0.08	0.36	0.43	0.50	0.65	0.82	0.98	34,300	3,880
		kW	0.06	0.27	0.32	0.38	0.49	0.61	0.73		
	$P_{1\,TH}$	hp	0.08	0.36	0.43	0.50	0.65	0.82	0.95		
		kW	0.06	0.27	0.32	0.38	0.49	0.61	0.71		
	$T_{2\,ME}$	lb-in	17,200	17,200	17,200	17,200	17,200	17,200	17,200		
		Nm	1,940	1,940	1,940	1,940	1,940	1,940	1,940		
	η	%	37	48	51	52	54	54	54		
1000 50 x 20	$P_{1\,ME}$	hp	0.09	0.36	0.42	0.50	0.64	0.80	0.96	37,300	4,220
		kW	0.07	0.27	0.31	0.37	0.48	0.60	0.72		
	$P_{1\,TH}$	hp	0.09	0.36	0.42	0.50	0.64	0.80	0.96		
		kW	0.07	0.27	0.31	0.37	0.48	0.60	0.72		
	$T_{2\,ME}$	lb-in	18,700	18,700	18,700	18,700	18,700	18,700	18,700		
		Nm	2,110	2,110	2,110	2,110	2,110	2,110	2,110		
	η	%	32	48	51	51	53	53	54		

See Page 8.7 for Rating Definitions

Size 25-40 Double Reduction Ratings

2.500" CD PRI. / 4.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1200 40 x 30	$P_{1\,ME}$	hp	0.07	0.29	0.34	0.40	0.52	0.65	0.78	34,300	3,880
		kW	0.05	0.22	0.25	0.30	0.39	0.48	0.58		
	$P_{1\,TH}$	hp	0.07	0.29	0.34	0.40	0.52	0.65	0.78		
		kW	0.05	0.22	0.25	0.30	0.39	0.48	0.58		
	$T_{2\,ME}$	lb-in	17,200	17,200	17,200	17,200	17,200	17,200	17,200		
		Nm	1,940	1,940	1,940	1,940	1,940	1,940	1,940		
	η	%	32	45	48	49	50	51	51		
1250 50 x 25	$P_{1\,ME}$	hp	0.08	0.29	0.34	0.41	0.52	0.65	0.78	35,600	4,030
		kW	0.06	0.22	0.25	0.30	0.39	0.48	0.58		
	$P_{1\,TH}$	hp	0.08	0.29	0.34	0.41	0.52	0.65	0.78		
		kW	0.06	0.22	0.25	0.30	0.39	0.48	0.58		
	$T_{2\,ME}$	lb-in	17,800	17,800	17,800	17,800	17,800	17,800	17,800		
		Nm	2,010	2,010	2,010	2,010	2,010	2,010	2,010		
	η	%	29	45	48	49	50	51	51		
1500 50 x 30	$P_{1\,ME}$	hp	0.07	0.25	0.29	0.34	0.44	0.54	0.65	34,300	3,880
		kW	0.05	0.18	0.22	0.26	0.33	0.41	0.49		
	$P_{1\,TH}$	hp	0.07	0.25	0.29	0.34	0.44	0.54	0.65		
		kW	0.05	0.18	0.22	0.26	0.33	0.41	0.49		
	$T_{2\,ME}$	lb-in	17,200	17,200	17,200	17,200	17,200	17,200	17,200		
		Nm	1,940	1,940	1,940	1,940	1,940	1,940	1,940		
	η	%	28	43	45	46	48	48	49		
1600 40 x 40	$P_{1\,ME}$	hp	0.06	0.23	0.26	0.31	0.39	0.49	0.59	31,100	3,520
		kW	0.04	0.17	0.20	0.23	0.29	0.37	0.44		
	$P_{1\,TH}$	hp	0.06	0.23	0.26	0.31	0.39	0.49	0.59		
		kW	0.04	0.17	0.20	0.23	0.29	0.37	0.44		
	$T_{2\,ME}$	lb-in	15,600	15,600	15,600	15,600	15,600	15,600	15,600		
		Nm	1,760	1,760	1,760	1,760	1,760	1,760	1,760		
	η	%	27	39	42	43	45	45	46		
1800 60 x 30	$P_{1\,ME}$	hp	0.06	0.22	0.26	0.30	0.39	0.48	0.57	34,300	3,880
		kW	0.04	0.17	0.20	0.23	0.29	0.36	0.43		
	$P_{1\,TH}$	hp	0.06	0.22	0.26	0.30	0.39	0.48	0.57		
		kW	0.04	0.17	0.20	0.23	0.29	0.36	0.43		
	$T_{2\,ME}$	lb-in	17,200	17,200	17,200	17,200	17,200	17,200	17,200		
		Nm	1,940	1,940	1,940	1,940	1,940	1,940	1,940		
	η	%	27	40	42	43	45	46	46		
2000 50 x 40	$P_{1\,ME}$	hp	0.05	0.19	0.23	0.27	0.33	0.41	0.50	31,100	3,520
		kW	0.04	0.14	0.17	0.20	0.25	0.31	0.37		
	$P_{1\,TH}$	hp	0.05	0.19	0.23	0.27	0.33	0.41	0.50		
		kW	0.04	0.14	0.17	0.20	0.25	0.31	0.37		
	$T_{2\,ME}$	lb-in	15,600	15,600	15,600	15,600	15,600	15,600	15,600		
		Nm	1,760	1,760	1,760	1,760	1,760	1,760	1,760		
	η	%	23	37	39	40	42	43	44		
2400 60 x 40	$P_{1\,ME}$	hp	0.05	0.17	0.20	0.24	0.30	0.36	0.43	31,100	3,520
		kW	0.04	0.13	0.15	0.18	0.22	0.27	0.32		
	$P_{1\,TH}$	hp	0.05	0.17	0.20	0.24	0.30	0.36	0.43		
		kW	0.04	0.13	0.15	0.18	0.22	0.27	0.32		
	$T_{2\,ME}$	lb-in	15,600	15,600	15,600	15,600	15,600	15,600	15,600		
		Nm	1,760	1,760	1,760	1,760	1,760	1,760	1,760		
	η	%	22	34	36	38	40	41	41		
2500 50 x 50	$P_{1\,ME}$	hp	0.05	0.16	0.18	0.21	0.27	0.34	0.40	27,800	3,140
		kW	0.03	0.12	0.14	0.16	0.20	0.25	0.30		
	$P_{1\,TH}$	hp	0.05	0.16	0.18	0.21	0.27	0.34	0.40		
		kW	0.03	0.12	0.14	0.16	0.20	0.25	0.30		
	$T_{2\,ME}$	lb-in	13,900	13,900	13,900	13,900	13,900	13,900	13,900		
		Nm	1,570	1,570	1,570	1,570	1,570	1,570	1,570		
	η	%	19	33	35	36	38	38	38		
3000 60 x 50	$P_{1\,ME}$	hp	0.04	0.14	0.16	0.19	0.24	0.29	0.35	27,800	3,140
		kW	0.03	0.11	0.12	0.14	0.18	0.22	0.26		
	$P_{1\,TH}$	hp	0.04	0.14	0.16	0.19	0.24	0.29	0.35		
		kW	0.03	0.11	0.12	0.14	0.18	0.22	0.26		
	$T_{2\,ME}$	lb-in	13,900	13,900	13,900	13,900	13,900	13,900	13,900		
		Nm	1,570	1,570	1,570	1,570	1,570	1,570	1,570		
	η	%	19	30	32	34	35	36	37		
3600 60 x 60	$P_{1\,ME}$	hp	0.04	0.12	0.14	0.16	0.20	0.25	0.30	27,400	3,090
		kW	0.03	0.09	0.10	0.12	0.15	0.18	0.22		
	$P_{1\,TH}$	hp	0.04	0.12	0.14	0.16	0.20	0.25	0.30		
		kW	0.03	0.09	0.10	0.12	0.15	0.18	0.22		
	$T_{2\,ME}$	lb-in	13,700	13,700	13,700	13,700	13,700	13,700	13,700		
		Nm	1,550	1,550	1,550	1,550	1,550	1,550	1,550		
	η	%	16	29	31	33	34	36	36		

See Page 8.7 for Rating Definitions

2.500" CD PRI. / 5.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	0.94	4.22	4.95	5.60	6.58	7.43	8.24	75,200	8,490
		kW	0.70	3.15	3.69	4.18	4.91	5.55	6.15		
	$P_{1\,TH}$	hp	0.78	3.44	3.81	4.13	4.47	4.69	4.91		
		kW	0.58	2.57	2.84	3.08	3.34	3.50	3.66		
	$T_{2\,ME}$	lb-in	30,300	25,700	24,600	23,500	20,900	18,900	17,600		
		Nm	3,430	2,900	2,770	2,660	2,360	2,140	1,990		
	η	%	69	75	76	77	77	78	79		
100 5 x 20	$P_{1\,ME}$	hp	0.90	4.22	4.95	5.60	6.58	7.43	8.24	73,000	8,240
		kW	0.67	3.15	3.69	4.18	4.91	5.55	6.15		
	$P_{1\,TH}$	hp	0.78	3.04	3.57	4.09	4.47	4.69	4.91		
		kW	0.58	2.27	2.66	3.05	3.34	3.50	3.66		
	$T_{2\,ME}$	lb-in	36,500	32,600	31,200	29,900	26,500	24,100	22,400		
		Nm	4,120	3,680	3,520	3,380	3,000	2,720	2,530		
	η	%	64	71	72	74	74	75	75		
125 5 x 25	$P_{1\,ME}$	hp	0.73	3.74	4.52	5.27	6.58	7.43	8.24	69,700	7,880
		kW	0.55	2.79	3.37	3.94	4.91	5.55	6.15		
	$P_{1\,TH}$	hp	0.73	2.50	3.01	3.52	4.26	4.69	4.91		
		kW	0.55	1.87	2.25	2.63	3.18	3.50	3.66		
	$T_{2\,ME}$	lb-in	34,800	34,200	33,700	33,600	32,400	29,400	27,700		
		Nm	3,940	3,870	3,810	3,800	3,660	3,320	3,130		
	η	%	61	67	68	70	72	73	75		
150 10 x 15	$P_{1\,ME}$	hp	0.64	2.94	3.47	3.96	4.70	5.33	5.90	75,200	8,490
		kW	0.48	2.19	2.59	2.96	3.51	3.98	4.40		
	$P_{1\,TH}$	hp	0.49	2.26	2.67	3.05	3.49	3.61	3.73		
		kW	0.37	1.69	1.99	2.28	2.60	2.69	2.78		
	$T_{2\,ME}$	lb-in	37,400	33,000	32,700	31,200	28,500	26,000	24,100		
		Nm	4,220	3,730	3,690	3,520	3,220	2,930	2,720		
	η	%	61	69	72	72	74	75	76		
200 10 x 20	$P_{1\,ME}$	hp	0.51	2.59	3.06	3.66	4.67	5.33	5.90	73,000	8,240
		kW	0.38	1.94	2.28	2.73	3.48	3.98	4.40		
	$P_{1\,TH}$	hp	0.49	2.26	2.63	2.72	3.05	3.61	3.73		
		kW	0.37	1.69	1.97	2.03	2.28	2.69	2.78		
	$T_{2\,ME}$	lb-in	36,500	36,500	36,500	36,500	35,900	32,900	30,600		
		Nm	4,120	4,120	4,120	4,120	4,060	3,720	3,460		
	η	%	56	65	68	69	70	71	72		
225 15 x 15	$P_{1\,ME}$	hp	0.46	2.29	2.81	3.24	3.86	4.37	4.82	75,200	8,490
		kW	0.34	1.71	2.10	2.42	2.88	3.26	3.60		
	$P_{1\,TH}$	hp	0.35	1.59	1.89	2.16	2.57	2.76	2.94		
		kW	0.26	1.19	1.41	1.61	1.92	2.06	2.19		
	$T_{2\,ME}$	lb-in	37,600	37,600	37,600	36,400	33,900	30,800	28,200		
		Nm	4,250	4,250	4,250	4,110	3,830	3,480	3,180		
	η	%	57	67	68	69	71	72	72		
250 10 x 25	$P_{1\,ME}$	hp	0.42	2.10	2.46	2.95	3.76	4.59	5.41	69,700	7,880
		kW	0.31	1.56	1.84	2.20	2.80	3.43	4.04		
	$P_{1\,TH}$	hp	0.42	2.03	2.14	2.20	2.51	3.06	3.62		
		kW	0.31	1.51	1.60	1.64	1.87	2.29	2.70		
	$T_{2\,ME}$	lb-in	34,800	34,800	34,800	34,800	34,300	33,700	33,600		
		Nm	3,940	3,940	3,940	3,940	3,870	3,810	3,800		
	η	%	53	61	65	65	67	67	69		
300 15 x 20	$P_{1\,ME}$	hp	0.37	1.78	2.18	2.59	3.27	4.08	4.82	73,000	8,240
		kW	0.27	1.33	1.63	1.94	2.44	3.05	3.60		
	$P_{1\,TH}$	hp	0.35	1.59	1.89	2.16	2.57	2.76	2.94		
		kW	0.26	1.19	1.41	1.61	1.92	2.06	2.19		
	$T_{2\,ME}$	lb-in	36,500	36,500	36,500	36,500	36,500	36,500	35,700		
		Nm	4,120	4,120	4,120	4,120	4,120	4,120	4,040		
	η	%	53	63	64	65	68	68	69		
350 5 x 70	$P_{1\,ME}$	hp	0.28	1.36	1.64	1.91	2.44	2.95	3.43	52,700	5,950
		kW	0.21	1.01	1.22	1.43	1.82	2.20	2.56		
	$P_{1\,TH}$	hp	0.28	0.91	1.09	1.28	1.62	1.97	2.25		
		kW	0.21	0.68	0.82	0.95	1.21	1.47	1.68		
	$T_{2\,ME}$	lb-in	26,300	26,100	26,400	26,500	26,200	25,700	25,500		
		Nm	2,980	2,950	2,980	3,000	2,970	2,900	2,880		
	η	%	42	51	53	55	56	57	59		

See Page 8.7 for Rating Definitions

Size 25-50 Double Reduction Ratings

2.500" CD PRI. / 5.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
375 15 x 25	$P_{1\,ME}$	hp	0.30	1.44	1.76	2.10	2.64	3.29	3.89	69,700	7,880
		kW	0.22	1.07	1.32	1.56	1.97	2.46	2.91		
	$P_{1\,TH}$	hp	0.30	1.44	1.76	2.03	2.20	2.27	2.60		
		kW	0.22	1.07	1.32	1.51	1.64	1.69	1.94		
	$T_{2\,ME}$	lb-in	34,800	34,800	34,800	34,800	34,800	34,800	34,200		
		Nm	3,940	3,940	3,940	3,940	3,940	3,940	3,870		
	η	%	49	59	60	61	64	65	65		
400 20 x 20	$P_{1\,ME}$	hp	0.29	1.38	1.70	2.05	2.67	3.22	3.71	73,000	8,240
		kW	0.22	1.03	1.27	1.53	1.99	2.40	2.77		
	$P_{1\,TH}$	hp	0.27	1.22	1.44	1.65	1.97	2.22	2.48		
		kW	0.20	0.91	1.07	1.23	1.47	1.66	1.85		
	$T_{2\,ME}$	lb-in	36,500	36,500	36,500	36,500	36,500	36,500	35,100		
		Nm	4,120	4,120	4,120	4,120	4,120	4,120	3,970		
	η	%	50	61	61	61	62	65	66		
450 15 x 30	$P_{1\,ME}$	hp	0.26	1.21	1.48	1.76	2.21	2.75	3.26	67,100	7,580
		kW	0.19	0.90	1.10	1.31	1.65	2.05	2.43		
	$P_{1\,TH}$	hp	0.26	1.21	1.48	1.72	1.85	1.90	2.17		
		kW	0.19	0.90	1.10	1.28	1.38	1.42	1.62		
	$T_{2\,ME}$	lb-in	33,600	33,600	33,600	33,600	33,600	33,600	33,000		
		Nm	3,790	3,790	3,790	3,790	3,790	3,790	3,730		
	η	%	46	57	58	59	62	62	62		
500 25 x 20	$P_{1\,ME}$	hp	0.25	1.14	1.40	1.65	2.14	2.69	3.00	73,000	8,240
		kW	0.19	0.85	1.05	1.23	1.60	2.01	2.24		
	$P_{1\,TH}$	hp	0.21	0.98	1.16	1.33	1.59	1.79	2.00		
		kW	0.16	0.73	0.87	0.99	1.19	1.34	1.49		
	$T_{2\,ME}$	lb-in	36,500	36,500	36,500	36,500	36,500	36,500	34,600		
		Nm	4,120	4,120	4,120	4,120	4,120	4,120	3,910		
	η	%	46	59	59	61	62	62	64		
600 30 x 20	$P_{1\,ME}$	hp	0.20	0.94	1.15	1.39	1.81	2.17	2.60	67,100	7,580
		kW	0.15	0.70	0.86	1.04	1.35	1.62	1.94		
	$P_{1\,TH}$	hp	0.20	0.94	1.15	1.39	1.77	1.89	1.93		
		kW	0.15	0.70	0.86	1.04	1.32	1.41	1.44		
	$T_{2\,ME}$	lb-in	33,600	33,600	33,600	33,600	33,600	33,600	33,600		
		Nm	3,790	3,790	3,790	3,790	3,790	3,790	3,790		
	η	%	44	55	55	56	57	59	60		
625 25 x 25	$P_{1\,ME}$	hp	0.21	0.92	1.14	1.33	1.73	2.17	2.55	69,700	7,880
		kW	0.16	0.69	0.85	0.99	1.29	1.62	1.90		
	$P_{1\,TH}$	hp	0.21	0.92	1.14	1.33	1.59	1.79	2.00		
		kW	0.16	0.69	0.85	0.99	1.19	1.34	1.49		
	$T_{2\,ME}$	lb-in	34,800	34,800	34,800	34,800	34,800	34,800	34,800		
		Nm	3,940	3,940	3,940	3,940	3,940	3,940	3,940		
	η	%	42	56	56	58	59	59	61		
700 10 x 10	$P_{1\,ME}$	hp	0.18	0.77	0.90	1.07	1.36	1.67	1.96	52,700	5,950
		kW	0.13	0.58	0.67	0.80	1.02	1.24	1.47		
	$P_{1\,TH}$	hp	0.18	0.77	0.80	0.81	0.91	1.11	1.31		
		kW	0.13	0.58	0.59	0.60	0.68	0.83	0.98		
	$T_{2\,ME}$	lb-in	26,300	26,300	26,300	26,300	26,100	26,500	26,600		
		Nm	2,980	2,980	2,980	2,980	2,950	2,990	3,000		
	η	%	33	45	48	48	50	52	54		
750 30 x 25	$P_{1\,ME}$	hp	0.19	0.84	0.99	1.17	1.52	1.91	2.29	69,700	7,880
		kW	0.14	0.63	0.74	0.87	1.13	1.42	1.71		
	$P_{1\,TH}$	hp	0.18	0.82	0.98	1.12	1.33	1.50	1.68		
		kW	0.13	0.61	0.73	0.84	0.99	1.12	1.25		
	$T_{2\,ME}$	lb-in	34,800	34,800	34,800	34,800	34,800	34,800	34,800		
		Nm	3,940	3,940	3,940	3,940	3,940	3,940	3,940		
	η	%	39	51	54	55	56	56	56		
800 40 x 20	$P_{1\,ME}$	hp	0.19	0.82	0.97	1.16	1.49	1.71	1.90	73,000	8,240
		kW	0.14	0.62	0.72	0.87	1.12	1.28	1.41		
	$P_{1\,TH}$	hp	0.13	0.62	0.73	0.84	1.00	1.13	1.26		
		kW	0.10	0.46	0.54	0.63	0.75	0.84	0.94		
	$T_{2\,ME}$	lb-in	36,500	36,500	36,500	36,500	36,500	33,400	30,700		
		Nm	4,120	4,120	4,120	4,120	4,120	3,770	3,470		
	η	%	38	51	54	54	56	56	56		

See Page 8.7 for Rating Definitions

2.500" CD PRI. / 5.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
900 30 x 30	$P_{1\,ME}$	hp	0.16	0.71	0.83	0.98	1.27	1.60	1.92	67,100	7,580
		kW	0.12	0.53	0.62	0.73	0.95	1.19	1.43		
	$P_{1\,TH}$	hp	0.16	0.71	0.83	0.98	1.27	1.50	1.68		
		kW	0.12	0.53	0.62	0.73	0.95	1.12	1.25		
	$T_{2\,ME}$	lb-in	33,600	33,600	33,600	33,600	33,600	33,600	33,600		
		Nm	3,790	3,790	3,790	3,790	3,790	3,790	3,790		
	η	%	37	48	51	52	54	54	54		
1000 50 x 20	$P_{1\,ME}$	hp	0.16	0.70	0.82	0.98	1.21	1.37	1.52	73,000	8,240
		kW	0.12	0.52	0.61	0.73	0.90	1.03	1.13		
	$P_{1\,TH}$	hp	0.11	0.50	0.59	0.68	0.81	0.91	1.01		
		kW	0.08	0.37	0.44	0.51	0.60	0.68	0.75		
	$T_{2\,ME}$	lb-in	33,500	36,500	36,500	36,500	35,100	32,000	29,400		
		Nm	3,780	4,120	4,120	4,120	3,970	3,610	3,330		
	η	%	33	48	51	51	53	53	54		
1050 15 x 70	$P_{1\,ME}$	hp	0.14	0.53	0.65	0.77	0.96	1.20	1.41	52,700	5,950
		kW	0.10	0.40	0.49	0.58	0.72	0.89	1.05		
	$P_{1\,TH}$	hp	0.14	0.53	0.65	0.77	0.81	0.83	0.94		
		kW	0.10	0.40	0.49	0.58	0.61	0.62	0.70		
	$T_{2\,ME}$	lb-in	26,300	26,300	26,300	26,300	26,300	26,300	26,100		
		Nm	2,980	2,980	2,980	2,980	2,980	2,980	2,950		
	η	%	29	43	44	45	48	48	49		
1200 40 x 30	$P_{1\,ME}$	hp	0.14	0.57	0.67	0.79	1.01	1.27	1.52	67,100	7,580
		kW	0.10	0.43	0.50	0.59	0.76	0.95	1.14		
	$P_{1\,TH}$	hp	0.13	0.57	0.67	0.79	1.00	1.13	1.26		
		kW	0.10	0.43	0.50	0.59	0.75	0.84	0.94		
	$T_{2\,ME}$	lb-in	33,600	33,600	33,600	33,600	33,600	33,600	33,600		
		Nm	3,790	3,790	3,790	3,790	3,790	3,790	3,790		
	η	%	32	45	48	49	50	51	51		
1250 50 x 25	$P_{1\,ME}$	hp	0.15	0.56	0.66	0.79	1.02	1.27	1.52	69,700	7,880
		kW	0.11	0.42	0.50	0.59	0.76	0.95	1.13		
	$P_{1\,TH}$	hp	0.11	0.50	0.59	0.68	0.81	0.91	1.01		
		kW	0.08	0.37	0.44	0.51	0.60	0.68	0.75		
	$T_{2\,ME}$	lb-in	34,800	34,800	34,800	34,800	34,800	34,800	34,800		
		Nm	3,940	3,940	3,940	3,940	3,940	3,940	3,930		
	η	%	29	45	48	49	50	51	51		
1400 20 x 70	$P_{1\,ME}$	hp	0.11	0.41	0.51	0.61	0.80	0.95	1.13	52,700	5,950
		kW	0.09	0.31	0.38	0.46	0.59	0.71	0.84		
	$P_{1\,TH}$	hp	0.11	0.41	0.51	0.61	0.80	0.83	0.85		
		kW	0.09	0.31	0.38	0.46	0.59	0.62	0.63		
	$T_{2\,ME}$	lb-in	26,300	26,300	26,300	26,300	26,300	26,300	26,300		
		Nm	2,980	2,980	2,980	2,980	2,980	2,980	2,980		
	η	%	26	42	42	42	43	46	46		
1500 50 x 30	$P_{1\,ME}$	hp	0.13	0.48	0.57	0.67	0.85	1.06	1.28	67,100	7,580
		kW	0.10	0.36	0.42	0.50	0.64	0.79	0.95		
	$P_{1\,TH}$	hp	0.11	0.48	0.57	0.67	0.81	0.91	1.01		
		kW	0.08	0.36	0.42	0.50	0.60	0.68	0.75		
	$T_{2\,ME}$	lb-in	33,600	33,600	33,600	33,600	33,600	33,600	33,600		
		Nm	3,790	3,790	3,790	3,790	3,790	3,790	3,790		
	η	%	28	43	45	46	48	48	49		
1600 40 x 40	$P_{1\,ME}$	hp	0.11	0.44	0.51	0.61	0.77	0.96	1.16	60,800	6,870
		kW	0.08	0.33	0.38	0.45	0.57	0.72	0.86		
	$P_{1\,TH}$	hp	0.11	0.44	0.51	0.61	0.77	0.96	1.16		
		kW	0.08	0.33	0.38	0.45	0.57	0.72	0.86		
	$T_{2\,ME}$	lb-in	30,400	30,400	30,400	30,400	30,400	30,400	30,400		
		Nm	3,430	3,430	3,430	3,430	3,430	3,430	3,430		
	η	%	27	39	42	43	45	45	46		
1750 25 x 70	$P_{1\,ME}$	hp	0.10	0.35	0.42	0.49	0.64	0.80	0.93	52,700	5,950
		kW	0.08	0.26	0.32	0.37	0.48	0.60	0.70		
	$P_{1\,TH}$	hp	0.10	0.35	0.42	0.49	0.64	0.80	0.84		
		kW	0.08	0.26	0.32	0.37	0.48	0.60	0.63		
	$T_{2\,ME}$	lb-in	26,300	26,300	26,300	26,300	26,300	26,300	26,300		
		Nm	2,980	2,980	2,980	2,980	2,980	2,980	2,980		
	η	%	23	40	41	42	43	43	45		

See Page 8.7 for Rating Definitions

Size 25-50 Double Reduction Ratings

2.500" CD PRI. / 5.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1800 60 x 30	$P_{1\,ME}$	hp	0.11	0.43	0.51	0.59	0.76	0.93	1.12	67,100	7,580
		kW	0.08	0.32	0.38	0.44	0.56	0.70	0.83		
	$P_{1\,TH}$	hp	0.09	0.42	0.49	0.59	0.67	0.76	0.85		
		kW	0.07	0.31	0.37	0.44	0.50	0.57	0.63		
	$T_{2\,ME}$	lb-in	33,600	33,600	33,600	33,600	33,600	33,600	33,600		
		Nm	3,790	3,790	3,790	3,790	3,790	3,790	3,790		
	η	%	27	40	42	43	45	46	46		
2000 50 x 40	$P_{1\,ME}$	hp	0.10	0.38	0.44	0.52	0.65	0.81	0.97	60,800	6,870
		kW	0.08	0.28	0.33	0.39	0.49	0.60	0.72		
	$P_{1\,TH}$	hp	0.10	0.38	0.44	0.52	0.65	0.81	0.97		
		kW	0.08	0.28	0.33	0.39	0.49	0.60	0.72		
	$T_{2\,ME}$	lb-in	30,400	30,400	30,400	30,400	30,400	30,400	30,400		
		Nm	3,430	3,430	3,430	3,430	3,430	3,430	3,430		
	η	%	23	37	39	40	42	43	44		
2100 30 x 70	$P_{1\,ME}$	hp	0.09	0.33	0.37	0.44	0.56	0.71	0.85	52,700	5,950
		kW	0.07	0.24	0.28	0.33	0.42	0.53	0.63		
	$P_{1\,TH}$	hp	0.09	0.33	0.37	0.44	0.56	0.71	0.85		
		kW	0.07	0.24	0.28	0.33	0.42	0.53	0.63		
	$T_{2\,ME}$	lb-in	26,300	26,300	26,300	26,300	26,300	26,300	26,300		
		Nm	2,980	2,980	2,980	2,980	2,980	2,980	2,980		
	η	%	21	35	39	40	41	41	41		
2400 60 x 40	$P_{1\,ME}$	hp	0.09	0.34	0.40	0.46	0.58	0.71	0.85	60,800	6,870
		kW	0.07	0.25	0.30	0.35	0.43	0.53	0.63		
	$P_{1\,TH}$	hp	0.09	0.34	0.40	0.46	0.58	0.71	0.85		
		kW	0.07	0.25	0.30	0.35	0.43	0.53	0.63		
	$T_{2\,ME}$	lb-in	30,400	30,400	30,400	30,400	30,400	30,400	30,400		
		Nm	3,430	3,430	3,430	3,430	3,430	3,430	3,430		
	η	%	22	34	36	38	40	41	41		
2500 50 x 50	$P_{1\,ME}$	hp	0.09	0.30	0.35	0.42	0.53	0.65	0.78	54,300	6,130
		kW	0.07	0.23	0.26	0.31	0.39	0.49	0.58		
	$P_{1\,TH}$	hp	0.09	0.30	0.35	0.42	0.53	0.65	0.78		
		kW	0.07	0.23	0.26	0.31	0.39	0.49	0.58		
	$T_{2\,ME}$	lb-in	27,100	27,100	27,100	27,100	27,100	27,100	27,100		
		Nm	3,070	3,070	3,070	3,070	3,070	3,070	3,070		
	η	%	19	33	35	36	38	38	38		
2800 40 x 70	$P_{1\,ME}$	hp	0.08	0.27	0.31	0.36	0.45	0.56	0.67	52,700	5,950
		kW	0.06	0.20	0.23	0.27	0.34	0.42	0.50		
	$P_{1\,TH}$	hp	0.08	0.27	0.31	0.36	0.45	0.56	0.67		
		kW	0.06	0.20	0.23	0.27	0.34	0.42	0.50		
	$T_{2\,ME}$	lb-in	26,300	26,300	26,300	26,300	26,300	26,300	26,300		
		Nm	2,980	2,980	2,980	2,980	2,980	2,980	2,980		
	η	%	18	32	35	36	38	39	39		
3000 60 x 50	$P_{1\,ME}$	hp	0.08	0.28	0.32	0.37	0.47	0.57	0.69	54,300	6,130
		kW	0.06	0.21	0.24	0.28	0.35	0.43	0.51		
	$P_{1\,TH}$	hp	0.08	0.28	0.32	0.37	0.47	0.57	0.69		
		kW	0.06	0.21	0.24	0.28	0.35	0.43	0.51		
	$T_{2\,ME}$	lb-in	27,100	27,100	27,100	27,100	27,100	27,100	27,100		
		Nm	3,070	3,070	3,070	3,070	3,070	3,070	3,070		
	η	%	18	30	32	34	35	36	37		
3600 60 x 60	$P_{1\,ME}$	hp	0.07	0.23	0.27	0.31	0.39	0.48	0.58	53,400	6,030
		kW	0.06	0.17	0.20	0.23	0.29	0.36	0.43		
	$P_{1\,TH}$	hp	0.07	0.23	0.27	0.31	0.39	0.48	0.58		
		kW	0.06	0.17	0.20	0.23	0.29	0.36	0.43		
	$T_{2\,ME}$	lb-in	26,700	26,700	26,700	26,700	26,700	26,700	26,700		
		Nm	3,020	3,020	3,020	3,020	3,020	3,020	3,020		
	η	%	16	29	31	33	34	36	36		
4200 60 x 70	$P_{1\,ME}$	hp	0.07	0.22	0.25	0.28	0.35	0.42	0.49	52,700	5,950
		kW	0.05	0.16	0.19	0.21	0.26	0.31	0.37		
	$P_{1\,TH}$	hp	0.07	0.22	0.25	0.28	0.35	0.42	0.49		
		kW	0.05	0.16	0.19	0.21	0.26	0.31	0.37		
	$T_{2\,ME}$	lb-in	26,300	26,300	26,300	26,300	26,300	26,300	26,300		
		Nm	2,980	2,980	2,980	2,980	2,980	2,980	2,980		
	η	%	14	26	29	31	33	35	35		

See Page 8.7 for Rating Definitions

3.000" CD PRI. / 6.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	1.66	7.26	8.37	9.36	10.80	12.30	13.60	116,000	13,100
		kW	1.24	5.41	6.24	6.98	8.07	9.18	10.10		
	$P_{1\,TH}$	hp	1.55	4.02	4.53	4.83	5.31	5.70	6.08		
		kW	1.16	3.00	3.38	3.60	3.96	4.25	4.54		
	$T_{2\,ME}$	lb-in	53,600	44,100	41,500	39,300	34,400	31,300	29,100		
		Nm	6,060	4,990	4,690	4,440	3,880	3,540	3,280		
	η	%	69	75	76	77	77	78	79		
100 5 x 20	$P_{1\,ME}$	hp	1.39	7.15	8.37	9.36	10.80	12.30	13.60	113,000	12,700
		kW	1.04	5.34	6.24	6.98	8.07	9.18	10.10		
	$P_{1\,TH}$	hp	1.39	4.02	4.53	4.83	5.31	5.70	6.08		
		kW	1.04	3.00	3.38	3.60	3.96	4.25	4.54		
	$T_{2\,ME}$	lb-in	56,300	55,100	52,600	49,900	43,600	39,800	37,000		
		Nm	6,370	6,230	5,950	5,640	4,930	4,500	4,180		
	η	%	64	71	72	74	74	75	75		
125 5 x 25	$P_{1\,ME}$	hp	1.13	5.77	6.96	8.13	10.30	12.30	13.60	108,000	12,200
		kW	0.84	4.30	5.19	6.07	7.67	9.18	10.10		
	$P_{1\,TH}$	hp	1.13	3.77	4.45	4.83	5.31	5.70	6.08		
		kW	0.84	2.81	3.32	3.60	3.96	4.25	4.54		
	$T_{2\,ME}$	lb-in	53,800	52,800	52,000	51,900	50,500	48,700	45,600		
		Nm	6,080	5,960	5,870	5,860	5,710	5,500	5,160		
	η	%	61	67	68	70	72	73	75		
150 10 x 15	$P_{1\,ME}$	hp	1.00	5.16	6.05	6.83	8.02	9.07	10.00	116,000	13,100
		kW	0.74	3.85	4.52	5.10	5.98	6.77	7.48		
	$P_{1\,TH}$	hp	1.00	3.53	3.77	4.10	4.39	4.63	4.87		
		kW	0.74	2.63	2.81	3.06	3.28	3.46	3.63		
	$T_{2\,ME}$	lb-in	57,900	57,900	57,000	53,700	48,600	44,200	41,000		
		Nm	6,550	6,550	6,440	6,070	5,500	4,990	4,630		
	η	%	61	69	72	72	74	75	76		
200 10 x 20	$P_{1\,ME}$	hp	0.79	4.01	4.72	5.65	7.18	8.78	10.00	113,000	12,700
		kW	0.59	2.99	3.52	4.22	5.36	6.55	7.48		
	$P_{1\,TH}$	hp	0.79	3.53	3.77	4.10	4.39	4.63	4.87		
		kW	0.59	2.63	2.81	3.06	3.28	3.46	3.63		
	$T_{2\,ME}$	lb-in	56,300	56,300	56,300	56,300	55,200	54,300	52,000		
		Nm	6,370	6,370	6,370	6,370	6,240	6,130	5,880		
	η	%	56	65	68	69	70	71	72		
225 15 x 15	$P_{1\,ME}$	hp	0.71	3.53	4.33	5.16	6.58	7.42	8.23	116,000	13,100
		kW	0.53	2.64	3.23	3.85	4.91	5.54	6.14		
	$P_{1\,TH}$	hp	0.70	3.00	3.20	3.40	3.61	3.81	4.00		
		kW	0.52	2.24	2.39	2.54	2.69	2.84	2.99		
	$T_{2\,ME}$	lb-in	57,900	57,900	57,900	57,900	57,800	52,300	48,100		
		Nm	6,550	6,550	6,550	6,550	6,530	5,910	5,440		
	η	%	57	67	68	69	71	72	72		
250 10 x 25	$P_{1\,ME}$	hp	0.64	3.24	3.80	4.55	5.78	7.08	8.36	108,000	12,200
		kW	0.48	2.41	2.84	3.40	4.31	5.29	6.24		
	$P_{1\,TH}$	hp	0.64	3.10	3.28	3.37	3.78	4.53	4.87		
		kW	0.48	2.31	2.44	2.51	2.82	3.38	3.63		
	$T_{2\,ME}$	lb-in	53,800	53,800	53,800	53,800	52,800	52,000	51,900		
		Nm	6,080	6,080	6,080	6,080	5,960	5,870	5,860		
	η	%	53	61	65	65	67	67	69		
300 15 x 20	$P_{1\,ME}$	hp	0.57	2.75	3.37	4.01	5.06	6.31	7.44	113,000	12,700
		kW	0.42	2.05	2.52	2.99	3.77	4.71	5.55		
	$P_{1\,TH}$	hp	0.57	2.75	3.20	3.40	3.61	3.81	4.00		
		kW	0.42	2.05	2.39	2.54	2.69	2.84	2.99		
	$T_{2\,ME}$	lb-in	56,300	56,300	56,300	56,300	56,300	56,300	55,100		
		Nm	6,370	6,370	6,370	6,370	6,370	6,370	6,230		
	η	%	53	63	64	65	68	68	69		
350 5 x 70	$P_{1\,ME}$	hp	0.44	2.09	2.52	2.95	3.73	4.49	5.17	81,200	9,180
		kW	0.32	1.56	1.88	2.20	2.78	3.35	3.86		
	$P_{1\,TH}$	hp	0.44	1.38	1.66	1.95	2.46	2.98	3.36		
		kW	0.32	1.03	1.24	1.45	1.84	2.22	2.51		
	$T_{2\,ME}$	lb-in	40,600	40,200	40,700	41,000	40,100	39,000	38,400		
		Nm	4,590	4,540	4,600	4,630	4,530	4,410	4,340		
	η	%	42	51	53	55	56	57	59		

See Page 8.7 for Rating Definitions

Size 30-60 Double Reduction Ratings

3.000" CD PRI. / 6.000" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
375 15 x 25	$P_{1\,ME}$	hp	0.46	2.22	2.72	3.24	4.08	5.08	5.99	108,000	12,200
		kW	0.35	1.66	2.03	2.41	3.04	3.79	4.47		
	$P_{1\,TH}$	hp	0.46	2.22	2.72	3.10	3.36	3.47	3.91		
		kW	0.35	1.66	2.03	2.31	2.51	2.59	2.92		
	$T_{2\,ME}$	lb-in	53,800	53,800	53,800	53,800	53,800	53,800	52,700		
		Nm	6,080	6,080	6,080	6,080	6,080	6,080	5,950		
	η	%	49	59	60	61	64	65	65		
400 20 x 20	$P_{1\,ME}$	hp	0.45	2.13	2.63	3.17	4.12	4.97	5.95	113,000	12,700
		kW	0.34	1.59	1.96	2.36	3.07	3.71	4.44		
	$P_{1\,TH}$	hp	0.45	2.13	2.63	3.10	3.25	3.37	3.49		
		kW	0.34	1.59	1.96	2.31	2.43	2.51	2.60		
	$T_{2\,ME}$	lb-in	56,300	56,300	56,300	56,300	56,300	56,300	56,300		
		Nm	6,370	6,370	6,370	6,370	6,370	6,370	6,370		
	η	%	50	61	61	61	62	65	66		
450 15 x 30	$P_{1\,ME}$	hp	0.39	1.86	2.28	2.71	3.41	4.25	5.01	104,000	11,700
		kW	0.29	1.39	1.70	2.02	2.55	3.17	3.74		
	$P_{1\,TH}$	hp	0.39	1.86	2.28	2.62	2.82	2.90	3.27		
		kW	0.29	1.39	1.70	1.96	2.11	2.17	2.44		
	$T_{2\,ME}$	lb-in	51,800	51,800	51,800	51,800	51,800	51,800	50,700		
		Nm	5,850	5,850	5,850	5,850	5,850	5,850	5,730		
	η	%	46	57	58	59	62	62	62		
500 25 x 20	$P_{1\,ME}$	hp	0.39	1.76	2.17	2.54	3.31	4.15	4.88	113,000	12,700
		kW	0.29	1.32	1.62	1.90	2.47	3.10	3.64		
	$P_{1\,TH}$	hp	0.39	1.76	2.17	2.54	2.71	2.82	2.92		
		kW	0.29	1.32	1.62	1.90	2.02	2.10	2.18		
	$T_{2\,ME}$	lb-in	56,300	56,300	56,300	56,300	56,300	56,300	56,300		
		Nm	6,370	6,370	6,370	6,370	6,370	6,370	6,370		
	η	%	45	59	59	61	62	62	64		
600 30 x 20	$P_{1\,ME}$	hp	0.35	1.60	1.89	2.24	2.90	3.65	4.28	113,000	12,700
		kW	0.26	1.20	1.41	1.67	2.16	2.72	3.20		
	$P_{1\,TH}$	hp	0.35	1.60	1.89	2.20	2.44	2.53	2.61		
		kW	0.26	1.20	1.41	1.64	1.82	1.88	1.95		
	$T_{2\,ME}$	lb-in	56,300	56,300	56,300	56,300	56,300	56,300	55,100		
		Nm	6,370	6,370	6,370	6,370	6,370	6,370	6,230		
	η	%	43	54	57	58	59	59	60		
625 25 x 25	$P_{1\,ME}$	hp	0.33	1.43	1.75	2.06	2.67	3.35	3.93	108,000	12,200
		kW	0.24	1.06	1.31	1.53	1.99	2.50	2.93		
	$P_{1\,TH}$	hp	0.33	1.43	1.75	2.06	2.67	2.82	2.92		
		kW	0.24	1.06	1.31	1.53	1.99	2.10	2.18		
	$T_{2\,ME}$	lb-in	53,800	53,800	53,800	53,800	53,800	53,800	53,800		
		Nm	6,080	6,080	6,080	6,080	6,080	6,080	6,080		
	η	%	42	56	56	58	59	59	61		
700 10 x 10	$P_{1\,ME}$	hp	0.28	1.19	1.39	1.66	2.10	2.56	3.03	81,200	9,180
		kW	0.21	0.89	1.04	1.24	1.56	1.91	2.26		
	$P_{1\,TH}$	hp	0.28	1.18	1.21	1.23	1.39	1.69	2.00		
		kW	0.21	0.88	0.90	0.92	1.03	1.26	1.49		
	$T_{2\,ME}$	lb-in	40,600	40,600	40,600	40,600	40,100	40,700	40,900		
		Nm	4,590	4,590	4,590	4,590	4,540	4,600	4,630		
	η	%	33	45	48	48	50	52	54		
750 30 x 25	$P_{1\,ME}$	hp	0.29	1.30	1.53	1.81	2.34	2.95	3.54	108,000	12,200
		kW	0.22	0.97	1.14	1.35	1.75	2.20	2.64		
	$P_{1\,TH}$	hp	0.29	1.30	1.53	1.81	2.34	2.53	2.61		
		kW	0.22	0.97	1.14	1.35	1.75	1.88	1.95		
	$T_{2\,ME}$	lb-in	53,800	53,800	53,800	53,800	53,800	53,800	53,800		
		Nm	6,080	6,080	6,080	6,080	6,080	6,080	6,080		
	η	%	39	51	54	55	56	56	56		
800 40 x 20	$P_{1\,ME}$	hp	0.30	1.27	1.50	1.79	2.31	2.89	3.23	113,000	12,700
		kW	0.22	0.95	1.12	1.34	1.72	2.16	2.41		
	$P_{1\,TH}$	hp	0.27	1.21	1.43	1.66	1.99	2.16	2.33		
		kW	0.20	0.90	1.07	1.24	1.49	1.61	1.74		
	$T_{2\,ME}$	lb-in	56,300	56,300	56,300	56,300	56,300	56,300	52,300		
		Nm	6,370	6,370	6,370	6,370	6,370	6,370	5,910		
	η	%	37	51	54	54	56	56	56		

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3.000" CD PRI. / 6.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
900 30 x 30	$P_{1\,ME}$	hp	0.25	1.10	1.28	1.52	1.96	2.47	2.96	104,000	11,700
		kW	0.18	0.82	0.96	1.13	1.46	1.84	2.21		
	$P_{1\,TH}$	hp	0.25	1.10	1.28	1.52	1.96	2.47	2.61		
		kW	0.18	0.82	0.96	1.13	1.46	1.84	1.95		
	$T_{2\,ME}$	lb-in	51,800	51,800	51,800	51,800	51,800	51,800	51,800		
		Nm	5,850	5,850	5,850	5,850	5,850	5,850	5,850		
	η	%	37	48	51	52	54	54	54		
1000 50 x 20	$P_{1\,ME}$	hp	0.28	1.07	1.27	1.51	1.94	2.34	2.59	113,000	12,700
		kW	0.21	0.80	0.94	1.13	1.45	1.74	1.93		
	$P_{1\,TH}$	hp	0.22	0.97	1.15	1.33	1.60	1.84	2.08		
		kW	0.16	0.72	0.86	0.99	1.19	1.37	1.55		
	$T_{2\,ME}$	lb-in	56,300	56,300	56,300	56,300	56,300	54,300	50,200		
		Nm	6,370	6,370	6,370	6,370	6,370	6,140	5,670		
	η	%	32	48	51	51	53	53	54		
1050 15 x 70	$P_{1\,ME}$	hp	0.21	0.82	1.01	1.19	1.49	1.84	2.17	81,200	9,180
		kW	0.16	0.61	0.75	0.89	1.11	1.38	1.62		
	$P_{1\,TH}$	hp	0.21	0.82	1.01	1.18	1.23	1.26	1.44		
		kW	0.16	0.61	0.75	0.88	0.92	0.94	1.07		
	$T_{2\,ME}$	lb-in	40,600	40,600	40,600	40,600	40,600	40,600	40,200		
		Nm	4,590	4,590	4,590	4,590	4,590	4,590	4,540		
	η	%	29	43	44	45	48	48	49		
1200 40 x 30	$P_{1\,ME}$	hp	0.21	0.88	1.03	1.22	1.56	1.96	2.35	104,000	11,700
		kW	0.16	0.66	0.77	0.91	1.17	1.46	1.76		
	$P_{1\,TH}$	hp	0.21	0.88	1.03	1.22	1.56	1.96	2.33		
		kW	0.16	0.66	0.77	0.91	1.17	1.46	1.74		
	$T_{2\,ME}$	lb-in	51,800	51,800	51,800	51,800	51,800	51,800	51,800		
		Nm	5,850	5,850	5,850	5,850	5,850	5,850	5,850		
	η	%	32	45	48	49	50	51	51		
1250 50 x 25	$P_{1\,ME}$	hp	0.23	0.87	1.02	1.22	1.57	1.96	2.35	108,000	12,200
		kW	0.17	0.65	0.76	0.91	1.17	1.46	1.75		
	$P_{1\,TH}$	hp	0.22	0.87	1.02	1.22	1.57	1.84	2.08		
		kW	0.16	0.65	0.76	0.91	1.17	1.37	1.55		
	$T_{2\,ME}$	lb-in	53,800	53,800	53,800	53,800	53,800	53,800	53,800		
		Nm	6,080	6,080	6,080	6,080	6,080	6,080	6,080		
	η	%	29	45	48	49	50	51	51		
1400 20 x 70	$P_{1\,ME}$	hp	0.18	0.64	0.79	0.95	1.23	1.46	1.74	81,200	9,180
		kW	0.13	0.48	0.59	0.71	0.92	1.09	1.30		
	$P_{1\,TH}$	hp	0.18	0.64	0.79	0.95	1.22	1.27	1.29		
		kW	0.13	0.48	0.59	0.71	0.91	0.95	0.96		
	$T_{2\,ME}$	lb-in	40,600	40,600	40,600	40,600	40,600	40,600	40,600		
		Nm	4,590	4,590	4,590	4,590	4,590	4,590	4,590		
	η	%	26	42	42	42	43	46	46		
1500 50 x 30	$P_{1\,ME}$	hp	0.20	0.74	0.87	1.04	1.32	1.64	1.97	104,000	11,700
		kW	0.15	0.56	0.65	0.78	0.99	1.23	1.47		
	$P_{1\,TH}$	hp	0.20	0.74	0.87	1.04	1.32	1.64	1.97		
		kW	0.15	0.56	0.65	0.78	0.99	1.23	1.47		
	$T_{2\,ME}$	lb-in	51,800	51,800	51,800	51,800	51,800	51,800	51,800		
		Nm	5,850	5,850	5,850	5,850	5,850	5,850	5,850		
	η	%	28	43	45	46	48	48	49		
1600 40 x 40	$P_{1\,ME}$	hp	0.18	0.69	0.80	0.94	1.19	1.49	1.79	94,000	10,600
		kW	0.13	0.51	0.59	0.70	0.89	1.11	1.33		
	$P_{1\,TH}$	hp	0.18	0.69	0.80	0.94	1.19	1.49	1.79		
		kW	0.13	0.51	0.59	0.70	0.89	1.11	1.33		
	$T_{2\,ME}$	lb-in	47,000	47,000	47,000	47,000	47,000	47,000	47,000		
		Nm	5,310	5,310	5,310	5,310	5,310	5,310	5,310		
	η	%	27	39	42	43	45	45	46		
1750 25 x 70	$P_{1\,ME}$	hp	0.16	0.54	0.65	0.76	0.99	1.24	1.44	81,200	9,180
		kW	0.12	0.40	0.49	0.57	0.74	0.92	1.07		
	$P_{1\,TH}$	hp	0.16	0.54	0.65	0.76	0.99	1.22	1.28		
		kW	0.12	0.40	0.49	0.57	0.74	0.91	0.95		
	$T_{2\,ME}$	lb-in	40,600	40,600	40,600	40,600	40,600	40,600	40,600		
		Nm	4,590	4,590	4,590	4,590	4,590	4,590	4,590		
	η	%	23	40	41	42	43	43	45		

See Page 8.7 for Rating Definitions

Size 30-60 Double Reduction Ratings

3.000" CD PRI. / 6.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1800 60 x 30	$P_{1\,ME}$	hp	0.17	0.67	0.79	0.92	1.17	1.44	1.72	104,000	11,700
		kW	0.13	0.50	0.59	0.69	0.87	1.07	1.29		
	$P_{1\,TH}$	hp	0.17	0.67	0.79	0.92	1.17	1.44	1.72		
		kW	0.13	0.50	0.59	0.69	0.87	1.07	1.29		
	$T_{2\,ME}$	lb-in	51,800	51,800	51,800	51,800	51,800	51,800	51,800		
		Nm	5,850	5,850	5,850	5,850	5,850	5,850	5,850		
	η	%	27	40	42	43	45	46	46		
2000 50 x 40	$P_{1\,ME}$	hp	0.16	0.58	0.68	0.80	1.01	1.25	1.50	94,000	10,600
		kW	0.12	0.44	0.51	0.60	0.75	0.93	1.12		
	$P_{1\,TH}$	hp	0.16	0.58	0.68	0.80	1.01	1.25	1.50		
		kW	0.12	0.44	0.51	0.60	0.75	0.93	1.12		
	$T_{2\,ME}$	lb-in	47,000	47,000	47,000	47,000	47,000	47,000	47,000		
		Nm	5,310	5,310	5,310	5,310	5,310	5,310	5,310		
	η	%	23	37	39	40	42	43	44		
2100 30 x 70	$P_{1\,ME}$	hp	0.15	0.50	0.57	0.67	0.87	1.09	1.31	81,200	9,180
		kW	0.11	0.38	0.43	0.50	0.65	0.81	0.97		
	$P_{1\,TH}$	hp	0.15	0.50	0.57	0.67	0.87	1.09	1.29		
		kW	0.11	0.38	0.43	0.50	0.65	0.81	0.96		
	$T_{2\,ME}$	lb-in	40,600	40,600	40,600	40,600	40,600	40,600	40,600		
		Nm	4,590	4,590	4,590	4,590	4,590	4,590	4,590		
	η	%	21	35	39	40	41	41	41		
2400 60 x 40	$P_{1\,ME}$	hp	0.14	0.53	0.62	0.72	0.90	1.10	1.31	94,000	10,600
		kW	0.10	0.39	0.46	0.53	0.67	0.82	0.98		
	$P_{1\,TH}$	hp	0.14	0.53	0.62	0.72	0.90	1.10	1.31		
		kW	0.10	0.39	0.46	0.53	0.67	0.82	0.98		
	$T_{2\,ME}$	lb-in	47,000	47,000	47,000	47,000	47,000	47,000	47,000		
		Nm	5,310	5,310	5,310	5,310	5,310	5,310	5,310		
	η	%	22	34	36	38	40	41	41		
2500 50 x 50	$P_{1\,ME}$	hp	0.14	0.47	0.55	0.65	0.82	1.01	1.21	83,900	9,480
		kW	0.10	0.35	0.41	0.48	0.61	0.76	0.90		
	$P_{1\,TH}$	hp	0.14	0.47	0.55	0.65	0.82	1.01	1.21		
		kW	0.10	0.35	0.41	0.48	0.61	0.76	0.90		
	$T_{2\,ME}$	lb-in	42,000	42,000	42,000	42,000	42,000	42,000	42,000		
		Nm	4,740	4,740	4,740	4,740	4,740	4,740	4,740		
	η	%	19	33	35	36	38	38	38		
2800 40 x 70	$P_{1\,ME}$	hp	0.13	0.42	0.48	0.55	0.69	0.87	1.04	81,200	9,180
		kW	0.10	0.31	0.35	0.41	0.52	0.65	0.78		
	$P_{1\,TH}$	hp	0.13	0.42	0.48	0.55	0.69	0.87	1.04		
		kW	0.10	0.31	0.35	0.41	0.52	0.65	0.78		
	$T_{2\,ME}$	lb-in	40,600	40,600	40,600	40,600	40,600	40,600	40,600		
		Nm	4,590	4,590	4,590	4,590	4,590	4,590	4,590		
	η	%	17	32	35	36	38	39	39		
3000 60 x 50	$P_{1\,ME}$	hp	0.12	0.43	0.50	0.57	0.73	0.89	1.06	83,900	9,480
		kW	0.09	0.32	0.37	0.43	0.54	0.66	0.79		
	$P_{1\,TH}$	hp	0.12	0.43	0.50	0.57	0.73	0.89	1.06		
		kW	0.09	0.32	0.37	0.43	0.54	0.66	0.79		
	$T_{2\,ME}$	lb-in	42,000	42,000	42,000	42,000	42,000	42,000	42,000		
		Nm	4,740	4,740	4,740	4,740	4,740	4,740	4,740		
	η	%	19	30	32	34	35	36	37		
3600 60 x 60	$P_{1\,ME}$	hp	0.11	0.36	0.42	0.48	0.61	0.74	0.89	82,600	9,330
		kW	0.08	0.27	0.31	0.36	0.45	0.55	0.67		
	$P_{1\,TH}$	hp	0.11	0.36	0.42	0.48	0.61	0.74	0.89		
		kW	0.08	0.27	0.31	0.36	0.45	0.55	0.67		
	$T_{2\,ME}$	lb-in	41,300	41,300	41,300	41,300	41,300	41,300	41,300		
		Nm	4,670	4,670	4,670	4,670	4,670	4,670	4,670		
	η	%	16	29	31	33	34	36	36		
4200 60 x 70	$P_{1\,ME}$	hp	0.11	0.34	0.39	0.43	0.54	0.64	0.76	81,200	9,180
		kW	0.08	0.25	0.29	0.32	0.40	0.48	0.57		
	$P_{1\,TH}$	hp	0.11	0.34	0.39	0.43	0.54	0.64	0.76		
		kW	0.08	0.25	0.29	0.32	0.40	0.48	0.57		
	$T_{2\,ME}$	lb-in	40,600	40,600	40,600	40,600	40,600	40,600	40,600		
		Nm	4,590	4,590	4,590	4,590	4,590	4,590	4,590		
	η	%	14	26	29	31	33	35	35		

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3.000" CD PRI. / 7.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
100 5 x 20	$P_{1\,ME}$	hp	1.66	7.26	8.37	9.36	10.80	12.30	13.60	178,000	20,100
		kW	1.24	5.41	6.24	6.98	8.07	9.18	10.10		
	$P_{1\,TH}$	hp	1.55	4.02	4.53	4.83	5.31	5.70	6.08		
		kW	1.16	3.00	3.38	3.60	3.96	4.25	4.54		
	$T_{2\,ME}$	lb-in	66,800	56,000	52,600	49,900	43,600	39,800	37,000		
		Nm	7,550	6,320	5,950	5,640	4,930	4,500	4,180		
	η	%	64	71	72	74	74	75	75		
125 5 x 25	$P_{1\,ME}$	hp	1.66	7.26	8.37	9.36	10.80	12.30	13.60	170,000	19,200
		kW	1.24	5.41	6.24	6.98	8.07	9.18	10.10		
	$P_{1\,TH}$	hp	1.55	4.02	4.53	4.83	5.31	5.70	6.08		
		kW	1.16	3.00	3.38	3.60	3.96	4.25	4.54		
	$T_{2\,ME}$	lb-in	78,900	66,400	62,500	59,700	53,200	48,700	45,600		
		Nm	8,920	7,500	7,060	6,740	6,010	5,500	5,160		
	η	%	61	67	68	70	72	73	75		
200 10 x 20	$P_{1\,ME}$	hp	1.15	5.17	6.05	6.83	8.02	9.07	10.00	178,000	20,100
		kW	0.86	3.85	4.52	5.10	5.98	6.77	7.48		
	$P_{1\,TH}$	hp	1.00	3.53	3.77	4.10	4.39	4.63	4.87		
		kW	0.75	2.63	2.81	3.06	3.28	3.46	3.63		
	$T_{2\,ME}$	lb-in	81,500	72,600	72,200	68,100	61,700	56,100	52,000		
		Nm	9,210	8,210	8,160	7,700	6,970	6,340	5,880		
	η	%	56	65	68	69	70	71	72		
250 10 x 25	$P_{1\,ME}$	hp	1.02	5.12	6.01	6.83	8.02	9.07	10.00	170,000	19,200
		kW	0.76	3.82	4.49	5.10	5.98	6.77	7.48		
	$P_{1\,TH}$	hp	1.00	3.53	3.77	4.10	4.39	4.63	4.87		
		kW	0.75	2.63	2.81	3.06	3.28	3.46	3.63		
	$T_{2\,ME}$	lb-in	85,100	85,100	85,100	80,800	73,200	66,500	62,300		
		Nm	9,610	9,610	9,610	9,130	8,270	7,520	7,030		
	η	%	53	61	65	65	67	67	69		
300 15 x 20	$P_{1\,ME}$	hp	0.89	4.21	4.94	5.60	6.58	7.42	8.23	178,000	20,100
		kW	0.67	3.14	3.69	4.18	4.91	5.54	6.14		
	$P_{1\,TH}$	hp	0.70	3.00	3.20	3.40	3.61	3.81	4.00		
		kW	0.52	2.24	2.39	2.54	2.69	2.84	2.99		
	$T_{2\,ME}$	lb-in	89,100	86,200	82,600	78,700	73,300	66,300	61,000		
		Nm	10,100	9,740	9,330	8,890	8,280	7,490	6,890		
	η	%	53	63	64	65	68	68	69		
350 5 x 70	$P_{1\,ME}$	hp	0.69	3.31	4.00	4.67	5.86	7.03	8.04	128,000	14,500
		kW	0.51	2.47	2.99	3.48	4.37	5.25	6.00		
	$P_{1\,TH}$	hp	0.69	2.19	2.63	3.07	3.87	4.66	5.12		
		kW	0.51	1.63	1.96	2.29	2.89	3.48	3.82		
	$T_{2\,ME}$	lb-in	64,200	63,700	64,600	64,800	63,100	61,200	59,700		
		Nm	7,250	7,190	7,300	7,320	7,130	6,910	6,740		
	η	%	42	51	53	55	56	57	59		
375 15 x 25	$P_{1\,ME}$	hp	0.73	3.51	4.30	5.12	6.44	7.42	8.23	170,000	19,200
		kW	0.55	2.62	3.21	3.82	4.81	5.54	6.14		
	$P_{1\,TH}$	hp	0.70	3.00	3.20	3.40	3.61	3.81	4.00		
		kW	0.52	2.24	2.39	2.54	2.69	2.84	2.99		
	$T_{2\,ME}$	lb-in	85,100	85,100	85,100	85,100	85,100	78,600	72,400		
		Nm	9,610	9,610	9,610	9,610	9,610	8,880	8,180		
	η	%	49	59	60	61	64	65	65		
400 20 x 20	$P_{1\,ME}$	hp	0.71	3.23	3.78	4.29	5.06	5.70	6.33	178,000	20,100
		kW	0.53	2.41	2.82	3.20	3.77	4.26	4.73		
	$P_{1\,TH}$	hp	0.54	2.38	2.82	3.10	3.25	3.37	3.49		
		kW	0.40	1.78	2.10	2.31	2.43	2.51	2.60		
	$T_{2\,ME}$	lb-in	88,900	85,300	81,100	76,400	69,200	64,600	60,000		
		Nm	10,000	9,640	9,160	8,630	7,810	7,300	6,780		
	η	%	50	61	61	61	62	65	66		
450 15 x 30	$P_{1\,ME}$	hp	0.62	2.95	3.61	4.29	5.39	6.72	7.94	164,000	18,500
		kW	0.47	2.20	2.69	3.20	4.02	5.01	5.93		
	$P_{1\,TH}$	hp	0.62	2.95	3.20	3.40	3.61	3.81	4.00		
		kW	0.47	2.20	2.39	2.54	2.69	2.84	2.99		
	$T_{2\,ME}$	lb-in	81,900	81,900	81,900	81,900	81,900	81,900	80,400		
		Nm	9,260	9,260	9,260	9,260	9,260	9,260	9,090		
	η	%	46	57	58	59	62	62	62		

See Page 8.7 for Rating Definitions

Size 30-70 Double Reduction Ratings

3.000" CD PRI. / 7.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
500 25 x 20	$P_{1\,ME}$	hp	0.57	2.60	3.05	3.47	4.09	4.60	5.12	178,000	20,100
		kW	0.43	1.94	2.28	2.59	3.05	3.43	3.82		
	$P_{1\,TH}$	hp	0.43	1.92	2.27	2.61	2.71	2.82	2.92		
		kW	0.32	1.43	1.69	1.95	2.02	2.10	2.18		
	$T_{2\,ME}$	lb-in	82,900	83,100	79,300	76,700	69,600	62,400	59,100		
		Nm	9,370	9,390	8,960	8,670	7,870	7,060	6,680		
	η	%	46	59	59	61	62	62	64		
600 30 x 20	$P_{1\,ME}$	hp	0.48	2.18	2.55	2.90	3.42	3.85	4.28	178,000	20,100
		kW	0.36	1.63	1.91	2.17	2.55	2.87	3.20		
	$P_{1\,TH}$	hp	0.36	1.61	1.90	2.20	2.44	2.53	2.61		
		kW	0.27	1.20	1.42	1.64	1.82	1.88	1.95		
	$T_{2\,ME}$	lb-in	78,500	76,500	76,200	73,100	66,500	59,500	55,100		
		Nm	8,870	8,650	8,610	8,260	7,520	6,720	6,230		
	η	%	43	54	57	58	59	59	60		
625 25 x 25	$P_{1\,ME}$	hp	0.51	2.25	2.77	3.25	4.09	4.60	5.12	170,000	19,200
		kW	0.38	1.68	2.07	2.43	3.05	3.43	3.82		
	$P_{1\,TH}$	hp	0.43	1.92	2.27	2.61	2.71	2.82	2.92		
		kW	0.32	1.43	1.69	1.95	2.02	2.10	2.18		
	$T_{2\,ME}$	lb-in	85,100	85,100	85,100	85,100	82,300	73,900	70,000		
		Nm	9,610	9,610	9,610	9,610	9,300	8,350	7,910		
	η	%	42	56	56	58	59	59	61		
700 10 x 10	$P_{1\,ME}$	hp	0.44	1.89	2.20	2.62	3.32	4.07	4.79	128,000	14,500
		kW	0.33	1.41	1.64	1.95	2.48	3.04	3.57		
	$P_{1\,TH}$	hp	0.44	1.87	1.92	1.95	2.20	2.68	3.16		
		kW	0.33	1.40	1.43	1.45	1.64	2.00	2.35		
	$T_{2\,ME}$	lb-in	64,200	64,200	64,200	64,200	63,500	64,700	64,800		
		Nm	7,250	7,250	7,250	7,250	7,180	7,310	7,320		
	η	%	33	45	48	48	50	52	54		
750 30 x 25	$P_{1\,ME}$	hp	0.46	2.05	2.41	2.86	3.42	3.85	4.28	170,000	19,200
		kW	0.34	1.53	1.80	2.14	2.55	2.87	3.20		
	$P_{1\,TH}$	hp	0.36	1.61	1.90	2.20	2.44	2.53	2.61		
		kW	0.27	1.20	1.42	1.64	1.82	1.88	1.95		
	$T_{2\,ME}$	lb-in	85,100	85,100	85,100	85,100	78,700	70,300	65,200		
		Nm	9,610	9,610	9,610	9,610	8,890	7,950	7,370		
	η	%	39	51	54	55	56	56	56		
800 40 x 20	$P_{1\,ME}$	hp	0.36	1.64	1.93	2.19	2.58	2.91	3.23	173,000	19,600
		kW	0.27	1.22	1.44	1.63	1.93	2.17	2.41		
	$P_{1\,TH}$	hp	0.27	1.21	1.43	1.66	1.99	2.16	2.33		
		kW	0.20	0.90	1.07	1.24	1.49	1.61	1.74		
	$T_{2\,ME}$	lb-in	69,500	72,600	72,500	68,800	63,000	56,700	52,300		
		Nm	7,850	8,200	8,190	7,780	7,120	6,410	5,910		
	η	%	38	51	54	54	56	56	56		
900 30 x 30	$P_{1\,ME}$	hp	0.39	1.74	2.03	2.40	3.10	3.85	4.28	164,000	18,500
		kW	0.29	1.30	1.51	1.79	2.32	2.87	3.20		
	$P_{1\,TH}$	hp	0.36	1.61	1.90	2.20	2.44	2.53	2.61		
		kW	0.27	1.20	1.42	1.64	1.82	1.88	1.95		
	$T_{2\,ME}$	lb-in	81,900	81,900	81,900	81,900	81,900	80,800	74,900		
		Nm	9,260	9,260	9,260	9,260	9,260	9,130	8,460		
	η	%	37	48	51	52	54	54	54		
1000 50 x 20	$P_{1\,ME}$	hp	0.29	1.32	1.55	1.76	2.07	2.34	2.59	154,000	17,400
		kW	0.22	0.98	1.15	1.31	1.55	1.74	1.93		
	$P_{1\,TH}$	hp	0.22	0.97	1.15	1.33	1.60	1.84	2.08		
		kW	0.16	0.72	0.86	0.99	1.19	1.37	1.55		
	$T_{2\,ME}$	lb-in	61,000	69,200	68,800	65,400	60,100	54,300	50,200		
		Nm	6,890	7,820	7,780	7,390	6,800	6,140	5,670		
	η	%	33	48	51	51	53	53	54		
1050 15 x 70	$P_{1\,ME}$	hp	0.33	1.30	1.59	1.89	2.35	2.92	3.44	128,000	14,500
		kW	0.25	0.97	1.19	1.41	1.75	2.18	2.57		
	$P_{1\,TH}$	hp	0.33	1.30	1.59	1.87	1.96	1.99	2.27		
		kW	0.25	0.97	1.19	1.40	1.46	1.49	1.70		
	$T_{2\,ME}$	lb-in	64,200	64,200	64,200	64,200	64,200	64,200	63,600		
		Nm	7,250	7,250	7,250	7,250	7,250	7,250	7,190		
	η	%	29	43	44	45	48	48	49		

See Page 8.7 for Rating Definitions

3.000" CD PRI. / 7.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1200 40 x 30	$P_{1\,ME}$	hp	0.34	1.39	1.63	1.93	2.47	2.91	3.23	164,000	18,500
		kW	0.25	1.04	1.21	1.44	1.85	2.17	2.41		
	$P_{1\,TH}$	hp	0.27	1.21	1.43	1.66	1.99	2.16	2.33		
		kW	0.20	0.90	1.07	1.24	1.49	1.61	1.74		
	$T_{2\,ME}$	lb-in	81,900	81,900	81,900	81,900	81,900	77,000	71,000		
		Nm	9,260	9,260	9,260	9,260	9,260	8,700	8,030		
	η	%	32	45	48	49	50	51	51		
1250 50 x 25	$P_{1\,ME}$	hp	0.29	1.32	1.55	1.76	2.07	2.34	2.59	170,000	19,200
		kW	0.22	0.98	1.15	1.31	1.55	1.74	1.93		
	$P_{1\,TH}$	hp	0.22	0.97	1.15	1.33	1.60	1.84	2.08		
		kW	0.16	0.72	0.86	0.99	1.19	1.37	1.55		
	$T_{2\,ME}$	lb-in	68,600	81,400	81,200	77,200	71,000	64,200	59,400		
		Nm	7,750	9,200	9,170	8,730	8,030	7,260	6,710		
	η	%	30	45	48	49	50	51	51		
1400 20 x 70	$P_{1\,ME}$	hp	0.28	1.01	1.24	1.50	1.94	2.31	2.76	128,000	14,500
		kW	0.21	0.75	0.93	1.12	1.45	1.73	2.06		
	$P_{1\,TH}$	hp	0.28	1.01	1.24	1.50	1.93	2.01	2.04		
		kW	0.21	0.75	0.93	1.12	1.44	1.50	1.52		
	$T_{2\,ME}$	lb-in	64,200	64,200	64,200	64,200	64,200	64,200	64,200		
		Nm	7,250	7,250	7,250	7,250	7,250	7,250	7,250		
	η	%	26	42	42	42	43	46	46		
1500 50 x 30	$P_{1\,ME}$	hp	0.29	1.18	1.38	1.64	2.07	2.34	2.59	164,000	18,500
		kW	0.22	0.88	1.03	1.23	1.55	1.74	1.93		
	$P_{1\,TH}$	hp	0.22	0.97	1.15	1.33	1.60	1.84	2.08		
		kW	0.16	0.72	0.86	0.99	1.19	1.37	1.55		
	$T_{2\,ME}$	lb-in	75,200	81,900	81,900	81,900	81,300	73,700	68,200		
		Nm	8,490	9,260	9,260	9,260	9,180	8,330	7,700		
	η	%	27	43	45	46	48	48	49		
1600 40 x 40	$P_{1\,ME}$	hp	0.27	1.08	1.26	1.48	1.88	2.35	2.82	148,000	16,800
		kW	0.20	0.81	0.94	1.10	1.40	1.75	2.11		
	$P_{1\,TH}$	hp	0.27	1.08	1.26	1.48	1.88	2.16	2.33		
		kW	0.20	0.81	0.94	1.10	1.40	1.61	1.74		
	$T_{2\,ME}$	lb-in	74,200	74,200	74,200	74,200	74,200	74,200	74,200		
		Nm	8,380	8,380	8,380	8,380	8,380	8,380	8,380		
	η	%	27	39	42	43	45	45	46		
1750 25 x 70	$P_{1\,ME}$	hp	0.25	0.85	1.03	1.20	1.56	1.96	2.27	128,000	14,500
		kW	0.19	0.63	0.77	0.90	1.17	1.46	1.70		
	$P_{1\,TH}$	hp	0.25	0.85	1.03	1.20	1.56	1.94	2.02		
		kW	0.19	0.63	0.77	0.90	1.17	1.45	1.51		
	$T_{2\,ME}$	lb-in	64,200	64,200	64,200	64,200	64,200	64,200	64,200		
		Nm	7,250	7,250	7,250	7,250	7,250	7,250	7,250		
	η	%	23	40	41	42	43	43	45		
1800 60 x 30	$P_{1\,ME}$	hp	0.24	1.06	1.25	1.45	1.73	1.95	2.16	164,000	18,500
		kW	0.18	0.79	0.93	1.08	1.29	1.46	1.62		
	$P_{1\,TH}$	hp	0.18	0.81	0.96	1.11	1.33	1.53	1.74		
		kW	0.13	0.60	0.72	0.83	0.99	1.15	1.30		
	$T_{2\,ME}$	lb-in	72,700	81,900	81,900	81,900	76,700	70,300	65,100		
		Nm	8,220	9,260	9,260	9,260	8,670	7,940	7,360		
	η	%	26	40	42	43	45	46	46		
2000 50 x 40	$P_{1\,ME}$	hp	0.25	0.92	1.08	1.27	1.59	1.97	2.36	148,000	16,800
		kW	0.19	0.69	0.80	0.95	1.19	1.47	1.76		
	$P_{1\,TH}$	hp	0.22	0.92	1.08	1.27	1.59	1.84	2.08		
		kW	0.16	0.69	0.80	0.95	1.19	1.37	1.55		
	$T_{2\,ME}$	lb-in	74,200	74,200	74,200	74,200	74,200	74,200	74,200		
		Nm	8,380	8,380	8,380	8,380	8,380	8,380	8,380		
	η	%	24	37	39	40	42	43	44		
2100 30 x 70	$P_{1\,ME}$	hp	0.23	0.80	0.90	1.06	1.37	1.72	2.06	128,000	14,500
		kW	0.17	0.59	0.68	0.79	1.02	1.29	1.54		
	$P_{1\,TH}$	hp	0.23	0.80	0.90	1.06	1.37	1.72	2.04		
		kW	0.17	0.59	0.68	0.79	1.02	1.29	1.52		
	$T_{2\,ME}$	lb-in	64,200	64,200	64,200	64,200	64,200	64,200	64,200		
		Nm	7,250	7,250	7,250	7,250	7,250	7,250	7,250		
	η	%	21	35	39	40	41	41	41		

See Page 8.7 for Rating Definitions

Size 30-70 Double Reduction Ratings

3.000" CD PRI. / 7.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
2400 60 x 40	$P_{1\,ME}$	hp	0.22	0.83	0.98	1.13	1.42	1.73	2.07	148,000	16,800
		kW	0.16	0.62	0.73	0.84	1.06	1.29	1.54		
	$P_{1\,TH}$	hp	0.18	0.81	0.96	1.11	1.33	1.53	1.74		
		kW	0.13	0.60	0.72	0.83	0.99	1.15	1.30		
	$T_{2\,ME}$	lb-in	74,200	74,200	74,200	74,200	74,200	74,200	74,200		
		Nm	8,380	8,380	8,380	8,380	8,380	8,380	8,380		
	η	%	23	34	36	38	40	41	41		
2500 50 x 50	$P_{1\,ME}$	hp	0.21	0.74	0.86	1.02	1.29	1.60	1.91	132,000	15,000
		kW	0.16	0.55	0.64	0.76	0.96	1.19	1.43		
	$P_{1\,TH}$	hp	0.21	0.74	0.86	1.02	1.29	1.60	1.91		
		kW	0.16	0.55	0.64	0.76	0.96	1.19	1.43		
	$T_{2\,ME}$	lb-in	66,200	66,200	66,200	66,200	66,200	66,200	66,200		
		Nm	7,480	7,480	7,480	7,480	7,480	7,480	7,480		
	η	%	20	33	35	36	38	38	38		
2800 40 x 70	$P_{1\,ME}$	hp	0.21	0.66	0.75	0.87	1.10	1.37	1.64	128,000	14,500
		kW	0.15	0.49	0.56	0.65	0.82	1.02	1.23		
	$P_{1\,TH}$	hp	0.21	0.66	0.75	0.87	1.10	1.37	1.64		
		kW	0.15	0.49	0.56	0.65	0.82	1.02	1.23		
	$T_{2\,ME}$	lb-in	64,200	64,200	64,200	64,200	64,200	64,200	64,200		
		Nm	7,250	7,250	7,250	7,250	7,250	7,250	7,250		
	η	%	18	32	35	36	38	39	39		
3000 60 x 50	$P_{1\,ME}$	hp	0.18	0.67	0.79	0.91	1.15	1.40	1.67	132,000	15,000
		kW	0.14	0.50	0.59	0.68	0.85	1.05	1.25		
	$P_{1\,TH}$	hp	0.18	0.67	0.79	0.91	1.15	1.40	1.67		
		kW	0.13	0.50	0.59	0.68	0.85	1.05	1.25		
	$T_{2\,ME}$	lb-in	66,200	66,200	66,200	66,200	66,200	66,200	66,200		
		Nm	7,480	7,480	7,480	7,480	7,480	7,480	7,480		
	η	%	19	30	32	34	35	36	37		
3500 50 x 70	$P_{1\,ME}$	hp	0.19	0.58	0.66	0.76	0.94	1.15	1.38	128,000	14,500
		kW	0.14	0.43	0.49	0.57	0.70	0.86	1.03		
	$P_{1\,TH}$	hp	0.19	0.58	0.66	0.76	0.94	1.15	1.38		
		kW	0.14	0.43	0.49	0.57	0.70	0.86	1.03		
	$T_{2\,ME}$	lb-in	64,200	64,200	64,200	64,200	64,200	64,200	64,200		
		Nm	7,250	7,250	7,250	7,250	7,250	7,250	7,250		
	η	%	15	29	32	33	36	37	37		
3600 60 x 60	$P_{1\,ME}$	hp	0.17	0.57	0.66	0.76	0.96	1.17	1.41	130,000	14,700
		kW	0.13	0.42	0.49	0.57	0.72	0.88	1.05		
	$P_{1\,TH}$	hp	0.17	0.57	0.66	0.76	0.96	1.17	1.41		
		kW	0.13	0.42	0.49	0.57	0.72	0.88	1.05		
	$T_{2\,ME}$	lb-in	65,200	65,200	65,200	65,200	65,200	65,200	65,200		
		Nm	7,360	7,360	7,360	7,360	7,360	7,360	7,360		
	η	%	17	29	31	33	34	36	36		
4200 60 x 70	$P_{1\,ME}$	hp	0.17	0.54	0.61	0.69	0.85	1.01	1.21	128,000	14,500
		kW	0.13	0.40	0.46	0.51	0.63	0.76	0.90		
	$P_{1\,TH}$	hp	0.17	0.54	0.61	0.69	0.85	1.01	1.21		
		kW	0.13	0.40	0.46	0.51	0.63	0.76	0.90		
	$T_{2\,ME}$	lb-in	64,200	64,200	64,200	64,200	64,200	64,200	64,200		
		Nm	7,250	7,250	7,250	7,250	7,250	7,250	7,250		
	η	%	14	26	29	31	33	35	35		

See Page 8.7 for Rating Definitions

3.500" CD PRI. / 7.000" CD SEC.

i : 1	Ratings	Units	$N_{1\ NOM}$ rpm							$T_{2\ MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\ ME}$	hp	2.83	12.90	14.70	16.30	19.00	21.50	23.50	184,000	20,700
		kW	2.11	9.65	11.00	12.20	14.20	16.00	17.60		
	$P_{1\ TH}$	hp	2.55	7.75	8.63	9.47	10.60	11.10	11.70		
		kW	1.90	5.79	6.44	7.06	7.91	8.32	8.73		
	$T_{2\ ME}$	lb-in	91,800	78,600	73,000	68,400	60,300	54,700	50,300		
		Nm	10,400	8,890	8,250	7,730	6,820	6,180	5,680		
	η	%	69	75	76	77	77	78	79		
100 5 x 20	$P_{1\ ME}$	hp	2.21	11.30	13.70	16.00	19.00	21.50	23.50	178,000	20,100
		kW	1.65	8.46	10.20	11.90	14.20	16.00	17.60		
	$P_{1\ TH}$	hp	2.21	7.04	7.76	8.44	9.76	11.10	11.70		
		kW	1.65	5.25	5.79	6.30	7.28	8.27	8.73		
	$T_{2\ ME}$	lb-in	89,100	87,400	86,200	85,100	76,600	69,500	63,900		
		Nm	10,100	9,880	9,740	9,620	8,660	7,850	7,220		
	η	%	64	71	72	74	74	75	75		
125 5 x 25	$P_{1\ ME}$	hp	1.78	9.13	11.00	12.90	16.20	19.30	22.10	170,000	19,200
		kW	1.33	6.81	8.25	9.60	12.10	14.40	16.50		
	$P_{1\ TH}$	hp	1.78	5.74	6.45	7.12	8.34	9.48	10.30		
		kW	1.33	4.29	4.81	5.32	6.23	7.08	7.70		
	$T_{2\ ME}$	lb-in	85,100	83,500	82,500	82,000	79,400	76,500	74,200		
		Nm	9,610	9,440	9,320	9,270	8,970	8,650	8,380		
	η	%	61	67	68	70	72	73	75		
150 10 x 15	$P_{1\ ME}$	hp	1.58	8.17	9.74	11.70	13.90	15.70	17.40	184,000	20,700
		kW	1.18	6.10	7.27	8.70	10.30	11.70	13.00		
	$P_{1\ TH}$	hp	1.58	6.56	6.89	7.16	7.81	8.63	8.94		
		kW	1.18	4.89	5.14	5.34	5.83	6.44	6.67		
	$T_{2\ ME}$	lb-in	91,800	91,800	91,800	91,800	84,100	76,700	71,100		
		Nm	10,400	10,400	10,400	10,400	9,500	8,660	8,030		
	η	%	61	69	72	72	74	75	76		
200 10 x 20	$P_{1\ ME}$	hp	1.25	6.33	7.46	8.93	11.40	13.90	16.40	178,000	20,100
		kW	0.93	4.73	5.57	6.66	8.48	10.40	12.20		
	$P_{1\ TH}$	hp	1.25	5.95	6.38	6.58	7.09	7.87	8.65		
		kW	0.93	4.44	4.76	4.91	5.29	5.87	6.46		
	$T_{2\ ME}$	lb-in	89,100	89,100	89,100	89,100	87,400	86,200	85,000		
		Nm	10,100	10,100	10,100	10,100	9,880	9,740	9,600		
	η	%	56	65	68	69	70	71	72		
225 15 x 15	$P_{1\ ME}$	hp	1.13	5.59	6.86	8.17	10.40	12.90	14.30	184,000	20,700
		kW	0.84	4.18	5.12	6.10	7.79	9.64	10.70		
	$P_{1\ TH}$	hp	1.13	5.05	5.85	6.20	6.54	6.80	7.05		
		kW	0.84	3.77	4.37	4.63	4.88	5.07	5.26		
	$T_{2\ ME}$	lb-in	91,800	91,800	91,800	91,800	91,800	90,900	83,500		
		Nm	10,400	10,400	10,400	10,400	10,400	10,300	9,440		
	η	%	57	67	68	69	71	72	72		
250 10 x 25	$P_{1\ ME}$	hp	1.02	5.12	6.01	7.20	9.17	11.20	13.20	170,000	19,200
		kW	0.76	3.82	4.49	5.37	6.84	8.38	9.87		
	$P_{1\ TH}$	hp	1.02	4.90	5.19	5.33	5.78	6.55	7.31		
		kW	0.76	3.66	3.87	3.98	4.31	4.88	5.45		
	$T_{2\ ME}$	lb-in	85,100	85,100	85,100	85,100	83,700	82,400	82,100		
		Nm	9,610	9,610	9,610	9,610	9,450	9,310	9,280		
	η	%	53	61	65	65	67	67	69		
300 15 x 20	$P_{1\ ME}$	hp	0.89	4.35	5.33	6.33	7.99	9.97	11.80	178,000	20,100
		kW	0.67	3.25	3.98	4.73	5.97	7.44	8.80		
	$P_{1\ TH}$	hp	0.89	4.35	5.33	5.95	6.54	6.80	7.05		
		kW	0.67	3.25	3.98	4.44	4.88	5.07	5.26		
	$T_{2\ ME}$	lb-in	89,100	89,100	89,100	89,100	89,100	89,100	87,400		
		Nm	10,100	10,100	10,100	10,100	10,100	10,100	9,880		
	η	%	53	63	64	65	68	68	69		
375 15 x 25	$P_{1\ ME}$	hp	0.73	3.51	4.30	5.12	6.44	8.03	9.50	170,000	19,200
		kW	0.55	2.62	3.21	3.82	4.81	5.99	7.09		
	$P_{1\ TH}$	hp	0.73	3.51	4.30	4.90	5.32	5.49	5.96		
		kW	0.55	2.62	3.21	3.66	3.97	4.10	4.45		
	$T_{2\ ME}$	lb-in	85,100	85,100	85,100	85,100	85,100	85,100	83,500		
		Nm	9,610	9,610	9,610	9,610	9,610	9,610	9,440		
	η	%	49	59	60	61	64	65	65		
400 20 x 20	$P_{1\ ME}$	hp	0.71	3.37	4.16	5.00	6.51	7.86	9.40	178,000	20,100
		kW	0.53	2.51	3.10	3.73	4.86	5.86	7.01		
	$P_{1\ TH}$	hp	0.71	3.37	4.16	5.00	5.60	5.72	5.85		
		kW	0.53	2.51	3.10	3.73	4.18	4.27	4.37		
	$T_{2\ ME}$	lb-in	89,100	89,100	89,100	89,100	89,100	89,100	89,100		
		Nm	10,100	10,100	10,100	10,100	10,100	10,100	10,100		
	η	%	50	61	61	61	62	65	66		

See Page 8.7 for Rating Definitions

Size 35-70 Double Reduction Ratings

3.500" CD PRI. / 7.000" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
500 25 x 20	$P_{1\,ME}$	hp	0.62	2.79	3.43	4.02	5.23	6.56	7.71	178,000	20,100
		kW	0.46	2.08	2.56	3.00	3.90	4.90	5.75		
	$P_{1\,TH}$	hp	0.62	2.79	3.43	4.02	4.73	4.82	4.92		
		kW	0.46	2.08	2.56	3.00	3.53	3.60	3.67		
	$T_{2\,ME}$	lb-in	89,100	89,100	89,100	89,100	89,100	89,100	89,100		
		Nm	10,100	10,100	10,100	10,100	10,100	10,100	10,100		
	η	%	46	59	59	61	62	62	64		
600 30 x 20	$P_{1\,ME}$	hp	0.54	2.53	2.99	3.54	4.58	5.77	6.92	178,000	20,100
		kW	0.41	1.89	2.23	2.64	3.42	4.30	5.17		
	$P_{1\,TH}$	hp	0.54	2.53	2.99	3.40	3.96	4.06	4.16		
		kW	0.41	1.89	2.23	2.54	2.96	3.03	3.10		
	$T_{2\,ME}$	lb-in	89,100	89,100	89,100	89,100	89,100	89,100	89,100		
		Nm	10,100	10,100	10,100	10,100	10,100	10,100	10,100		
	η	%	43	54	57	58	59	59	60		
800 40 x 20	$P_{1\,ME}$	hp	0.46	2.01	2.37	2.83	3.65	4.57	5.50	178,000	20,100
		kW	0.35	1.50	1.77	2.11	2.72	3.41	4.10		
	$P_{1\,TH}$	hp	0.44	1.97	2.29	2.56	2.99	3.33	3.67		
		kW	0.33	1.47	1.71	1.91	2.23	2.49	2.74		
	$T_{2\,ME}$	lb-in	89,100	89,100	89,100	89,100	89,100	89,100	89,100		
		Nm	10,100	10,100	10,100	10,100	10,100	10,100	10,100		
	η	%	38	51	54	54	56	56	56		
900 30 x 30	$P_{1\,ME}$	hp	0.39	1.74	2.03	2.40	3.10	3.91	4.69	164,000	18,500
		kW	0.29	1.30	1.51	1.79	2.32	2.92	3.50		
	$P_{1\,TH}$	hp	0.39	1.74	2.03	2.40	3.10	3.91	4.16		
		kW	0.29	1.30	1.51	1.79	2.32	2.92	3.10		
	$T_{2\,ME}$	lb-in	81,900	81,900	81,900	81,900	81,900	81,900	81,900		
		Nm	9,260	9,260	9,260	9,260	9,260	9,260	9,260		
	η	%	37	48	51	52	54	54	54		
1000 50 x 20	$P_{1\,ME}$	hp	0.42	1.70	2.00	2.39	3.07	3.83	4.50	178,000	20,100
		kW	0.32	1.27	1.49	1.78	2.29	2.86	3.36		
	$P_{1\,TH}$	hp	0.36	1.58	1.83	2.06	2.40	2.70	3.00		
		kW	0.27	1.18	1.37	1.54	1.79	2.01	2.24		
	$T_{2\,ME}$	lb-in	89,100	89,100	89,100	89,100	89,100	89,100	87,100		
		Nm	10,100	10,100	10,100	10,100	10,100	10,100	9,840		
	η	%	33	48	51	51	53	53	54		
1200 40 x 30	$P_{1\,ME}$	hp	0.34	1.39	1.63	1.93	2.47	3.10	3.72	164,000	18,500
		kW	0.25	1.04	1.21	1.44	1.85	2.31	2.78		
	$P_{1\,TH}$	hp	0.34	1.39	1.63	1.93	2.47	3.10	3.67		
		kW	0.25	1.04	1.21	1.44	1.85	2.31	2.74		
	$T_{2\,ME}$	lb-in	81,900	81,900	81,900	81,900	81,900	81,900	81,900		
		Nm	9,260	9,260	9,260	9,260	9,260	9,260	9,260		
	η	%	32	45	48	49	50	51	51		
1200 40 x 30	$P_{1\,ME}$	hp	0.36	1.38	1.62	1.93	2.48	3.10	3.72	170,000	19,200
		kW	0.27	1.03	1.21	1.44	1.85	2.31	2.77		
	$P_{1\,TH}$	hp	0.36	1.38	1.62	1.93	2.40	2.70	3.00		
		kW	0.27	1.03	1.21	1.44	1.79	2.01	2.24		
	$T_{2\,ME}$	lb-in	85,100	85,100	85,100	85,100	85,100	85,100	85,100		
		Nm	9,610	9,610	9,610	9,610	9,610	9,610	9,610		
	η	%	30	45	48	49	50	51	51		
1250 50 x 25	$P_{1\,ME}$	hp	0.32	1.18	1.38	1.64	2.09	2.60	3.12	164,000	18,500
		kW	0.24	0.88	1.03	1.23	1.56	1.94	2.33		
	$P_{1\,TH}$	hp	0.32	1.18	1.38	1.64	2.09	2.60	3.00		
		kW	0.24	0.88	1.03	1.23	1.56	1.94	2.24		
	$T_{2\,ME}$	lb-in	81,900	81,900	81,900	81,900	81,900	81,900	81,900		
		Nm	9,260	9,260	9,260	9,260	9,260	9,260	9,260		
	η	%	27	43	45	46	48	48	49		
1500 50 x 30	$P_{1\,ME}$	hp	0.27	1.06	1.25	1.45	1.85	2.27	2.72	164,000	18,500
		kW	0.20	0.79	0.93	1.08	1.38	1.70	2.03		
	$P_{1\,TH}$	hp	0.27	1.06	1.25	1.45	1.85	2.26	2.51		
		kW	0.20	0.79	0.93	1.08	1.38	1.68	1.87		
	$T_{2\,ME}$	lb-in	81,900	81,900	81,900	81,900	81,900	81,900	81,900		
		Nm	9,260	9,260	9,260	9,260	9,260	9,260	9,260		
	η	%	26	40	42	43	45	46	46		
1800 60 x 30	$P_{1\,ME}$	hp	1.18	1.38	1.38	1.64	2.09	2.60	3.12	164,000	18,500
		kW	0.88	1.03	1.03	1.23	1.56	1.94	2.33		
	$P_{1\,TH}$	hp	0.62	0.74	0.74	0.88	1.12	1.37	1.63		
		kW	0.46	0.55	0.55	0.66	0.84	1.02	1.22		
	$T_{2\,ME}$	lb-in	81,900	81,900	81,900	81,900	81,900	81,900	81,900		
		Nm	9,260	9,260	9,260	9,260	9,260	9,260	9,260		
	η	%	43	45	45	46	48	48	49		

See Page 8.7 for Rating Definitions

4.000" CD PRI. / 8.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	4.05	18.00	20.30	22.40	26.10	29.40	32.00	272,000	30,700
		kW	3.03	13.40	15.10	16.70	19.50	21.90	23.80		
	$P_{1\,TH}$	hp	3.50	9.60	10.70	11.50	12.50	13.10	13.80		
		kW	2.61	7.16	7.99	8.58	9.33	9.81	10.30		
	$T_{2\,ME}$	lb-in	136,000	113,000	104,000	97,100	85,600	77,400	70,500		
		Nm	15,300	12,800	11,700	11,000	9,670	8,740	7,970		
	η	%	71	77	78	80	80	81	82		
100 5 x 20	$P_{1\,ME}$	hp	3.15	16.20	19.60	22.40	26.10	29.40	32.00	263,000	29,700
		kW	2.35	12.10	14.60	16.70	19.50	21.90	23.80		
	$P_{1\,TH}$	hp	3.15	9.60	10.70	11.50	12.50	13.10	13.80		
		kW	2.35	7.16	7.99	8.58	9.33	9.81	10.30		
	$T_{2\,ME}$	lb-in	132,000	129,000	127,000	123,000	109,000	98,300	89,700		
		Nm	14,900	14,600	14,400	13,900	12,300	11,100	10,100		
	η	%	66	73	74	76	76	77	78		
125 5 x 25	$P_{1\,ME}$	hp	2.55	13.10	15.80	18.40	23.00	27.50	31.20	252,000	28,400
		kW	1.91	9.74	11.80	13.70	17.20	20.50	23.30		
	$P_{1\,TH}$	hp	2.55	8.34	9.43	10.50	12.30	13.10	13.80		
		kW	1.91	6.23	7.04	7.82	9.18	9.81	10.30		
	$T_{2\,ME}$	lb-in	126,000	123,000	122,000	121,000	117,000	112,000	108,000		
		Nm	14,200	13,900	13,800	13,700	13,200	12,700	12,200		
	η	%	63	70	71	73	74	75	77		
150 10 x 15	$P_{1\,ME}$	hp	2.26	11.70	13.90	16.50	19.30	21.80	23.90	272,000	30,700
		kW	1.68	8.72	10.40	12.30	14.40	16.30	17.90		
	$P_{1\,TH}$	hp	2.26	7.80	8.50	9.10	9.80	10.10	10.50		
		kW	1.68	5.82	6.34	6.79	7.31	7.57	7.84		
	$T_{2\,ME}$	lb-in	136,000	136,000	136,000	135,000	121,000	110,000	101,000		
		Nm	15,300	15,300	15,300	15,200	13,700	12,400	11,400		
	η	%	64	71	74	75	76	77	78		
200 10 x 20	$P_{1\,ME}$	hp	1.78	9.05	10.70	12.80	16.20	19.90	23.40	263,000	29,700
		kW	1.33	6.75	7.96	9.52	12.10	14.90	17.40		
	$P_{1\,TH}$	hp	1.78	7.80	8.50	9.10	9.80	10.10	10.50		
		kW	1.33	5.82	6.34	6.79	7.31	7.57	7.84		
	$T_{2\,ME}$	lb-in	132,000	132,000	132,000	132,000	129,000	127,000	125,000		
		Nm	14,900	14,900	14,900	14,900	14,600	14,400	14,200		
	η	%	58	67	70	71	73	73	74		
225 15 x 15	$P_{1\,ME}$	hp	1.61	8.00	9.80	11.70	14.90	17.90	19.70	272,000	30,700
		kW	1.20	5.97	7.32	8.72	11.10	13.30	14.70		
	$P_{1\,TH}$	hp	1.61	6.40	6.90	7.30	7.70	8.00	8.30		
		kW	1.20	4.78	5.15	5.45	5.75	5.97	6.19		
	$T_{2\,ME}$	lb-in	136,000	136,000	136,000	136,000	136,000	130,000	119,000		
		Nm	15,300	15,300	15,300	15,300	15,300	14,700	13,400		
	η	%	60	69	70	71	74	74	75		
250 10 x 25	$P_{1\,ME}$	hp	1.45	7.32	8.61	10.30	13.10	16.10	18.90	252,000	28,400
		kW	1.08	5.46	6.43	7.69	9.78	12.00	14.10		
	$P_{1\,TH}$	hp	1.45	7.08	7.49	7.70	8.39	9.57	10.50		
		kW	1.08	5.28	5.59	5.75	6.26	7.14	7.84		
	$T_{2\,ME}$	lb-in	126,000	126,000	126,000	126,000	124,000	122,000	121,000		
		Nm	14,200	14,200	14,200	14,200	14,000	13,800	13,700		
	η	%	55	63	67	67	69	70	71		
300 15 x 20	$P_{1\,ME}$	hp	1.27	6.21	7.61	9.05	11.40	14.20	16.80	263,000	29,700
		kW	0.95	4.63	5.68	6.75	8.52	10.60	12.50		
	$P_{1\,TH}$	hp	1.27	6.21	6.90	7.30	7.70	8.00	8.30		
		kW	0.95	4.63	5.15	5.45	5.75	5.97	6.19		
	$T_{2\,ME}$	lb-in	132,000	132,000	132,000	132,000	132,000	132,000	129,000		
		Nm	14,900	14,900	14,900	14,900	14,900	14,900	14,500		
	η	%	55	65	66	67	70	71	71		
350 5 x 70	$P_{1\,ME}$	hp	0.99	4.74	5.73	6.66	8.36	9.96	11.40	190,000	21,500
		kW	0.74	3.53	4.28	4.97	6.24	7.44	8.47		
	$P_{1\,TH}$	hp	0.99	3.16	3.80	4.44	5.57	6.68	7.46		
		kW	0.74	2.36	2.84	3.31	4.16	4.98	5.57		
	$T_{2\,ME}$	lb-in	95,000	94,100	95,600	95,500	92,900	89,500	87,100		
		Nm	10,700	10,600	10,800	10,800	10,500	10,100	9,840		
	η	%	44	52	54	57	58	59	61		
375 15 x 25	$P_{1\,ME}$	hp	1.05	5.02	6.16	7.32	9.22	11.50	13.50	252,000	28,400
		kW	0.78	3.75	4.59	5.46	6.88	8.58	10.10		
	$P_{1\,TH}$	hp	1.05	5.02	6.16	7.08	7.68	7.93	8.30		
		kW	0.78	3.75	4.59	5.28	5.73	5.92	6.19		
	$T_{2\,ME}$	lb-in	126,000	126,000	126,000	126,000	126,000	126,000	123,000		
		Nm	14,200	14,200	14,200	14,200	14,200	14,200	13,900		
	η	%	51	62	62	63	66	67	67		

See Page 8.7 for Rating Definitions

Size 40-80 Double Reduction Ratings

4.000" CD PRI. / 8.000" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
400 20 x 20	$P_{1\,ME}$	hp	1.01	4.80	5.93	7.13	9.29	11.20	13.40	263,000	29,700
		kW	0.76	3.59	4.42	5.32	6.93	8.37	10.00		
	$P_{1\,TH}$	hp	1.01	4.80	5.93	6.30	6.60	6.75	6.90		
		kW	0.76	3.59	4.42	4.70	4.93	5.04	5.15		
	$T_{2\,ME}$	lb-in	132,000	132,000	132,000	132,000	132,000	132,000	132,000		
		Nm	14,900	14,900	14,900	14,900	14,900	14,900	14,900		
	η	%	51	63	63	64	65	67	68		
450 15 x 30	$P_{1\,ME}$	hp	0.89	4.21	5.16	6.13	7.72	9.61	11.30	242,000	27,400
		kW	0.66	3.14	3.85	4.58	5.76	7.17	8.47		
	$P_{1\,TH}$	hp	0.89	4.21	5.16	6.00	6.46	6.64	7.22		
		kW	0.66	3.14	3.85	4.48	4.82	4.96	5.39		
	$T_{2\,ME}$	lb-in	121,000	121,000	121,000	121,000	121,000	121,000	119,000		
		Nm	13,700	13,700	13,700	13,700	13,700	13,700	13,400		
	η	%	48	59	60	61	64	64	65		
500 25 x 20	$P_{1\,ME}$	hp	0.87	3.97	4.89	5.73	7.46	9.36	11.00	263,000	29,700
		kW	0.65	2.96	3.65	4.28	5.57	6.98	8.21		
	$P_{1\,TH}$	hp	0.87	3.97	4.89	5.30	5.50	5.65	5.80		
		kW	0.65	2.96	3.65	3.96	4.10	4.22	4.33		
	$T_{2\,ME}$	lb-in	132,000	132,000	132,000	132,000	132,000	132,000	132,000		
		Nm	14,900	14,900	14,900	14,900	14,900	14,900	14,900		
	η	%	48	61	62	63	64	65	66		
600 30 x 20	$P_{1\,ME}$	hp	0.77	3.60	4.25	5.04	6.52	8.21	9.86	263,000	29,700
		kW	0.57	2.69	3.17	3.76	4.87	6.13	7.36		
	$P_{1\,TH}$	hp	0.77	3.60	4.24	4.71	4.80	4.85	4.90		
		kW	0.57	2.69	3.16	3.51	3.58	3.62	3.66		
	$T_{2\,ME}$	lb-in	132,000	132,000	132,000	132,000	132,000	132,000	132,000		
		Nm	14,900	14,900	14,900	14,900	14,900	14,900	14,900		
	η	%	45	56	59	60	61	61	62		
625 25 x 25	$P_{1\,ME}$	hp	0.72	3.21	3.96	4.64	6.03	7.57	8.88	252,000	28,400
		kW	0.54	2.40	2.95	3.46	4.50	5.65	6.63		
	$P_{1\,TH}$	hp	0.72	3.21	3.96	4.64	5.50	5.65	5.80		
		kW	0.54	2.40	2.95	3.46	4.10	4.22	4.33		
	$T_{2\,ME}$	lb-in	126,000	126,000	126,000	126,000	126,000	126,000	126,000		
		Nm	14,200	14,200	14,200	14,200	14,200	14,200	14,200		
	η	%	44	58	58	60	61	61	63		
700 10 x 70	$P_{1\,ME}$	hp	0.63	2.70	3.14	3.75	4.75	5.83	6.84	190,000	21,500
		kW	0.47	2.02	2.35	2.80	3.55	4.35	5.10		
	$P_{1\,TH}$	hp	0.63	2.70	2.77	2.82	3.17	3.86	4.55		
		kW	0.47	2.02	2.07	2.10	2.37	2.88	3.40		
	$T_{2\,ME}$	lb-in	95,000	95,000	95,000	95,000	94,000	95,700	95,600		
		Nm	10,700	10,700	10,700	10,700	10,600	10,800	10,800		
	η	%	34	46	49	50	52	54	55		
750 30 x 25	$P_{1\,ME}$	hp	0.64	2.92	3.44	4.08	5.28	6.65	7.97	252,000	28,400
		kW	0.48	2.18	2.57	3.04	3.94	4.96	5.95		
	$P_{1\,TH}$	hp	0.64	2.92	3.44	4.08	4.80	4.85	4.90		
		kW	0.48	2.18	2.57	3.04	3.58	3.62	3.66		
	$T_{2\,ME}$	lb-in	126,000	126,000	126,000	126,000	126,000	126,000	126,000		
		Nm	14,200	14,200	14,200	14,200	14,200	14,200	14,200		
	η	%	42	53	56	57	58	58	58		
800 40 x 20	$P_{1\,ME}$	hp	0.65	2.85	3.36	4.02	5.19	6.49	7.69	263,000	29,700
		kW	0.48	2.13	2.51	3.00	3.87	4.85	5.74		
	$P_{1\,TH}$	hp	0.64	2.78	3.19	3.55	4.12	4.22	4.32		
		kW	0.48	2.07	2.38	2.65	3.07	3.15	3.22		
	$T_{2\,ME}$	lb-in	132,000	132,000	132,000	132,000	132,000	132,000	130,000		
		Nm	14,900	14,900	14,900	14,900	14,900	14,900	14,600		
	η	%	40	53	56	56	58	58	58		
900 30 x 30	$P_{1\,ME}$	hp	0.55	2.47	2.89	3.42	4.43	5.57	6.68	242,000	27,400
		kW	0.41	1.84	2.16	2.55	3.30	4.16	4.99		
	$P_{1\,TH}$	hp	0.55	2.47	2.89	3.42	4.43	4.85	4.90		
		kW	0.41	1.84	2.16	2.55	3.30	3.62	3.66		
	$T_{2\,ME}$	lb-in	121,000	121,000	121,000	121,000	121,000	121,000	121,000		
		Nm	13,700	13,700	13,700	13,700	13,700	13,700	13,700		
	η	%	39	50	53	54	56	56	56		
1000 50 x 20	$P_{1\,ME}$	hp	0.59	2.41	2.84	3.39	4.35	5.44	6.17	263,000	29,700
		kW	0.44	1.79	2.12	2.53	3.25	4.06	4.61		
	$P_{1\,TH}$	hp	0.51	2.23	2.56	2.85	3.31	3.58	3.85		
		kW	0.38	1.66	1.91	2.13	2.47	2.67	2.87		
	$T_{2\,ME}$	lb-in	132,000	132,000	132,000	132,000	132,000	132,000	124,000		
		Nm	14,900	14,900	14,900	14,900	14,900	14,900	14,100		
	η	%	36	50	53	54	55	56	56		

See Page 8.7 for Rating Definitions

4.000" CD PRI. / 8.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1050 15 x 70	$P_{1\,ME}$	hp	0.48	1.86	2.28	2.70	3.36	4.17	4.91	190,000	21,500
		kW	0.36	1.39	1.70	2.02	2.51	3.11	3.67		
	$P_{1\,TH}$	hp	0.48	1.86	2.28	2.70	2.83	2.88	3.28		
		kW	0.36	1.39	1.70	2.02	2.11	2.15	2.45		
	$T_{2\,ME}$	lb-in	95,000	95,000	95,000	95,000	95,000	95,000	94,000		
		Nm	10,700	10,700	10,700	10,700	10,700	10,700	10,600		
	η	%	30	45	45	46	49	50	51		
1200 40 x 30	$P_{1\,ME}$	hp	0.47	1.98	2.32	2.75	3.52	4.41	5.30	242,000	27,400
		kW	0.35	1.48	1.73	2.05	2.63	3.29	3.95		
	$P_{1\,TH}$	hp	0.47	1.98	2.32	2.75	3.52	4.22	4.32		
		kW	0.35	1.48	1.73	2.05	2.63	3.15	3.22		
	$T_{2\,ME}$	lb-in	121,000	121,000	121,000	121,000	121,000	121,000	121,000		
		Nm	13,700	13,700	13,700	13,700	13,700	13,700	13,700		
	η	%	34	47	50	51	52	53	53		
1250 50 x 25	$P_{1\,ME}$	hp	0.49	1.95	2.30	2.75	3.52	4.40	5.28	252,000	28,400
		kW	0.37	1.46	1.72	2.05	2.63	3.28	3.94		
	$P_{1\,TH}$	hp	0.49	1.95	2.30	2.75	3.31	3.58	3.85		
		kW	0.37	1.46	1.72	2.05	2.47	2.67	2.87		
	$T_{2\,ME}$	lb-in	126,000	126,000	126,000	126,000	126,000	126,000	126,000		
		Nm	14,200	14,200	14,200	14,200	14,200	14,200	14,200		
	η	%	32	47	50	51	52	53	53		
1400 20 x 70	$P_{1\,ME}$	hp	0.39	1.44	1.78	2.14	2.78	3.30	3.94	190,000	21,500
		kW	0.29	1.08	1.33	1.59	2.07	2.47	2.94		
	$P_{1\,TH}$	hp	0.39	1.44	1.78	2.14	2.78	2.90	2.95		
		kW	0.29	1.08	1.33	1.59	2.07	2.17	2.20		
	$T_{2\,ME}$	lb-in	95,000	95,000	95,000	95,000	95,000	95,000	95,000		
		Nm	10,700	10,700	10,700	10,700	10,700	10,700	10,700		
	η	%	27	43	44	44	45	47	48		
1500 50 x 30	$P_{1\,ME}$	hp	0.43	1.67	1.96	2.33	2.97	3.69	4.43	242,000	27,400
		kW	0.32	1.25	1.47	1.74	2.21	2.75	3.30		
	$P_{1\,TH}$	hp	0.43	1.67	1.96	2.33	2.97	3.58	3.85		
		kW	0.32	1.25	1.47	1.74	2.21	2.67	2.87		
	$T_{2\,ME}$	lb-in	121,000	121,000	121,000	121,000	121,000	121,000	121,000		
		Nm	13,700	13,700	13,700	13,700	13,700	13,700	13,700		
	η	%	30	45	47	48	50	50	51		
1600 40 x 40	$P_{1\,ME}$	hp	0.37	1.54	1.79	2.10	2.67	3.34	4.02	219,000	24,800
		kW	0.28	1.15	1.33	1.57	2.00	2.49	3.00		
	$P_{1\,TH}$	hp	0.37	1.54	1.79	2.10	2.67	3.34	4.02		
		kW	0.28	1.15	1.33	1.57	2.00	2.49	3.00		
	$T_{2\,ME}$	lb-in	110,000	110,000	110,000	110,000	110,000	110,000	110,000		
		Nm	12,400	12,400	12,400	12,400	12,400	12,400	12,400		
	η	%	29	41	44	45	47	47	47		
1750 25 x 70	$P_{1\,ME}$	hp	0.35	1.21	1.47	1.72	2.23	2.80	3.25	190,000	21,500
		kW	0.26	0.90	1.10	1.28	1.67	2.09	2.42		
	$P_{1\,TH}$	hp	0.35	1.21	1.47	1.72	2.23	2.80	2.92		
		kW	0.26	0.90	1.10	1.28	1.67	2.09	2.18		
	$T_{2\,ME}$	lb-in	95,000	95,000	95,000	95,000	95,000	95,000	95,000		
		Nm	10,700	10,700	10,700	10,700	10,700	10,700	10,700		
	η	%	25	41	42	44	44	45	46		
1800 60 x 30	$P_{1\,ME}$	hp	0.37	1.50	1.77	2.06	2.62	3.23	3.86	242,000	27,400
		kW	0.28	1.12	1.32	1.54	1.96	2.41	2.88		
	$P_{1\,TH}$	hp	0.37	1.50	1.77	2.06	2.62	3.10	3.44		
		kW	0.28	1.12	1.32	1.54	1.96	2.31	2.57		
	$T_{2\,ME}$	lb-in	121,000	121,000	121,000	121,000	121,000	121,000	121,000		
		Nm	13,700	13,700	13,700	13,700	13,700	13,700	13,700		
	η	%	29	41	43	45	47	48	48		
2000 50 x 40	$P_{1\,ME}$	hp	0.34	1.31	1.53	1.80	2.26	2.80	3.36	219,000	24,800
		kW	0.25	0.97	1.14	1.35	1.69	2.09	2.51		
	$P_{1\,TH}$	hp	0.34	1.31	1.53	1.80	2.26	2.80	3.36		
		kW	0.25	0.97	1.14	1.35	1.69	2.09	2.51		
	$T_{2\,ME}$	lb-in	110,000	110,000	110,000	110,000	110,000	110,000	110,000		
		Nm	12,400	12,400	12,400	12,400	12,400	12,400	12,400		
	η	%	26	39	41	42	44	45	45		
2100 30 x 70	$P_{1\,ME}$	hp	0.31	1.13	1.29	1.52	1.95	2.46	2.94	190,000	21,500
		kW	0.23	0.84	0.96	1.13	1.46	1.84	2.20		
	$P_{1\,TH}$	hp	0.31	1.13	1.29	1.52	1.95	2.46	2.94		
		kW	0.23	0.84	0.96	1.13	1.46	1.84	2.19		
	$T_{2\,ME}$	lb-in	95,000	95,000	95,000	95,000	95,000	95,000	95,000		
		Nm	10,700	10,700	10,700	10,700	10,700	10,700	10,700		
	η	%	23	37	40	41	42	42	43		

See Page 8.7 for Rating Definitions

Size 40-80 Double Reduction Ratings

4.000" CD PRI. / 8.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
2400 60 x 40	$P_{1\,ME}$	hp	0.29	1.18	1.38	1.60	2.02	2.46	2.93	219,000	24,800
		kW	0.22	0.88	1.03	1.20	1.51	1.83	2.19		
	$P_{1\,TH}$	hp	0.29	1.18	1.38	1.60	2.02	2.46	2.93		
		kW	0.22	0.88	1.03	1.20	1.51	1.83	2.19		
	$T_{2\,ME}$	lb-in	110,000	110,000	110,000	110,000	110,000	110,000	110,000		
		Nm	12,400	12,400	12,400	12,400	12,400	12,400	12,400		
	η	%	25	36	38	39	41	43	43		
2500 50 x 50	$P_{1\,ME}$	hp	0.29	1.05	1.23	1.45	1.83	2.27	2.72	196,000	22,100
		kW	0.21	0.79	0.92	1.08	1.37	1.69	2.03		
	$P_{1\,TH}$	hp	0.29	1.05	1.23	1.45	1.83	2.27	2.72		
		kW	0.21	0.79	0.92	1.08	1.37	1.69	2.03		
	$T_{2\,ME}$	lb-in	98,000	98,000	98,000	98,000	98,000	98,000	98,000		
		Nm	11,100	11,100	11,100	11,100	11,100	11,100	11,100		
	η	%	22	34	36	37	39	40	40		
2800 40 x 70	$P_{1\,ME}$	hp	0.27	0.94	1.07	1.24	1.56	1.95	2.34	190,000	21,500
		kW	0.20	0.70	0.80	0.93	1.16	1.45	1.75		
	$P_{1\,TH}$	hp	0.27	0.94	1.07	1.24	1.56	1.95	2.34		
		kW	0.20	0.70	0.80	0.93	1.16	1.45	1.75		
	$T_{2\,ME}$	lb-in	95,000	95,000	95,000	95,000	95,000	95,000	95,000		
		Nm	10,700	10,700	10,700	10,700	10,700	10,700	10,700		
	η	%	20	33	36	38	40	40	40		
3000 60 x 50	$P_{1\,ME}$	hp	0.25	0.95	1.11	1.29	1.62	1.99	2.38	196,000	22,100
		kW	0.18	0.71	0.83	0.96	1.21	1.48	1.77		
	$P_{1\,TH}$	hp	0.25	0.95	1.11	1.29	1.62	1.99	2.38		
		kW	0.18	0.71	0.83	0.96	1.21	1.48	1.77		
	$T_{2\,ME}$	lb-in	98,000	98,000	98,000	98,000	98,000	98,000	98,000		
		Nm	11,100	11,100	11,100	11,100	11,100	11,100	11,100		
	η	%	21	32	34	35	37	38	38		
3600 60 x 60	$P_{1\,ME}$	hp	0.23	0.80	0.93	1.08	1.36	1.66	2.00	193,000	21,800
		kW	0.18	0.60	0.70	0.80	1.01	1.24	1.49		
	$P_{1\,TH}$	hp	0.23	0.80	0.93	1.08	1.36	1.66	2.00		
		kW	0.18	0.60	0.70	0.80	1.01	1.24	1.49		
	$T_{2\,ME}$	lb-in	96,500	96,500	96,500	96,500	96,500	96,500	96,500		
		Nm	10,900	10,900	10,900	10,900	10,900	10,900	10,900		
	η	%	18	31	33	34	36	37	37		
4200 60 x 70	$P_{1\,ME}$	hp	0.22	0.76	0.87	0.97	1.20	1.44	1.71	190,000	21,500
		kW	0.16	0.57	0.65	0.73	0.90	1.07	1.28		
	$P_{1\,TH}$	hp	0.22	0.76	0.87	0.97	1.20	1.44	1.71		
		kW	0.16	0.57	0.65	0.73	0.90	1.07	1.28		
	$T_{2\,ME}$	lb-in	95,000	95,000	95,000	95,000	95,000	95,000	95,000		
		Nm	10,700	10,700	10,700	10,700	10,700	10,700	10,700		
	η	%	17	27	30	32	34	36	37		

See Page 8.7 for Rating Definitions

5.000" CD PRI. / 10.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	7.60	32.90	36.80	40.80	47.20	52.70	56.70	522,000	59,000
		kW	5.67	24.60	27.50	30.50	35.30	39.30	42.30		
	$P_{1\,TH}$	hp	4.40	11.90	13.30	14.30	15.50	16.20	17.00		
		kW	3.28	8.88	9.93	10.70	11.60	12.10	12.70		
	$T_{2\,ME}$	lb-in	261,000	212,000	193,000	181,000	159,000	142,000	128,000		
		Nm	29,500	23,900	21,800	20,500	17,900	16,000	14,500		
	η	%	73	79	80	82	82	83	84		
100 5 x 20	$P_{1\,ME}$	hp	5.92	30.50	36.70	40.80	47.20	52.70	56.70	508,000	57,400
		kW	4.42	22.70	27.40	30.50	35.30	39.30	42.30		
	$P_{1\,TH}$	hp	4.40	11.90	13.30	14.30	15.50	16.20	17.00		
		kW	3.28	8.88	9.93	10.70	11.60	12.10	12.70		
	$T_{2\,ME}$	lb-in	254,000	249,000	244,000	230,000	202,000	180,000	163,000		
		Nm	28,700	28,100	27,600	26,000	22,800	20,400	18,400		
	η	%	68	75	76	78	78	79	80		
125 5 x 25	$P_{1\,ME}$	hp	4.79	24.60	29.50	34.10	42.30	49.50	55.50	486,000	54,900
		kW	3.57	18.40	22.00	25.40	31.50	36.90	41.40		
	$P_{1\,TH}$	hp	4.40	11.90	13.30	14.30	15.50	16.20	17.00		
		kW	3.28	8.88	9.93	10.70	11.60	12.10	12.70		
	$T_{2\,ME}$	lb-in	243,000	239,000	234,000	230,000	220,000	207,000	197,000		
		Nm	27,400	27,000	26,400	26,000	24,900	23,400	22,300		
	η	%	64	71	72	75	76	77	79		
150 10 x 15	$P_{1\,ME}$	hp	4.23	21.90	26.20	30.20	35.20	39.50	43.10	522,000	59,000
		kW	3.15	16.40	19.50	22.50	26.30	29.40	32.20		
	$P_{1\,TH}$	hp	3.80	9.65	10.50	11.20	12.10	12.50	12.90		
		kW	2.84	7.20	7.84	8.36	9.03	9.33	9.63		
	$T_{2\,ME}$	lb-in	261,000	261,000	261,000	252,000	226,000	203,000	186,000		
		Nm	29,500	29,500	29,500	28,400	25,500	23,000	21,000		
	η	%	65	73	76	77	78	79	80		
200 10 x 20	$P_{1\,ME}$	hp	3.35	17.00	20.00	24.00	30.60	37.20	43.10	508,000	57,400
		kW	2.50	12.70	15.00	17.90	22.80	27.80	32.20		
	$P_{1\,TH}$	hp	3.35	9.65	10.50	11.20	12.10	12.50	12.90		
		kW	2.50	7.20	7.84	8.36	9.03	9.33	9.63		
	$T_{2\,ME}$	lb-in	254,000	254,000	254,000	254,000	250,000	244,000	237,000		
		Nm	28,700	28,700	28,700	28,700	28,200	27,600	26,800		
	η	%	60	69	72	73	74	75	76		
225 15 x 15	$P_{1\,ME}$	hp	3.01	15.00	18.40	21.90	28.00	32.50	35.30	522,000	59,000
		kW	2.25	11.20	13.70	16.40	20.90	24.30	26.40		
	$P_{1\,TH}$	hp	3.01	7.95	8.55	8.96	9.50	9.85	10.20		
		kW	2.25	5.93	6.38	6.69	7.09	7.35	7.61		
	$T_{2\,ME}$	lb-in	261,000	261,000	261,000	261,000	261,000	242,000	219,000		
		Nm	29,500	29,500	29,500	29,500	29,500	27,400	24,700		
	η	%	61	71	72	73	76	76	76		
250 10 x 25	$P_{1\,ME}$	hp	2.72	13.70	16.20	19.30	24.70	30.00	35.00	486,000	54,900
		kW	2.03	10.20	12.10	14.40	18.40	22.40	26.10		
	$P_{1\,TH}$	hp	2.72	9.65	10.50	11.20	12.10	12.50	12.90		
		kW	2.03	7.20	7.84	8.36	9.03	9.33	9.63		
	$T_{2\,ME}$	lb-in	243,000	243,000	243,000	243,000	239,000	234,000	231,000		
		Nm	27,400	27,400	27,400	27,400	27,000	26,400	26,000		
	η	%	57	65	69	69	71	72	73		
300 15 x 20	$P_{1\,ME}$	hp	2.38	11.70	14.30	17.00	21.50	26.80	31.70	508,000	57,400
		kW	1.78	8.70	10.70	12.70	16.00	20.00	23.60		
	$P_{1\,TH}$	hp	2.38	7.95	8.55	8.96	9.50	9.85	10.20		
		kW	1.78	5.93	6.38	6.69	7.09	7.35	7.61		
	$T_{2\,ME}$	lb-in	254,000	254,000	254,000	254,000	254,000	254,000	249,000		
		Nm	28,700	28,700	28,700	28,700	28,700	28,700	28,100		
	η	%	56	67	68	69	72	73	73		
350 5 x 70	$P_{1\,ME}$	hp	1.84	8.92	10.70	12.40	15.30	18.00	20.20	370,000	41,800
		kW	1.37	6.66	8.00	9.23	11.40	13.40	15.00		
	$P_{1\,TH}$	hp	1.84	5.91	7.06	8.21	10.20	12.00	13.30		
		kW	1.37	4.41	5.27	6.12	7.60	8.96	9.92		
	$T_{2\,ME}$	lb-in	185,000	184,000	185,000	183,000	176,000	166,000	159,000		
		Nm	20,900	20,700	20,900	20,700	19,900	18,800	18,000		
	η	%	46	54	56	58	60	61	63		
375 15 x 25	$P_{1\,ME}$	hp	1.96	9.42	11.50	13.70	17.30	21.60	25.60	486,000	54,900
		kW	1.46	7.03	8.62	10.20	12.90	16.10	19.10		
	$P_{1\,TH}$	hp	1.96	7.95	8.55	8.96	9.50	9.85	10.20		
		kW	1.46	5.93	6.38	6.69	7.09	7.35	7.61		
	$T_{2\,ME}$	lb-in	243,000	243,000	243,000	243,000	243,000	243,000	239,000		
		Nm	27,400	27,400	27,400	27,400	27,400	27,400	27,000		
	η	%	52	63	64	65	68	69	69		

See Page 8.7 for Rating Definitions

Size 50-100 Double Reduction Ratings

5.000" CD PRI. / 10.000" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
400 20 x 20	$P_{1\,ME}$	hp	1.90	9.02	11.10	13.40	17.50	21.10	25.20	508,000	57,400
		kW	1.42	6.73	8.31	10.00	13.00	15.70	18.80		
	$P_{1\,TH}$	hp	1.90	7.00	7.47	7.82	8.15	8.32	8.50		
		kW	1.42	5.22	5.57	5.84	6.08	6.21	6.34		
	$T_{2\,ME}$	lb-in	254,000	254,000	254,000	254,000	254,000	254,000	254,000		
		Nm	28,700	28,700	28,700	28,700	28,700	28,700	28,700		
	η	%	53	65	65	65	66	69	70		
450 15 x 30	$P_{1\,ME}$	hp	1.66	7.91	9.69	11.50	14.50	18.10	21.40	469,000	53,000
		kW	1.24	5.90	7.23	8.60	10.80	13.50	15.90		
	$P_{1\,TH}$	hp	1.66	7.91	8.55	8.96	9.50	9.85	10.20		
		kW	1.24	5.90	6.38	6.69	7.09	7.35	7.61		
	$T_{2\,ME}$	lb-in	234,000	234,000	234,000	234,000	234,000	234,000	230,000		
		Nm	26,500	26,500	26,500	26,500	26,500	26,500	26,000		
	η	%	50	61	61	62	66	66	66		
500 25 x 20	$P_{1\,ME}$	hp	1.63	7.45	9.18	10.80	14.00	17.60	20.70	508,000	57,400
		kW	1.22	5.56	6.85	8.04	10.50	13.10	15.40		
	$P_{1\,TH}$	hp	1.63	6.12	6.40	6.60	6.80	6.97	7.15		
		kW	1.22	4.57	4.78	4.93	5.07	5.21	5.34		
	$T_{2\,ME}$	lb-in	254,000	254,000	254,000	254,000	254,000	254,000	254,000		
		Nm	28,700	28,700	28,700	28,700	28,700	28,700	28,700		
	η	%	49	63	63	65	66	66	68		
600 30 x 20	$P_{1\,ME}$	hp	1.44	6.76	7.98	9.46	12.30	15.40	18.40	508,000	57,400
		kW	1.07	5.04	5.95	7.06	9.15	11.50	13.70		
	$P_{1\,TH}$	hp	1.44	5.30	5.57	5.77	5.92	6.02	6.12		
		kW	1.07	3.96	4.16	4.31	4.42	4.49	4.57		
	$T_{2\,ME}$	lb-in	254,000	254,000	254,000	254,000	254,000	254,000	252,000		
		Nm	28,700	28,700	28,700	28,700	28,700	28,700	28,500		
	η	%	47	58	61	62	63	63	63		
625 25 x 25	$P_{1\,ME}$	hp	1.35	6.03	7.42	8.70	11.30	14.20	16.70	486,000	54,900
		kW	1.01	4.50	5.53	6.50	8.45	10.60	12.40		
	$P_{1\,TH}$	hp	1.35	6.03	6.40	6.60	6.80	6.97	7.15		
		kW	1.01	4.50	4.78	4.93	5.07	5.21	5.34		
	$T_{2\,ME}$	lb-in	243,000	243,000	243,000	243,000	243,000	243,000	243,000		
		Nm	27,400	27,400	27,400	27,400	27,400	27,400	27,400		
	η	%	46	59	60	62	63	63	65		
700 10 x 70	$P_{1\,ME}$	hp	1.16	5.06	5.90	7.04	8.95	10.90	12.70	370,000	41,800
		kW	0.87	3.78	4.40	5.25	6.68	8.13	9.48		
	$P_{1\,TH}$	hp	1.16	5.06	5.20	5.29	5.93	7.18	8.42		
		kW	0.87	3.78	3.88	3.95	4.43	5.36	6.29		
	$T_{2\,ME}$	lb-in	185,000	185,000	185,000	185,000	184,000	185,000	183,000		
		Nm	20,900	20,900	20,900	20,900	20,700	20,900	20,700		
	η	%	36	48	51	52	53	56	57		
750 30 x 25	$P_{1\,ME}$	hp	1.19	5.47	6.45	7.65	9.90	12.50	15.00	486,000	54,900
		kW	0.89	4.08	4.81	5.71	7.39	9.30	11.20		
	$P_{1\,TH}$	hp	1.19	5.30	5.57	5.77	5.92	6.02	6.12		
		kW	0.89	3.96	4.16	4.31	4.42	4.49	4.57		
	$T_{2\,ME}$	lb-in	243,000	243,000	243,000	243,000	243,000	243,000	243,000		
		Nm	27,400	27,400	27,400	27,400	27,400	27,400	27,400		
	η	%	43	54	57	58	60	60	60		
800 40 x 20	$P_{1\,ME}$	hp	1.22	5.36	6.32	7.55	9.74	12.20	13.90	508,000	57,400
		kW	0.91	4.00	4.71	5.64	7.27	9.11	10.40		
	$P_{1\,TH}$	hp	1.22	4.48	4.75	4.95	5.16	5.26	5.37		
		kW	0.91	3.34	3.54	3.69	3.85	3.93	4.01		
	$T_{2\,ME}$	lb-in	254,000	254,000	254,000	254,000	254,000	254,000	240,000		
		Nm	28,700	28,700	28,700	28,700	28,700	28,700	27,100		
	η	%	41	55	57	58	59	60	60		
900 30 x 30	$P_{1\,ME}$	hp	1.03	4.64	5.43	6.42	8.31	10.50	12.60	469,000	53,000
		kW	0.77	3.46	4.05	4.79	6.20	7.81	9.37		
	$P_{1\,TH}$	hp	1.03	4.64	5.43	5.77	5.92	6.02	6.12		
		kW	0.77	3.46	4.05	4.31	4.42	4.49	4.57		
	$T_{2\,ME}$	lb-in	234,000	234,000	234,000	234,000	234,000	234,000	234,000		
		Nm	26,500	26,500	26,500	26,500	26,500	26,500	26,500		
	η	%	40	52	55	56	57	57	58		
1000 50 x 20	$P_{1\,ME}$	hp	1.11	4.51	5.32	6.36	8.17	10.20	11.10	508,000	57,400
		kW	0.83	3.37	3.97	4.75	6.10	7.62	8.32		
	$P_{1\,TH}$	hp	1.02	3.74	3.94	4.15	4.42	4.59	4.75		
		kW	0.76	2.79	2.94	3.10	3.30	3.42	3.54		
	$T_{2\,ME}$	lb-in	254,000	254,000	254,000	254,000	254,000	254,000	231,000		
		Nm	28,700	28,700	28,700	28,700	28,700	28,700	26,100		
	η	%	36	52	54	55	57	57	58		

See Page 8.7 for Rating Definitions

5.000" CD PRI. / 10.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1050 15 x 70	$P_{1\,ME}$	hp	0.88	3.48	4.27	5.06	6.31	7.84	9.27	370,000	41,800
		kW	0.66	2.60	3.18	3.78	4.71	5.85	6.92		
	$P_{1\,TH}$	hp	0.88	3.48	4.27	5.06	5.31	5.41	6.14		
		kW	0.66	2.60	3.18	3.78	3.96	4.04	4.58		
	$T_{2\,ME}$	lb-in	185,000	185,000	185,000	185,000	185,000	185,000	184,000		
		Nm	20,900	20,900	20,900	20,900	20,900	20,900	20,800		
	η	%	32	47	47	48	51	52	52		
1200 40 x 30	$P_{1\,ME}$	hp	0.88	3.71	4.34	5.16	6.61	8.28	9.95	469,000	53,000
		kW	0.66	2.77	3.24	3.85	4.93	6.18	7.43		
	$P_{1\,TH}$	hp	0.88	3.71	4.34	4.95	5.16	5.26	5.37		
		kW	0.66	2.77	3.24	3.69	3.85	3.93	4.01		
	$T_{2\,ME}$	lb-in	234,000	234,000	234,000	234,000	234,000	234,000	234,000		
		Nm	26,500	26,500	26,500	26,500	26,500	26,500	26,500		
	η	%	35	49	51	52	54	54	55		
1250 50 x 25	$P_{1\,ME}$	hp	0.92	3.66	4.31	5.15	6.61	8.25	9.90	486,000	54,900
		kW	0.69	2.73	3.22	3.84	4.93	6.16	7.39		
	$P_{1\,TH}$	hp	0.92	3.66	3.94	4.15	4.42	4.59	4.75		
		kW	0.69	2.73	2.94	3.10	3.30	3.42	3.54		
	$T_{2\,ME}$	lb-in	243,000	243,000	243,000	243,000	243,000	243,000	243,000		
		Nm	27,400	27,400	27,400	27,400	27,400	27,400	27,400		
	η	%	34	49	51	52	54	54	54		
1400 20 x 70	$P_{1\,ME}$	hp	0.73	2.70	3.33	4.00	5.20	6.20	7.39	370,000	41,800
		kW	0.54	2.02	2.48	2.99	3.88	4.63	5.52		
	$P_{1\,TH}$	hp	0.73	2.70	3.33	4.00	5.20	5.45	5.53		
		kW	0.54	2.02	2.48	2.99	3.88	4.07	4.13		
	$T_{2\,ME}$	lb-in	185,000	185,000	185,000	185,000	185,000	185,000	185,000		
		Nm	20,900	20,900	20,900	20,900	20,900	20,900	20,900		
	η	%	29	45	45	46	46	49	50		
1500 50 x 30	$P_{1\,ME}$	hp	0.81	3.13	3.68	4.38	5.57	6.93	8.32	469,000	53,000
		kW	0.60	2.34	2.75	3.27	4.16	5.17	6.21		
	$P_{1\,TH}$	hp	0.81	3.13	3.68	4.15	4.42	4.59	4.75		
		kW	0.60	2.34	2.75	3.10	3.30	3.42	3.54		
	$T_{2\,ME}$	lb-in	234,000	234,000	234,000	234,000	234,000	234,000	234,000		
		Nm	26,500	26,500	26,500	26,500	26,500	26,500	26,500		
	η	%	31	46	48	49	51	52	52		
1600 40 x 40	$P_{1\,ME}$	hp	0.70	2.88	3.35	3.95	5.02	6.28	7.54	426,000	48,100
		kW	0.52	2.15	2.50	2.94	3.75	4.68	5.63		
	$P_{1\,TH}$	hp	0.70	2.88	3.35	3.95	5.02	5.26	5.37		
		kW	0.52	2.15	2.50	2.94	3.75	3.93	4.01		
	$T_{2\,ME}$	lb-in	213,000	213,000	213,000	213,000	213,000	213,000	213,000		
		Nm	24,100	24,100	24,100	24,100	24,100	24,100	24,100		
	η	%	30	43	45	47	48	49	49		
1750 25 x 70	$P_{1\,ME}$	hp	0.64	2.27	2.75	3.22	4.18	5.24	6.09	370,000	41,800
		kW	0.48	1.69	2.05	2.40	3.12	3.91	4.55		
	$P_{1\,TH}$	hp	0.64	2.27	2.75	3.22	4.18	5.24	5.47		
		kW	0.48	1.69	2.05	2.40	3.12	3.91	4.08		
	$T_{2\,ME}$	lb-in	185,000	185,000	185,000	185,000	185,000	185,000	185,000		
		Nm	20,900	20,900	20,900	20,900	20,900	20,900	20,900		
	η	%	26	43	44	45	46	46	48		
1800 60 x 30	$P_{1\,ME}$	hp	0.69	2.81	3.32	3.86	4.91	6.06	7.26	469,000	53,000
		kW	0.52	2.10	2.47	2.88	3.67	4.52	5.42		
	$P_{1\,TH}$	hp	0.69	2.81	3.32	3.67	4.01	4.14	4.28		
		kW	0.52	2.10	2.47	2.74	2.99	3.09	3.19		
	$T_{2\,ME}$	lb-in	234,000	234,000	234,000	234,000	234,000	234,000	234,000		
		Nm	26,500	26,500	26,500	26,500	26,500	26,500	26,500		
	η	%	30	43	45	47	48	49	50		
2000 50 x 40	$P_{1\,ME}$	hp	0.64	2.44	2.86	3.38	4.25	5.26	6.31	426,000	48,100
		kW	0.48	1.82	2.14	2.52	3.17	3.93	4.71		
	$P_{1\,TH}$	hp	0.64	2.44	2.86	3.38	4.25	4.59	4.75		
		kW	0.48	1.82	2.14	2.52	3.17	3.42	3.54		
	$T_{2\,ME}$	lb-in	213,000	213,000	213,000	213,000	213,000	213,000	213,000		
		Nm	24,100	24,100	24,100	24,100	24,100	24,100	24,100		
	η	%	26	40	42	43	46	47	47		
2100 30 x 70	$P_{1\,ME}$	hp	0.58	2.11	2.41	2.84	3.66	4.61	5.51	370,000	41,800
		kW	0.43	1.58	1.80	2.12	2.73	3.44	4.12		
	$P_{1\,TH}$	hp	0.58	2.11	2.41	2.84	3.66	4.61	5.49		
		kW	0.43	1.58	1.80	2.12	2.73	3.44	4.10		
	$T_{2\,ME}$	lb-in	185,000	185,000	185,000	185,000	185,000	185,000	185,000		
		Nm	20,900	20,900	20,900	20,900	20,900	20,900	20,900		
	η	%	24	38	42	43	44	44	44		

See Page 8.7 for Rating Definitions

Size 50-100 Double Reduction Ratings

5.000" CD PRI. / 10.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
2400 60 x 40	$P_{1\,ME}$	hp	0.55	2.20	2.59	3.00	3.78	4.61	5.51	426,000	48,100
		kW	0.41	1.64	1.93	2.24	2.82	3.44	4.11		
	$P_{1\,TH}$	hp	0.55	2.20	2.59	3.00	3.78	4.14	4.28		
		kW	0.41	1.64	1.93	2.24	2.82	3.09	3.19		
	$T_{2\,ME}$	lb-in	213,000	213,000	213,000	213,000	213,000	213,000	213,000		
		Nm	24,100	24,100	24,100	24,100	24,100	24,100	24,100		
	η	%	26	37	39	41	43	44	45		
2500 50 x 50	$P_{1\,ME}$	hp	0.53	1.97	2.30	2.72	3.43	4.26	5.10	382,000	43,100
		kW	0.39	1.47	1.71	2.03	2.56	3.18	3.81		
	$P_{1\,TH}$	hp	0.53	1.97	2.30	2.72	3.43	4.26	4.75		
		kW	0.39	1.47	1.71	2.03	2.56	3.18	3.54		
	$T_{2\,ME}$	lb-in	191,000	191,000	191,000	191,000	191,000	191,000	191,000		
		Nm	21,600	21,600	21,600	21,600	21,600	21,600	21,600		
	η	%	23	36	38	39	41	41	42		
2800 40 x 70	$P_{1\,ME}$	hp	0.50	1.74	1.99	2.32	2.92	3.65	4.38	370,000	41,800
		kW	0.38	1.30	1.49	1.73	2.18	2.72	3.27		
	$P_{1\,TH}$	hp	0.50	1.74	1.99	2.32	2.92	3.65	4.38		
		kW	0.38	1.30	1.49	1.73	2.18	2.72	3.27		
	$T_{2\,ME}$	lb-in	185,000	185,000	185,000	185,000	185,000	185,000	185,000		
		Nm	20,900	20,900	20,900	20,900	20,900	20,900	20,900		
	η	%	21	35	38	39	41	42	42		
3000 60 x 50	$P_{1\,ME}$	hp	0.45	1.78	2.08	2.41	3.04	3.73	4.46	382,000	43,100
		kW	0.34	1.32	1.55	1.80	2.27	2.78	3.33		
	$P_{1\,TH}$	hp	0.45	1.78	2.08	2.41	3.04	3.73	4.28		
		kW	0.34	1.32	1.55	1.80	2.27	2.78	3.19		
	$T_{2\,ME}$	lb-in	191,000	191,000	191,000	191,000	191,000	191,000	191,000		
		Nm	21,600	21,600	21,600	21,600	21,600	21,600	21,600		
	η	%	22	33	35	37	38	39	40		
3600 60 x 60	$P_{1\,ME}$	hp	0.39	1.49	1.74	2.01	2.55	3.12	3.75	376,000	42,500
		kW	0.29	1.12	1.30	1.50	1.90	2.33	2.80		
	$P_{1\,TH}$	hp	0.39	1.49	1.74	2.01	2.55	3.12	3.75		
		kW	0.29	1.12	1.30	1.50	1.90	2.33	2.80		
	$T_{2\,ME}$	lb-in	188,000	188,000	188,000	188,000	188,000	188,000	188,000		
		Nm	21,200	21,200	21,200	21,200	21,200	21,200	21,200		
	η	%	21	32	34	36	37	39	39		
4200 60 x 70	$P_{1\,ME}$	hp	0.40	1.41	1.61	1.82	2.24	2.69	3.20	370,000	41,800
		kW	0.30	1.05	1.20	1.35	1.67	2.01	2.39		
	$P_{1\,TH}$	hp	0.40	1.41	1.61	1.82	2.24	2.69	3.20		
		kW	0.30	1.05	1.20	1.35	1.67	2.01	2.39		
	$T_{2\,ME}$	lb-in	185,000	185,000	185,000	185,000	185,000	185,000	185,000		
		Nm	20,900	20,900	20,900	20,900	20,900	20,900	20,900		
	η	%	17	29	31	33	36	38	38		

See Page 8.7 for Rating Definitions

6.000" CD PRI. / 12.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	13.00	48.30	54.30	60.20	68.90	76.00	79.90	891,000	101,000
		kW	9.67	36.00	40.50	44.90	51.40	56.70	59.60		
	$P_{1\,TH}$	hp	6.30	17.50	19.50	21.00	22.80	23.90	25.00		
		kW	4.70	13.10	14.60	15.70	17.00	17.80	18.70		
	$T_{2\,ME}$	lb-in	445,000	311,000	285,000	267,000	231,000	205,000	180,000		
		Nm	50,300	35,100	32,200	30,200	26,100	23,100	20,400		
	η	%	73	79	80	82	82	83	84		
100 5 x 20	$P_{1\,ME}$	hp	10.10	48.30	54.30	60.20	68.90	76.00	79.90	867,000	98,000
		kW	7.54	36.00	40.50	44.90	51.40	56.70	59.60		
	$P_{1\,TH}$	hp	6.30	17.50	19.50	21.00	22.80	23.90	25.00		
		kW	4.70	13.10	14.60	15.70	17.00	17.80	18.70		
	$T_{2\,ME}$	lb-in	434,000	395,000	362,000	339,000	294,000	260,000	230,000		
		Nm	49,000	44,600	40,900	38,400	33,200	29,400	25,900		
	η	%	68	75	76	78	78	79	80		
125 5 x 25	$P_{1\,ME}$	hp	8.17	41.80	49.80	57.20	68.90	76.00	79.90	830,000	93,700
		kW	6.10	31.20	37.20	42.70	51.40	56.70	59.60		
	$P_{1\,TH}$	hp	6.30	17.50	19.50	21.00	22.80	23.90	25.00		
		kW	4.70	13.10	14.60	15.70	17.00	17.80	18.70		
	$T_{2\,ME}$	lb-in	415,000	405,000	394,000	387,000	359,000	318,000	284,000		
		Nm	46,900	45,800	44,600	43,700	40,500	36,000	32,000		
	η	%	64	71	72	75	76	77	79		
150 10 x 15	$P_{1\,ME}$	hp	7.21	35.30	39.50	43.80	50.70	56.50	60.80	891,000	101,000
		kW	5.38	26.30	29.50	32.70	37.80	42.10	45.30		
	$P_{1\,TH}$	hp	5.60	14.20	15.50	16.50	17.80	18.40	19.00		
		kW	4.18	10.60	11.60	12.30	13.30	13.70	14.20		
	$T_{2\,ME}$	lb-in	445,000	420,000	394,000	365,000	325,000	291,000	263,000		
		Nm	50,300	47,500	44,500	41,200	36,800	32,900	29,700		
	η	%	65	73	76	77	78	79	80		
200 10 x 20	$P_{1\,ME}$	hp	5.71	29.00	34.20	41.00	50.70	56.50	60.80	867,000	98,000
		kW	4.26	21.70	25.60	30.60	37.80	42.10	45.30		
	$P_{1\,TH}$	hp	5.60	14.20	15.50	16.50	17.80	18.40	19.00		
		kW	4.18	10.60	11.60	12.30	13.30	13.70	14.20		
	$T_{2\,ME}$	lb-in	434,000	434,000	434,000	434,000	413,000	370,000	334,000		
		Nm	49,000	49,000	49,000	49,000	46,700	41,800	37,700		
	η	%	60	69	72	73	74	75	76		
225 15 x 15	$P_{1\,ME}$	hp	5.13	25.60	31.40	35.80	41.40	46.20	50.00	891,000	101,000
		kW	3.83	19.10	23.40	26.70	30.90	34.50	37.30		
	$P_{1\,TH}$	hp	4.98	11.70	12.60	13.20	14.00	14.50	15.00		
		kW	3.72	8.73	9.40	9.85	10.40	10.80	11.20		
	$T_{2\,ME}$	lb-in	445,000	445,000	445,000	426,000	386,000	344,000	310,000		
		Nm	50,300	50,300	50,300	48,200	43,600	38,900	35,000		
	η	%	61	71	72	73	76	76	76		
250 10 x 25	$P_{1\,ME}$	hp	4.64	23.40	27.60	33.00	41.90	50.70	58.80	830,000	93,700
		kW	3.46	17.50	20.60	24.70	31.30	37.80	43.90		
	$P_{1\,TH}$	hp	4.64	14.20	15.50	16.50	17.80	18.40	19.00		
		kW	3.46	10.60	11.60	12.30	13.30	13.70	14.20		
	$T_{2\,ME}$	lb-in	415,000	415,000	415,000	415,000	406,000	394,000	387,000		
		Nm	46,900	46,900	46,900	46,900	45,900	44,600	43,700		
	η	%	57	65	69	69	71	72	73		
300 15 x 20	$P_{1\,ME}$	hp	4.07	19.90	24.40	29.00	36.70	45.80	50.00	867,000	98,000
		kW	3.04	14.90	18.20	21.70	27.40	34.20	37.30		
	$P_{1\,TH}$	hp	4.07	11.70	12.60	13.20	14.00	14.50	15.00		
		kW	3.04	8.73	9.40	9.85	10.40	10.80	11.20		
	$T_{2\,ME}$	lb-in	434,000	434,000	434,000	434,000	434,000	434,000	393,000		
		Nm	49,000	49,000	49,000	49,000	49,000	49,000	44,500		
	η	%	56	67	68	69	72	73	73		
350 5 x 70	$P_{1\,ME}$	hp	3.14	15.10	18.10	20.80	25.30	29.30	32.40	632,000	71,400
		kW	2.35	11.30	13.50	15.50	18.90	21.90	24.20		
	$P_{1\,TH}$	hp	3.14	8.77	10.50	12.20	15.00	17.30	19.00		
		kW	2.35	6.55	7.83	9.11	11.20	12.90	14.20		
	$T_{2\,ME}$	lb-in	316,000	312,000	312,000	308,000	291,000	272,000	257,000		
		Nm	35,700	35,200	35,200	34,800	32,800	30,700	29,000		
	η	%	46	54	56	58	60	61	63		
375 15 x 25	$P_{1\,ME}$	hp	3.34	16.10	19.70	23.40	29.60	36.90	43.40	830,000	93,700
		kW	2.50	12.00	14.70	17.50	22.10	27.50	32.40		
	$P_{1\,TH}$	hp	3.34	11.70	12.60	13.20	14.00	14.50	15.00		
		kW	2.50	8.73	9.40	9.85	10.40	10.80	11.20		
	$T_{2\,ME}$	lb-in	415,000	415,000	415,000	415,000	415,000	415,000	405,000		
		Nm	46,900	46,900	46,900	46,900	46,900	46,900	45,800		
	η	%	52	63	64	65	68	69	69		

See Page 8.7 for Rating Definitions

Size 60-120 Double Reduction Ratings

6.000" CD PRI. / 12.000" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
400 20 x 20	$P_{1\,ME}$	hp	3.24	15.40	19.00	22.90	29.80	35.60	38.60	867,000	98,000
		kW	2.42	11.50	14.20	17.10	22.20	26.60	28.80		
	$P_{1\,TH}$	hp	3.24	10.30	11.00	11.50	12.00	12.20	12.50		
		kW	2.42	7.69	8.21	8.58	8.96	9.14	9.33		
	$T_{2\,ME}$	lb-in	434,000	434,000	434,000	434,000	434,000	429,000	388,000		
		Nm	49,000	49,000	49,000	49,000	49,000	48,400	43,900		
	η	%	53	65	65	65	66	69	70		
450 15 x 30	$P_{1\,ME}$	hp	2.83	13.50	16.50	19.60	24.70	30.80	36.30	800,000	90,300
		kW	2.11	10.10	12.30	14.70	18.50	23.00	27.10		
	$P_{1\,TH}$	hp	2.83	11.70	12.60	13.20	14.00	14.50	15.00		
		kW	2.11	8.73	9.40	9.85	10.40	10.80	11.20		
	$T_{2\,ME}$	lb-in	400,000	400,000	400,000	400,000	400,000	400,000	391,000		
		Nm	45,200	45,200	45,200	45,200	45,200	45,200	44,100		
	η	%	50	61	61	62	66	66	66		
500 25 x 20	$P_{1\,ME}$	hp	2.78	12.70	15.70	18.40	23.90	28.70	31.20	867,000	98,000
		kW	2.08	9.50	11.70	13.70	17.90	21.40	23.30		
	$P_{1\,TH}$	hp	2.78	9.00	9.40	9.70	10.00	10.20	10.50		
		kW	2.08	6.72	7.01	7.24	7.46	7.65	7.84		
	$T_{2\,ME}$	lb-in	434,000	434,000	434,000	434,000	434,000	415,000	383,000		
		Nm	49,000	49,000	49,000	49,000	49,000	46,900	43,200		
	η	%	49	63	63	65	66	66	68		
600 30 x 20	$P_{1\,ME}$	hp	2.45	11.50	13.60	16.20	20.90	24.10	26.10	867,000	98,000
		kW	1.83	8.61	10.20	12.10	15.60	18.00	19.50		
	$P_{1\,TH}$	hp	2.45	7.80	8.20	8.50	8.70	8.85	9.00		
		kW	1.83	5.82	6.12	6.34	6.49	6.60	6.72		
	$T_{2\,ME}$	lb-in	434,000	434,000	434,000	434,000	434,000	396,000	358,000		
		Nm	49,000	49,000	49,000	49,000	49,000	44,700	40,400		
	η	%	47	58	61	62	63	63	63		
625 25 x 25	$P_{1\,ME}$	hp	2.32	10.30	12.70	14.90	19.30	24.30	28.50	830,000	93,700
		kW	1.73	7.68	9.45	11.10	14.40	18.10	21.30		
	$P_{1\,TH}$	hp	2.32	9.00	9.40	9.70	10.00	10.20	10.50		
		kW	1.73	6.72	7.01	7.24	7.46	7.65	7.84		
	$T_{2\,ME}$	lb-in	415,000	415,000	415,000	415,000	415,000	415,000	415,000		
		Nm	46,900	46,900	46,900	46,900	46,900	46,900	46,900		
	η	%	45	59	60	62	63	63	65		
700 10 x 70	$P_{1\,ME}$	hp	1.67	6.52	7.29	8.10	9.33	10.40	11.30	715,000	80,800
		kW	1.25	4.86	5.44	6.04	6.96	7.79	8.45		
	$P_{1\,TH}$	hp	1.11	4.34	4.87	5.00	5.40	5.50	5.60		
		kW	0.83	3.24	3.63	3.73	4.03	4.10	4.18		
	$T_{2\,ME}$	lb-in	306,000	269,000	250,000	236,000	212,000	189,000	171,000		
		Nm	34,600	30,300	28,300	26,700	23,900	21,300	19,300		
	η	%	41	54	56	57	59	59	60		
750 30 x 25	$P_{1\,ME}$	hp	2.05	9.34	11.00	13.10	16.90	21.30	25.50	830,000	93,700
		kW	1.53	6.97	8.22	9.75	12.60	15.90	19.10		
	$P_{1\,TH}$	hp	2.05	7.80	8.20	8.50	8.70	8.85	9.00		
		kW	1.53	5.82	6.12	6.34	6.49	6.60	6.72		
	$T_{2\,ME}$	lb-in	415,000	415,000	415,000	415,000	415,000	415,000	415,000		
		Nm	46,900	46,900	46,900	46,900	46,900	46,900	46,900		
	η	%	43	54	57	58	60	60	60		
800 40 x 20	$P_{1\,ME}$	hp	2.07	9.15	10.80	12.90	16.20	18.10	19.70	867,000	98,000
		kW	1.54	6.83	8.05	9.63	12.10	13.50	14.70		
	$P_{1\,TH}$	hp	1.94	6.60	7.00	7.30	7.60	7.75	7.90		
		kW	1.45	4.93	5.22	5.45	5.67	5.78	5.90		
	$T_{2\,ME}$	lb-in	434,000	434,000	434,000	434,000	423,000	377,000	341,000		
		Nm	49,000	49,000	49,000	49,000	47,800	42,700	38,500		
	η	%	42	55	57	58	59	60	60		
900 30 x 30	$P_{1\,ME}$	hp	1.75	7.90	9.25	11.00	14.20	17.80	21.40	800,000	90,300
		kW	1.31	5.90	6.91	8.17	10.60	13.30	16.00		
	$P_{1\,TH}$	hp	1.75	7.80	8.20	8.50	8.70	8.85	9.00		
		kW	1.31	5.82	6.12	6.34	6.49	6.60	6.72		
	$T_{2\,ME}$	lb-in	400,000	400,000	400,000	400,000	400,000	400,000	400,000		
		Nm	45,200	45,200	45,200	45,200	45,200	45,200	45,200		
	η	%	40	52	55	56	57	57	58		
1000 50 x 20	$P_{1\,ME}$	hp	1.87	7.70	9.09	10.90	13.00	14.60	15.80	867,000	98,000
		kW	1.40	5.75	6.79	8.11	9.71	10.90	11.80		
	$P_{1\,TH}$	hp	1.55	5.50	5.80	6.10	6.50	6.75	7.00		
		kW	1.16	4.10	4.33	4.55	4.85	5.04	5.22		
	$T_{2\,ME}$	lb-in	434,000	434,000	434,000	434,000	404,000	362,000	327,000		
		Nm	49,000	49,000	49,000	49,000	45,700	40,900	37,000		
	η	%	37	52	54	55	57	57	58		

See Page 8.7 for Rating Definitions

6.000" CD PRI. / 12.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1050 15 x 70	$P_{1\,ME}$	hp	1.67	6.52	7.29	8.10	9.33	10.40	11.30	891,000	101,000
		kW	1.25	4.86	5.44	6.04	6.96	7.79	8.45		
	$P_{1\,TH}$	hp	1.11	4.34	4.87	5.00	5.40	5.50	5.60		
		kW	0.83	3.24	3.63	3.73	4.03	4.10	4.18		
	$T_{2\,ME}$	lb-in	420,000	381,000	357,000	337,000	303,000	271,000	247,000		
		Nm	47,500	43,000	40,300	38,000	34,200	30,700	27,900		
	η	%	38	51	53	55	56	57	58		
1200 40 x 30	$P_{1\,ME}$	hp	1.50	6.32	7.40	8.80	11.30	14.10	17.00	800,000	90,300
		kW	1.12	4.72	5.53	6.56	8.41	10.50	12.70		
	$P_{1\,TH}$	hp	1.50	6.32	7.00	7.30	7.60	7.75	7.90		
		kW	1.12	4.72	5.22	5.45	5.67	5.78	5.90		
	$T_{2\,ME}$	lb-in	400,000	400,000	400,000	400,000	400,000	400,000	400,000		
		Nm	45,200	45,200	45,200	45,200	45,200	45,200	45,200		
	η	%	35	49	51	52	54	54	55		
1250 50 x 25	$P_{1\,ME}$	hp	1.59	6.25	7.36	8.79	11.30	14.10	15.80	830,000	93,700
		kW	1.18	4.66	5.49	6.56	8.42	10.50	11.80		
	$P_{1\,TH}$	hp	1.55	5.50	5.80	6.10	6.50	6.75	7.00		
		kW	1.16	4.10	4.33	4.55	4.85	5.04	5.22		
	$T_{2\,ME}$	lb-in	415,000	415,000	415,000	415,000	415,000	415,000	387,000		
		Nm	46,900	46,900	46,900	46,900	46,900	46,900	43,800		
	η	%	33	49	51	52	54	54	54		
1400 20 x 70	$P_{1\,ME}$	hp	1.24	4.62	5.68	6.83	8.88	10.60	12.60	632,000	71,400
		kW	0.93	3.45	4.24	5.10	6.63	7.91	9.42		
	$P_{1\,TH}$	hp	1.24	4.62	5.68	6.83	7.74	8.07	8.20		
		kW	0.93	3.45	4.24	5.10	5.78	6.02	6.12		
	$T_{2\,ME}$	lb-in	316,000	316,000	316,000	316,000	316,000	316,000	316,000		
		Nm	35,700	35,700	35,700	35,700	35,700	35,700	35,700		
	η	%	29	45	45	46	46	49	50		
1500 50 x 30	$P_{1\,ME}$	hp	1.37	5.34	6.28	7.46	9.49	11.80	14.20	800,000	90,300
		kW	1.03	3.98	4.69	5.57	7.09	8.82	10.60		
	$P_{1\,TH}$	hp	1.37	5.34	5.80	6.10	6.50	6.75	7.00		
		kW	1.03	3.98	4.33	4.55	4.85	5.04	5.22		
	$T_{2\,ME}$	lb-in	400,000	400,000	400,000	400,000	400,000	400,000	400,000		
		Nm	45,200	45,200	45,200	45,200	45,200	45,200	45,200		
	η	%	31	46	48	49	51	52	52		
1600 40 x 40	$P_{1\,ME}$	hp	1.20	4.92	5.72	6.74	8.57	10.70	12.90	727,000	82,200
		kW	0.89	3.67	4.27	5.03	6.40	8.00	9.62		
	$P_{1\,TH}$	hp	1.20	4.92	5.72	6.74	7.60	7.75	7.90		
		kW	0.89	3.67	4.27	5.03	5.67	5.78	5.90		
	$T_{2\,ME}$	lb-in	364,000	364,000	364,000	364,000	364,000	364,000	364,000		
		Nm	41,100	41,100	41,100	41,100	41,100	41,100	41,100		
	η	%	30	43	45	47	48	49	49		
1750 25 x 70	$P_{1\,ME}$	hp	1.19	4.94	5.85	6.83	8.67	10.40	11.30	830,000	93,700
		kW	0.89	3.68	4.36	5.10	6.47	7.79	8.45		
	$P_{1\,TH}$	hp	1.11	4.34	4.87	5.00	5.40	5.50	5.60		
		kW	0.83	3.24	3.63	3.73	4.03	4.10	4.18		
	$T_{2\,ME}$	lb-in	415,000	415,000	415,000	415,000	415,000	401,000	365,000		
		Nm	46,900	46,900	46,900	46,900	46,900	45,300	41,200		
	η	%	32	44	46	48	50	51	51		
1800 60 x 30	$P_{1\,ME}$	hp	1.18	4.79	5.65	6.58	8.38	10.30	12.40	800,000	90,300
		kW	0.88	3.57	4.22	4.91	6.25	7.71	9.23		
	$P_{1\,TH}$	hp	1.18	4.79	5.10	5.40	5.90	6.10	6.30		
		kW	0.88	3.57	3.81	4.03	4.40	4.55	4.70		
	$T_{2\,ME}$	lb-in	400,000	400,000	400,000	400,000	400,000	400,000	400,000		
		Nm	45,200	45,200	45,200	45,200	45,200	45,200	45,200		
	η	%	30	43	45	47	48	49	50		
2000 50 x 40	$P_{1\,ME}$	hp	1.10	4.17	4.89	5.77	7.25	8.99	10.80	727,000	82,200
		kW	0.82	3.11	3.65	4.31	5.41	6.71	8.04		
	$P_{1\,TH}$	hp	1.10	4.17	4.89	5.77	6.50	6.75	7.00		
		kW	0.82	3.11	3.65	4.31	4.85	5.04	5.22		
	$T_{2\,ME}$	lb-in	364,000	364,000	364,000	364,000	364,000	364,000	364,000		
		Nm	41,100	41,100	41,100	41,100	41,100	41,100	41,100		
	η	%	26	40	42	43	46	47	47		
2100 30 x 70	$P_{1\,ME}$	hp	1.04	4.20	5.00	5.83	7.37	9.12	10.80	800,000	90,300
		kW	0.78	3.14	3.73	4.35	5.50	6.80	8.06		
	$P_{1\,TH}$	hp	1.04	4.20	4.87	5.00	5.40	5.50	5.60		
		kW	0.78	3.14	3.63	3.73	4.03	4.10	4.18		
	$T_{2\,ME}$	lb-in	400,000	400,000	400,000	400,000	400,000	400,000	400,000		
		Nm	45,200	45,200	45,200	45,200	45,200	45,200	45,200		
	η	%	29	42	44	45	47	48	49		

See Page 8.7 for Rating Definitions

Size 60-120 Double Reduction Ratings

6.000" CD PRI. / 12.000" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
2400 60 x 40	$P_{1\,ME}$	hp	0.94	3.76	4.42	5.12	6.46	7.87	9.41	727,000	82,200
		kW	0.70	2.80	3.30	3.82	4.82	5.87	7.02		
	$P_{1\,TH}$	hp	0.94	3.76	4.42	5.12	5.90	6.10	6.30		
		kW	0.70	2.80	3.30	3.82	4.40	4.55	4.70		
	$T_{2\,ME}$	lb-in	364,000	364,000	364,000	364,000	364,000	364,000	364,000		
		Nm	41,100	41,100	41,100	41,100	41,100	41,100	41,100		
	η	%	26	37	39	41	43	44	45		
2500 50 x 50	$P_{1\,ME}$	hp	0.90	3.36	3.92	4.64	5.86	7.27	8.71	652,000	73,700
		kW	0.67	2.51	2.93	3.46	4.38	5.43	6.50		
	$P_{1\,TH}$	hp	0.90	3.36	3.92	4.64	5.86	6.75	7.00		
		kW	0.67	2.51	2.93	3.46	4.38	5.04	5.22		
	$T_{2\,ME}$	lb-in	326,000	326,000	326,000	326,000	326,000	326,000	326,000		
		Nm	36,800	36,800	36,800	36,800	36,800	36,800	36,800		
	η	%	23	36	38	39	41	41	42		
2800 40 x 70	$P_{1\,ME}$	hp	0.83	3.32	3.91	4.55	5.72	7.00	8.21	727,000	82,200
		kW	0.62	2.48	2.92	3.40	4.27	5.22	6.13		
	$P_{1\,TH}$	hp	0.83	3.32	3.91	4.55	5.40	5.50	5.60		
		kW	0.62	2.48	2.92	3.40	4.03	4.10	4.18		
	$T_{2\,ME}$	lb-in	364,000	364,000	364,000	364,000	364,000	364,000	364,000		
		Nm	41,100	41,100	41,100	41,100	41,100	41,100	41,100		
	η	%	25	36	38	39	41	43	44		
3000 60 x 50	$P_{1\,ME}$	hp	0.77	2.81	3.28	3.88	4.90	6.11	7.38	642,000	72,500
		kW	0.58	2.10	2.45	2.90	3.66	4.56	5.50		
	$P_{1\,TH}$	hp	0.77	2.81	3.28	3.88	4.90	6.11	7.00		
		kW	0.58	2.10	2.45	2.90	3.66	4.56	5.22		
	$T_{2\,ME}$	lb-in	321,000	321,000	321,000	321,000	321,000	321,000	321,000		
		Nm	36,300	36,300	36,300	36,300	36,300	36,300	36,300		
	η	%	22	35	37	38	40	40	40		
3600 60 x 60	$P_{1\,ME}$	hp	0.66	2.55	2.98	3.44	4.35	5.33	6.40	642,000	72,500
		kW	0.49	1.90	2.22	2.57	3.25	3.98	4.78		
	$P_{1\,TH}$	hp	0.66	2.55	2.98	3.44	4.35	5.33	6.30		
		kW	0.49	1.90	2.22	2.57	3.25	3.98	4.70		
	$T_{2\,ME}$	lb-in	321,000	321,000	321,000	321,000	321,000	321,000	321,000		
		Nm	36,300	36,300	36,300	36,300	36,300	36,300	36,300		
	η	%	21	32	34	36	37	39	39		
4200 60 x 70	$P_{1\,ME}$	hp	0.58	2.30	2.64	3.07	3.84	4.72	5.56	642,000	72,500
		kW	0.43	1.72	1.97	2.29	2.87	3.52	4.15		
	$P_{1\,TH}$	hp	0.58	2.30	2.64	3.07	3.84	4.72	5.56		
		kW	0.43	1.72	1.97	2.29	2.87	3.52	4.15		
	$T_{2\,ME}$	lb-in	321,000	321,000	321,000	321,000	321,000	321,000	321,000		
		Nm	36,300	36,300	36,300	36,300	36,300	36,300	36,300		
	η	%	21	31	33	34	36	37	38		

See Page 8.7 for Rating Definitions

7.000" CD PRI. / 15.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	20.90	72.00	80.60	88.40	100.00	107.00	115.00	1,650,000	186,000
		kW	15.60	53.70	60.20	66.00	74.80	80.10	86.10		
	$P_{1\,TH}$	hp	8.50	20.80	23.20	25.40	29.60	32.30	33.80		
		kW	6.34	15.50	17.30	19.00	22.10	24.10	25.20		
	$T_{2\,ME}$	lb-in	718,000	463,000	423,000	392,000	337,000	289,000	260,000		
		Nm	81,100	52,300	47,800	44,300	38,000	32,700	29,400		
	η	%	73	79	80	82	82	83	84		
100 5 x 20	$P_{1\,ME}$	hp	16.80	72.00	80.60	88.40	100.00	107.00	115.00	1,610,000	181,000
		kW	12.50	53.70	60.20	66.00	74.80	80.10	86.10		
	$P_{1\,TH}$	hp	8.50	18.70	20.70	22.60	26.20	29.70	32.20		
		kW	6.34	14.00	15.40	16.90	19.50	22.20	24.00		
	$T_{2\,ME}$	lb-in	721,000	588,000	537,000	499,000	428,000	368,000	332,000		
		Nm	81,500	66,500	60,700	56,400	48,300	41,600	37,500		
	η	%	68	75	76	78	78	79	80		
125 5 x 25	$P_{1\,ME}$	hp	13.60	69.20	80.60	88.40	100.00	107.00	115.00	1,540,000	174,000
		kW	10.20	51.60	60.20	66.00	74.80	80.10	86.10		
	$P_{1\,TH}$	hp	8.50	15.80	17.50	19.20	22.40	25.50	27.70		
		kW	6.34	11.80	13.10	14.30	16.70	19.00	20.70		
	$T_{2\,ME}$	lb-in	691,000	671,000	638,000	597,000	522,000	450,000	410,000		
		Nm	78,100	75,800	72,100	67,500	59,000	50,800	46,300		
	η	%	64	71	72	75	76	77	79		
150 10 x 15	$P_{1\,ME}$	hp	12.00	53.50	60.20	66.60	76.30	84.40	89.10	1,650,000	186,000
		kW	8.94	39.90	44.90	49.70	57.00	63.00	66.50		
	$P_{1\,TH}$	hp	7.55	17.30	18.30	19.10	21.00	23.50	25.70		
		kW	5.63	12.90	13.70	14.30	15.60	17.50	19.20		
	$T_{2\,ME}$	lb-in	740,000	637,000	601,000	555,000	490,000	435,000	385,000		
		Nm	83,700	72,000	67,900	62,700	55,400	49,200	43,500		
	η	%	65	73	76	77	78	79	80		
200 10 x 20	$P_{1\,ME}$	hp	9.50	48.30	56.90	66.60	76.30	84.40	89.10	1,610,000	181,000
		kW	7.09	36.00	42.50	49.70	57.00	63.00	66.50		
	$P_{1\,TH}$	hp	7.55	15.50	16.80	17.40	18.80	21.00	23.10		
		kW	5.63	11.60	12.50	13.00	14.00	15.70	17.30		
	$T_{2\,ME}$	lb-in	721,000	721,000	721,000	705,000	623,000	553,000	489,000		
		Nm	81,500	81,500	81,500	79,600	70,300	62,500	55,300		
	η	%	60	69	72	73	74	75	76		
225 15 x 15	$P_{1\,ME}$	hp	8.53	42.50	49.60	54.80	63.00	69.80	74.30	1,650,000	186,000
		kW	6.36	31.70	37.00	40.90	47.00	52.10	55.40		
	$P_{1\,TH}$	hp	6.60	15.80	17.00	17.30	18.90	19.50	20.20		
		kW	4.93	11.80	12.70	12.90	14.10	14.60	15.10		
	$T_{2\,ME}$	lb-in	740,000	740,000	704,000	653,000	586,000	521,000	460,000		
		Nm	83,700	83,700	79,600	73,800	66,300	58,800	52,000		
	η	%	61	71	72	73	76	76	76		
250 10 x 25	$P_{1\,ME}$	hp	7.73	39.10	46.00	55.00	69.60	83.50	89.10	1,540,000	174,000
		kW	5.77	29.10	34.30	41.10	51.90	62.30	66.50		
	$P_{1\,TH}$	hp	7.55	13.40	14.30	14.70	15.90	17.80	19.70		
		kW	5.63	10.00	10.70	11.00	11.90	13.30	14.70		
	$T_{2\,ME}$	lb-in	691,000	691,000	691,000	691,000	674,000	650,000	586,000		
		Nm	78,100	78,100	78,100	78,100	76,100	73,400	66,200		
	η	%	57	65	69	69	71	72	73		
300 15 x 20	$P_{1\,ME}$	hp	6.77	33.10	40.60	48.30	61.00	69.80	74.30	1,610,000	181,000
		kW	5.05	24.70	30.30	36.00	45.50	52.10	55.40		
	$P_{1\,TH}$	hp	6.60	15.60	15.40	15.50	17.30	18.00	19.40		
		kW	4.93	11.60	11.50	11.60	12.90	13.40	14.40		
	$T_{2\,ME}$	lb-in	721,000	721,000	721,000	721,000	721,000	661,000	584,000		
		Nm	81,500	81,500	81,500	81,500	81,500	74,700	66,000		
	η	%	56	67	68	69	72	73	73		
375 15 x 25	$P_{1\,ME}$	hp	5.57	26.80	32.80	39.10	49.30	61.40	71.80	1,540,000	174,000
		kW	4.16	20.00	24.50	29.10	36.80	45.80	53.60		
	$P_{1\,TH}$	hp	5.57	13.50	13.40	13.40	14.70	15.20	16.40		
		kW	4.16	10.10	9.99	10.00	10.90	11.30	12.20		
	$T_{2\,ME}$	lb-in	691,000	691,000	691,000	691,000	691,000	691,000	671,000		
		Nm	78,100	78,100	78,100	78,100	78,100	78,100	75,800		
	η	%	52	63	64	65	68	69	69		
400 20 x 20	$P_{1\,ME}$	hp	5.39	25.60	31.60	38.10	48.40	53.80	57.20	1,610,000	181,000
		kW	4.02	19.10	23.60	28.40	36.10	40.10	42.70		
	$P_{1\,TH}$	hp	5.39	13.90	14.90	15.50	16.00	16.50	16.90		
		kW	4.02	10.40	11.10	11.60	11.90	12.40	12.60		
	$T_{2\,ME}$	lb-in	721,000	721,000	721,000	721,000	704,000	648,000	575,000		
		Nm	81,500	81,500	81,500	81,500	79,600	73,200	65,000		
	η	%	53	65	65	65	66	69	70		

See Page 8.7 for Rating Definitions

Size 70-150 Double Reduction Ratings

7.000" CD PRI. / 15.000" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
450 15 x 30	$P_{1\,ME}$	hp	4.72	22.50	27.50	32.70	41.20	51.40	60.10	1,480,000	168,000
		kW	3.52	16.80	20.50	24.40	30.80	38.30	44.80		
	$P_{1\,TH}$	hp	4.72	10.40	10.30	10.30	11.10	11.50	12.60		
		kW	3.52	7.73	7.67	7.67	8.30	8.56	9.42		
	$T_{2\,ME}$	lb-in	666,000	666,000	666,000	666,000	666,000	666,000	647,000		
		Nm	75,300	75,300	75,300	75,300	75,300	75,300	73,100		
	η	%	50	61	61	62	66	66	66		
500 25 x 20	$P_{1\,ME}$	hp	4.63	21.20	26.10	30.60	39.10	43.50	46.30	1,610,000	181,000
		kW	3.45	15.80	19.40	22.80	29.20	32.50	34.50		
	$P_{1\,TH}$	hp	4.63	12.20	12.70	13.10	13.50	13.90	14.20		
		kW	3.45	9.10	9.48	9.78	10.10	10.30	10.60		
	$T_{2\,ME}$	lb-in	721,000	721,000	721,000	721,000	709,000	628,000	568,000		
		Nm	81,500	81,500	81,500	81,500	80,100	71,000	64,200		
	η	%	49	63	63	65	66	66	68		
600 30 x 20	$P_{1\,ME}$	hp	4.07	19.20	22.70	26.90	32.70	36.40	38.80	1,610,000	181,000
		kW	3.04	14.30	16.90	20.10	24.40	27.20	28.90		
	$P_{1\,TH}$	hp	4.07	10.00	10.10	10.50	11.70	11.90	12.20		
		kW	3.04	7.46	7.54	7.84	8.73	8.92	9.10		
	$T_{2\,ME}$	lb-in	721,000	721,000	721,000	721,000	678,000	599,000	532,000		
		Nm	81,500	81,500	81,500	81,500	76,600	67,700	60,100		
	η	%	47	58	61	62	63	63	63		
625 25 x 25	$P_{1\,ME}$	hp	3.84	17.10	21.10	24.80	32.20	40.40	46.30	1,540,000	174,000
		kW	2.86	12.80	15.70	18.50	24.00	30.10	34.50		
	$P_{1\,TH}$	hp	3.84	12.20	12.70	13.10	13.50	13.90	14.20		
		kW	2.86	9.10	9.48	9.78	10.10	10.30	10.60		
	$T_{2\,ME}$	lb-in	691,000	691,000	691,000	691,000	691,000	691,000	674,000		
		Nm	78,100	78,100	78,100	78,100	78,100	78,100	76,200		
	η	%	46	59	60	62	63	63	65		
700 10 x 70	$P_{1\,ME}$	hp	2.65	9.93	11.10	12.40	14.20	15.80	16.90	1,130,000	128,000
		kW	1.97	7.41	8.32	9.23	10.60	11.80	12.60		
	$P_{1\,TH}$	hp	1.76	6.08	6.48	6.75	7.30	7.50	7.70		
		kW	1.31	4.54	4.84	5.04	5.45	5.60	5.75		
	$T_{2\,ME}$	lb-in	489,000	409,000	383,000	360,000	323,000	286,000	254,000		
		Nm	55,200	46,200	43,300	40,700	36,500	32,300	28,700		
	η	%	42	54	56	57	59	59	60		
750 30 x 25	$P_{1\,ME}$	hp	3.37	15.60	18.40	21.80	28.20	35.50	38.80	1,540,000	174,000
		kW	2.52	11.60	13.70	16.20	21.00	26.50	28.90		
	$P_{1\,TH}$	hp	3.37	10.00	10.10	10.50	11.70	11.90	12.20		
		kW	2.52	7.46	7.54	7.84	8.73	8.92	9.10		
	$T_{2\,ME}$	lb-in	691,000	691,000	691,000	691,000	691,000	691,000	630,000		
		Nm	78,100	78,100	78,100	78,100	78,100	78,100	71,200		
	η	%	43	54	57	58	60	60	60		
800 40 x 20	$P_{1\,ME}$	hp	3.44	15.20	17.90	21.50	24.70	27.50	29.30	1,610,000	181,000
		kW	2.57	11.40	13.40	16.00	18.40	20.50	21.80		
	$P_{1\,TH}$	hp	3.06	8.90	9.45	9.85	10.30	10.50	10.70		
		kW	2.28	6.64	7.05	7.35	7.69	7.84	7.99		
	$T_{2\,ME}$	lb-in	721,000	721,000	721,000	721,000	644,000	572,000	506,000		
		Nm	81,500	81,500	81,500	81,500	72,800	64,600	57,200		
	η	%	42	55	57	58	59	60	60		
900 30 x 30	$P_{1\,ME}$	hp	2.88	13.20	15.40	18.20	23.60	29.70	35.70	1,480,000	168,000
		kW	2.15	9.83	11.50	13.60	17.60	22.20	26.60		
	$P_{1\,TH}$	hp	2.88	10.00	10.10	10.50	11.00	11.00	11.20		
		kW	2.15	7.46	7.54	7.84	8.19	8.22	8.34		
	$T_{2\,ME}$	lb-in	666,000	666,000	666,000	666,000	666,000	666,000	666,000		
		Nm	75,300	75,300	75,300	75,300	75,300	75,300	75,300		
	η	%	41	52	55	56	57	57	58		
1000 50 x 20	$P_{1\,ME}$	hp	3.12	12.80	15.10	17.20	19.80	22.10	23.50	1,610,000	181,000
		kW	2.33	9.56	11.30	12.90	14.80	16.50	17.50		
	$P_{1\,TH}$	hp	2.46	7.43	7.83	8.25	8.77	9.11	9.45		
		kW	1.84	5.54	5.84	6.16	6.54	6.80	7.05		
	$T_{2\,ME}$	lb-in	721,000	721,000	721,000	689,000	616,000	548,000	487,000		
		Nm	81,500	81,500	81,500	77,800	69,700	62,000	55,000		
	η	%	37	52	54	55	57	57	58		
1050 70 x 15	$P_{1\,ME}$	hp	2.65	9.93	11.10	12.40	14.20	15.80	16.90	1,620,000	183,000
		kW	1.97	7.41	8.32	9.23	10.60	11.80	12.60		
	$P_{1\,TH}$	hp	1.76	6.08	6.48	6.75	7.30	7.50	7.70		
		kW	1.31	4.54	4.84	5.04	5.45	5.60	5.75		
	$T_{2\,ME}$	lb-in	671,000	580,000	546,000	514,000	462,000	411,000	367,000		
		Nm	75,900	65,600	61,700	58,100	52,200	46,500	41,500		
	η	%	38	51	53	55	56	57	58		

See Page 8.7 for Rating Definitions

7.000" CD PRI. / 15.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1200 40 x 30	$P_{1\,ME}$	hp	2.46	10.50	12.30	14.70	18.80	23.50	28.30	1,480,000	168,000
		kW	1.83	7.85	9.21	10.90	14.00	17.50	21.10		
	$P_{1\,TH}$	hp	2.46	8.90	9.45	9.85	10.30	10.50	10.70		
		kW	1.83	6.64	7.05	7.35	7.69	7.84	7.99		
	$T_{2\,ME}$	lb-in	666,000	666,000	666,000	666,000	666,000	666,000	666,000		
		Nm	75,300	75,300	75,300	75,300	75,300	75,300	75,300		
	η	%	36	49	51	52	54	54	55		
1250 50 x 25	$P_{1\,ME}$	hp	2.59	10.40	12.30	14.60	18.80	22.10	23.50	1,540,000	174,000
		kW	1.93	7.77	9.15	10.90	14.00	16.50	17.50		
	$P_{1\,TH}$	hp	2.46	7.43	7.83	8.25	8.77	9.11	9.45		
		kW	1.84	5.54	5.84	6.16	6.54	6.80	7.05		
	$T_{2\,ME}$	lb-in	691,000	691,000	691,000	691,000	691,000	649,000	576,000		
		Nm	78,100	78,100	78,100	78,100	78,100	73,300	65,100		
	η	%	34	49	51	52	54	54	54		
1400 70 x 20	$P_{1\,ME}$	hp	2.33	9.93	11.10	12.40	14.20	15.80	16.90	1,610,000	181,000
		kW	1.74	7.41	8.32	9.23	10.60	11.80	12.60		
	$P_{1\,TH}$	hp	1.76	6.08	6.48	6.75	7.30	7.50	7.70		
		kW	1.31	4.54	4.84	5.04	5.45	5.60	5.75		
	$T_{2\,ME}$	lb-in	721,000	712,000	671,000	636,000	576,000	514,000	459,000		
		Nm	81,500	80,500	75,800	71,900	65,100	58,000	51,900		
	η	%	35	47	49	51	53	53	54		
1500 50 x 30	$P_{1\,ME}$	hp	2.24	8.89	10.50	12.40	15.80	19.70	23.50	1,480,000	168,000
		kW	1.67	6.63	7.81	9.28	11.80	14.70	17.50		
	$P_{1\,TH}$	hp	2.24	7.43	7.83	8.25	8.77	9.11	9.45		
		kW	1.67	5.54	5.84	6.16	6.54	6.80	7.05		
	$T_{2\,ME}$	lb-in	666,000	666,000	666,000	666,000	666,000	666,000	663,000		
		Nm	75,300	75,300	75,300	75,300	75,300	75,300	74,900		
	η	%	31	46	48	49	51	52	52		
1600 40 x 40	$P_{1\,ME}$	hp	1.95	8.18	9.51	11.20	14.30	17.80	21.40	1,350,000	152,000
		kW	1.46	6.10	7.10	8.36	10.60	13.30	16.00		
	$P_{1\,TH}$	hp	1.95	8.18	8.97	9.30	9.55	9.68	9.74		
		kW	1.46	6.10	6.69	6.94	7.13	7.22	7.27		
	$T_{2\,ME}$	lb-in	605,000	605,000	605,000	605,000	605,000	605,000	605,000		
		Nm	68,300	68,300	68,300	68,300	68,300	68,300	68,300		
	η	%	31	43	45	47	48	49	49		
1750 70 x 25	$P_{1\,ME}$	hp	1.94	8.22	9.74	11.40	14.20	15.80	16.90	1,540,000	174,000
		kW	1.45	6.14	7.27	8.49	10.60	11.80	12.60		
	$P_{1\,TH}$	hp	1.76	6.08	6.48	6.75	7.30	7.50	7.70		
		kW	1.31	4.54	4.84	5.04	5.45	5.60	5.75		
	$T_{2\,ME}$	lb-in	691,000	691,000	691,000	691,000	681,000	607,000	543,000		
		Nm	78,100	78,100	78,100	78,100	76,900	68,600	61,400		
	η	%	32	44	46	48	50	51	51		
1800 60 x 30	$P_{1\,ME}$	hp	1.92	7.98	9.42	11.00	14.00	17.20	19.60	1,480,000	168,000
		kW	1.43	5.95	7.03	8.18	10.40	12.80	14.70		
	$P_{1\,TH}$	hp	1.92	6.48	6.90	7.30	7.95	8.23	8.50		
		kW	1.43	4.84	5.15	5.45	5.93	6.14	6.34		
	$T_{2\,ME}$	lb-in	666,000	666,000	666,000	666,000	666,000	666,000	634,000		
		Nm	75,300	75,300	75,300	75,300	75,300	75,300	71,700		
	η	%	31	43	45	47	48	49	50		
2000 50 x 40	$P_{1\,ME}$	hp	1.78	6.94	8.13	9.60	12.10	14.90	17.90	1,350,000	152,000
		kW	1.33	5.18	6.07	7.17	9.00	11.20	13.40		
	$P_{1\,TH}$	hp	1.78	6.94	7.83	8.25	8.77	9.11	9.45		
		kW	1.33	5.18	5.84	6.16	6.54	6.80	7.05		
	$T_{2\,ME}$	lb-in	605,000	605,000	605,000	605,000	605,000	605,000	605,000		
		Nm	68,300	68,300	68,300	68,300	68,300	68,300	68,300		
	η	%	27	40	42	43	46	47	47		
2100 70 x 30	$P_{1\,ME}$	hp	1.69	7.00	8.33	9.72	12.30	15.20	16.90	1,480,000	168,000
		kW	1.26	5.22	6.21	7.25	9.17	11.30	12.60		
	$P_{1\,TH}$	hp	1.69	6.08	6.48	6.75	7.30	7.50	7.70		
		kW	1.26	4.54	4.84	5.04	5.45	5.60	5.75		
	$T_{2\,ME}$	lb-in	666,000	666,000	666,000	666,000	666,000	666,000	625,000		
		Nm	75,300	75,300	75,300	75,300	75,300	75,300	70,600		
	η	%	30	42	44	45	47	48	49		
2400 60 x 40	$P_{1\,ME}$	hp	1.52	6.25	7.35	8.52	10.70	13.10	15.60	1,350,000	152,000
		kW	1.13	4.66	5.48	6.36	8.01	9.77	11.70		
	$P_{1\,TH}$	hp	1.52	6.25	6.90	7.30	7.95	8.23	8.50		
		kW	1.13	4.66	5.15	5.45	5.93	6.14	6.34		
	$T_{2\,ME}$	lb-in	605,000	605,000	605,000	605,000	605,000	605,000	605,000		
		Nm	68,300	68,300	68,300	68,300	68,300	68,300	68,300		
	η	%	26	37	39	41	43	44	45		

See Page 8.7 for Rating Definitions

Size 70-150 Double Reduction Ratings

7.000" CD PRI. / 15.000" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
2500 50 x 50	$P_{1\,ME}$	hp	1.46	5.58	6.52	7.72	9.75	12.10	14.50	1,210,000	136,000
		kW	1.09	4.17	4.87	5.76	7.28	9.03	10.80		
	$P_{1\,TH}$	hp	1.46	5.58	6.52	7.72	8.68	8.85	8.93		
		kW	1.09	4.17	4.87	5.76	6.48	6.60	6.66		
	$T_{2\,ME}$	lb-in	542,000	542,000	542,000	542,000	542,000	542,000	542,000		
		Nm	61,300	61,300	61,300	61,300	61,300	61,300	61,300		
	η	%	24	36	38	39	41	41	42		
2800 70 x 40	$P_{1\,ME}$	hp	1.33	5.52	6.51	7.57	9.51	11.60	13.70	1,350,000	152,000
		kW	1.00	4.12	4.86	5.65	7.10	8.69	10.20		
	$P_{1\,TH}$	hp	1.33	5.52	6.48	6.75	7.30	7.50	7.70		
		kW	1.00	4.12	4.84	5.04	5.45	5.60	5.75		
	$T_{2\,ME}$	lb-in	605,000	605,000	605,000	605,000	605,000	605,000	605,000		
		Nm	68,300	68,300	68,300	68,300	68,300	68,300	68,300		
	η	%	26	36	38	39	41	43	44		
3000 60 x 50	$P_{1\,ME}$	hp	1.25	5.04	5.91	6.83	8.64	10.60	12.70	1,210,000	136,000
		kW	0.93	3.76	4.41	5.10	6.45	7.91	9.45		
	$P_{1\,TH}$	hp	1.25	5.04	5.91	6.83	7.95	8.23	8.50		
		kW	0.93	3.76	4.41	5.10	5.93	6.14	6.34		
	$T_{2\,ME}$	lb-in	542,000	542,000	542,000	542,000	542,000	542,000	542,000		
		Nm	61,300	61,300	61,300	61,300	61,300	61,300	61,300		
	η	%	23	33	35	37	38	39	40		
3500 70 x 50	$P_{1\,ME}$	hp	1.10	4.46	5.25	6.09	7.63	9.39	11.10	1,210,000	136,000
		kW	0.82	3.33	3.92	4.54	5.70	7.01	8.25		
	$P_{1\,TH}$	hp	1.10	4.46	5.25	6.09	7.30	7.50	7.70		
		kW	0.82	3.33	3.92	4.54	5.45	5.60	5.75		
	$T_{2\,ME}$	lb-in	542,000	542,000	542,000	542,000	542,000	542,000	542,000		
		Nm	61,300	61,300	61,300	61,300	61,300	61,300	61,300		
	η	%	22	32	34	35	37	38	39		
3600 60 x 60	$P_{1\,ME}$	hp	1.06	4.24	4.95	5.72	7.23	8.86	10.60	1,190,000	134,000
		kW	0.79	3.17	3.69	4.27	5.40	6.61	7.94		
	$P_{1\,TH}$	hp	1.06	4.24	4.95	5.72	7.08	7.31	7.34		
		kW	0.79	3.17	3.69	4.27	5.28	5.45	5.48		
	$T_{2\,ME}$	lb-in	534,000	534,000	534,000	534,000	534,000	534,000	534,000		
		Nm	60,300	60,300	60,300	60,300	60,300	60,300	60,300		
	η	%	22	32	34	36	37	39	39		
4200 60 x 70	$P_{1\,ME}$	hp	0.93	3.83	4.40	5.10	6.39	7.85	9.25	1,190,000	134,000
		kW	0.69	2.86	3.28	3.81	4.77	5.86	6.90		
	$P_{1\,TH}$	hp	0.93	3.83	4.40	5.10	6.39	7.25	7.45		
		kW	0.69	2.86	3.28	3.81	4.77	5.41	5.56		
	$T_{2\,ME}$	lb-in	534,000	534,000	534,000	534,000	534,000	534,000	534,000		
		Nm	60,300	60,300	60,300	60,300	60,300	60,300	60,300		
	η	%	22	31	33	34	36	37	38		

See Page 8.7 for Rating Definitions

8.000" CD PRI. / 18.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	30.70	101.00	113.00	124.00	138.00	149.00	160.00	2,750,000	311,000
		kW	22.90	75.40	84.40	92.40	103.00	111.00	119.00		
	$P_{1\,TH}$	hp	12.80	29.20	32.50	35.60	41.60	47.40	51.30		
		kW	9.55	21.80	24.20	26.60	31.00	35.40	38.30		
	$T_{2\,ME}$	lb-in	1,060,000	650,000	594,000	550,000	465,000	401,000	361,000		
		Nm	119,000	73,500	67,100	62,100	52,600	45,300	40,800		
	η	%	73	79	80	82	82	83	84		
100 5 x 20	$P_{1\,ME}$	hp	24.90	101.00	113.00	124.00	138.00	149.00	160.00	2,680,000	303,000
		kW	18.60	75.40	84.40	92.40	103.00	111.00	119.00		
	$P_{1\,TH}$	hp	12.80	26.20	29.00	31.70	36.80	41.70	45.10		
		kW	9.55	19.50	21.70	23.70	27.40	31.10	33.70		
	$T_{2\,ME}$	lb-in	1,070,000	826,000	754,000	699,000	591,000	510,000	460,000		
		Nm	121,000	93,300	85,200	79,000	66,800	57,600	52,000		
	η	%	68	75	76	78	78	79	80		
125 5 x 25	$P_{1\,ME}$	hp	20.10	101.00	113.00	124.00	138.00	149.00	160.00	2,560,000	289,000
		kW	15.00	75.40	84.40	92.40	103.00	111.00	119.00		
	$P_{1\,TH}$	hp	12.80	22.10	24.60	27.00	31.50	35.70	38.80		
		kW	9.55	16.50	18.40	20.20	23.50	26.70	29.00		
	$T_{2\,ME}$	lb-in	1,020,000	981,000	896,000	837,000	721,000	623,000	568,000		
		Nm	115,000	111,000	101,000	94,600	81,500	70,400	64,200		
	η	%	64	71	72	75	76	77	79		
200 10 x 20	$P_{1\,ME}$	hp	14.10	71.40	84.20	96.00	110.00	120.00	127.00	2,680,000	303,000
		kW	10.50	53.30	62.90	71.60	81.70	89.90	95.00		
	$P_{1\,TH}$	hp	11.40	21.70	23.50	24.30	26.40	29.40	32.50		
		kW	8.51	16.20	17.50	18.10	19.70	22.00	24.30		
	$T_{2\,ME}$	lb-in	1,070,000	1,070,000	1,070,000	1,020,000	893,000	789,000	699,000		
		Nm	121,000	121,000	121,000	115,000	101,000	89,100	79,000		
	η	%	60	69	72	73	74	75	76		
225 15 x 15	$P_{1\,ME}$	hp	12.60	62.90	71.60	79.30	90.70	100.00	105.00	2,750,000	311,000
		kW	9.41	47.00	53.40	59.20	67.70	74.80	78.70		
	$P_{1\,TH}$	hp	10.10	24.00	24.30	24.30	26.60	28.00	30.30		
		kW	7.54	17.90	18.10	18.10	19.80	20.90	22.60		
	$T_{2\,ME}$	lb-in	1,100,000	1,100,000	1,020,000	945,000	845,000	748,000	653,000		
		Nm	124,000	124,000	115,000	107,000	95,500	84,500	73,800		
	η	%	61	71	72	73	76	76	76		
300 15 x 20	$P_{1\,ME}$	hp	10.00	49.00	60.10	71.40	90.20	100.00	105.00	2,680,000	303,000
		kW	7.48	36.60	44.80	53.30	67.30	74.80	78.70		
	$P_{1\,TH}$	hp	10.00	21.80	21.60	21.70	24.20	25.20	27.10		
		kW	7.48	16.30	16.10	16.20	18.00	18.80	20.20		
	$T_{2\,ME}$	lb-in	1,070,000	1,070,000	1,070,000	1,070,000	1,070,000	949,000	829,000		
		Nm	121,000	121,000	121,000	121,000	121,000	107,000	93,700		
	η	%	56	67	68	69	72	73	73		
375 15 x 25	$P_{1\,ME}$	hp	8.23	39.60	48.50	57.70	72.70	90.70	105.00	2,560,000	289,000
		kW	6.14	29.50	36.20	43.00	54.30	67.70	78.70		
	$P_{1\,TH}$	hp	8.23	18.80	18.70	18.70	20.50	21.20	22.90		
		kW	6.14	14.10	13.90	14.00	15.30	15.80	17.10		
	$T_{2\,ME}$	lb-in	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	985,000		
		Nm	115,000	115,000	115,000	115,000	115,000	115,000	111,000		
	η	%	52	63	64	65	68	69	69		
400 20 x 20	$P_{1\,ME}$	hp	7.98	37.90	46.80	56.30	69.80	77.00	81.20	2,680,000	303,000
		kW	5.95	28.30	34.90	42.00	52.10	57.50	60.60		
	$P_{1\,TH}$	hp	7.98	21.10	22.10	22.40	22.40	24.60	25.50		
		kW	5.95	15.70	16.50	16.70	16.70	18.40	19.00		
	$T_{2\,ME}$	lb-in	1,070,000	1,070,000	1,070,000	1,070,000	1,020,000	927,000	817,000		
		Nm	121,000	121,000	121,000	121,000	115,000	105,000	92,300		
	η	%	53	65	65	65	66	69	70		
450 15 x 30	$P_{1\,ME}$	hp	6.98	33.20	40.70	48.40	61.00	76.00	88.70	2,470,000	279,000
		kW	5.21	24.80	30.40	36.10	45.50	56.70	66.20		
	$P_{1\,TH}$	hp	6.98	14.50	14.40	14.40	15.60	16.10	17.70		
		kW	5.21	10.80	10.70	10.70	11.60	12.00	13.20		
	$T_{2\,ME}$	lb-in	985,000	985,000	985,000	985,000	985,000	985,000	954,000		
		Nm	111,000	111,000	111,000	111,000	111,000	111,000	108,000		
	η	%	50	61	61	62	66	66	66		
500 25 x 20	$P_{1\,ME}$	hp	6.81	31.30	38.60	45.30	56.40	62.30	65.80	2,680,000	303,000
		kW	5.08	23.40	28.80	33.80	42.10	46.50	49.10		
	$P_{1\,TH}$	hp	6.81	18.40	19.20	19.40	21.00	21.20	21.50		
		kW	5.08	13.70	14.30	14.50	15.70	15.90	16.00		
	$T_{2\,ME}$	lb-in	1,070,000	1,070,000	1,070,000	1,070,000	1,020,000	900,000	808,000		
		Nm	121,000	121,000	121,000	121,000	116,000	102,000	91,300		
	η	%	50	63	63	65	66	66	68		

See Page 8.7 for Rating Definitions

Size 80-180 Double Reduction Ratings

8.000" CD PRI. / 18.000" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
600 30 x 20	$P_{1\,ME}$	hp	5.96	28.40	33.50	39.80	47.30	52.30	55.20	2,680,000	303,000
		kW	4.45	21.20	25.00	29.70	35.30	39.00	41.20		
	$P_{1\,TH}$	hp	5.96	16.00	16.80	17.10	17.80	18.10	18.50		
		kW	4.45	11.90	12.50	12.80	13.30	13.50	13.80		
	$T_{2\,ME}$	lb-in	1,070,000	1,070,000	1,070,000	1,070,000	979,000	860,000	756,000		
		Nm	121,000	121,000	121,000	121,000	111,000	97,200	85,500		
	η	%	47	58	61	62	63	63	63		
625 25 x 25	$P_{1\,ME}$	hp	5.63	25.30	31.20	36.60	47.60	59.70	65.80	2,560,000	289,000
		kW	4.20	18.90	23.30	27.30	35.50	44.50	49.10		
	$P_{1\,TH}$	hp	5.63	18.40	19.20	19.10	19.10	19.40	20.90		
		kW	4.20	13.70	14.30	14.30	14.30	14.50	15.60		
	$T_{2\,ME}$	lb-in	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	958,000		
		Nm	115,000	115,000	115,000	115,000	115,000	115,000	108,000		
	η	%	46	59	60	62	63	63	65		
700 10 x 70	$P_{1\,ME}$	hp	3.92	14.40	16.20	17.90	20.60	22.80	24.00	1,670,000	189,000
		kW	2.92	10.70	12.10	13.40	15.30	17.00	17.90		
	$P_{1\,TH}$	hp	2.63	9.69	9.85	10.10	11.10	11.30	11.50		
		kW	1.96	7.23	7.35	7.54	8.28	8.43	8.58		
	$T_{2\,ME}$	lb-in	723,000	593,000	558,000	522,000	466,000	412,000	362,000		
		Nm	81,700	67,000	63,000	59,000	52,700	46,600	40,900		
	η	%	42	54	56	57	59	59	60		
750 30 x 25	$P_{1\,ME}$	hp	4.93	23.00	27.10	32.10	41.60	52.30	55.20	2,560,000	289,000
		kW	3.68	17.10	20.20	24.00	31.00	39.00	41.20		
	$P_{1\,TH}$	hp	4.93	16.00	16.80	17.10	17.80	18.10	18.50		
		kW	3.68	11.90	12.50	12.80	13.30	13.50	13.80		
	$T_{2\,ME}$	lb-in	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	896,000		
		Nm	115,000	115,000	115,000	115,000	115,000	115,000	101,000		
	η	%	44	54	57	58	60	60	60		
800 40 x 20	$P_{1\,ME}$	hp	5.01	22.50	26.50	31.10	35.70	39.50	41.60	2,680,000	303,000
		kW	3.74	16.80	19.80	23.20	26.60	29.50	31.10		
	$P_{1\,TH}$	hp	4.58	13.50	14.40	14.70	15.70	15.90	16.20		
		kW	3.42	10.10	10.70	11.00	11.70	11.90	12.10		
	$T_{2\,ME}$	lb-in	1,070,000	1,070,000	1,070,000	1,050,000	930,000	822,000	720,000		
		Nm	121,000	121,000	121,000	118,000	105,000	92,800	81,400		
	η	%	42	55	57	58	59	60	60		
900 30 x 30	$P_{1\,ME}$	hp	4.22	19.50	22.80	27.00	34.90	44.00	52.80	2,470,000	279,000
		kW	3.15	14.50	17.00	20.10	26.10	32.80	39.40		
	$P_{1\,TH}$	hp	4.22	15.10	15.20	15.30	15.40	15.40	15.60		
		kW	3.15	11.30	11.30	11.40	11.50	11.50	11.70		
	$T_{2\,ME}$	lb-in	985,000	985,000	985,000	985,000	985,000	985,000	985,000		
		Nm	111,000	111,000	111,000	111,000	111,000	111,000	111,000		
	η	%	41	52	55	56	57	57	58		
1000 50 x 20	$P_{1\,ME}$	hp	4.53	18.90	22.40	25.00	28.70	31.80	33.50	2,680,000	303,000
		kW	3.38	14.10	16.70	18.70	21.40	23.70	25.00		
	$P_{1\,TH}$	hp	3.67	11.30	11.90	12.20	13.30	13.90	14.40		
		kW	2.74	8.43	8.88	9.10	9.93	10.30	10.70		
	$T_{2\,ME}$	lb-in	1,070,000	1,070,000	1,070,000	998,000	891,000	789,000	693,000		
		Nm	121,000	121,000	121,000	113,000	101,000	89,200	78,400		
	η	%	37	52	54	55	57	57	58		
1050 70 x 15	$P_{1\,ME}$	hp	3.92	14.40	16.20	17.90	20.60	22.80	24.00	2,390,000	271,000
		kW	2.92	10.70	12.10	13.40	15.30	17.00	17.90		
	$P_{1\,TH}$	hp	2.63	9.69	9.85	10.10	11.10	11.30	11.50		
		kW	1.96	7.23	7.35	7.54	8.28	8.43	8.58		
	$T_{2\,ME}$	lb-in	1,000,000	841,000	795,000	745,000	667,000	592,000	523,000		
		Nm	113,000	95,100	89,800	84,200	75,300	66,900	59,200		
	η	%	39	51	53	55	56	57	58		
1200 40 x 30	$P_{1\,ME}$	hp	3.57	15.60	18.20	21.70	27.80	34.80	41.60	2,470,000	279,000
		kW	2.66	11.60	13.60	16.20	20.70	26.00	31.10		
	$P_{1\,TH}$	hp	3.57	13.50	14.40	14.70	15.70	15.90	16.20		
		kW	2.66	10.10	10.70	11.00	11.70	11.90	12.10		
	$T_{2\,ME}$	lb-in	985,000	985,000	985,000	985,000	985,000	985,000	981,000		
		Nm	111,000	111,000	111,000	111,000	111,000	111,000	111,000		
	η	%	36	49	51	52	54	54	55		

See Page 8.7 for Rating Definitions

8.000" CD PRI. / 18.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1250 50 x 25	$P_{1\,ME}$	hp	3.75	15.40	18.10	21.60	27.80	31.80	33.50	2,560,000	289,000
		kW	2.80	11.50	13.50	16.10	20.70	23.70	25.00		
	$P_{1\,TH}$	hp	3.67	11.30	11.90	12.20	13.30	13.90	14.40		
		kW	2.74	8.43	8.88	9.10	9.93	10.30	10.70		
	$T_{2\,ME}$	lb-in	1,020,000	1,020,000	1,020,000	1,020,000	1,020,000	934,000	821,000		
		Nm	115,000	115,000	115,000	115,000	115,000	106,000	92,800		
	η	%	35	49	51	52	54	54	54		
1400 20 x 70	$P_{1\,ME}$	hp	3.37	14.40	16.20	17.90	20.60	22.80	24.00	2,680,000	303,000
		kW	2.52	10.70	12.10	13.40	15.30	17.00	17.90		
	$P_{1\,TH}$	hp	2.63	9.69	9.85	10.10	11.10	11.30	11.50		
		kW	1.96	7.23	7.35	7.54	8.28	8.43	8.58		
	$T_{2\,ME}$	lb-in	1,070,000	1,030,000	977,000	922,000	832,000	740,000	654,000		
		Nm	121,000	117,000	110,000	104,000	94,000	83,600	73,900		
	η	%	36	47	49	51	53	53	54		
1500 50 x 30	$P_{1\,ME}$	hp	3.24	13.20	15.50	18.40	23.40	29.10	33.50	2,470,000	279,000
		kW	2.42	9.81	11.60	13.70	17.50	21.70	25.00		
	$P_{1\,TH}$	hp	3.24	11.30	11.90	12.20	13.30	13.90	14.40		
		kW	2.42	8.43	8.88	9.10	9.93	10.30	10.70		
	$T_{2\,ME}$	lb-in	985,000	985,000	985,000	985,000	985,000	985,000	944,000		
		Nm	111,000	111,000	111,000	111,000	111,000	111,000	107,000		
	η	%	32	46	48	49	51	52	52		
1600 40 x 40	$P_{1\,ME}$	hp	2.83	12.10	14.10	16.60	21.10	26.40	31.70	2,250,000	254,000
		kW	2.11	9.03	10.50	12.40	15.70	19.70	23.70		
	$P_{1\,TH}$	hp	2.83	12.10	12.50	13.00	13.30	13.50	13.60		
		kW	2.11	9.03	9.34	9.69	9.95	10.10	10.10		
	$T_{2\,ME}$	lb-in	895,000	895,000	895,000	895,000	895,000	895,000	895,000		
		Nm	101,000	101,000	101,000	101,000	101,000	101,000	101,000		
	η	%	31	43	45	47	48	49	49		
1750 25 x 70	$P_{1\,ME}$	hp	2.80	12.10	14.40	16.80	20.60	22.80	24.00	2,560,000	289,000
		kW	2.09	9.06	10.70	12.50	15.30	17.00	17.90		
	$P_{1\,TH}$	hp	2.63	9.69	9.85	10.10	11.10	11.30	11.50		
		kW	1.96	7.23	7.35	7.54	8.28	8.43	8.58		
	$T_{2\,ME}$	lb-in	1,020,000	1,020,000	1,020,000	1,020,000	984,000	875,000	774,000		
		Nm	115,000	115,000	115,000	115,000	111,000	98,900	87,500		
	η	%	33	44	46	48	50	51	51		
1800 60 x 30	$P_{1\,ME}$	hp	2.77	11.80	13.90	16.20	20.70	25.50	28.00	2,470,000	279,000
		kW	2.07	8.81	10.40	12.10	15.40	19.00	20.90		
	$P_{1\,TH}$	hp	2.77	9.85	10.50	10.90	12.20	12.60	12.90		
		kW	2.07	7.35	7.84	8.13	9.10	9.37	9.63		
	$T_{2\,ME}$	lb-in	985,000	985,000	985,000	985,000	985,000	985,000	904,000		
		Nm	111,000	111,000	111,000	111,000	111,000	111,000	102,000		
	η	%	31	43	45	47	48	49	50		
2000 50 x 40	$P_{1\,ME}$	hp	2.56	10.30	12.00	14.20	17.80	22.10	26.50	2,250,000	254,000
		kW	1.91	7.66	8.98	10.60	13.30	16.50	19.80		
	$P_{1\,TH}$	hp	2.56	10.30	11.90	12.20	13.30	13.90	14.00		
		kW	1.91	7.66	8.88	9.10	9.93	10.30	10.50		
	$T_{2\,ME}$	lb-in	895,000	895,000	895,000	895,000	895,000	895,000	895,000		
		Nm	101,000	101,000	101,000	101,000	101,000	101,000	101,000		
	η	%	28	40	42	43	46	47	47		
2400 60 x 40	$P_{1\,ME}$	hp	2.19	9.24	10.90	12.60	15.90	19.40	23.10	2,250,000	254,000
		kW	1.63	6.90	8.11	9.41	11.90	14.50	17.30		
	$P_{1\,TH}$	hp	2.19	9.24	10.50	10.90	12.20	12.60	12.90		
		kW	1.63	6.90	7.84	8.13	9.10	9.37	9.63		
	$T_{2\,ME}$	lb-in	895,000	895,000	895,000	895,000	895,000	895,000	895,000		
		Nm	101,000	101,000	101,000	101,000	101,000	101,000	101,000		
	η	%	27	37	39	41	43	44	45		
2500 50 x 50	$P_{1\,ME}$	hp	2.10	8.26	9.65	11.40	14.40	17.90	21.40	2,010,000	227,000
		kW	1.56	6.16	7.20	8.52	10.80	13.40	16.00		
	$P_{1\,TH}$	hp	2.10	8.26	9.65	11.40	12.20	12.40	12.50		
		kW	1.56	6.16	7.20	8.52	9.07	9.24	9.32		
	$T_{2\,ME}$	lb-in	802,000	802,000	802,000	802,000	802,000	802,000	802,000		
		Nm	90,600	90,600	90,600	90,600	90,600	90,600	90,600		
	η	%	24	36	38	39	41	41	42		

See Page 8.7 for Rating Definitions

Size 80-180 Double Reduction Ratings

8.000" CD PRI. / 18.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
2800 40 x 70	$P_{1\,ME}$	hp	1.91	8.16	9.63	11.20	14.10	17.20	20.20	2,250,000	254,000
		kW	1.43	6.09	7.18	8.36	10.50	12.90	15.10		
	$P_{1\,TH}$	hp	1.91	8.16	9.63	10.10	11.10	11.30	11.50		
		kW	1.43	6.09	7.18	7.54	8.28	8.43	8.58		
	$T_{2\,ME}$	lb-in	895,000	895,000	895,000	895,000	895,000	895,000	895,000		
		Nm	101,000	101,000	101,000	101,000	101,000	101,000	101,000		
	η	%	26	36	38	39	41	43	44		
3000 60 x 50	$P_{1\,ME}$	hp	1.79	7.46	8.74	10.10	12.80	15.70	18.70	2,010,000	227,000
		kW	1.34	5.57	6.52	7.54	9.54	11.70	14.00		
	$P_{1\,TH}$	hp	1.79	7.46	8.74	10.10	12.20	12.60	12.90		
		kW	1.34	5.57	6.52	7.54	9.10	9.37	9.63		
	$T_{2\,ME}$	lb-in	802,000	802,000	802,000	802,000	802,000	802,000	802,000		
		Nm	90,600	90,600	90,600	90,600	90,600	90,600	90,600		
	η	%	24	33	35	37	38	39	40		
3600 60 x 60	$P_{1\,ME}$	hp	1.65	6.28	7.32	8.46	10.70	13.10	15.70	1,980,000	224,000
		kW	1.23	4.69	5.47	6.32	7.98	9.78	11.70		
	$P_{1\,TH}$	hp	1.65	6.28	7.32	8.46	9.91	10.20	10.30		
		kW	1.23	4.69	5.47	6.32	7.40	7.63	7.67		
	$T_{2\,ME}$	lb-in	790,000	790,000	790,000	790,000	790,000	790,000	790,000		
		Nm	89,200	89,200	89,200	89,200	89,200	89,200	89,200		
	η	%	21	32	34	36	37	39	39		
4200 60 x 70	$P_{1\,ME}$	hp	1.45	5.66	6.51	7.54	9.45	11.60	13.70	1,980,000	224,000
		kW	1.08	4.23	4.85	5.63	7.05	8.67	10.20		
	$P_{1\,TH}$	hp	1.45	5.66	6.51	7.54	9.45	10.10	10.40		
		kW	1.08	4.23	4.85	5.63	7.05	7.57	7.78		
	$T_{2\,ME}$	lb-in	790,000	790,000	790,000	790,000	790,000	790,000	790,000		
		Nm	89,200	89,200	89,200	89,200	89,200	89,200	89,200		
	η	%	21	31	33	34	36	37	38		

See Page 8.7 for Rating Definitions

10.000" CD PRI. / 21.837" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
70 5 x 14	$P_{1\,ME}$	hp	47.30	176.00	195.00	211.00	230.00	251.00	269.00	4,690,000	530,000
		kW	35.30	131.00	146.00	158.00	172.00	188.00	201.00		
	$P_{1\,TH}$	hp	23.60	45.30	50.40	55.30	64.50	73.50	79.80		
		kW	17.60	33.80	37.60	41.30	48.10	54.90	59.60		
	$T_{2\,ME}$	lb-in	1,560,000	1,090,000	984,000	903,000	742,000	651,000	583,000		
		Nm	177,000	123,000	111,000	102,000	83,900	73,600	65,800		
	η	%	75	81	82	84	84	85	86		
100 5 x 20	$P_{1\,ME}$	hp	34.20	173.00	195.00	211.00	230.00	251.00	269.00	4,500,000	508,000
		kW	25.50	129.00	146.00	158.00	172.00	188.00	201.00		
	$P_{1\,TH}$	hp	23.60	39.30	43.50	47.40	55.00	62.60	67.90		
		kW	17.60	29.40	32.50	35.40	41.10	46.80	50.70		
	$T_{2\,ME}$	lb-in	1,500,000	1,450,000	1,330,000	1,220,000	1,000,000	880,000	790,000		
		Nm	169,000	163,000	150,000	138,000	113,000	99,400	89,200		
	η	%	70	77	78	80	80	81	82		
125 5 x 25	$P_{1\,ME}$	hp	39.50	176.00	195.00	211.00	230.00	251.00	269.00	6,150,000	695,000
		kW	29.50	131.00	146.00	158.00	172.00	188.00	201.00		
	$P_{1\,TH}$	hp	23.60	33.40	37.20	40.80	47.50	54.10	58.70		
		kW	17.60	24.90	27.70	30.40	35.50	40.30	43.80		
	$T_{2\,ME}$	lb-in	2,050,000	1,740,000	1,580,000	1,460,000	1,220,000	1,080,000	975,000		
		Nm	232,000	197,000	178,000	165,000	138,000	122,000	110,000		
	η	%	66	73	74	76	78	79	81		
140 10 x 14	$P_{1\,ME}$	hp	26.20	135.00	151.00	166.00	186.00	200.00	215.00	4,690,000	530,000
		kW	19.60	101.00	113.00	124.00	139.00	150.00	160.00		
	$P_{1\,TH}$	hp	21.00	37.00	39.70	41.50	45.60	51.10	56.70		
		kW	15.70	27.60	29.60	31.00	34.00	38.20	42.30		
	$T_{2\,ME}$	lb-in	1,560,000	1,550,000	1,450,000	1,330,000	1,150,000	994,000	892,000		
		Nm	177,000	175,000	164,000	150,000	130,000	112,000	101,000		
	η	%	68	75	78	79	81	82	82		
200 10 x 20	$P_{1\,ME}$	hp	19.30	98.20	116.00	139.00	174.00	200.00	215.00	4,500,000	508,000
		kW	14.40	73.30	86.50	104.00	130.00	150.00	160.00		
	$P_{1\,TH}$	hp	19.30	32.70	35.30	36.60	39.60	44.10	48.60		
		kW	14.40	24.40	26.40	27.30	29.60	32.90	36.30		
	$T_{2\,ME}$	lb-in	1,500,000	1,500,000	1,500,000	1,500,000	1,450,000	1,340,000	1,200,000		
		Nm	169,000	169,000	169,000	169,000	164,000	151,000	136,000		
	η	%	62	70	74	75	76	77	78		
250 10 x 25	$P_{1\,ME}$	hp	22.40	113.00	134.00	160.00	186.00	200.00	215.00	6,150,000	695,000
		kW	16.70	84.60	99.60	119.00	139.00	150.00	160.00		
	$P_{1\,TH}$	hp	21.00	28.30	30.20	31.10	33.60	37.70	41.80		
		kW	15.70	21.10	22.50	23.20	25.10	28.10	31.20		
	$T_{2\,ME}$	lb-in	2,050,000	2,050,000	2,050,000	2,050,000	1,840,000	1,590,000	1,440,000		
		Nm	232,000	232,000	232,000	232,000	208,000	180,000	163,000		
	η	%	58	67	70	71	72	73	75		
300 15 x 20	$P_{1\,ME}$	hp	13.80	67.40	82.60	98.20	124.00	155.00	178.00	4,500,000	508,000
		kW	10.30	50.30	61.60	73.30	92.70	116.00	133.00		
	$P_{1\,TH}$	hp	13.80	32.70	32.50	32.70	36.40	37.90	40.70		
		kW	10.30	24.40	24.30	24.40	27.10	28.30	30.40		
	$T_{2\,ME}$	lb-in	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,430,000		
		Nm	169,000	169,000	169,000	169,000	169,000	169,000	162,000		
	η	%	58	68	69	70	73	74	74		
400 20 x 20	$P_{1\,ME}$	hp	10.90	52.10	64.30	77.40	101.00	122.00	137.00	4,500,000	508,000
		kW	8.16	38.90	48.00	57.80	75.20	90.90	102.00		
	$P_{1\,TH}$	hp	10.90	32.60	33.20	33.60	33.60	37.00	38.20		
		kW	8.16	24.30	24.80	25.10	25.10	27.60	28.50		
	$T_{2\,ME}$	lb-in	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,410,000		
		Nm	169,000	169,000	169,000	169,000	169,000	169,000	159,000		
	η	%	54	66	67	67	68	71	71		
450 15 x 30	$P_{1\,ME}$	hp	9.59	45.70	56.00	66.60	83.90	105.00	121.00	4,160,000	470,000
		kW	7.15	34.10	41.80	49.70	62.60	78.10	90.60		
	$P_{1\,TH}$	hp	9.59	21.80	21.60	21.60	23.40	24.20	26.60		
		kW	7.15	16.30	16.10	16.20	17.50	18.00	19.90		
	$T_{2\,ME}$	lb-in	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,340,000		
		Nm	157,000	157,000	157,000	157,000	157,000	157,000	151,000		
	η	%	51	62	63	64	67	68	68		
500 25 x 20	$P_{1\,ME}$	hp	12.90	60.20	74.20	89.30	116.00	128.00	137.00	6,150,000	695,000
		kW	9.63	44.90	55.40	66.70	86.80	95.30	102.00		
	$P_{1\,TH}$	hp	12.90	28.50	28.90	29.20	29.20	31.60	32.50		
		kW	9.63	21.30	21.60	21.80	21.80	23.60	24.20		
	$T_{2\,ME}$	lb-in	2,050,000	2,050,000	2,050,000	2,050,000	2,050,000	1,870,000	1,670,000		
		Nm	232,000	232,000	232,000	232,000	232,000	211,000	189,000		
	η	%	50	63	63	63	64	67	68		

See Page 8.7 for Rating Definitions

Size 100-220 Double Reduction Ratings

10.000" CD PRI. / 21.837" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
600 30 x 20	$P_{1\,ME}$	hp	8.11	38.90	46.00	54.60	70.70	86.50	92.90	4,500,000	508,000
		kW	6.05	29.10	34.30	40.70	52.80	64.50	69.30		
	$P_{1\,TH}$	hp	8.11	29.20	30.60	31.80	32.50	33.00	33.60		
		kW	6.05	21.80	22.80	23.70	24.30	24.70	25.10		
	$T_{2\,ME}$	lb-in	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,460,000	1,300,000		
		Nm	169,000	169,000	169,000	169,000	169,000	165,000	147,000		
	η	%	49	59	62	63	65	65	65		
750 30 x 25	$P_{1\,ME}$	hp	9.53	45.00	53.10	63.00	80.90	86.50	92.90	6,150,000	695,000
		kW	7.11	33.60	39.60	47.00	60.40	64.50	69.30		
	$P_{1\,TH}$	hp	9.53	29.20	29.70	29.80	30.10	30.30	30.70		
		kW	7.11	21.80	22.20	22.30	22.50	22.60	22.90		
	$T_{2\,ME}$	lb-in	2,050,000	2,050,000	2,050,000	2,050,000	2,030,000	1,730,000	1,540,000		
		Nm	232,000	232,000	232,000	232,000	230,000	195,000	175,000		
	η	%	45	56	59	60	61	61	62		
800 40 x 20	$P_{1\,ME}$	hp	6.78	30.80	36.40	43.50	56.10	65.20	70.20	4,500,000	508,000
		kW	5.06	23.00	27.10	32.50	41.90	48.60	52.40		
	$P_{1\,TH}$	hp	6.78	24.70	26.20	34.60	35.40	34.00	29.50		
		kW	5.06	18.40	19.60	25.80	26.40	25.30	22.00		
	$T_{2\,ME}$	lb-in	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,390,000	1,240,000		
		Nm	169,000	169,000	169,000	169,000	169,000	157,000	141,000		
	η	%	44	56	59	59	61	61	62		
900 30 x 30	$P_{1\,ME}$	hp	5.67	26.70	31.30	37.10	48.00	60.40	72.40	4,160,000	470,000
		kW	4.23	19.90	23.40	27.70	35.80	45.10	54.10		
	$P_{1\,TH}$	hp	5.67	22.60	22.80	22.90	23.10	23.20	23.50		
		kW	4.23	16.90	17.00	17.10	17.20	17.30	17.50		
	$T_{2\,ME}$	lb-in	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000		
		Nm	157,000	157,000	157,000	157,000	157,000	157,000	157,000		
	η	%	43	53	56	57	59	59	59		
1000 50 x 20	$P_{1\,ME}$	hp	6.09	25.90	30.60	36.60	47.00	52.40	56.30	4,500,000	508,000
		kW	4.55	19.40	22.90	27.30	35.10	39.10	42.00		
	$P_{1\,TH}$	hp	6.09	20.60	21.70	22.80	24.30	25.20	26.20		
		kW	4.55	15.40	16.20	17.00	18.10	18.80	19.60		
	$T_{2\,ME}$	lb-in	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,340,000	1,200,000		
		Nm	169,000	169,000	169,000	169,000	169,000	151,000	135,000		
	η	%	39	53	56	57	58	59	59		
1200 40 x 30	$P_{1\,ME}$	hp	4.75	21.30	25.00	29.70	38.10	47.70	57.40	4,160,000	470,000
		kW	3.54	15.90	18.70	22.20	28.40	35.60	42.80		
	$P_{1\,TH}$	hp	4.75	21.30	22.40	23.10	23.70	24.10	24.30		
		kW	3.54	15.90	16.70	17.30	17.70	18.00	18.10		
	$T_{2\,ME}$	lb-in	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000		
		Nm	157,000	157,000	157,000	157,000	157,000	157,000	157,000		
	η	%	39	50	53	54	55	56	56		
1500 50 x 30	$P_{1\,ME}$	hp	4.27	18.00	21.20	25.20	32.10	39.90	47.90	4,160,000	470,000
		kW	3.19	13.40	15.80	18.80	23.90	29.80	35.70		
	$P_{1\,TH}$	hp	4.27	18.00	21.20	22.80	24.00	24.70	25.00		
		kW	3.19	13.40	15.80	17.00	17.90	18.40	18.60		
	$T_{2\,ME}$	lb-in	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000		
		Nm	157,000	157,000	157,000	157,000	157,000	157,000	157,000		
	η	%	34	47	50	51	53	53	54		
1600 40 x 40	$P_{1\,ME}$	hp	3.79	16.60	19.30	22.80	29.00	36.20	43.60	3,780,000	427,000
		kW	2.83	12.40	14.40	17.00	21.60	27.00	32.50		
	$P_{1\,TH}$	hp	3.79	16.60	18.90	19.60	20.10	20.40	20.50		
		kW	2.83	12.40	14.10	14.60	15.00	15.20	15.30		
	$T_{2\,ME}$	lb-in	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000		
		Nm	142,000	142,000	142,000	142,000	142,000	142,000	142,000		
	η	%	33	44	47	48	50	50	50		
1750 70 x 25	$P_{1\,ME}$	hp	5.30	23.70	28.10	31.00	35.10	37.60	40.30	6,150,000	695,000
		kW	3.95	17.70	21.00	23.10	26.20	28.00	30.10		
	$P_{1\,TH}$	hp	4.94	16.90	18.00	18.70	20.20	20.80	21.30		
		kW	3.69	12.60	13.40	14.00	15.10	15.50	15.90		
	$T_{2\,ME}$	lb-in	2,050,000	2,050,000	2,050,000	1,930,000	1,730,000	1,480,000	1,340,000		
		Nm	232,000	232,000	232,000	219,000	195,000	168,000	151,000		
	η	%	35	45	48	49	51	52	53		

See Page 8.7 for Rating Definitions

10.000" CD PRI. / 21.837" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
1800 60 x 30	$P_{1\,ME}$	hp	3.63	16.10	19.10	22.20	28.30	34.90	41.70	4,160,000	470,000
		kW	2.71	12.00	14.20	16.60	21.10	26.00	31.20		
	$P_{1\,TH}$	hp	3.63	16.10	19.10	20.20	22.10	22.90	23.60		
		kW	2.71	12.00	14.20	15.10	16.50	17.10	17.60		
	$T_{2\,ME}$	lb-in	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000		
		Nm	157,000	157,000	157,000	157,000	157,000	157,000	157,000		
	η	%	34	44	46	48	50	51	51		
2000 50 x 40	$P_{1\,ME}$	hp	3.41	14.10	16.50	19.50	24.50	30.30	36.40	3,780,000	427,000
		kW	2.54	10.50	12.30	14.60	18.30	22.60	27.20		
	$P_{1\,TH}$	hp	3.41	14.10	16.50	19.50	20.40	20.90	21.20		
		kW	2.54	10.50	12.30	14.60	15.20	15.60	15.80		
	$T_{2\,ME}$	lb-in	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000		
		Nm	142,000	142,000	142,000	142,000	142,000	142,000	142,000		
	η	%	29	41	44	45	47	48	48		
2100 70 x 30	$P_{1\,ME}$	hp	3.18	14.10	16.80	19.70	24.90	30.70	36.40	4,160,000	470,000
		kW	2.37	10.60	12.60	14.70	18.60	22.90	27.20		
	$P_{1\,TH}$	hp	3.18	14.10	16.80	18.70	20.20	20.80	21.30		
		kW	2.37	10.60	12.60	14.00	15.10	15.50	15.90		
	$T_{2\,ME}$	lb-in	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000		
		Nm	157,000	157,000	157,000	157,000	157,000	157,000	157,000		
	η	%	33	43	45	46	48	49	50		
2400 60 x 40	$P_{1\,ME}$	hp	2.89	12.70	14.90	17.30	21.80	26.60	31.70	3,780,000	427,000
		kW	2.16	9.44	11.10	12.90	16.30	19.80	23.70		
	$P_{1\,TH}$	hp	2.89	12.70	14.90	17.30	20.40	21.40	21.80		
		kW	2.16	9.44	11.10	12.90	15.20	16.00	16.30		
	$T_{2\,ME}$	lb-in	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000		
		Nm	142,000	142,000	142,000	142,000	142,000	142,000	142,000		
	η	%	29	38	40	42	44	46	46		
2800 70 x 40	$P_{1\,ME}$	hp	2.53	11.20	13.20	15.40	19.30	23.60	27.70	3,780,000	427,000
		kW	1.89	8.34	9.84	11.50	14.40	17.60	20.70		
	$P_{1\,TH}$	hp	2.53	11.20	13.20	15.40	19.30	20.80	21.30		
		kW	1.89	8.34	9.84	11.50	14.40	15.50	15.90		
	$T_{2\,ME}$	lb-in	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000		
		Nm	142,000	142,000	142,000	142,000	142,000	142,000	142,000		
	η	%	28	37	39	40	43	44	45		
3000 60 x 50	$P_{1\,ME}$	hp	2.39	10.20	12.00	13.90	17.50	21.50	25.70	3,390,000	383,000
		kW	1.79	7.62	8.94	10.30	13.10	16.00	19.20		
	$P_{1\,TH}$	hp	2.39	10.20	12.00	13.90	17.50	19.10	19.40		
		kW	1.79	7.62	8.94	10.30	13.10	14.30	14.50		
	$T_{2\,ME}$	lb-in	1,130,000	1,130,000	1,130,000	1,130,000	1,130,000	1,130,000	1,130,000		
		Nm	128,000	128,000	128,000	128,000	128,000	128,000	128,000		
	η	%	25	34	36	38	39	40	41		
3500 70 x 50	$P_{1\,ME}$	hp	2.10	9.04	10.60	12.30	15.50	19.00	22.40	3,390,000	383,000
		kW	1.56	6.74	7.94	9.21	11.60	14.20	16.70		
	$P_{1\,TH}$	hp	2.10	9.04	10.60	12.30	15.50	19.00	19.50		
		kW	1.56	6.74	7.94	9.21	11.60	14.20	14.60		
	$T_{2\,ME}$	lb-in	1,130,000	1,130,000	1,130,000	1,130,000	1,130,000	1,130,000	1,130,000		
		Nm	128,000	128,000	128,000	128,000	128,000	128,000	128,000		
	η	%	24	33	35	36	38	39	40		

See Page 8.7 for Rating Definitions

Size 100-240 Double Reduction Ratings

10.000" CD PRI. / 24.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 5 x 15	$P_{1\,ME}$	hp	55.40	176.00	195.00	211.00	230.00	251.00	269.00	5,370,000	607,000
		kW	41.30	131.00	146.00	158.00	172.00	188.00	201.00		
	$P_{1\,TH}$	hp	23.60	51.50	57.30	62.80	73.10	83.10	90.00		
		kW	17.60	38.40	42.70	46.80	54.50	62.00	67.20		
	$T_{2\,ME}$	lb-in	1,940,000	1,160,000	1,040,000	958,000	788,000	692,000	620,000		
		Nm	220,000	131,000	118,000	108,000	89,000	78,100	70,100		
	η	%	74	81	82	83	83	84	85		
100 5 x 20	$P_{1\,ME}$	hp	43.20	176.00	195.00	211.00	230.00	251.00	269.00	5,680,000	642,000
		kW	32.20	131.00	146.00	158.00	172.00	188.00	201.00		
	$P_{1\,TH}$	hp	23.60	46.10	51.00	55.80	64.70	73.40	79.40		
		kW	17.60	34.40	38.10	41.60	48.30	54.80	59.20		
	$T_{2\,ME}$	lb-in	1,890,000	1,470,000	1,330,000	1,220,000	1,000,000	880,000	790,000		
		Nm	214,000	166,000	150,000	138,000	113,000	99,400	89,200		
	η	%	70	77	78	80	80	81	82		
150 10 x 15	$P_{1\,ME}$	hp	35.10	176.00	195.00	211.00	230.00	251.00	269.00	5,460,000	616,000
		kW	26.20	131.00	146.00	158.00	172.00	188.00	201.00		
	$P_{1\,TH}$	hp	23.60	38.90	43.30	47.50	55.40	63.00	68.40		
		kW	17.60	29.00	32.30	35.40	41.30	47.00	51.00		
	$T_{2\,ME}$	lb-in	1,820,000	1,740,000	1,580,000	1,460,000	1,220,000	1,080,000	975,000		
		Nm	205,000	197,000	178,000	165,000	138,000	122,000	110,000		
	η	%	66	73	74	76	78	79	81		
200 10 x 20	$P_{1\,ME}$	hp	30.70	135.00	151.00	166.00	186.00	200.00	215.00	5,830,000	659,000
		kW	22.90	101.00	113.00	124.00	139.00	150.00	160.00		
	$P_{1\,TH}$	hp	21.00	42.80	45.40	47.30	51.80	58.10	64.30		
		kW	15.70	31.90	33.80	35.30	38.70	43.30	48.00		
	$T_{2\,ME}$	lb-in	1,940,000	1,640,000	1,540,000	1,410,000	1,220,000	1,050,000	947,000		
		Nm	220,000	186,000	174,000	160,000	138,000	119,000	107,000		
	η	%	67	75	78	78	80	81	82		
200 10 x 20	$P_{1\,ME}$	hp	24.40	124.00	146.00	166.00	186.00	200.00	215.00	5,680,000	642,000
		kW	18.20	92.60	109.00	124.00	139.00	150.00	160.00		
	$P_{1\,TH}$	hp	21.00	38.20	41.30	42.80	46.40	51.70	57.10		
		kW	15.70	28.50	30.80	31.90	34.60	38.60	42.60		
	$T_{2\,ME}$	lb-in	1,890,000	1,890,000	1,890,000	1,790,000	1,550,000	1,340,000	1,200,000		
		Nm	214,000	214,000	214,000	203,000	175,000	151,000	136,000		
	η	%	62	70	74	75	76	77	78		
250 10 x 25	$P_{1\,ME}$	hp	19.90	101.00	118.00	142.00	177.00	200.00	215.00	5,460,000	616,000
		kW	14.80	75.00	88.40	106.00	132.00	150.00	160.00		
	$P_{1\,TH}$	hp	19.90	32.90	35.10	36.10	39.10	43.90	48.70		
		kW	14.80	24.60	26.20	27.00	29.20	32.80	36.30		
	$T_{2\,ME}$	lb-in	1,820,000	1,820,000	1,820,000	1,820,000	1,750,000	1,590,000	1,440,000		
		Nm	205,000	205,000	205,000	205,000	197,000	180,000	163,000		
	η	%	58	67	70	71	72	73	75		
300 15 x 20	$P_{1\,ME}$	hp	17.40	85.00	104.00	124.00	155.00	166.00	178.00	5,680,000	642,000
		kW	13.00	63.50	77.80	92.60	115.00	124.00	133.00		
	$P_{1\,TH}$	hp	17.40	38.30	38.00	38.20	42.50	44.30	47.70		
		kW	13.00	28.60	28.40	28.50	31.70	33.00	35.60		
	$T_{2\,ME}$	lb-in	1,890,000	1,890,000	1,890,000	1,890,000	1,870,000	1,600,000	1,430,000		
		Nm	214,000	214,000	214,000	214,000	211,000	181,000	162,000		
	η	%	58	68	69	70	73	74	74		
400 20 x 20	$P_{1\,ME}$	hp	13.80	65.80	81.20	97.70	119.00	128.00	137.00	5,680,000	642,000
		kW	10.30	49.10	60.60	72.90	88.90	95.30	102.00		
	$P_{1\,TH}$	hp	13.80	38.10	38.90	39.30	39.30	43.30	44.70		
		kW	10.30	28.50	29.00	29.30	29.30	32.30	33.40		
	$T_{2\,ME}$	lb-in	1,890,000	1,890,000	1,890,000	1,890,000	1,770,000	1,570,000	1,410,000		
		Nm	214,000	214,000	214,000	214,000	200,000	178,000	159,000		
	η	%	54	66	67	67	68	71	71		
450 15 x 30	$P_{1\,ME}$	hp	12.10	57.80	70.90	84.30	106.00	132.00	153.00	5,260,000	594,000
		kW	9.05	43.10	52.90	62.90	79.20	98.70	114.00		
	$P_{1\,TH}$	hp	12.10	25.50	25.30	25.30	27.40	28.20	31.10		
		kW	9.05	19.00	18.90	18.90	20.40	21.10	23.20		
	$T_{2\,ME}$	lb-in	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	1,680,000		
		Nm	198,000	198,000	198,000	198,000	198,000	198,000	190,000		
	η	%	51	62	63	64	67	68	68		
500 25 x 20	$P_{1\,ME}$	hp	11.80	54.30	66.90	78.50	96.50	103.00	111.00	5,680,000	642,000
		kW	8.78	40.50	49.90	58.60	72.00	77.20	82.70		
	$P_{1\,TH}$	hp	11.80	33.70	35.20	36.30	37.40	38.30	39.30		
		kW	8.78	25.10	26.30	27.10	27.90	28.60	29.30		
	$T_{2\,ME}$	lb-in	1,890,000	1,890,000	1,890,000	1,890,000	1,790,000	1,530,000	1,390,000		
		Nm	214,000	214,000	214,000	214,000	202,000	173,000	157,000		
	η	%	51	64	65	67	68	68	70		

See Page 8.7 for Rating Definitions

10.000" CD PRI. / 24.000" CD SEC.

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
600 30 x 20	$P_{1\,ME}$	hp	10.30	49.20	58.10	68.90	80.90	86.50	92.90	5,680,000	642,000
		kW	7.68	36.70	43.30	51.40	60.40	64.50	69.30		
	$P_{1\,TH}$	hp	10.30	29.20	30.60	31.80	32.50	33.00	33.60		
		kW	7.68	21.80	22.80	23.70	24.30	24.70	25.10		
	$T_{2\,ME}$	lb-in	1,890,000	1,890,000	1,890,000	1,890,000	1,720,000	1,460,000	1,300,000		
		Nm	214,000	214,000	214,000	214,000	194,000	165,000	147,000		
	η	%	49	59	62	63	65	65	65		
750 30 x 25	$P_{1\,ME}$	hp	8.59	39.90	47.10	55.90	72.40	86.50	92.90	5,460,000	616,000
		kW	6.41	29.80	35.20	41.70	54.00	64.50	69.30		
	$P_{1\,TH}$	hp	8.59	29.20	30.60	31.80	32.50	33.00	33.60		
		kW	6.41	21.80	22.80	23.70	24.30	24.70	25.10		
	$T_{2\,ME}$	lb-in	1,820,000	1,820,000	1,820,000	1,820,000	1,820,000	1,730,000	1,540,000		
		Nm	205,000	205,000	205,000	205,000	205,000	195,000	175,000		
	η	%	45	56	59	60	61	61	62		
800 40 x 20	$P_{1\,ME}$	hp	8.62	38.90	45.90	53.80	61.00	65.20	70.20	5,680,000	642,000
		kW	6.43	29.00	34.30	40.20	45.50	48.60	52.40		
	$P_{1\,TH}$	hp	8.60	24.70	26.20	37.30	38.40	34.00	29.50		
		kW	6.42	18.40	19.60	27.80	28.70	25.30	22.00		
	$T_{2\,ME}$	lb-in	1,890,000	1,890,000	1,890,000	1,850,000	1,630,000	1,390,000	1,240,000		
		Nm	214,000	214,000	214,000	210,000	184,000	157,000	141,000		
	η	%	44	56	59	59	61	61	62		
900 30 x 30	$P_{1\,ME}$	hp	7.34	33.80	39.60	46.90	60.70	76.40	91.60	5,260,000	594,000
		kW	5.48	25.20	29.60	35.00	45.30	57.00	68.40		
	$P_{1\,TH}$	hp	7.34	26.40	26.60	26.70	27.00	27.10	27.40		
		kW	5.48	19.70	19.80	20.00	20.10	20.20	20.50		
	$T_{2\,ME}$	lb-in	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000		
		Nm	198,000	198,000	198,000	198,000	198,000	198,000	198,000		
	η	%	42	53	56	57	59	59	59		
1000 50 x 20	$P_{1\,ME}$	hp	7.76	32.70	38.70	43.20	49.00	52.40	56.30	5,680,000	642,000
		kW	5.79	24.40	28.90	32.20	36.60	39.10	42.00		
	$P_{1\,TH}$	hp	6.90	20.60	21.70	22.80	24.30	25.20	26.20		
		kW	5.15	15.40	16.20	17.00	18.10	18.80	19.60		
	$T_{2\,ME}$	lb-in	1,890,000	1,890,000	1,890,000	1,770,000	1,560,000	1,340,000	1,200,000		
		Nm	214,000	214,000	214,000	200,000	177,000	151,000	135,000		
	η	%	39	53	56	57	58	59	59		
1200 40 x 30	$P_{1\,ME}$	hp	6.22	27.00	31.70	37.60	48.20	60.40	70.20	5,260,000	594,000
		kW	4.64	20.10	23.60	28.10	36.00	45.00	52.40		
	$P_{1\,TH}$	hp	6.22	24.70	26.10	27.00	27.70	28.20	28.40		
		kW	4.64	18.40	19.50	20.20	20.70	21.00	21.20		
	$T_{2\,ME}$	lb-in	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	1,700,000		
		Nm	198,000	198,000	198,000	198,000	198,000	198,000	192,000		
	η	%	37	50	53	54	55	56	56		
1500 50 x 30	$P_{1\,ME}$	hp	5.63	22.80	26.80	31.90	40.60	50.50	56.30	5,260,000	594,000
		kW	4.20	17.00	20.00	23.80	30.30	37.70	42.00		
	$P_{1\,TH}$	hp	5.63	20.60	21.70	22.80	24.30	25.20	26.20		
		kW	4.20	15.40	16.20	17.00	18.10	18.80	19.60		
	$T_{2\,ME}$	lb-in	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	1,630,000		
		Nm	198,000	198,000	198,000	198,000	198,000	198,000	184,000		
	η	%	33	47	50	51	53	53	54		
1600 40 x 40	$P_{1\,ME}$	hp	4.89	21.00	24.50	28.80	36.70	45.90	55.10	4,790,000	541,000
		kW	3.65	15.70	18.30	21.50	27.40	34.20	41.10		
	$P_{1\,TH}$	hp	4.89	21.00	22.10	22.90	23.50	23.80	24.00		
		kW	3.65	15.70	16.50	17.10	17.50	17.80	17.90		
	$T_{2\,ME}$	lb-in	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000		
		Nm	180,000	180,000	180,000	180,000	180,000	180,000	180,000		
	η	%	32	44	47	48	50	50	50		
1800 60 x 30	$P_{1\,ME}$	hp	4.81	20.40	24.10	28.10	35.80	43.70	47.00	5,260,000	594,000
		kW	3.59	15.20	18.00	21.00	26.70	32.60	35.10		
	$P_{1\,TH}$	hp	4.81	18.00	19.10	20.20	22.10	22.90	23.60		
		kW	3.59	13.40	14.30	15.10	16.50	17.10	17.60		
	$T_{2\,ME}$	lb-in	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	1,740,000	1,560,000		
		Nm	198,000	198,000	198,000	198,000	198,000	197,000	176,000		
	η	%	32	44	46	48	50	51	51		

See Page 8.7 for Rating Definitions

Size 100-240 Double Reduction Ratings

10.000" CD PRI. / 24.000" CD SEC.

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
2000 50 x 40	$P_{1\,ME}$	hp	4.41	17.80	20.90	24.70	31.00	38.40	46.00	4,790,000	541,000
		kW	3.29	13.30	15.60	18.40	23.10	28.70	34.40		
	$P_{1\,TH}$	hp	4.41	17.80	20.90	22.80	23.80	24.40	24.70		
		kW	3.29	13.30	15.60	17.00	17.70	18.20	18.40		
	$T_{2\,ME}$	lb-in	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000		
		Nm	180,000	180,000	180,000	180,000	180,000	180,000	180,000		
	η	%	29	41	44	45	47	48	48		
2100 70 x 30	$P_{1\,ME}$	hp	4.22	17.90	21.30	24.90	31.50	37.60	40.30	5,260,000	594,000
		kW	3.15	13.40	15.90	18.60	23.50	28.00	30.10		
	$P_{1\,TH}$	hp	4.22	16.90	18.00	18.70	20.20	20.80	21.30		
		kW	3.15	12.60	13.40	14.00	15.10	15.50	15.90		
	$T_{2\,ME}$	lb-in	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	1,690,000	1,530,000		
		Nm	198,000	198,000	198,000	198,000	198,000	191,000	173,000		
	η	%	31	43	45	46	48	49	50		
2400 60 x 40	$P_{1\,ME}$	hp	3.76	16.00	18.80	21.90	27.60	33.60	40.20	4,790,000	541,000
		kW	2.81	11.90	14.10	16.30	20.60	25.10	30.00		
	$P_{1\,TH}$	hp	3.76	16.00	18.80	20.20	22.10	22.90	23.60		
		kW	2.81	11.90	14.10	15.10	16.50	17.10	17.60		
	$T_{2\,ME}$	lb-in	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000		
		Nm	180,000	180,000	180,000	180,000	180,000	180,000	180,000		
	η	%	28	38	40	42	44	46	46		
2500 50 x 50	$P_{1\,ME}$	hp	3.50	14.70	17.20	20.30	25.70	31.90	38.20	4,400,000	497,000
		kW	2.62	11.00	12.80	15.20	19.20	23.80	28.50		
	$P_{1\,TH}$	hp	3.50	14.70	17.20	20.30	21.30	21.70	21.90		
		kW	2.62	11.00	12.80	15.20	15.90	16.20	16.40		
	$T_{2\,ME}$	lb-in	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000		
		Nm	166,000	166,000	166,000	166,000	166,000	166,000	166,000		
	η	%	27	37	39	40	42	42	43		
2800 70 x 40	$P_{1\,ME}$	hp	3.29	14.10	16.70	19.40	24.40	29.90	35.00	4,790,000	541,000
		kW	2.46	10.60	12.50	14.50	18.20	22.30	26.10		
	$P_{1\,TH}$	hp	3.29	14.10	16.70	18.70	20.20	20.80	21.30		
		kW	2.46	10.60	12.50	14.00	15.10	15.50	15.90		
	$T_{2\,ME}$	lb-in	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000		
		Nm	180,000	180,000	180,000	180,000	180,000	180,000	180,000		
	η	%	27	37	39	40	43	44	45		
3000 60 x 50	$P_{1\,ME}$	hp	2.97	13.30	15.50	18.00	22.80	27.90	33.30	4,400,000	497,000
		kW	2.22	9.89	11.60	13.40	17.00	20.80	24.90		
	$P_{1\,TH}$	hp	2.97	13.30	15.50	18.00	21.60	22.30	22.60		
		kW	2.22	9.89	11.60	13.40	16.10	16.70	16.90		
	$T_{2\,ME}$	lb-in	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000		
		Nm	166,000	166,000	166,000	166,000	166,000	166,000	166,000		
	η	%	26	34	36	38	39	40	41		
3500 70 x 50	$P_{1\,ME}$	hp	2.59	11.70	13.80	16.00	20.10	24.70	29.10	4,400,000	497,000
		kW	1.93	8.75	10.30	12.00	15.00	18.40	21.70		
	$P_{1\,TH}$	hp	2.59	11.70	13.80	16.00	20.10	20.80	21.30		
		kW	1.93	8.75	10.30	12.00	15.00	15.50	15.90		
	$T_{2\,ME}$	lb-in	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000		
		Nm	166,000	166,000	166,000	166,000	166,000	166,000	166,000		
	η	%	26	33	35	36	38	39	40		

See Page 8.7 for Rating Definitions

4

Cone Drive
BY TIMKEN

SERIES HP

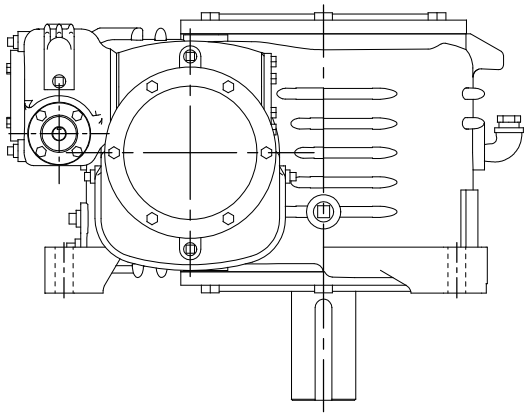
Continuous & Steady Speed Applications

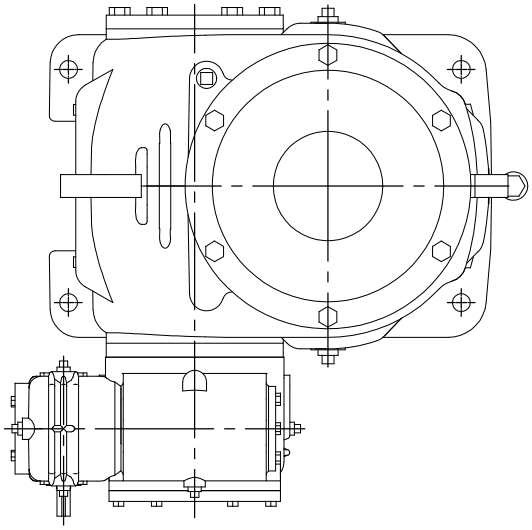
TRIPLE REDUCTION

4.2 Typical Configurations
4.3 Ratings

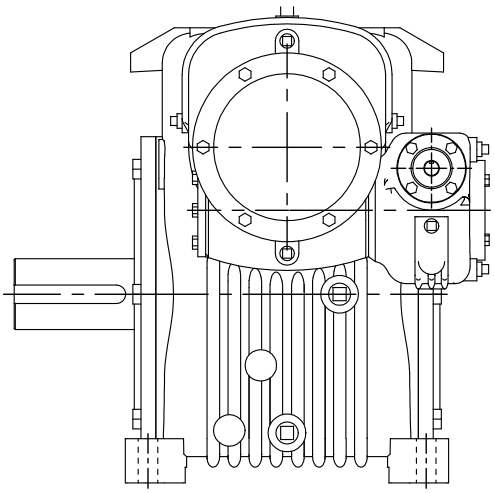
Triple Reduction Typical Configurations

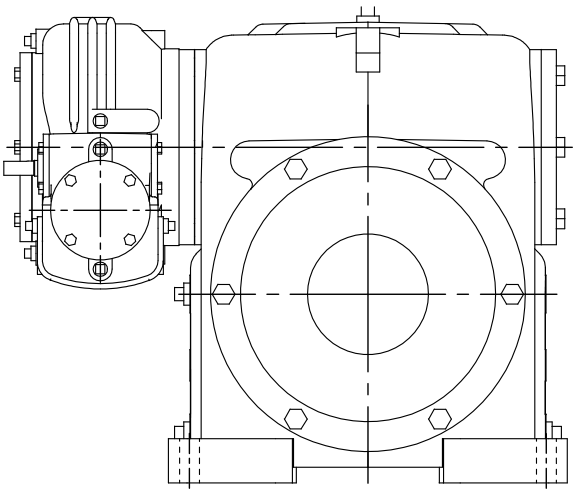
Model UOV Primary Worm Under Gear / Secondary Worm Over Gear / Tertiary Vertical Shaft





Model OUO Primary Worm Over Gear / Secondary Worm Under Gear / Tertiary Worm Over Gear





Cone Drive triple-reduction worm gear speed reducers consist of three single-reduction speed reducers combined into one assembly. Each worm gear set is enclosed in a heavily-ribbed heat dissipating house of our own special design. Heavy-duty tapered roller bearings provide anti-friction support of the worm and gear shafts. The unique advantages of the Cone Drive double enveloping worm gear set design contribute to the compact size, strength, and smooth operation of the assembly.

Standardization of parts and maximum use of interchangeable parts reduces cost and speeds delivery. We assemble our speed reducers to order from a stock of standard shelfhardware parts.

A wide range of center-distance sizes and ratios, plus several standard options, as well as hollow and solid output shafts, enable us to configure a triple-reduction speed reducer to your specific requirements.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Many more sizes and configurations are available. Contact the Cone Drive sales office or your local representative for a configuration to suit your exact requirements.

SIZE 20 PRIMARY	SIZE 30 SECONDARY	SIZE 60 TERITARY	
Ratio	Ratio Combination	$P_{1\,ME}$ (HP)	$T_{2\,ME}$ (lb. in.)
5,000:1	10 x 25 x 20	0.71	56,300
6,000:1	15 x 20 x 20	0.60	56,300
7,500:1	15 x 25 x 20	0.51	56,300
10,000:1	20 x 20 x 25	0.4	53,800
12,500:1	25 x 25 x 20	0.35	56,300
17,500:1	5 x 50 x 70	0.29	40,600
24,000:1	20 x 20 x 60	0.2	41,300
36,000:1	30 x 60 x 20	0.19	56,200
72,000:1	30 x 60 x 40	0.11	47,000
125,000:1	50 x 50 x 50	0.08	42,000
180,000:1	50 x 60 x 60	0.07	41,300

SIZE 20 PRIMARY	SIZE 35 SECONDARY	SIZE 70 TERTIARY	
Ratio	Ratio Combination	$P_{1\,ME}$ (HP)	$T_{2\,ME}$ (lb. in.)
5,000:1	10 x 25 x 20	1.12	89,100
6,000:1	15 x 20 x 20	0.94	89,100
7,500:1	15 x 25 x 20	0.81	89,100
10,000:1	40 x 25 x 10	0.59	79,000
12,500:1	25 x 25 x 20	0.54	89,100
17,500:1	5 x 50 x 70	0.46	64,200
24,000:1	40 x 60 x 10	0.28	64,200
36,000:1	40 x 60 x 15	0.28	87,300
72,000:1	30 x 60 x 40	0.17	74,200
125,000:1	50 x 50 x 50	0.12	66,200
180,000:1	50 x 60 x 60	0.10	65,200

SIZE 25 PRIMARY	SIZE 50 SECONDARY	SIZE 100 TERTIARY		
Ratio	Ratio Combination	$P_{1\,ME}$ (HP)	$P_{1\,TH}$ (HP)	$T_{2\,ME}$ (lb. in.)
5,000:1	20 x 25 x 10	2.58	2.31	225,000
6,000:1	15 x 20 x 20	2.50	2.50	254,000
7,500:1	15 x 25 x 20	2.14	2.14	254,000
10,000:1	40 x 25 x 10	1.55	1.26	225,000
12,500:1	50 x 25 x 10	1.30	1.01	225,000
17,500:1	25 x 70 x 10	0.93	0.84	198,000
24,000:1	40 x 60 x 10	0.79	0.79	200,000
36,000:1	40 x 60 x 15	0.76	0.76	261,000
72,000:1	30 x 60 x 40	0.44	0.44	213,000
125,000:1	50 x 50 x 50	0.29	0.29	191,000
180,000:1	50 x 60 x 60	0.21	0.21	188,000

SIZE 30 PRIMARY	SIZE 70 SECONDARY	SIZE 150 TERTIARY		
Ratio	Ratio Combination	$P_{1\,ME}$ (HP)	$P_{1\,TH}$ (HP)	$T_{2\,ME}$ (lb. in.)
5,000:1	10 x 25 x 20	8.44	4.87	721,000
6,000:1	15 x 20 x 20	7.11	4.00	721,000
7,500:1	15 x 25 x 20	6.06	4.00	721,000
10,000:1	20 x 20 x 25	4.69	3.49	691,000
12,500:1	25 x 25 x 20	4.03	2.92	721,000
17,500:1	25 x 70 x 10	2.27	2.02	487,000
24,000:1	20 x 20 x 60	2.30	2.30	534,000
36,000:1	30 x 60 x 20	2.10	2.10	721,000
72,000:1	30 x 60 x 40	1.20	1.20	605,000
125,000:1	50 x 50 x 50	0.79	0.79	542,000
180,000:1	50 x 60 x 60	0.56	0.56	534,000

Torque ratings for 1.0 Service factor at 1750 rpm input speed

SIZE 20 PRIMARY	SIZE 30 SECONDARY	SIZE 70 TERTIARY		
Ratio	Ratio Combination	$P_{1\,ME}$ (HP)	$P_{1\,TH}$ (HP)	$T_{2\,ME}$ (lb. in.)
5,000:1	10 x 25 x 20	1.04	0.79	83,200
6,000:1	15 x 20 x 20	0.93	0.70	87,800
7,500:1	10 x 25 x 30	0.78	0.78	81,900
10,000:1	20 x 20 x 25	0.62	0.62	85,100
12,500:1	25 x 25 x 20	0.49	0.48	80,700
17,500:1	5 x 50 x 70	0.46	0.46	64,200
24,000:1	20 x 20 x 60	0.32	0.32	65,200
36,000:1	10 x 60 x 60	0.28	0.28	65,200
72,000:1	30 x 60 x 40	0.17	0.17	74,200
125,000:1	50 x 50 x 50	0.12	0.12	66,200
180,000:1	50 x 60 x 60	0.10	0.10	65,200

SIZE 25 PRIMARY	SIZE 40 SECONDARY	SIZE 80 TERTIARY	
Ratio	Ratio Combination	$P_{1\,ME}$ (HP)	$T_{2\,ME}$ (lb. in.)
5,000:1	10 x 25 x 20	1.59	132,000
6,000:1	15 x 20 x 20	1.34	132,000
7,500:1	15 x 25 x 20	1.14	132,000
10,000:1	40 x 25 x 10	0.83	117,000
12,500:1	25 x 25 x 20	0.76	132,000
17,500:1	5 x 50 x 70	0.65	95,000
24,000:1	40 x 60 x 10	0.41	99,500
36,000:1	40 x 60 x 15	0.41	135,000
72,000:1	30 x 60 x 40	0.23	110,000
125,000:1	50 x 50 x 50	0.16	98,000
180,000:1	50 x 60 x 60	0.13	96,500

SIZE 30 PRIMARY	SIZE 60 SECONDARY	SIZE 120 TERTIARY		
Ratio	Ratio Combination	$P_{1\,ME}$ (HP)	$P_{1\,TH}$ (HP)	$T_{2\,ME}$ (lb. in.)
5,000:1	10 x 25 x 20	5.08	4.87	434,000
6,000:1	15 x 20 x 20	4.28	4.00	434,000
7,500:1	15 x 25 x 20	3.65	3.65	434,000
10,000:1	20 x 20 x 25	2.82	2.82	415,000
12,500:1	50 x 25 x 10	2.22	2.08	383,000
17,500:1	5 x 50 x 70	2.05	2.05	316,000
24,000:1	20 x 20 x 60	1.39	1.39	321,000
36,000:1	40 x 60 x 15	1.22	1.22	421,000
72,000:1	30 x 60 x 40	0.75	0.75	364,000
125,000:1	50 x 50 x 50	0.49	0.49	326,000
180,000:1	50 x 60 x 60	0.36	0.36	321,000

SIZE 40 PRIMARY	SIZE 80 SECONDARY	SIZE 180 TERTIARY		
Ratio	Ratio Combination	$P_{1\,ME}$ (HP)	$P_{1\,TH}$ (HP)	$T_{2\,ME}$ (lb. in.)
5,000:1	10 x 25 x 20	12.1	11	1,070,000
6,000:1	15 x 20 x 20	10.20	8.30	1,070,000
7,500:1	15 x 25 x 20	8.66	8.30	1,070,000
10,000:1	20 x 20 x 25	6.66	6.66	1,020,000
12,500:1	25 x 25 x 20	5.68	5.68	1,070,000
17,500:1	25 x 70 x 10	3.25	2.92	720,000
24,000:1	20 x 20 x 60	3.32	3.32	790,000
36,000:1	30 x 60 x 20	2.92	2.92	1,070,000
72,000:1	30 x 60 x 40	1.66	1.66	895,000
125,000:1	50 x 50 x 50	1.07	1.07	802,000
180,000:1	50 x 60 x 60	0.86	0.86	790,000

5

Cone Drive
BY TIMKEN

SERIES HP

Continuous & Steady Speed Applications

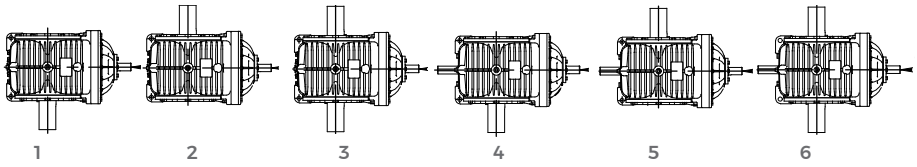
HELICAL WORM REDUCER

5.2 Assembly & Mounting Position Numbers
5.5 Dimensions
5.17 D-Flange Assembly & Mounting Position Numbers
5.20 D-Flange Dimensions
5.33 Ratings

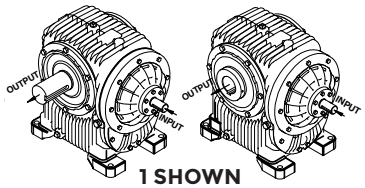
MODELS RU, SRU, MRU, MSRU, SR, MSR, SOLID & HOLLOW SHAFT

All diagrams show reducer with feet on far side.

TOP VIEW, FLOOR MOUNTED

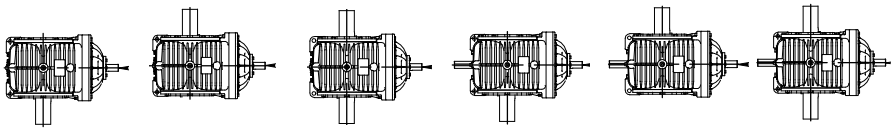


1 2 3 4 5 6

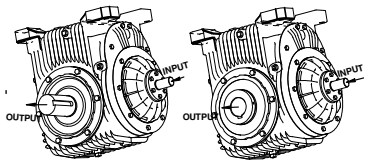


1 SHOWN

CEILING MOUNTED

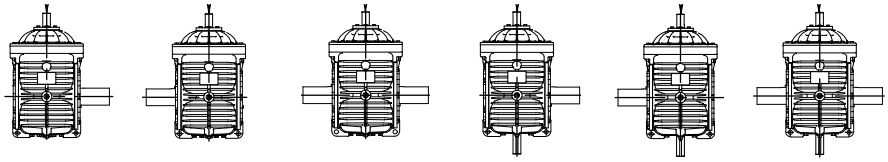


C1 C2 C3 C4 C5 C6

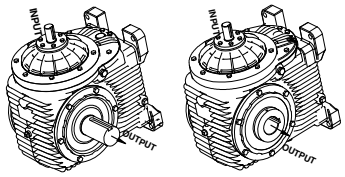


C2 SHOWN

WALL MOUNTED, WORM VERTICAL UP

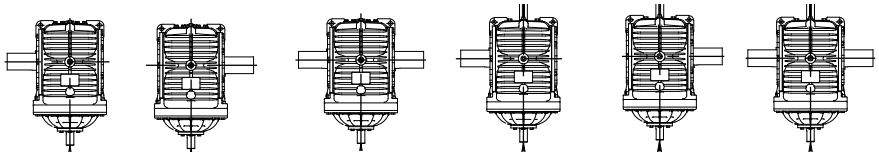


W1 W2 W3 W4 W5 W6

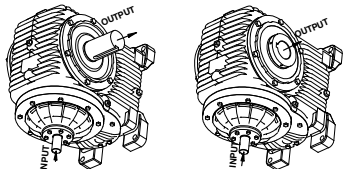


W1 SHOWN

WALL MOUNTED, WORM VERTICAL DOWN

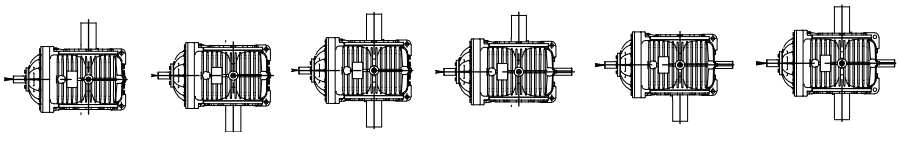


X1 X2 X3 X4 X5 X6

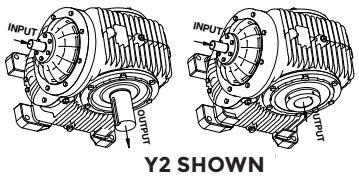


X2 SHOWN

WALL MOUNTED, WORM HORIZONTAL TO THE LEFT

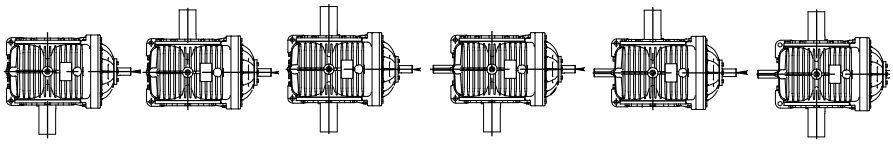


Y1 Y2 Y3 Y4 Y5 Y6

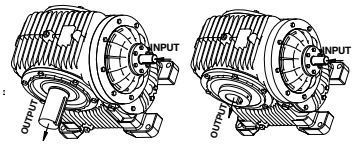


Y2 SHOWN

WALL MOUNTED, WORM HORIZONTAL TO THE RIGHT



Z1 Z2 Z3 Z4 Z5 Z6



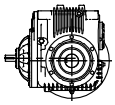
Z1 SHOWN

MODELS MV, SMV, SOLID & HOLLOW SHAFT

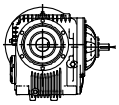
All diagrams show reducer with feet on far side.

RV	SRV	
A	A	Gearshaft Extended Opposite Base
BR	B	Gearshaft Extended Through Base
SD	C	Gearshaft Double Extended

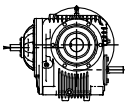
TOP VIEW, FLOOR MOUNTED



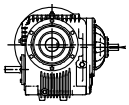
RV	SRV
1A	1A
1BR	1B
1SD	1C



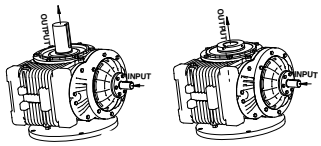
RV	SRV
2A	2A
2BR	2B
2SD	2C



RV	SRV
3A	3A
3BR	3B
3SD	3C

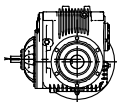


RV	SRV
4A	4A
4BR	4B
4SD	4C

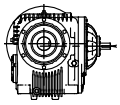


2A SHOWN

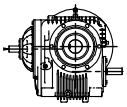
CEILING MOUNTED



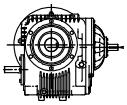
RV	SRV
C1A	C1A
C1BR	C1B
C1SD	C1C



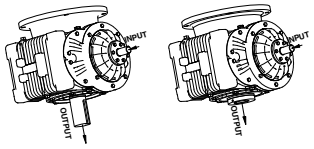
RV	SRV
C2A	C2A
C2BR	C2B
C2SD	C2C



RV	SRV
C3A	C3A
C3BR	C3B
C3SD	C3C

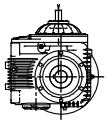


RV	SRV
C4A	C4A
C4BR	C4B
C4SD	C4C

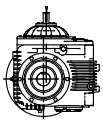


C1A SHOWN

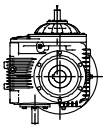
WALL MOUNTED, INPUT SHAFT UP



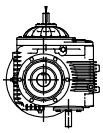
RV	SRV
W1A	W1A
W1BR	W1B
W1SD	W1C



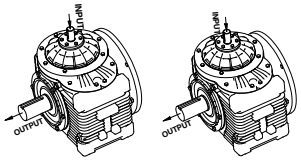
RV	SRV
W2A	W2A
W2BR	W2B
W2SD	W2C



RV	SRV
W3A	W3A
W3BR	W3B
W3SD	W3C

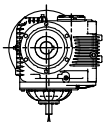


RV	SRV
W4A	W4A
W4BR	W4B
W4SD	W4C

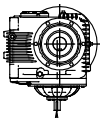


W2A SHOWN

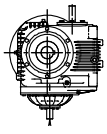
WALL MOUNTED, INPUT SHAFT DOWN



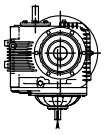
RV	SRV
X1A	X1A
X1BR	X1B
X1SD	X1C



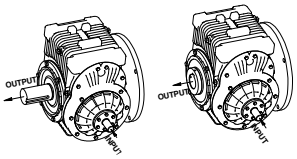
RV	SRV
X2A	X2A
X2BR	X2B
X2SD	X2C



RV	SRV
X3A	X3A
X3BR	X3B
X3SD	X3C

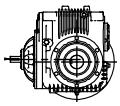


RV	SRV
X4A	X4A
X4BR	X4B
X4SD	X4C

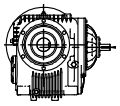


X1A SHOWN

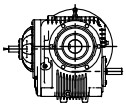
WALL MOUNTED, INPUT SHAFT UNDER



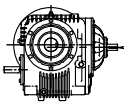
RV	SRV
Y1A	Y1A
Y1BR	Y1B
Y1SD	Y1C



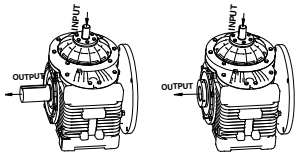
RV	SRV
Y2A	Y2A
Y2BR	Y2B
Y2SD	Y2C



RV	SRV
Y3A	Y3A
Y3BR	Y3B
Y3SD	Y3C

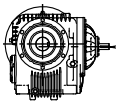


RV	SRV
Y4A	Y4A
Y4BR	Y4B
Y4SD	Y4C

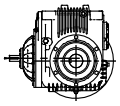


Y2A SHOWN

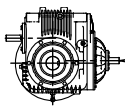
WALL MOUNTED, INPUT SHAFT OVER



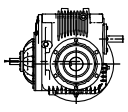
RV	SRV
Z1A	Z1A
Z1BR	Z1B
Z1SD	Z1C



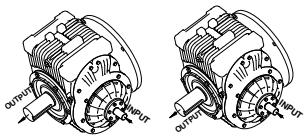
RV	SRV
Z2A	Z2A
Z2BR	Z2B
Z2SD	Z2C



RV	SRV
Z3A	Z3A
Z3BR	Z3B
Z3SD	Z3C



RV	SRV
Z4A	Z4A
Z4BR	Z4B
Z4SD	Z4C

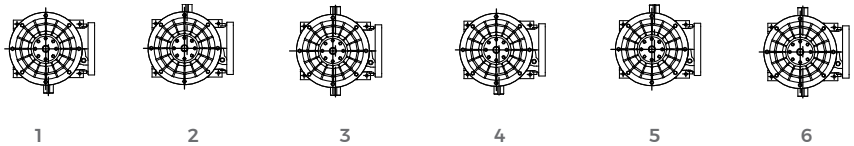


Z1A SHOWN

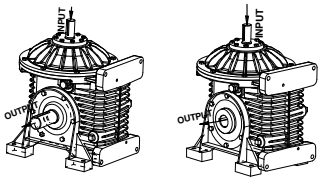
MODELS VR, SVR, MVR, MSVR, SOLID & HOLLOW SHAFT

All diagrams show reducer with feet on far side. Diagrams 4-6 have shaft extension opposite motor end.

TOP VIEW, FLOOR MOUNTED

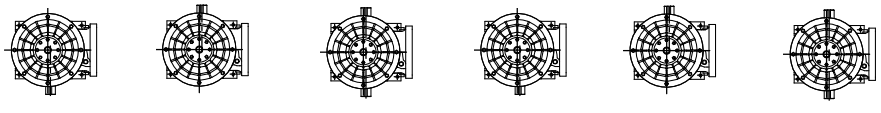


1 2 3 4 5 6

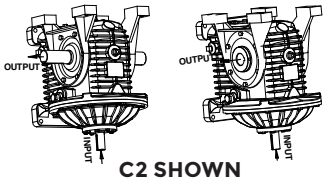


1 SHOWN

CEILING MOUNTED

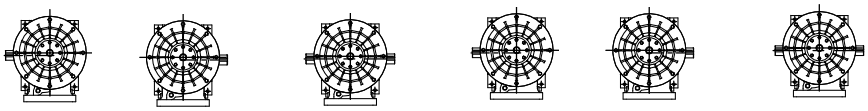


C1 C2 C3 C4 C5 C6

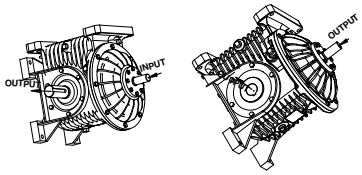


C2 SHOWN

WALL MOUNTED, WORM UNDER HORIZONTAL GEARSHAFT

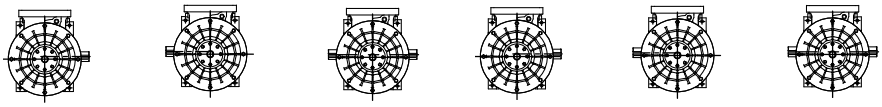


W1 W2 W3 W4 W5 W6

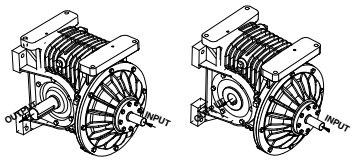


W1 SHOWN

WALL MOUNTED, WORM OVER HORIZONTAL GEARSHAFT

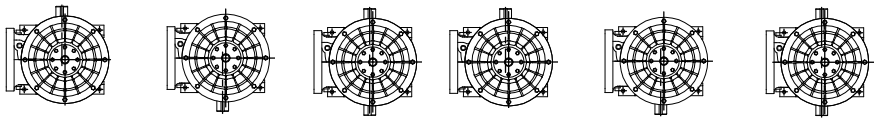


X1 X2 X3 X4 X5 X6

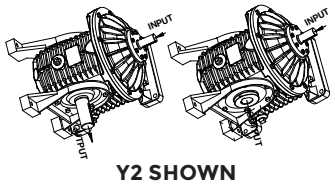


X2 SHOWN

WALL MOUNTED, WORM LEFT VERTICAL GEARSHAFT

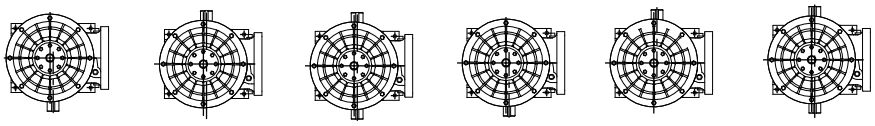


Y1 Y2 Y3 Y4 Y5 Y6

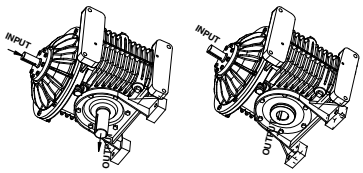


Y2 SHOWN

WALL MOUNTED, WORM RIGHT VERTICAL GEARSHAFT



Z1 Z2 Z3 Z4 Z5 Z6



Z1 SHOWN

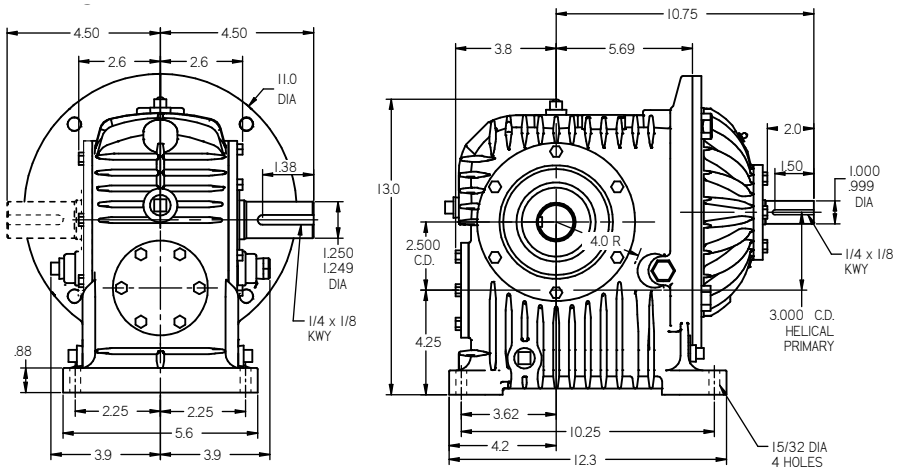
*Motor face may be submerged in oil. Contact motor supplier regarding shaft seal requirements.

Size 25 Helical Worm Reducer Dimensions

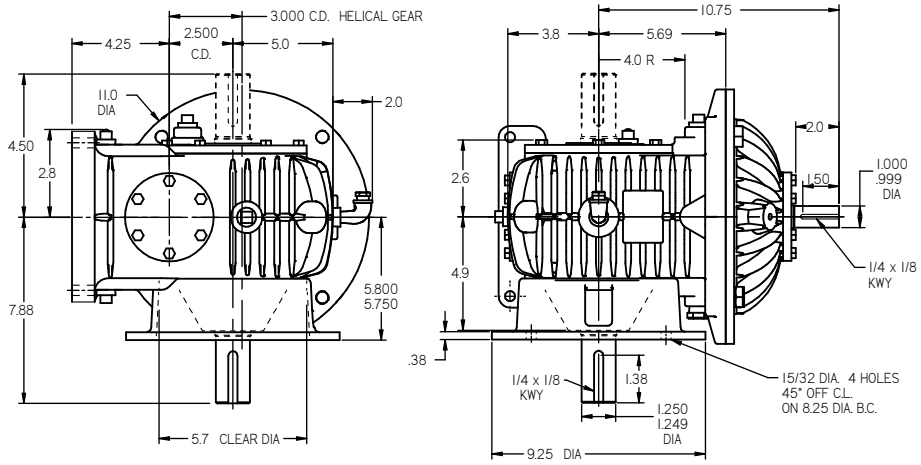
2.500" C.D. SOLID SHAFT

(all dimensions in inches)

Model RU est. wt. 95 lbs. less motor

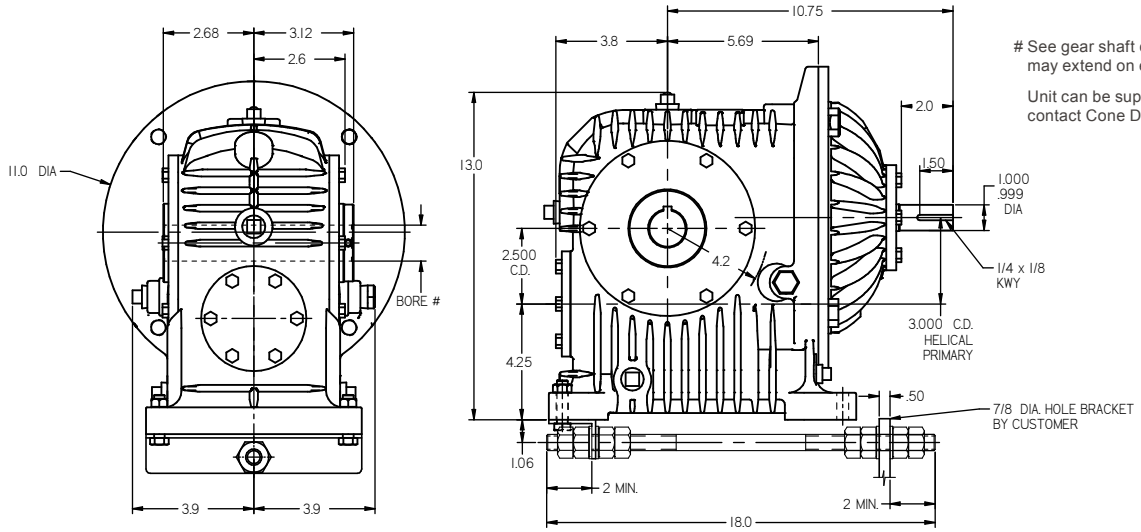


Model RV est. wt. 95 lbs. less motor



SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SR est. wt. 95 lbs. less motor

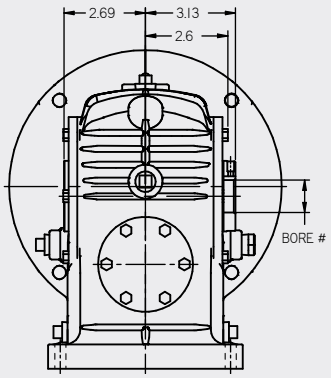


See gear shaft chart. Set screw end of shaft, may extend on either side.

Unit can be supplied with solid shaft, contact Cone Drive

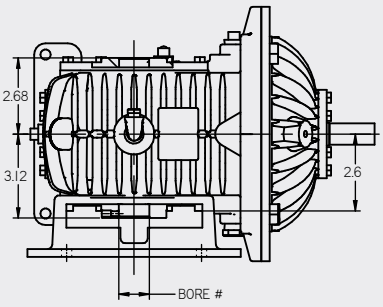
HOLLOW SHAFT

SRU est. wt. 95 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SRV est. wt. 95 lbs. less motor

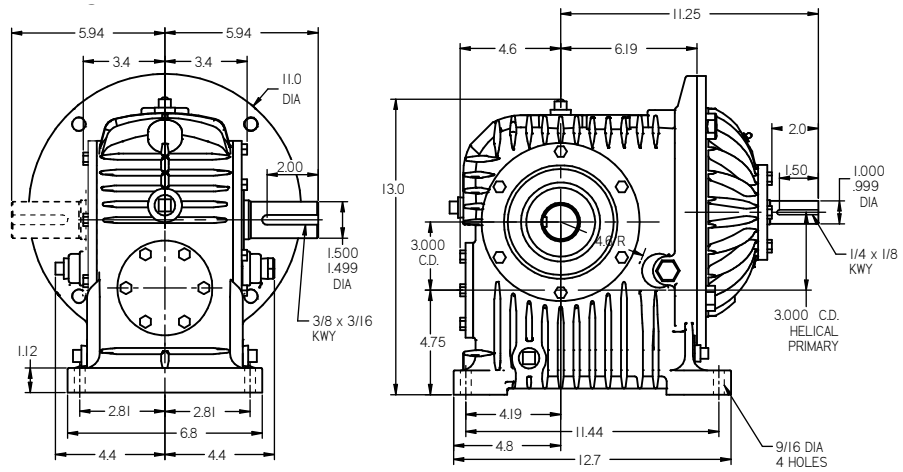


See gear shaft chart. Set screw end of shaft, may extend on either side.

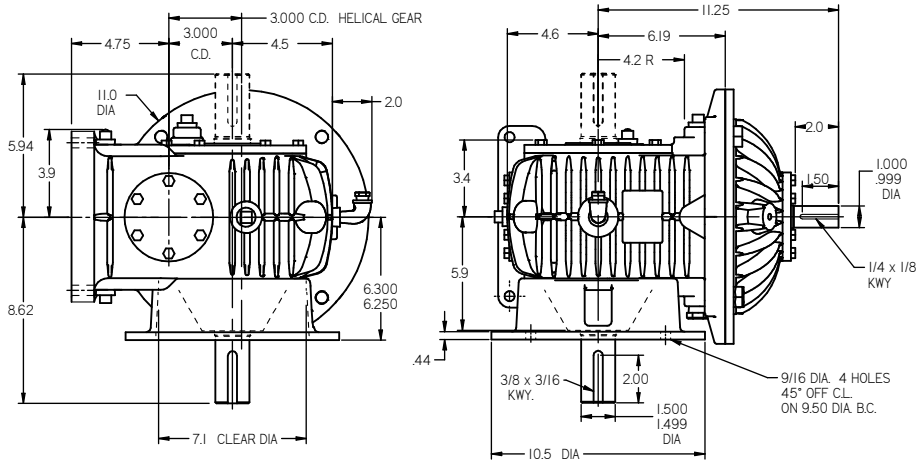
3.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model RU est. wt. 125 lbs. less motor

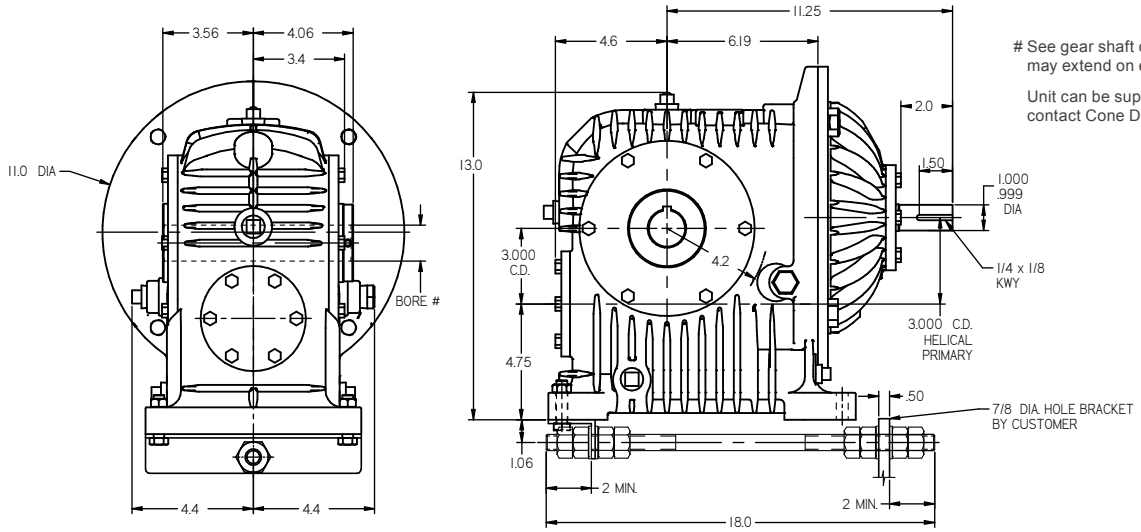


Model RV est. wt. 135 lbs. less motor



SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SR est. wt. 130 lbs. less motor

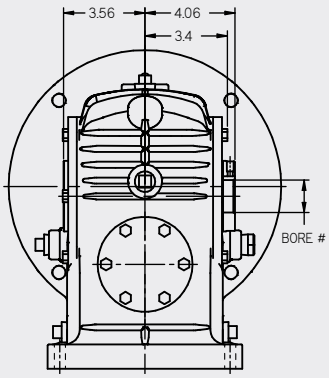


See gear shaft chart. Set screw end of shaft, may extend on either side.

Unit can be supplied with solid shaft, contact Cone Drive

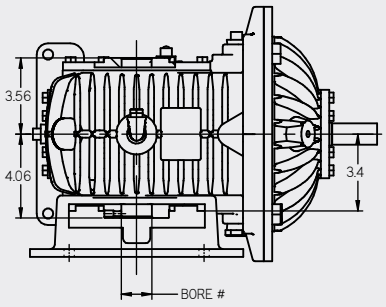
HOLLOW SHAFT

SRU est. wt. 125 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SRV est. wt. 135 lbs. less motor



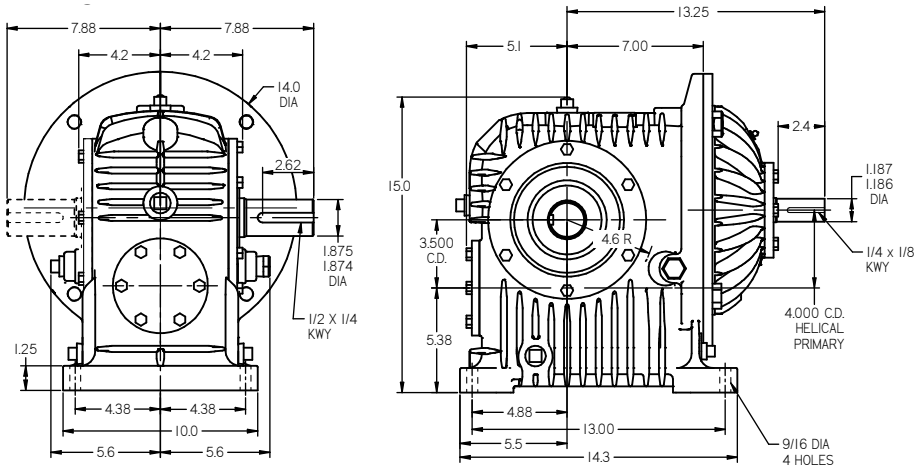
See gear shaft chart. Set screw end of shaft, may extend on either side.

Size 35 Helical Worm Reducer Dimensions

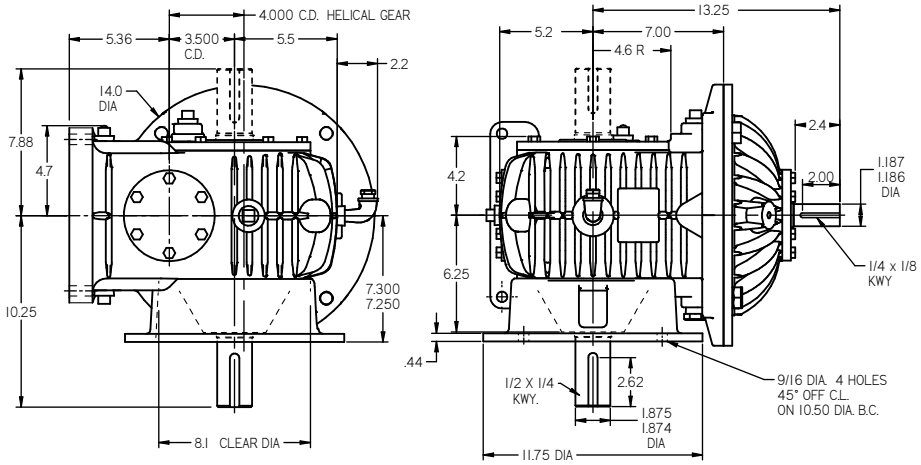
3.500" C.D. SOLID SHAFT

(all dimensions in inches)

Model RU est. wt. 220 lbs. less motor

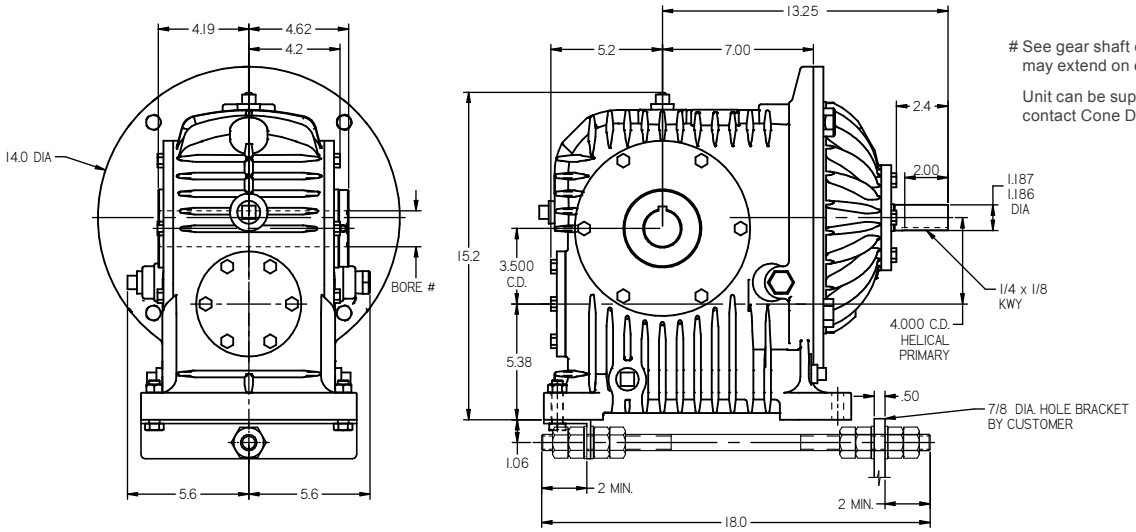


Model RV est. wt. 230 lbs. less motor



SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SR est. wt. 225 lbs. less motor

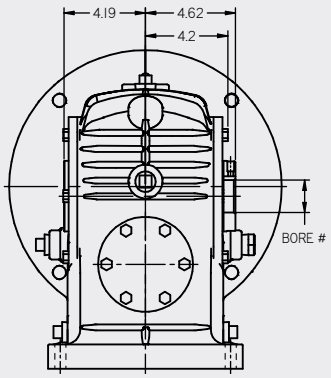


See gear shaft chart. Set screw end of shaft, may extend on either side.

Unit can be supplied with solid shaft, contact Cone Drive

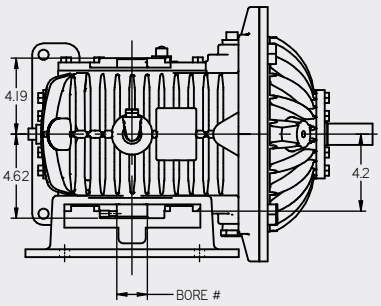
HOLLOW SHAFT

SRU est. wt. 220 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SRV est. wt. 230 lbs. less motor

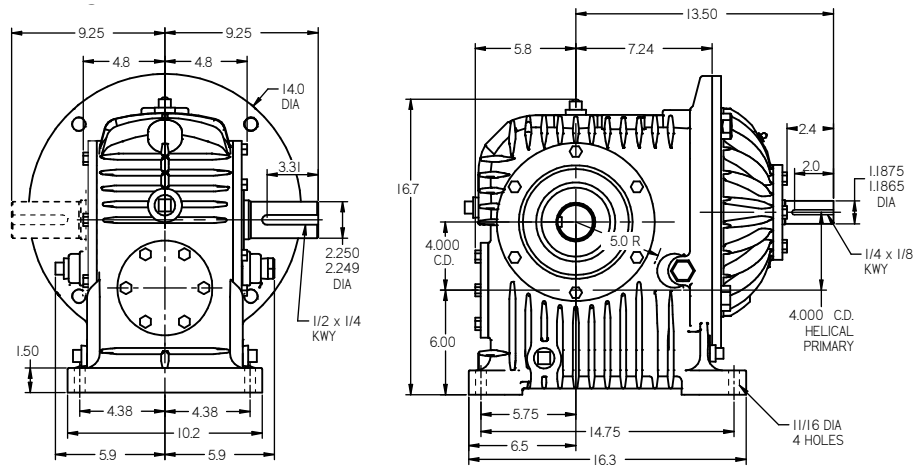


See gear shaft chart. Set screw end of shaft, may extend on either side.

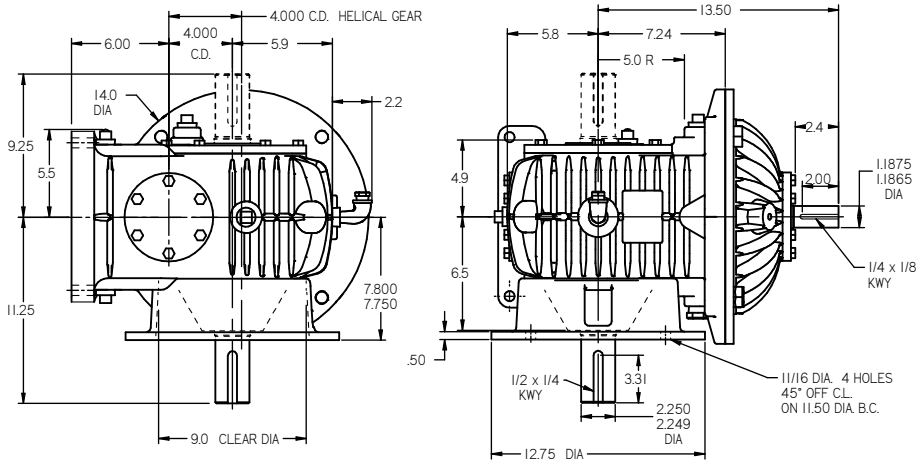
4.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model RU est. wt. 275 lbs. less motor

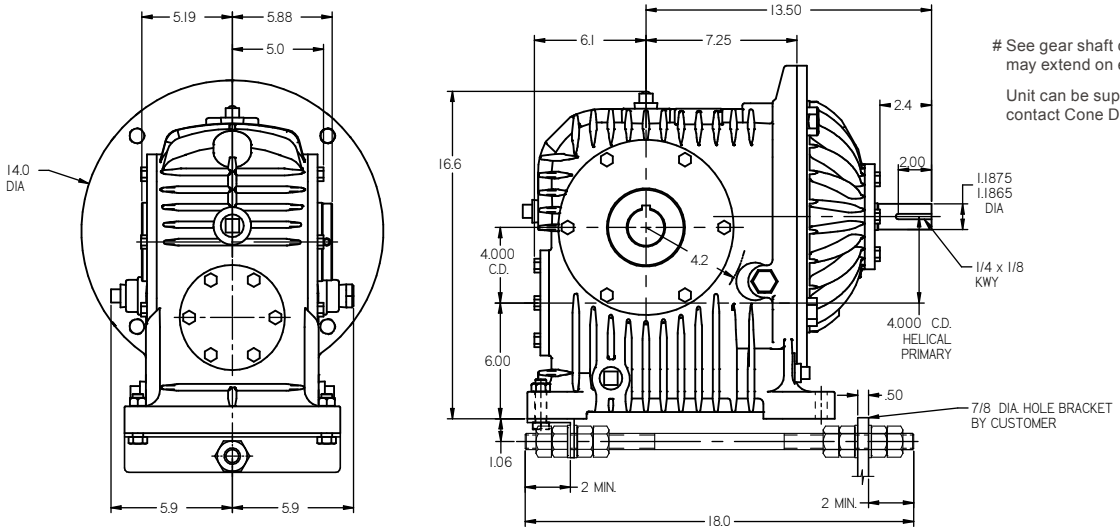


Model RV est. wt. 290 lbs. less motor



SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SR est. wt. 95 lbs. less motor

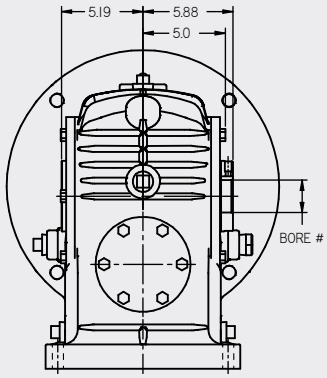


See gear shaft chart. Set screw end of shaft, may extend on either side.

Unit can be supplied with solid shaft, contact Cone Drive

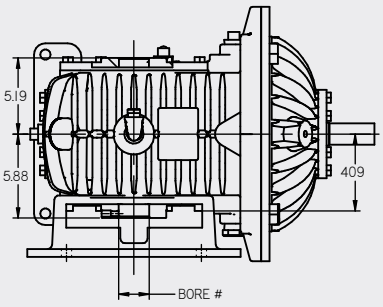
HOLLOW SHAFT

SRU est. wt. 275 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SRV est. wt. 290 lbs. less motor



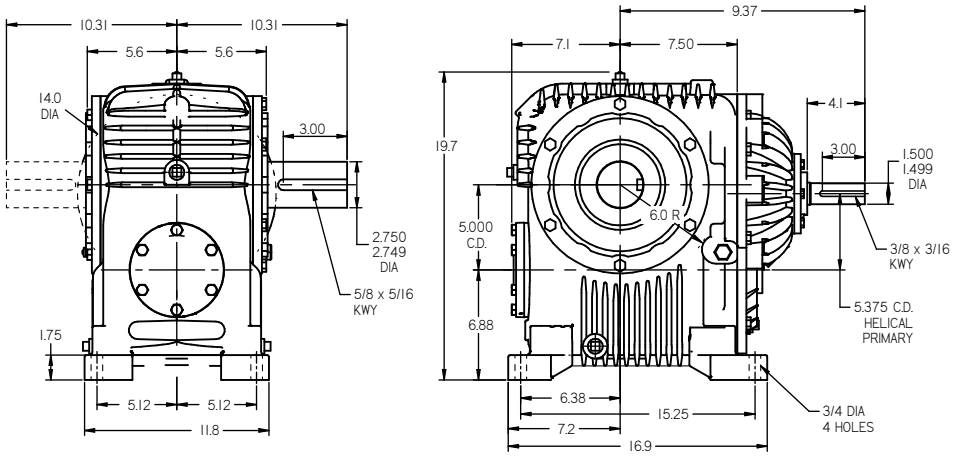
See gear shaft chart. Set screw end of shaft, may extend on either side.

Size 50 Helical Worm Reducer Dimensions

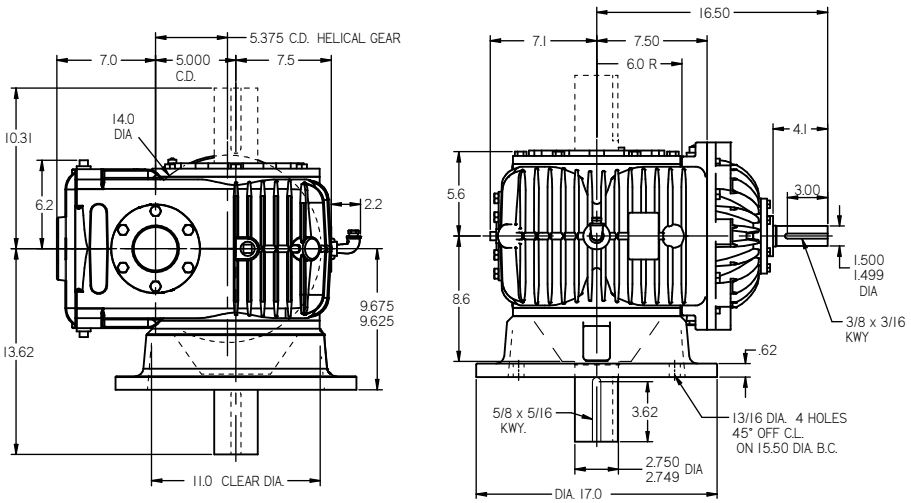
5.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model RU est. wt. 430 lbs. less motor

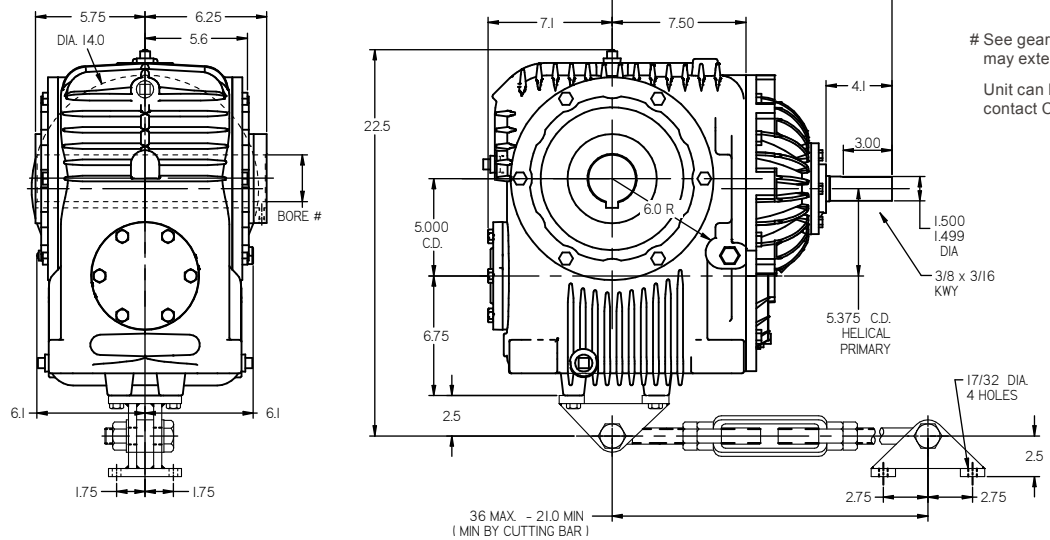


Model RV est. wt. 460 lbs. less motor



SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SR est. wt. 440 lbs. less motor

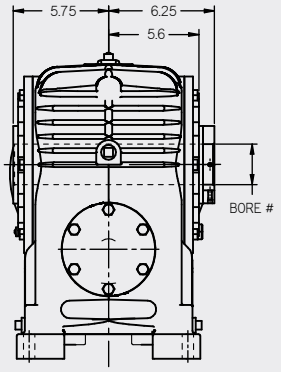


See gear shaft chart. Set screw end of shaft, may extend on either side.

Unit can be supplied with solid shaft, contact Cone Drive

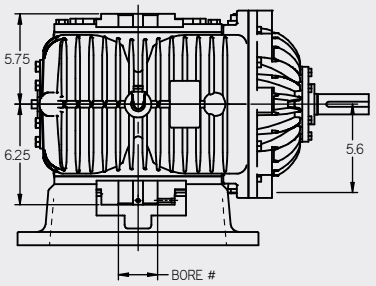
HOLLOW SHAFT

SRU est. wt. 430 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SRV est. wt. 460 lbs. less motor

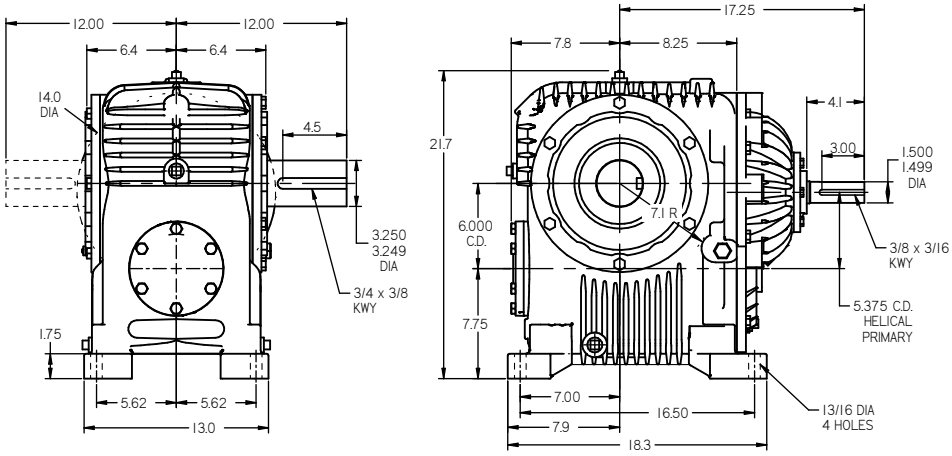


See gear shaft chart. Set screw end of shaft, may extend on either side.

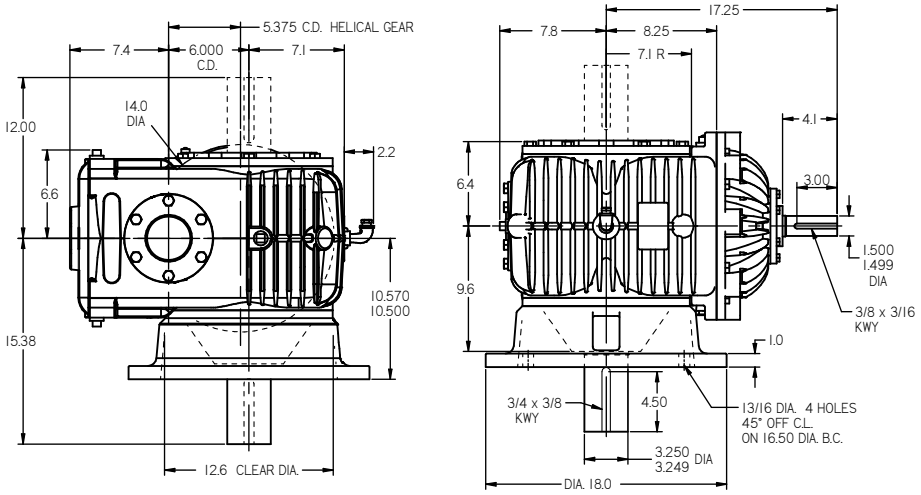
6.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model RU est. wt. 545 lbs. less motor

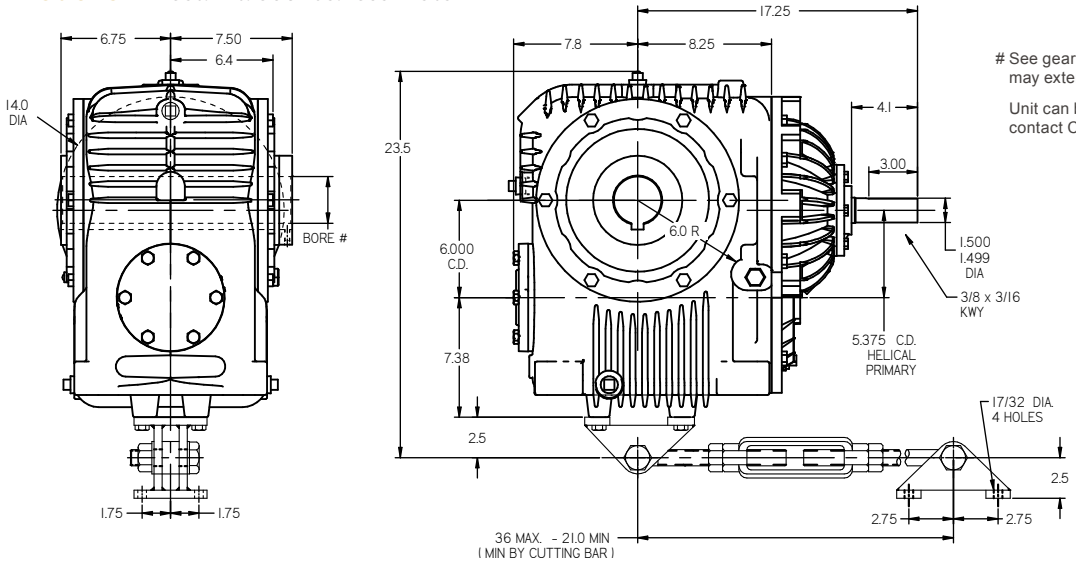


Model RV est. wt. 580 lbs. less motor



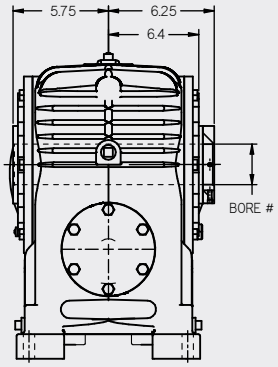
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SR est. wt. 560 lbs. less motor



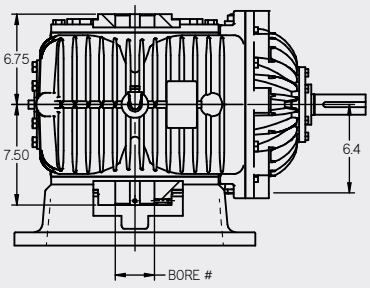
HOLLOW SHAFT

SRU est. wt. 545 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SRV est. wt. 580 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

See gear shaft chart. Set screw end of shaft, may extend on either side.

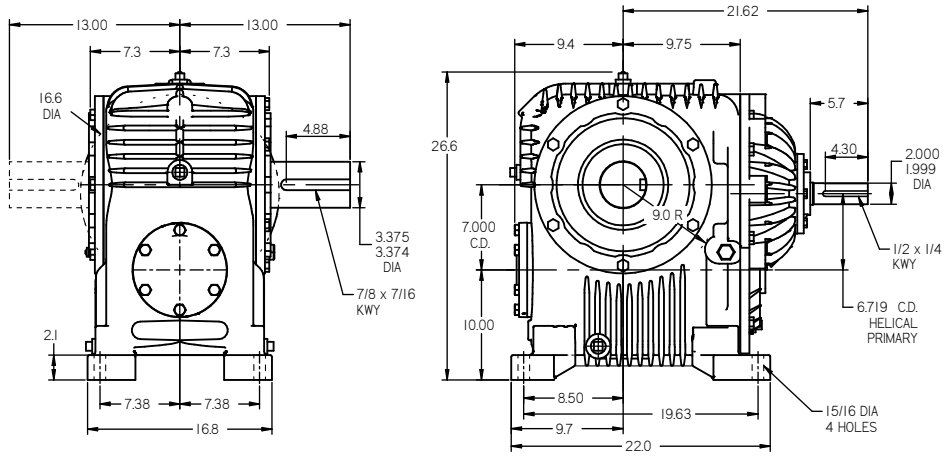
Unit can be supplied with solid shaft, contact Cone Drive

Size 70 Helical Worm Reducer Dimensions

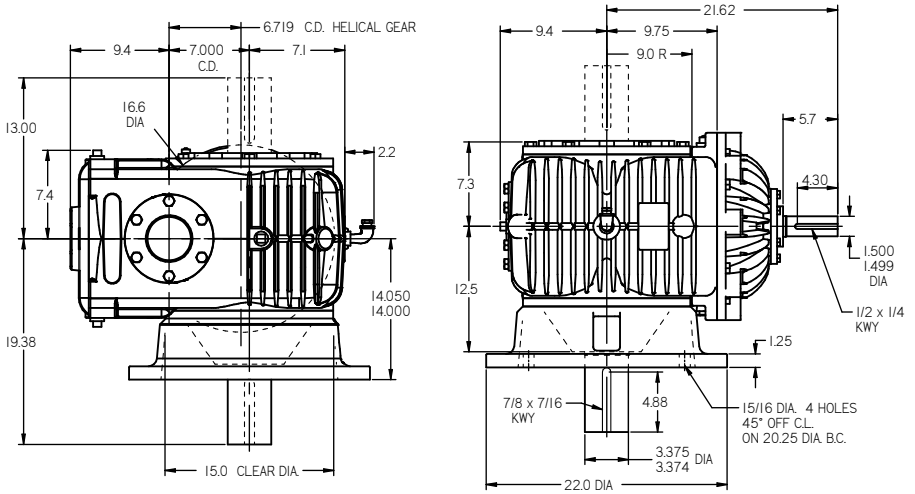
7.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model RU est. wt. 950 lbs. less motor

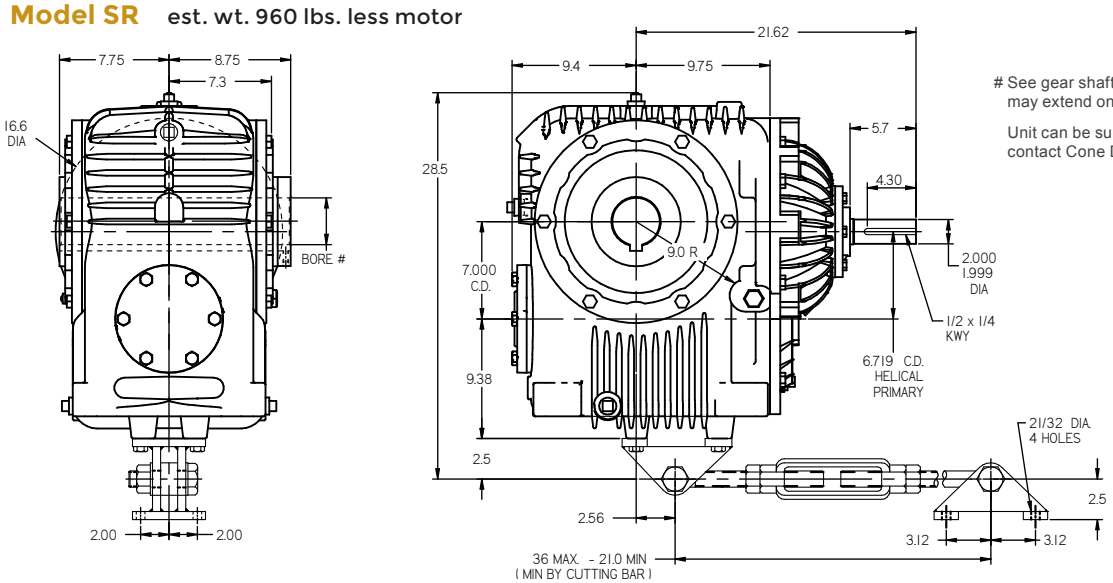


Model RV est. wt. 1000 lbs. less motor



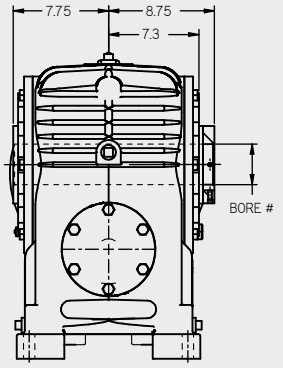
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SR est. wt. 960 lbs. less motor



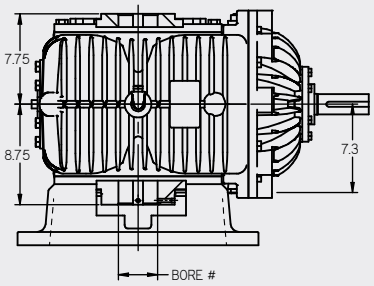
HOLLOW SHAFT

SRU est. wt. 950 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SRV est. wt. 1000 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

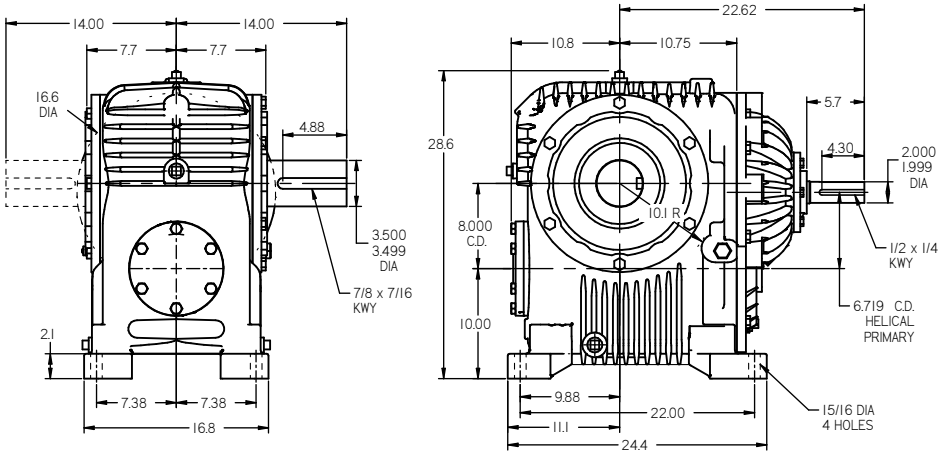
See gear shaft chart. Set screw end of shaft, may extend on either side.

Unit can be supplied with solid shaft, contact Cone Drive

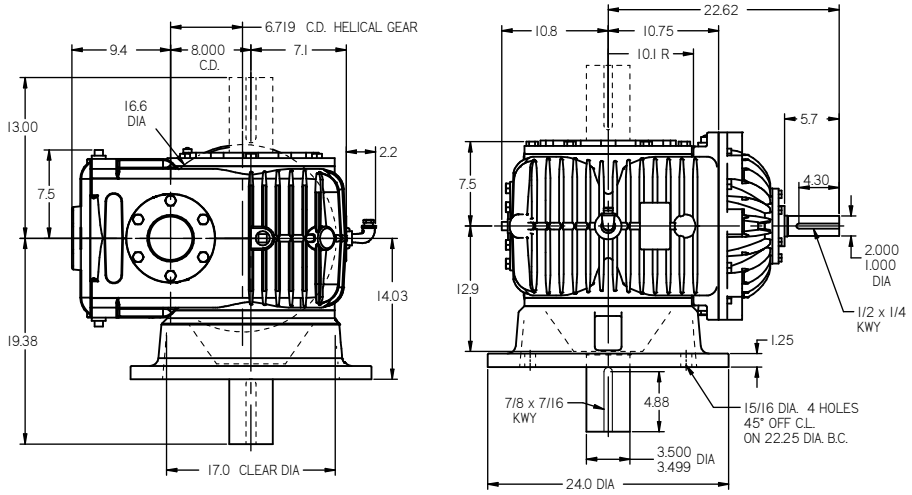
8.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model RU est. wt. 1080 lbs. less motor

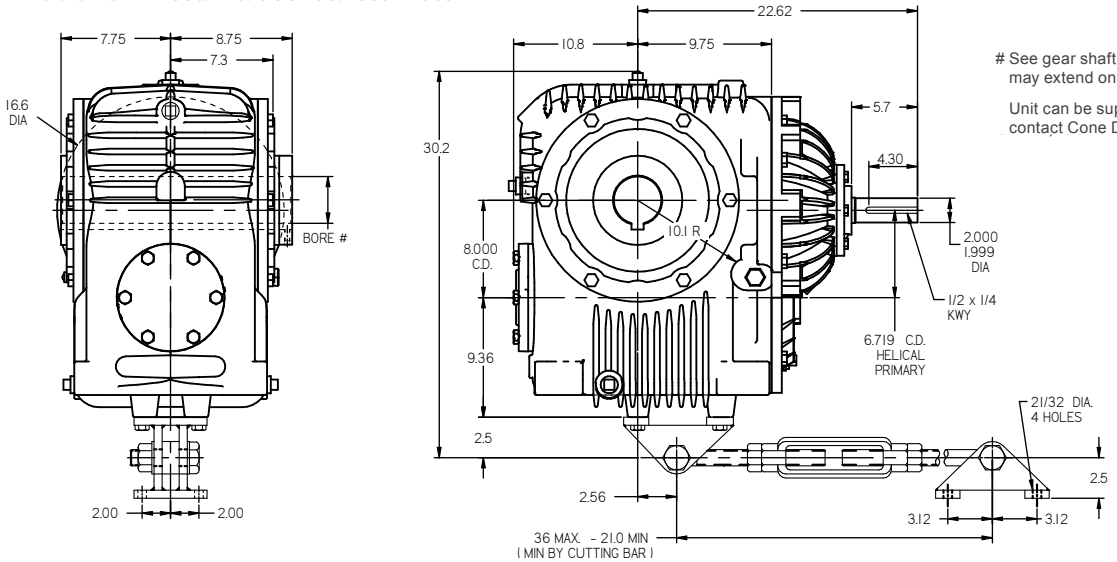


Model RV est. wt. 1000 lbs. less motor



SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SR est. wt. 960 lbs. less motor

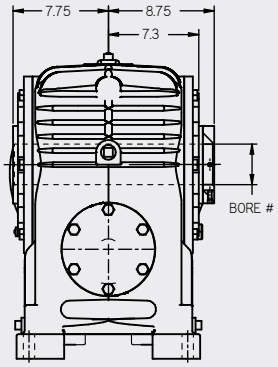


See gear shaft chart. Set screw end of shaft, may extend on either side.

Unit can be supplied with solid shaft, contact Cone Drive

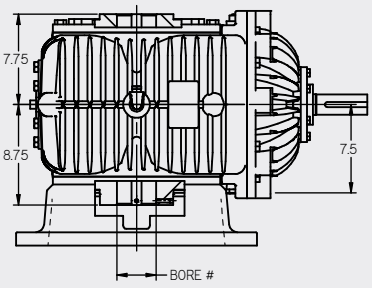
HOLLOW SHAFT

SRU est. wt. 1080 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SRV est. wt. 1000 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

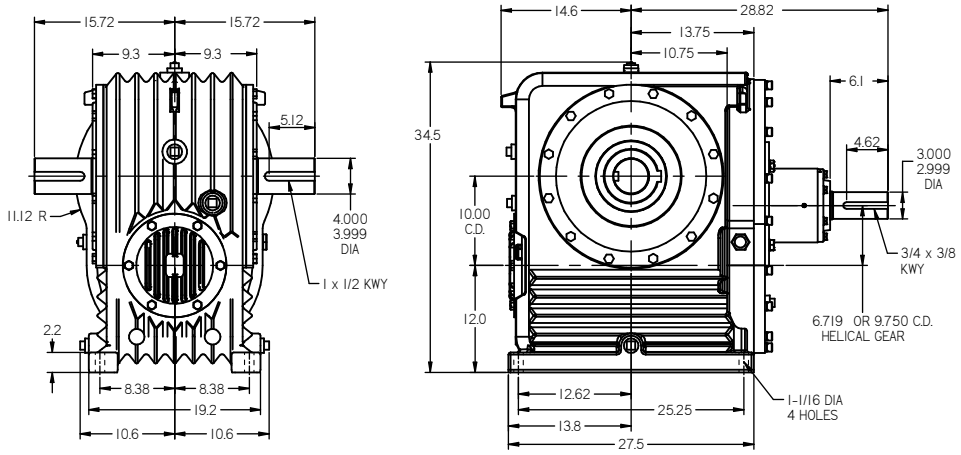
Size 100 Helical Worm Reducer Dimensions

10.000" C.D. SOLID SHAFT

(all dimensions in inches)

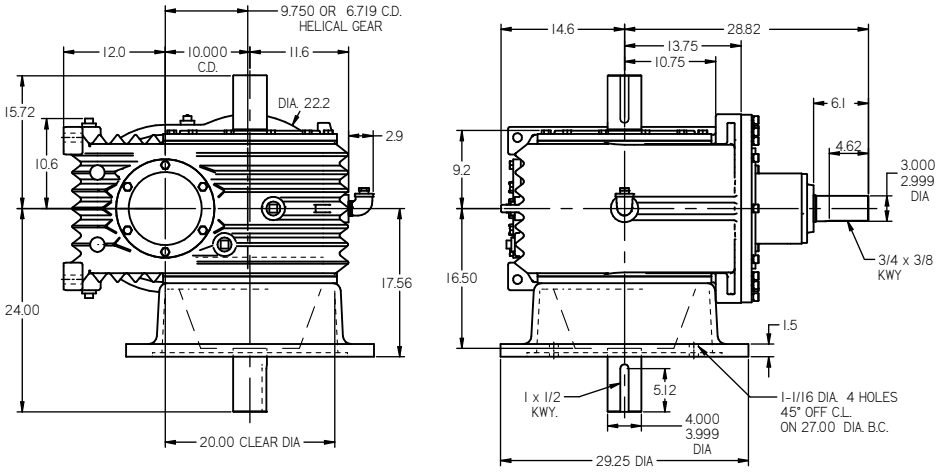
Model RU est. wt. 1650 lbs. less motor

100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS



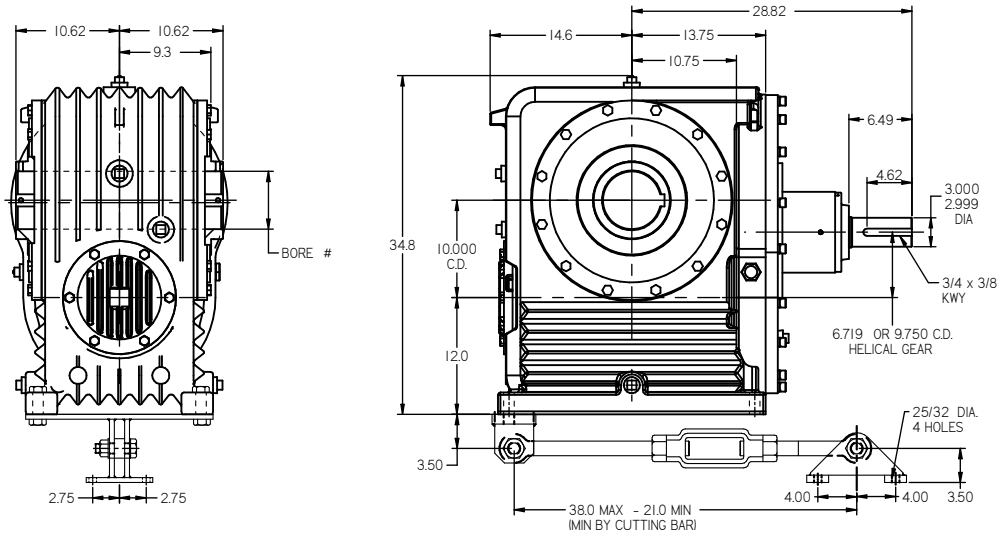
Model RV est. wt. 1725 lbs. less motor

100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS



SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

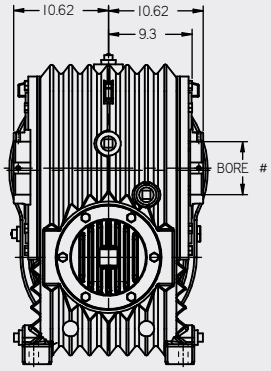
Model SR est. wt. 1700 lbs. less motor



100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS

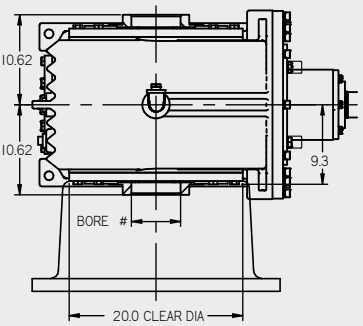
HOLLOW SHAFT

SRU est. wt. 1650 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SRV est. wt. 1725 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

See gear shaft chart. Set screw end of shaft, may extend on either side.

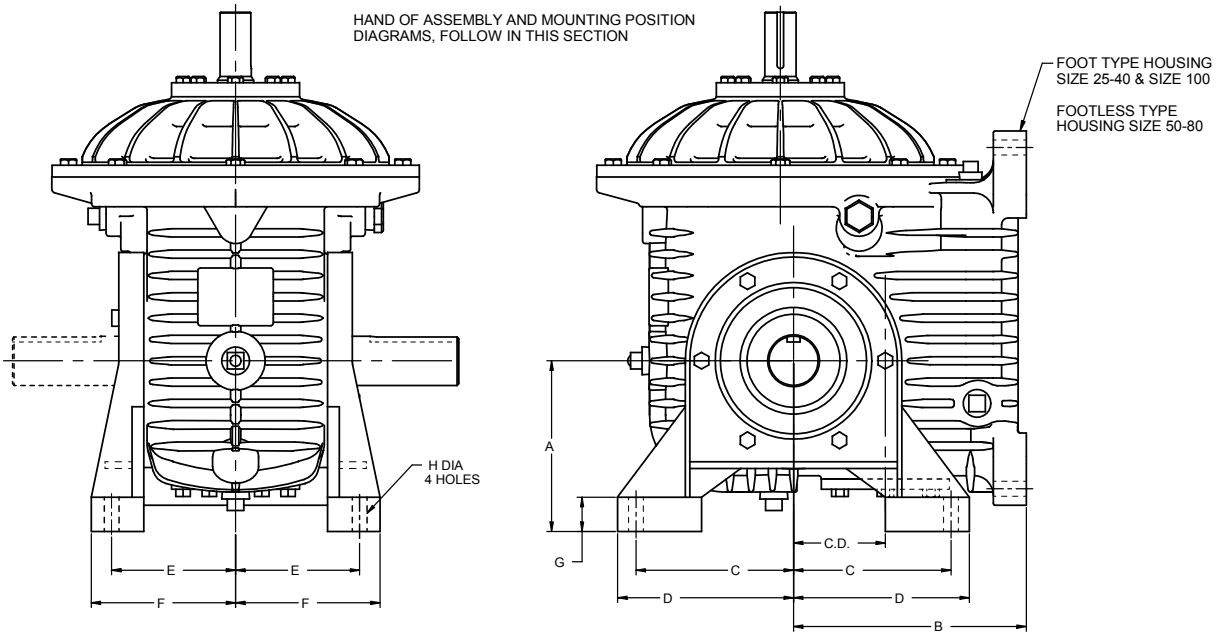
Unit can be supplied with solid shaft, contact Cone Drive.

Torque arm bracket can be mounted on either end of housing.

Note: hollow shaft is double extended.

MODELS VR & SVR INPUT VERTICAL-HORIZONTAL OUTPUT SHAFT

Special Foot Brackets

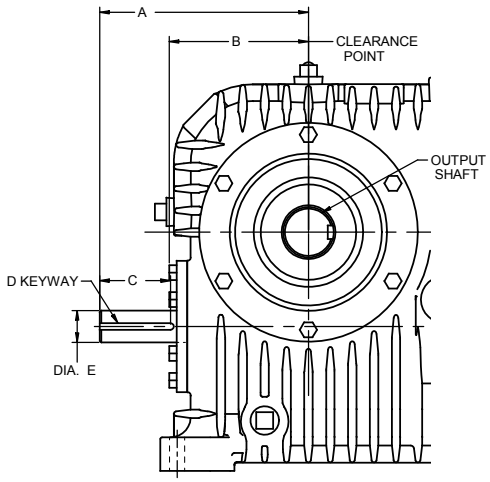


Model available in all solide and hollow output shaft configurations.
For all other dimensions refer to corresponding size model SR or RU.

SIZE	C.D.	A	B	C	D	E	F	G	H
	(in)								
25	2.5	4.5	6.75	4.25	4.8	4.75	5.4	0.9	15/32
30	3	5.5	7.75	5	5.7	5.25	5.9	1.2	9/16
35	3.5	6.5	8.87	6	6.7	6.5	7.2	1.3	9/16
40	4	7.5	10	6.75	7.6	7.75	8.6	1.5	11/16
50	5	8.5	11.8	7.5	8.4	8.25	9.2	1.8	13/16
60	6	8.5	13.4	8.25	9.1	9	9.9	1.5	13/16
70	7	13.75	16.4	10	11.3	9.75	10.8	1.5	15/16
80	8	15.5	17.4	11.5	12.8	10.3	11.3	1.8	15/16
100	10	19.5	22	14.5	16	13.1	14.3	2.3	1–1/16

Worm Extension Opposite Reducer Input

SIZE	C.D.	A	B	C	D	E
	(in)					
25	2.500	5.25	3.8	1.00	3/16 x 3/32	0.750
30	3.000	6.69	4.6	1.75	1/4 x 1/8	1.000
35	3.500	7.75	5.2	2.62	1/4 x 1/8	1.188
40	4.000	9.31	6.1	2.75	3/8 x 3/16	1.500
50	5.000	10.5	7.2	2.75	3/8 x 3/16	1.500
60	6.000	11.75	7.8	3.50	3/8 x 3/16	1.750
70	7.000	14.50	9.4	4.50	1/2 x 1/4	1.875
80	8.000	15.50	10.8	4.75	1/2 x 1/4	2.000
100	10.000	19.25	14.5	4.20	5/8 x 5/16	2.375



FOR SHAFT SPEED DIVIDE INPUT SPEED BY HELICAL GEAR RATIO.

MODELS FRV, FRU, FSR, FSRU, FSRV

Fan Cooling

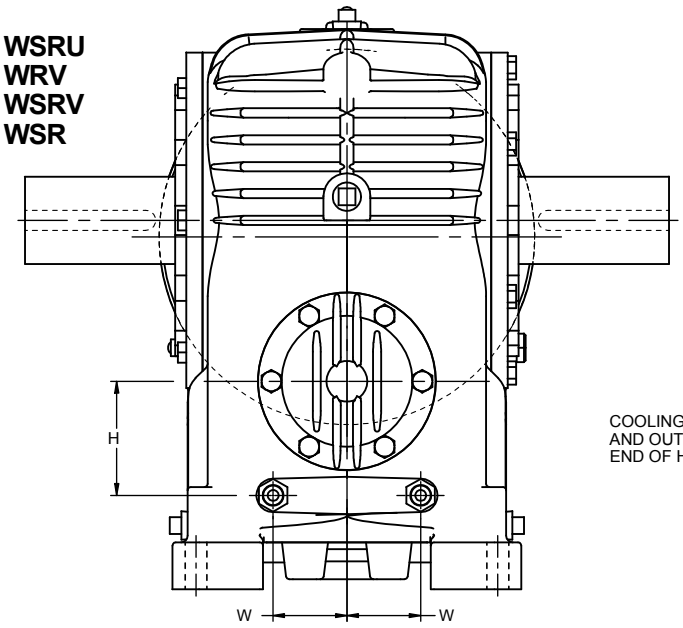
Cone Drive fan-cooled helical/worm double reduction speed reducers are available in all models size 40 through 100. They are identical with standard models except for the use of an extended worm shaft, fan and air-flow control cover.

CLEARANCE DIMENSION FROM CENTERLINE OF UNIT OVER FAN COVER						
SIZE	40	50	60	70	80	100
DIM	8.0	9.5	10.2	12.9	14.3	16.5

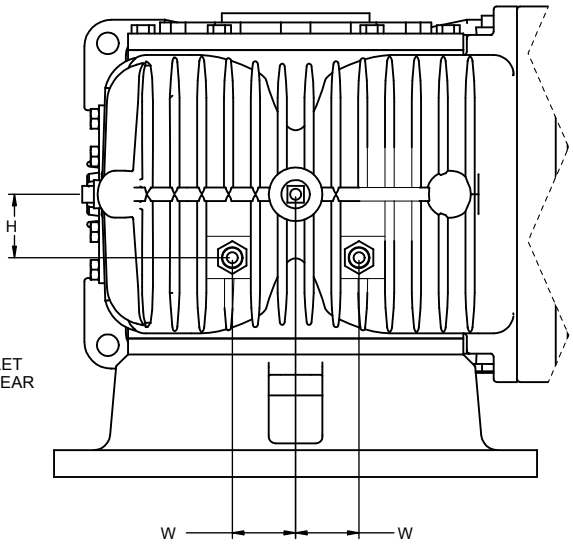
Water Cooling Inlet and Outlet Locations

WRU Shown

WSRU
WRV
WSRV
WSR



WRV and WSRV sizes 70-100 only



COOLING COIL INLET AND OUTLET AT GEAR END OF HOUSING

Floor Mounted Position Shown

MODELS	SIZE	W	H	FEMALE THREAD
WRU WRV WSR	40	2.43	3.50	3/8 - 18 NPT
WRU WRV WSR	50	2.25	3.75	3/8 - 18 NPT
WRU WRV WSR	60	2.06	4.44	3/8 - 18 NPT
WRU WSR	70	3.25	5.88	3/8 - 18 NPT
WRU WSR	80	3.25	5.88	3/8 - 18 NPT
WRU WSR	100	4.25	8.00	3/8 - 18 NPT

Floor Mounted Position Shown

MODELS	SIZE	W	H	FEMALE THREAD
WRV WSRV	70	3.00	3.75	3/8 - 18 NPT
WRV WSRV	80	3.50	3.75	3/8 - 18 NPT
WRV WSRV	100	5.00	4.25	3/8 - 18 NPT

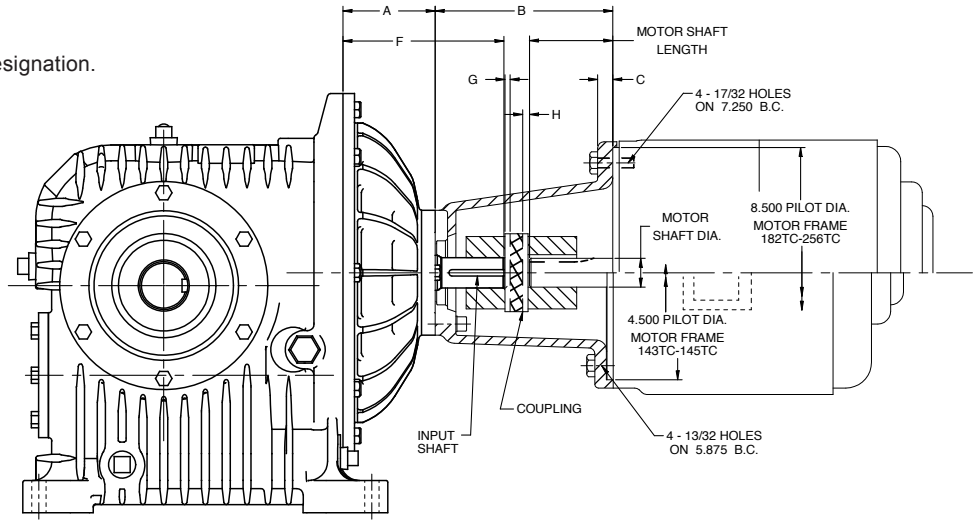
IMPORTANT: WHEN ASSEMBLING EXTERNAL PIPING TO REDUCER INLET AND OUTLET FITTINGS A BACKUP WRENCH MUST BE USED ON REDUCER FITTINGS TO PREVENT TURNING TO AVOID DAMAGE TO COOLING COILS INSIDE UNIT.

INLET AND OUTLET LOCATIONS MAY VARY DEPENDING ON MOUNTING POSITION OF UNIT.

MODELS RV, RU, SR, VR, SRU, SRV, SVR

NEMA "C" Face Motor

Add letter 'MA' before model designation.



NOTES

- Motor shaft length, frame 213TC-215TC, must be 2.250 (cut off) for reducer size 25 & 30 and standard length 3.125 for reducer sizes 35 & 40.
- Motor shaft length, frame 254TC-256TC to be 2.750 (cut off) for reducer sizes 35 & 40.
- Input shaft detail number G60 required for all standard helical pinion ratios except 4:1 which requires shaft detail. G61. All dash number will remain the same.
- It is the purchaser's or user's responsibility to guard all shafting in accordance to OSHA requirements.

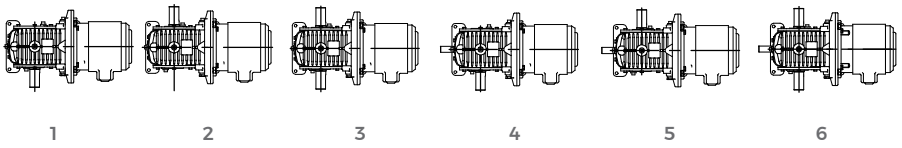
GEARBOX SIZE	Dimension (in)	Motor Frame Size			
		143TC - 145TC	182TC - 184TC	213TC - 215TC	254TC - 256TC
25 & 30	Pilot Diameter	4.50	8.50	8.50	8.50
	A	2.500	2.500	2.500	N/A
	B	4.812	5.531	5.531	N/A
	C	0.56	0.56	0.56	N/A
	F	4.687	4.687	5.062	N/A
	G	0.00	0.00	0.21	0.00
	H	0.18	0.00	0.00	0.00
	Input Shaft	30-G60A-1	30-G60A-1	30-G60A	N/A
	Coupling PN	720107	720109	720201-1	N/A
	Adapter PN	30-MG20	30-MG21	30-MG21	N/A
35 & 40	Pilot Diameter	4.50	8.50	8.50	8.50
	A	3.125	3.125	3.125	3.125
	B	5.937	6.562	6.562	6.562
	C	0.53	0.53	0.53	0.53
	F	6.250	6.250	5.812	6.25
	G	0.00	0.00	0.12	0.31
	H	0.00	-0.06	0.00	0.00
	Input Shaft	40-G60	40-G60	40-G60-1	40-G60
	Coupling PN	720112	720113	720204	720254-1
	Adapter PN	40-MG20	40-MG21	40-MG21	40-MG21
50 & 60	Pilot Diameter	4.50	8.50	8.50	8.50
	A	4.00	4.00	4.00	4.00
	B	7.960	9.060	9.060	9.060
	C	0.400	0.580	0.580	0.580
	F	9.000	9.000	9.000	8.375
	G	0.00	0.00	0.00	0.00
	H	0.00	0.56	0.00	0.00
	Input Shaft	53-G60	53-G60	53-G60	53-G60-1
	Coupling PN	720207	720208	720209	720258
	Adapter PN	53-MG20-SW	53-MG21-SW	53-MG21-SW	53-MG21-SW
Motor Shaft					
Length		2.125	2.625	See Notes	See Notes
Diameter		0.875	1.125	1.375	1.625
Keyway		3/16	1/4	5/16	3/8

Helical Worm Reducer D-Flange
Assembly & Mounting Position Numbers

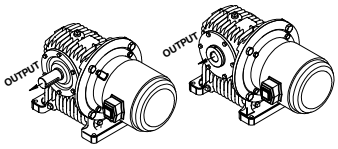
MODELS MU, SMU, MV, SMV, SM, SOLID & HOLLOW SHAFT

All diagrams show reducer with feet on far side.

TOP VIEW, FLOOR MOUNTED

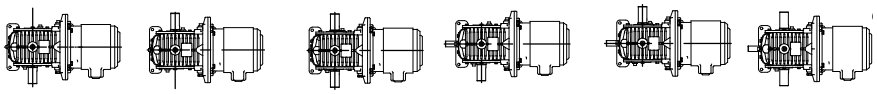


1 2 3 4 5 6

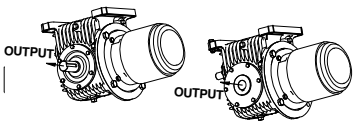


1 SHOWN

CEILING MOUNTED

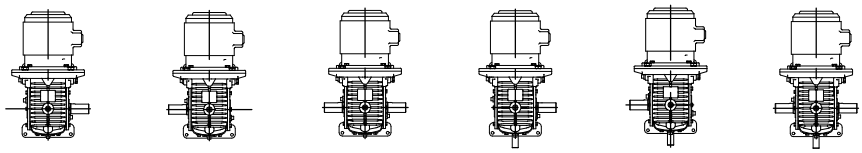


C1 C2 C3 C4 C5 C6

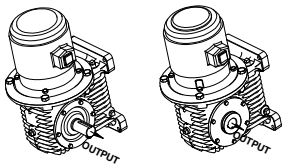


C2 SHOWN

WALL MOUNTED, MOTOR UP

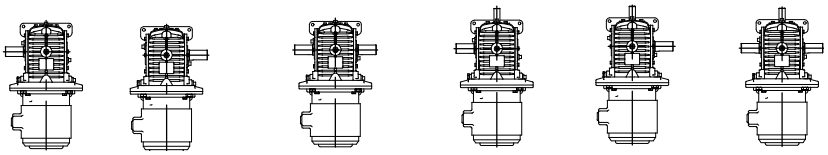


W1 W2 W3 W4 W5 W6

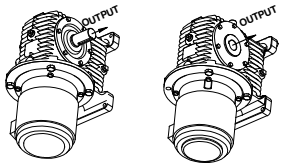


W1 SHOWN

WALL MOUNTED, MOTOR DOWN*

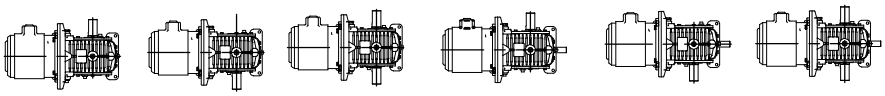


X1 X2 X3 X4 X5 X6

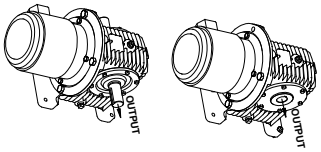


X2 SHOWN

WALL MOUNTED, MOTOR TO THE LEFT*

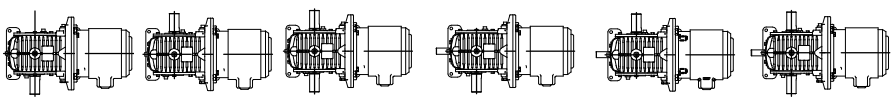


Y1 Y2 Y3 Y4 Y5 Y6

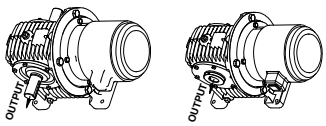


Y2 SHOWN

WALL MOUNTED, MOTOR TO THE RIGHT



Z1 Z2 Z3 Z4 Z5 Z6



Z1 SHOWN

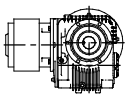
*Motor face may be submerged in oil. Contact motor supplier regarding shaft seal requirements.

MODELS MV, SMV, SOLID & HOLLOW SHAFT

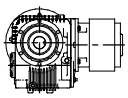
All diagrams show reducer with feet on far side.

MV	SMV	
A	A	Gearshaft Extended Opposite Base
BR	B	Gearshaft Extended Through Base
SD	C	Gearshaft Double Extended

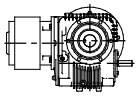
TOP VIEW, FLOOR MOUNTED*



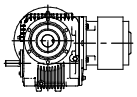
MV	SMV
1A	1A
1BR	1B
1SD	1C



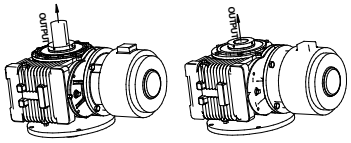
MV	SMV
2A	2A
2BR	2B
2SD	2C



MV	SMV
3A	3A
3BR	3B
3SD	3C

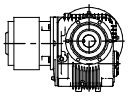


MV	SMV
4A	4A
4BR	4B
4SD	4C

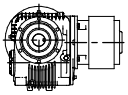


2A SHOWN

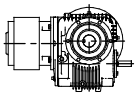
CEILING MOUNTED*



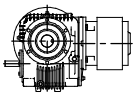
MV	SMV
C1A	C1A
C1BR	C1B
C1SD	C1C



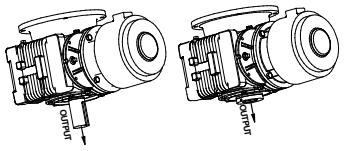
MV	SMV
C2A	C2A
C2BR	C2B
C2SD	C2C



MV	SMV
C3A	C3A
C3BR	C3B
C3SD	C3C

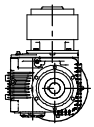


MV	SMV
C4A	C4A
C4BR	C4B
C4SD	C4C

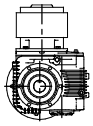


C1A SHOWN

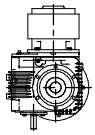
WALL MOUNTED, MOTOR UP



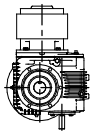
MV	SMV
W1A	W1A
W1BR	W1B
W1SD	W1C



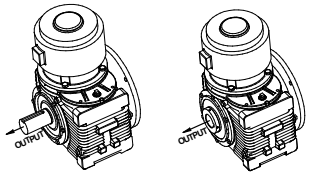
MV	SMV
W2A	W2A
W2BR	W2B
W2SD	W2C



MV	SMV
W3A	W3A
W3BR	W3B
W3SD	W3C

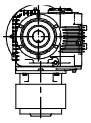


MV	SMV
W4A	W4A
W4BR	W4B
W4SD	W4C

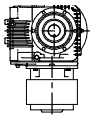


W2A SHOWN

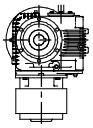
WALL MOUNTED, MOTOR DOWN*



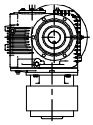
MV	SMV
X1A	X1A
X1BR	X1B
X1SD	X1C



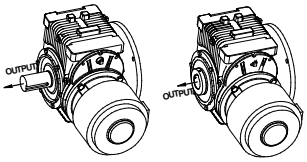
MV	SMV
X2A	X2A
X2BR	X2B
X2SD	X2C



MV	SMV
X3A	X3A
X3BR	X3B
X3SD	X3C

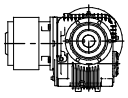


MV	SMV
X4A	X4A
X4BR	X4B
X4SD	X4C

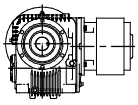


X1A SHOWN

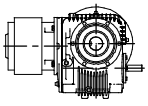
WALL MOUNTED, MOTOR UNDER



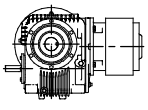
MV	SMV
Y1A	Y1A
Y1BR	Y1B
Y1SD	Y1C



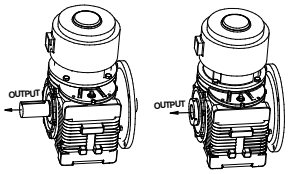
MV	SMV
Y2A	Y2A
Y2BR	Y2B
Y2SD	Y2C



MV	SMV
Y3A	Y3A
Y3BR	Y3B
Y3SD	Y3C

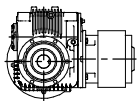


MV	SMV
Y4A	Y4A
Y4BR	Y4B
Y4SD	Y4C

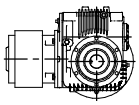


Y2A SHOWN

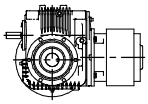
WALL MOUNTED, MOTOR OVER



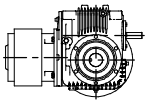
MV	SMV
Z1A	Z1A
Z1BR	Z1B
Z1SD	Z1C



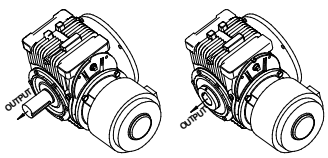
MV	SMV
Z2A	Z2A
Z2BR	Z2B
Z2SD	Z2C



MV	SMV
Z3A	Z3A
Z3BR	Z3B
Z3SD	Z3C



MV	SMV
Z4A	Z4A
Z4BR	Z4B
Z4SD	Z4C



Z1A SHOWN

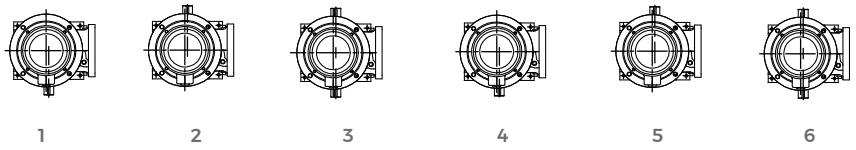
*Motor face may be submerged in oil. Contact motor supplier regarding shaft seal requirements.

Helical Worm Reducer D-Flange
Assembly & Mounting Position Numbers

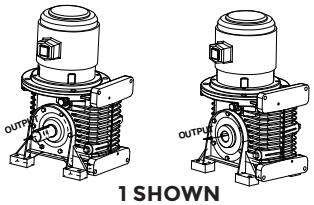
MODELS VM, SVM, SOLID & HOLLOW SHAFT

All diagrams show reducer with feet on far side. Diagrams 4-6 have shaft extension opposite motor end.

TOP VIEW, FLOOR MOUNTED

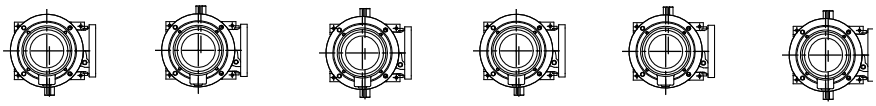


1 2 3 4 5 6

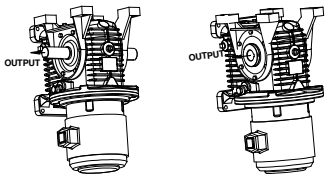


1 SHOWN

CEILING MOUNTED*

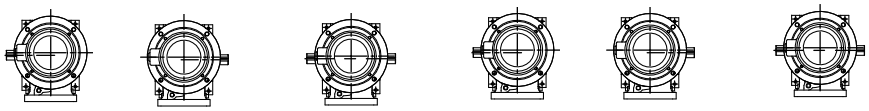


C1 C2 C3 C4 C5 C6

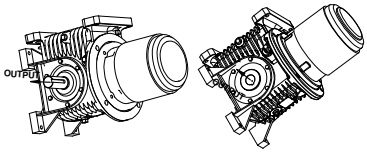


C2 SHOWN

WALL MOUNTED, WORM UNDER HORIZONTAL GEARSHAFT

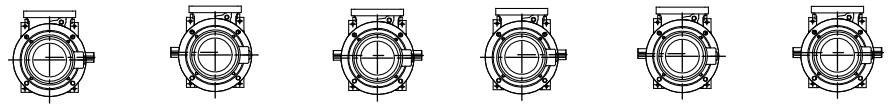


W1 W2 W3 W4 W5 W6

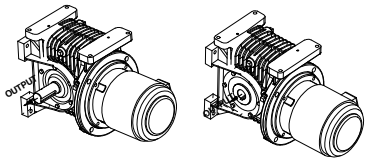


W1 SHOWN

WALL MOUNTED, WORM OVER HORIZONTAL GEARSHAFT*

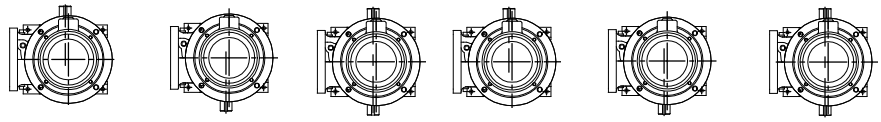


X1 X2 X3 X4 X5 X6

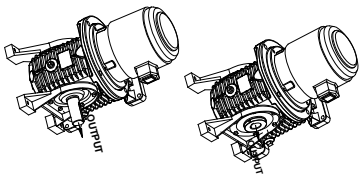


X2 SHOWN

WALL MOUNTED, WORM LEFT VERTICAL GEARSHAFT*

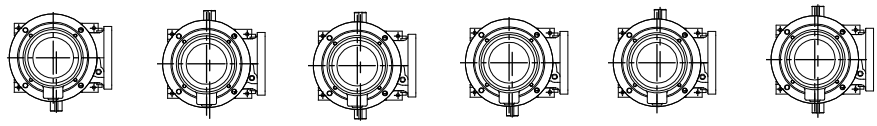


Y1 Y2 Y3 Y4 Y5 Y6

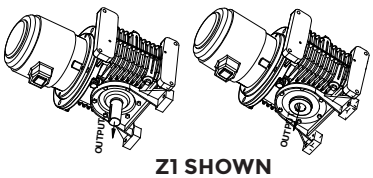


Y2 SHOWN

WALL MOUNTED, WORM RIGHT VERTICAL GEARSHAFT*



Z1 Z2 Z3 Z4 Z5 Z6



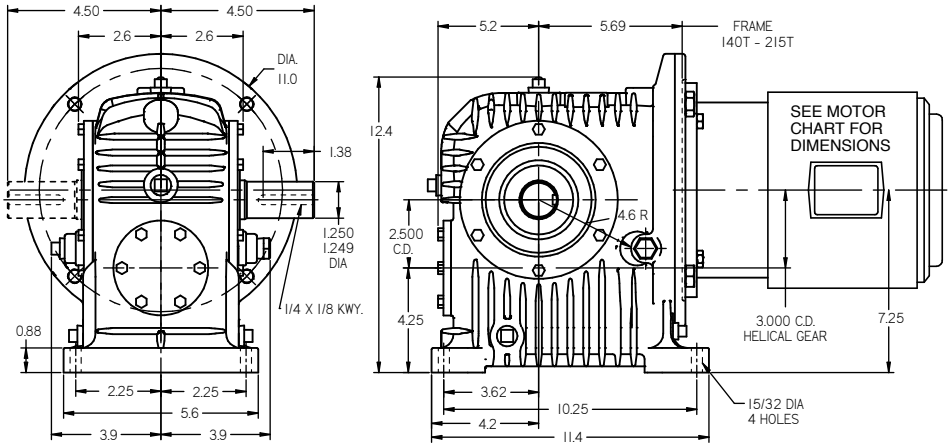
Z1 SHOWN

*Motor face may be submerged in oil. Contact motor supplier regarding shaft seal requirements.

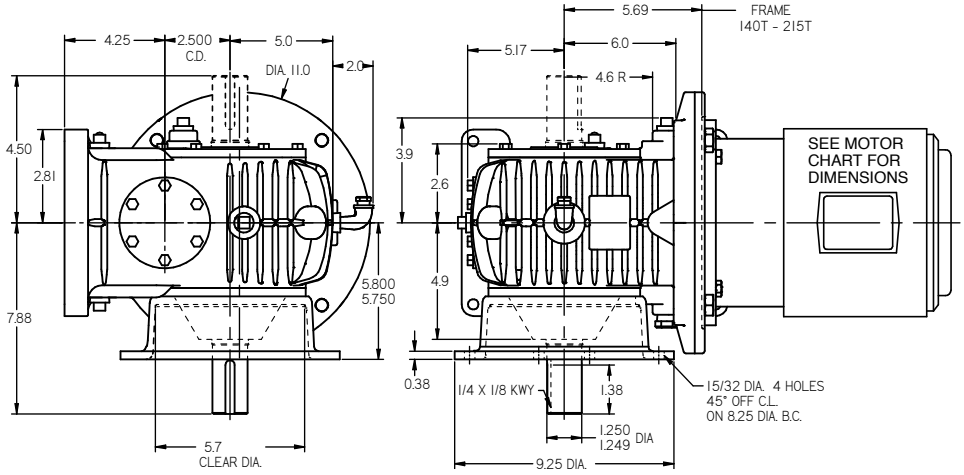
2.500" C.D. SOLID SHAFT

(all dimensions in inches)

Model MU est. wt. 70 lbs. less motor

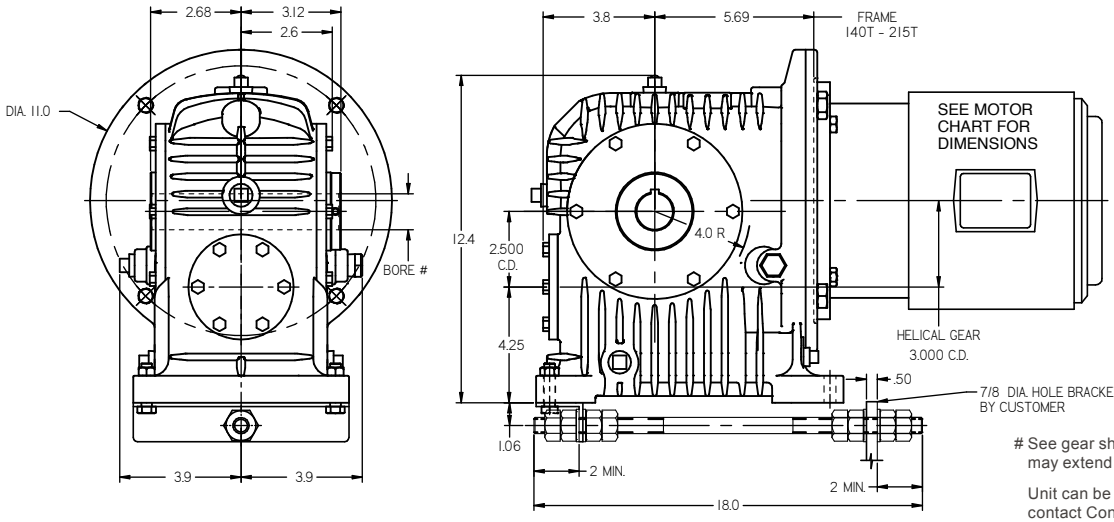


Model MV est. wt. 70 lbs. less motor



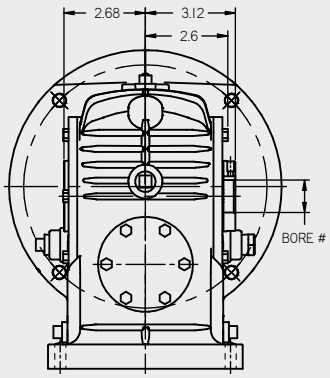
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SM est. wt. 70 lbs. less motor



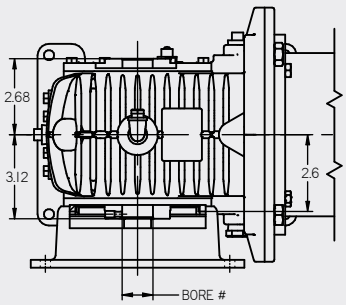
HOLLOW SHAFT

SMU est. wt. 70 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SMV est. wt. 70 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

See gear shaft chart. Set screw end of shaft, may extend on either side.

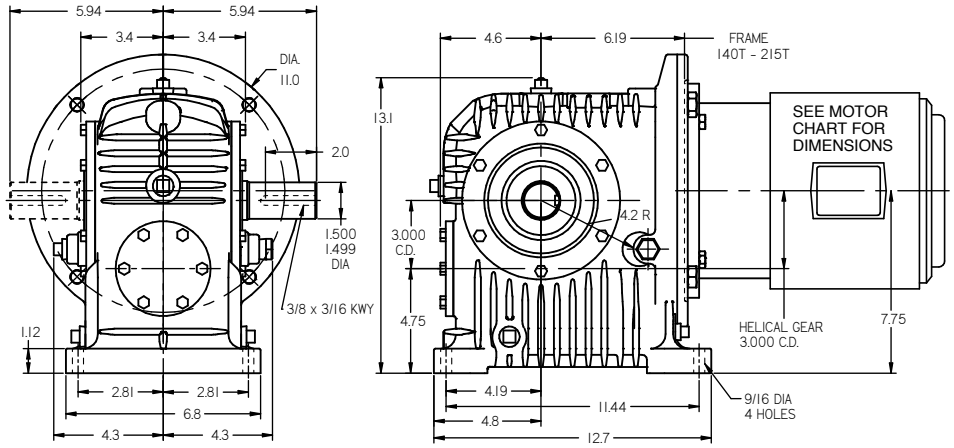
Unit can be supplied with solid shaft, contact Cone Drive.

Size 30 Helical Worm Reducer D-Flange Dimensions

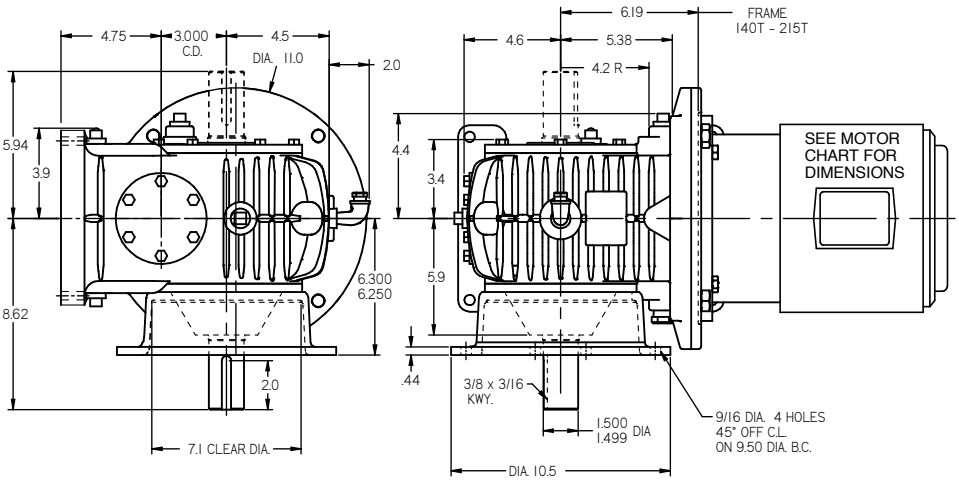
3.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model MU est. wt. 100 lbs. less motor

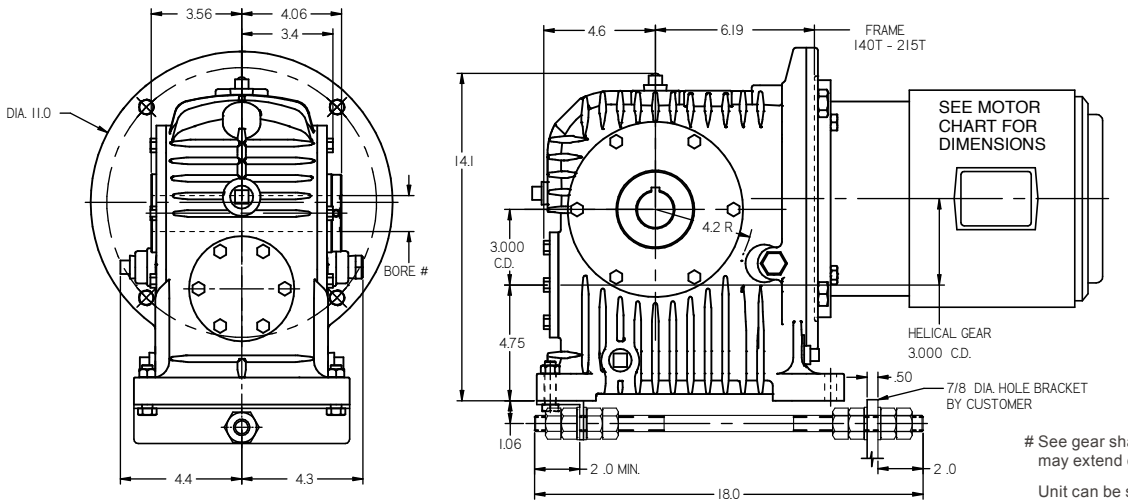


Model MV est. wt. 110 lbs. less motor



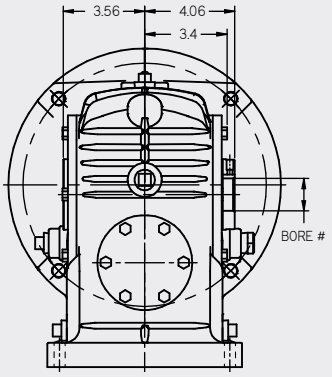
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SM est. wt. 100 lbs. less motor



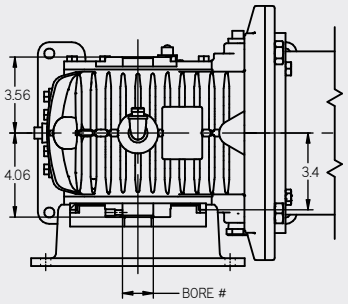
HOLLOW SHAFT

SMU est. wt. 100 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SMV est. wt. 110 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

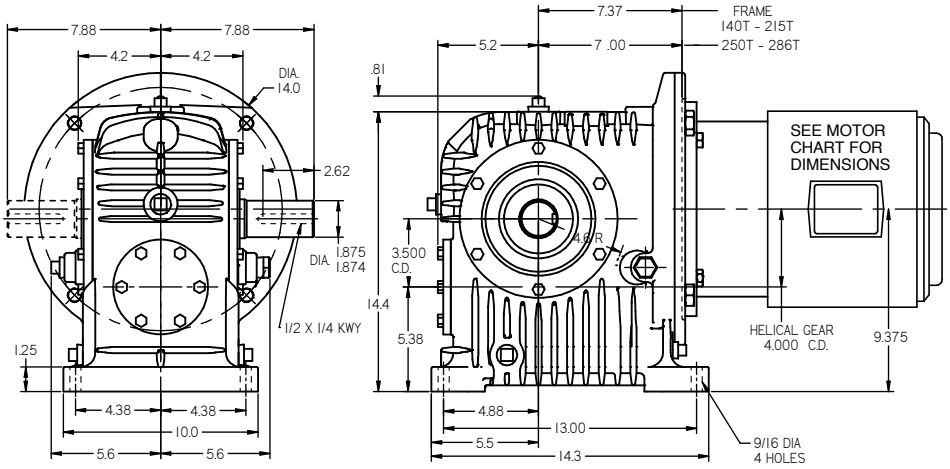
See gear shaft chart. Set screw end of shaft, may extend on either side.

Unit can be supplied with solid shaft, contact Cone Drive.

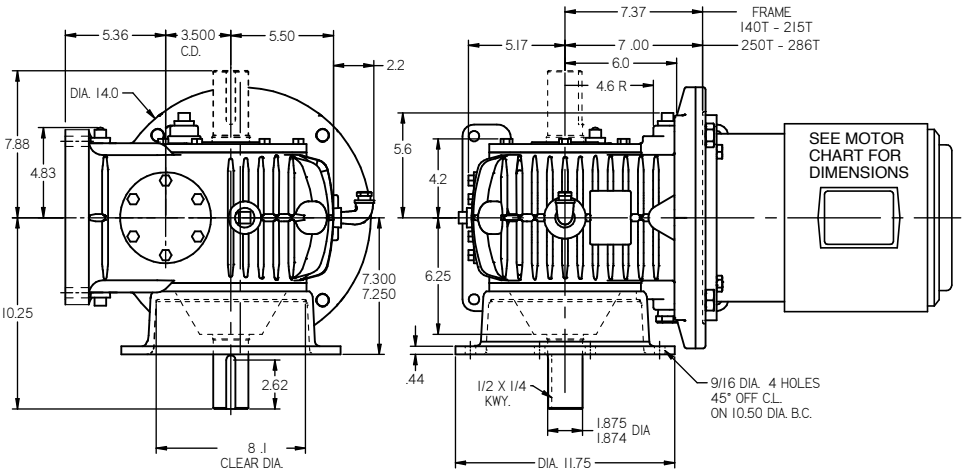
3.500" C.D. SOLID SHAFT

(all dimensions in inches)

Model MU est. wt. 180 lbs. less motor

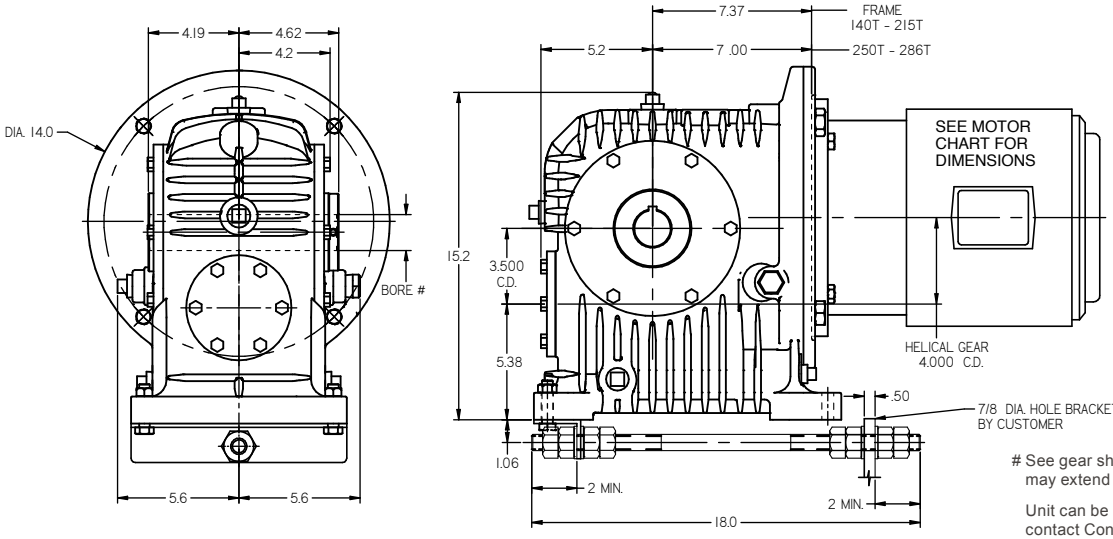


Model MV est. wt. 190 lbs. less motor



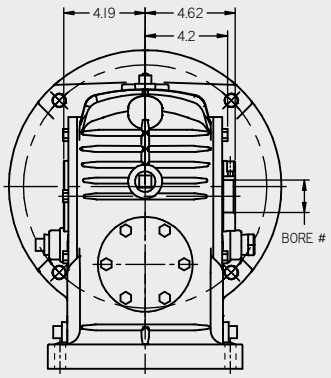
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SM est. wt. 180 lbs. less motor



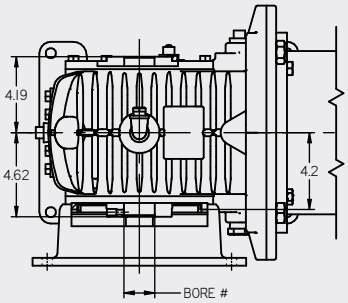
HOLLOW SHAFT

SMU est. wt. 180 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SMV est. wt. 190 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

See gear shaft chart. Set screw end of shaft, may extend on either side.

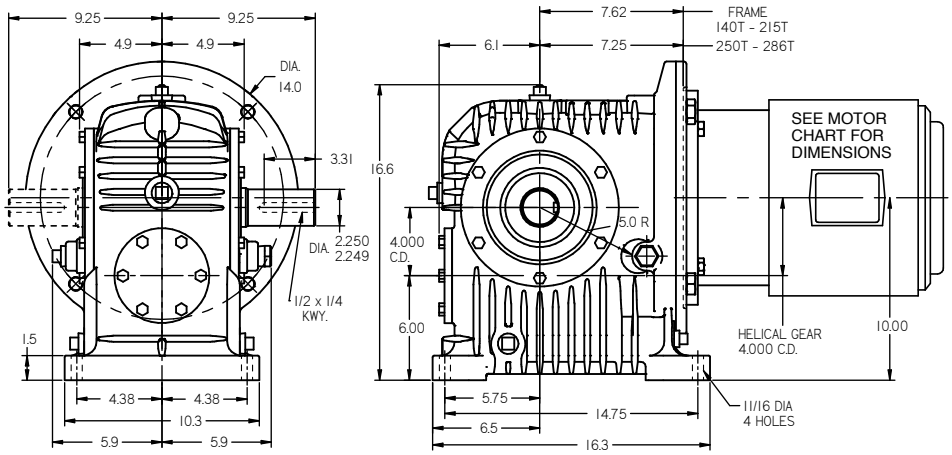
Unit can be supplied with solid shaft, contact Cone Drive.

Size 40 Helical Worm Reducer D-Flange Dimensions

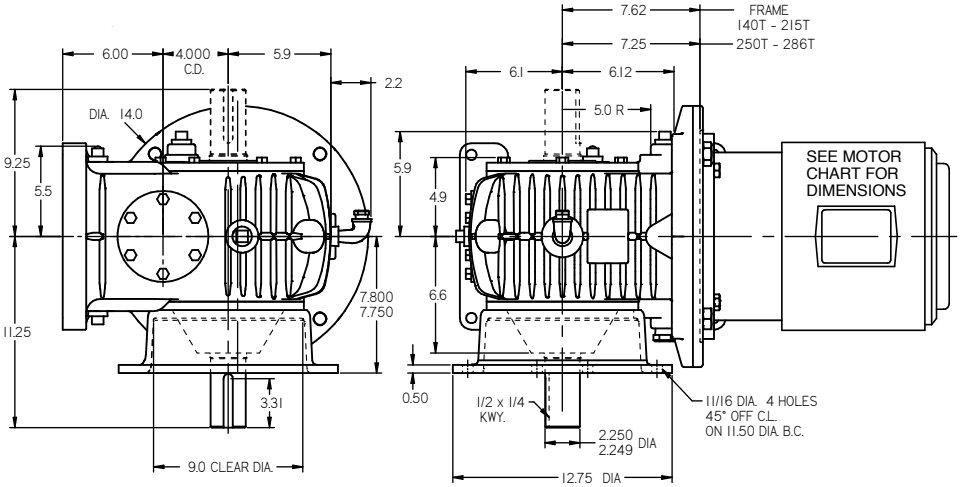
4.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model MU est. wt. 230 lbs. less motor

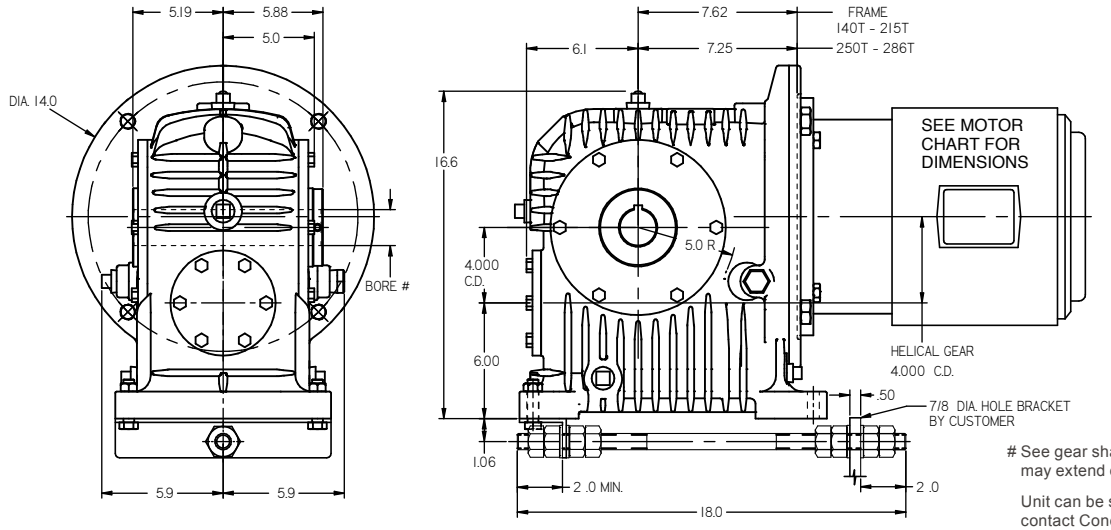


Model MV est. wt. 250 lbs. less motor



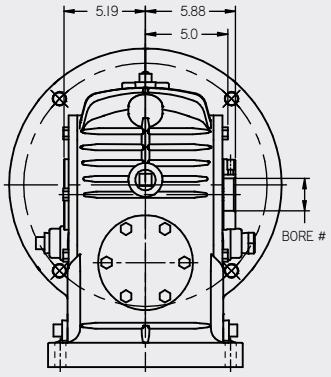
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SM est. wt. 230 lbs. less motor



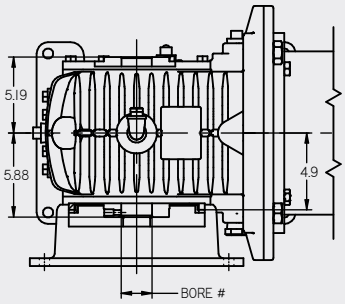
HOLLOW SHAFT

SMU est. wt. 230 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SMV est. wt. 250 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

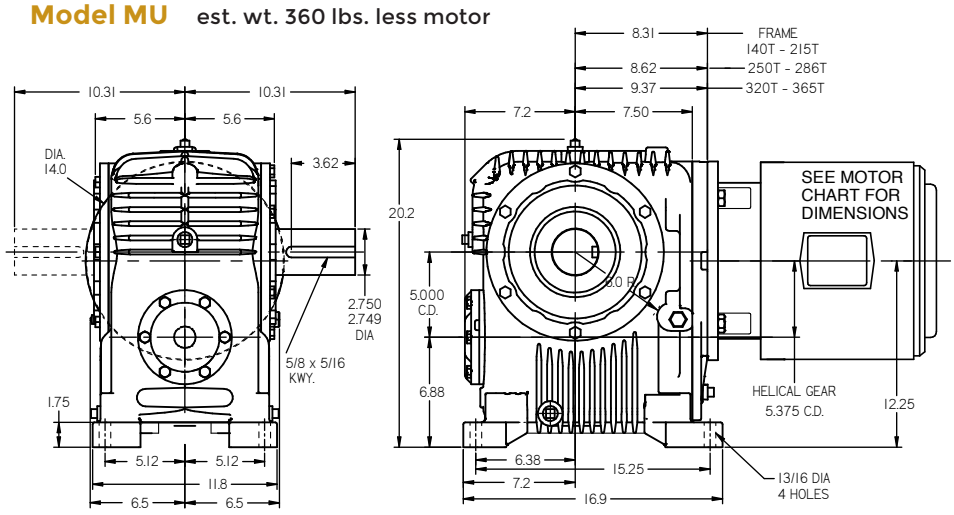
See gear shaft chart. Set screw end of shaft, may extend on either side.

Unit can be supplied with solid shaft, contact Cone Drive.

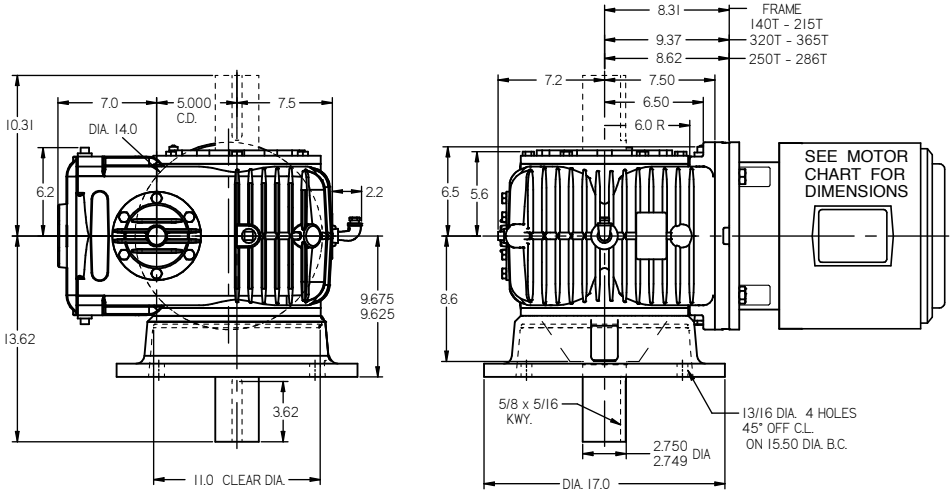
5.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model MU est. wt. 360 lbs. less motor

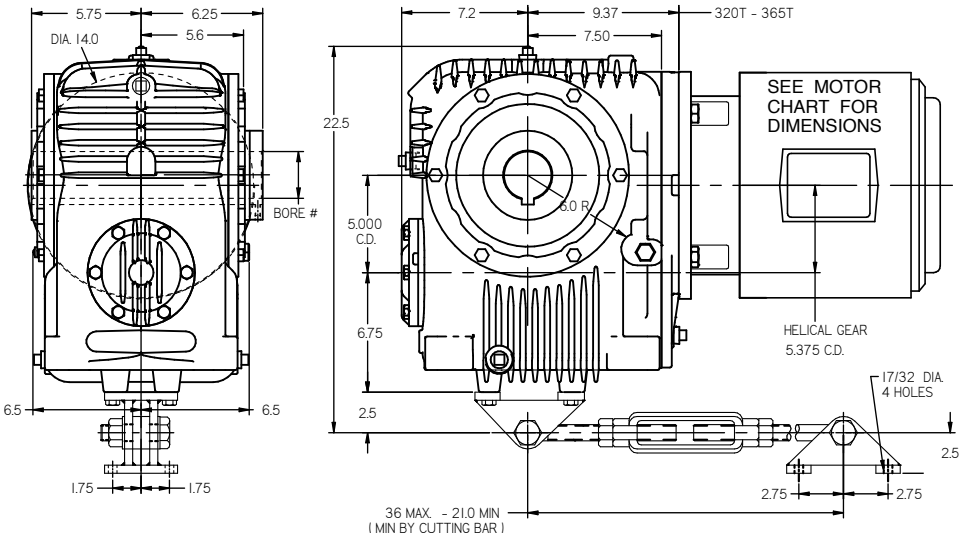


Model MV est. wt. 390 lbs. less motor



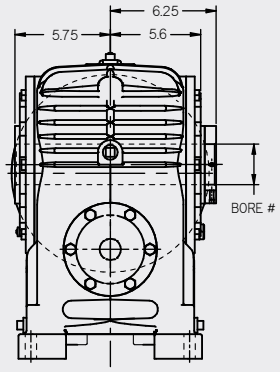
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SM est. wt. 360 lbs. less motor



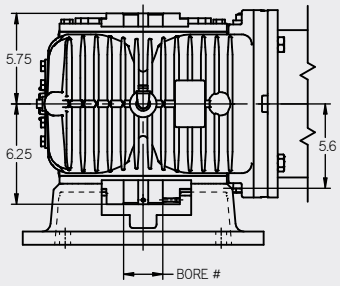
HOLLOW SHAFT

SMU est. wt. 360 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SMV est. wt. 390 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

See gear shaft chart. Set screw end of shaft, may extend on either side.

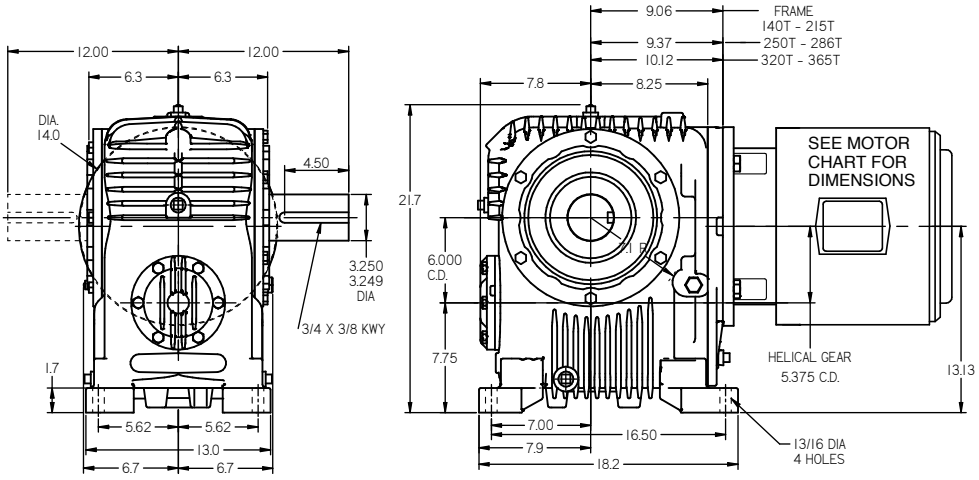
Unit can be supplied with solid shaft, contact Cone Drive.

Size 60 Helical Worm Reducer D-Flange Dimensions

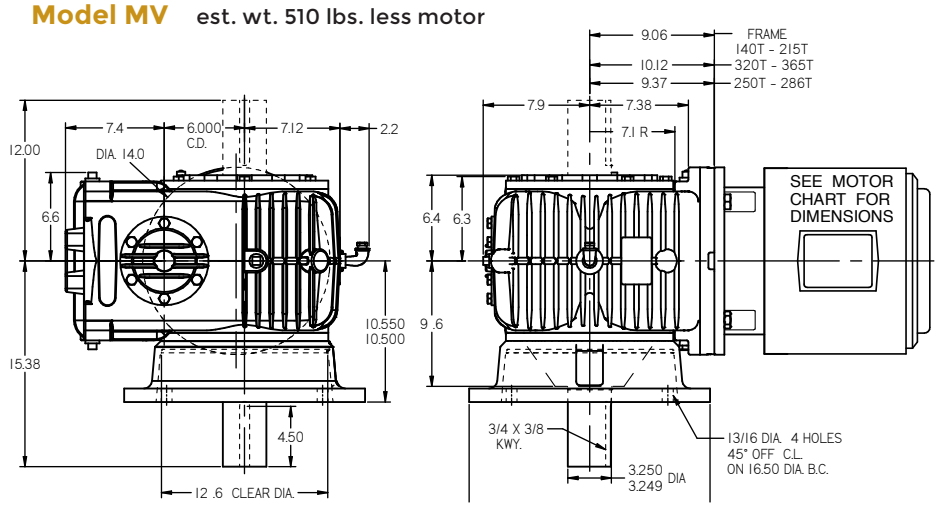
6.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model MU est. wt. 480 lbs. less motor

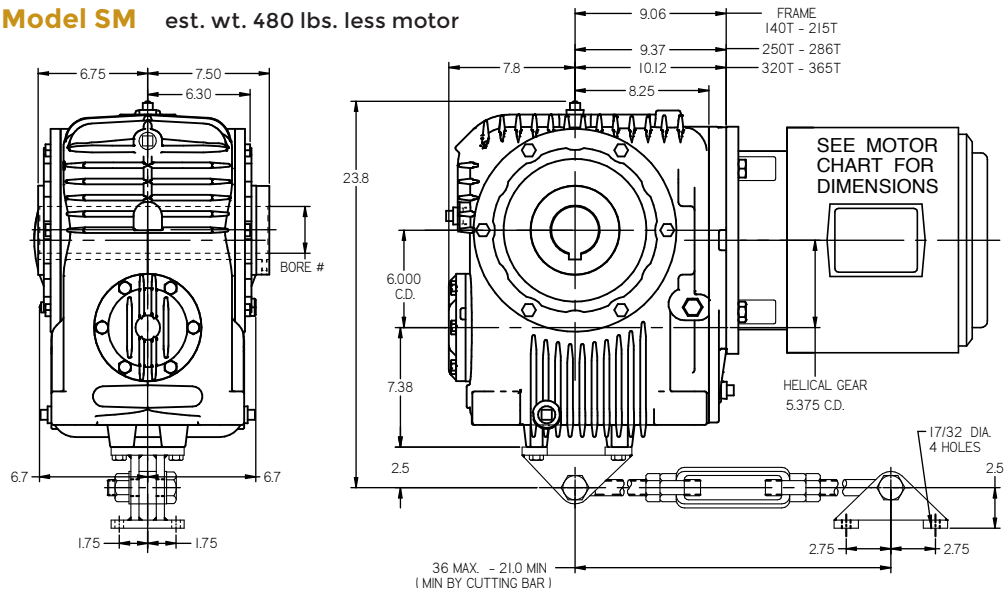


Model MV est. wt. 510 lbs. less motor



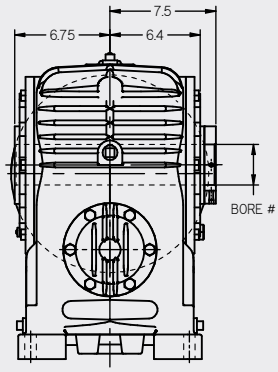
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SM est. wt. 480 lbs. less motor



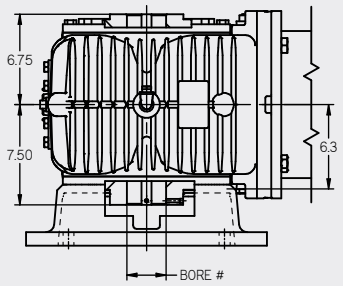
HOLLOW SHAFT

SMU est. wt. 480 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SMV est. wt. 510 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

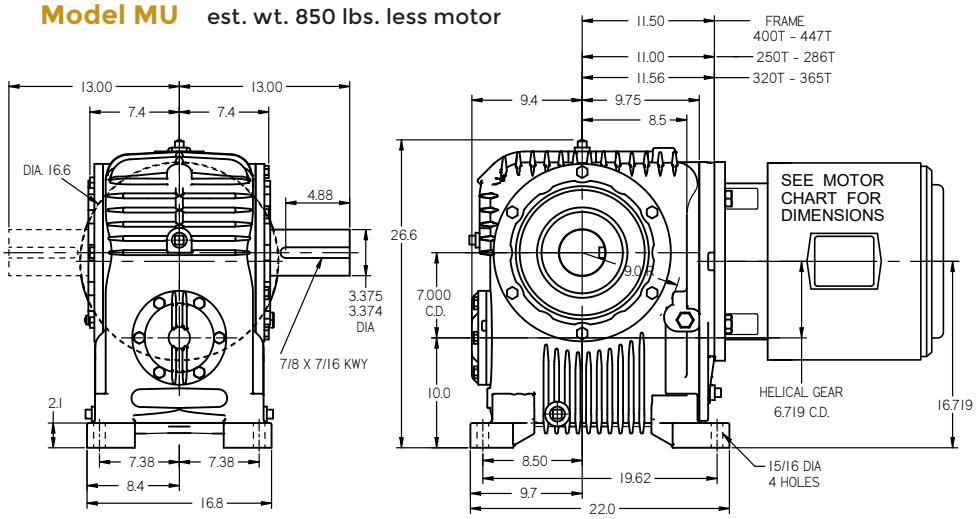
See gear shaft chart. Set screw end of shaft, may extend on either side.

Unit can be supplied with solid shaft, contact Cone Drive.

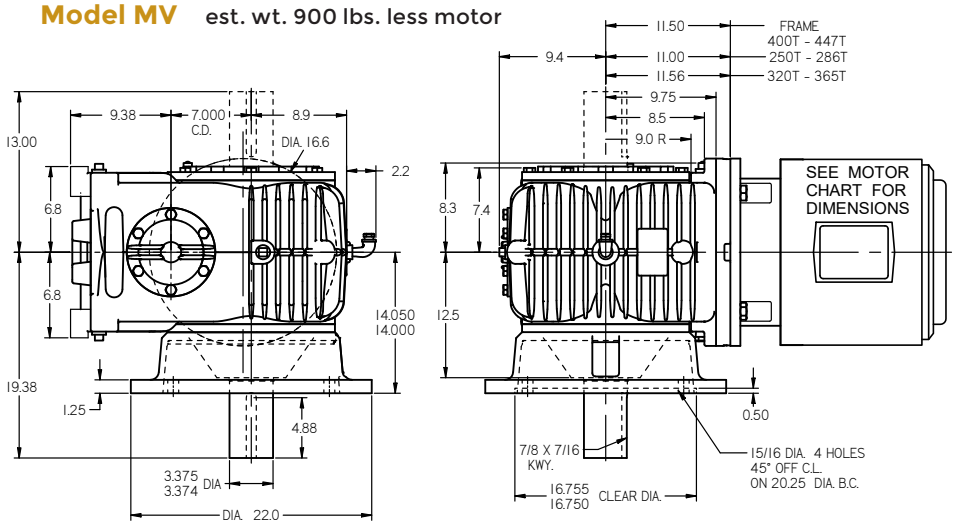
7.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model MU est. wt. 850 lbs. less motor

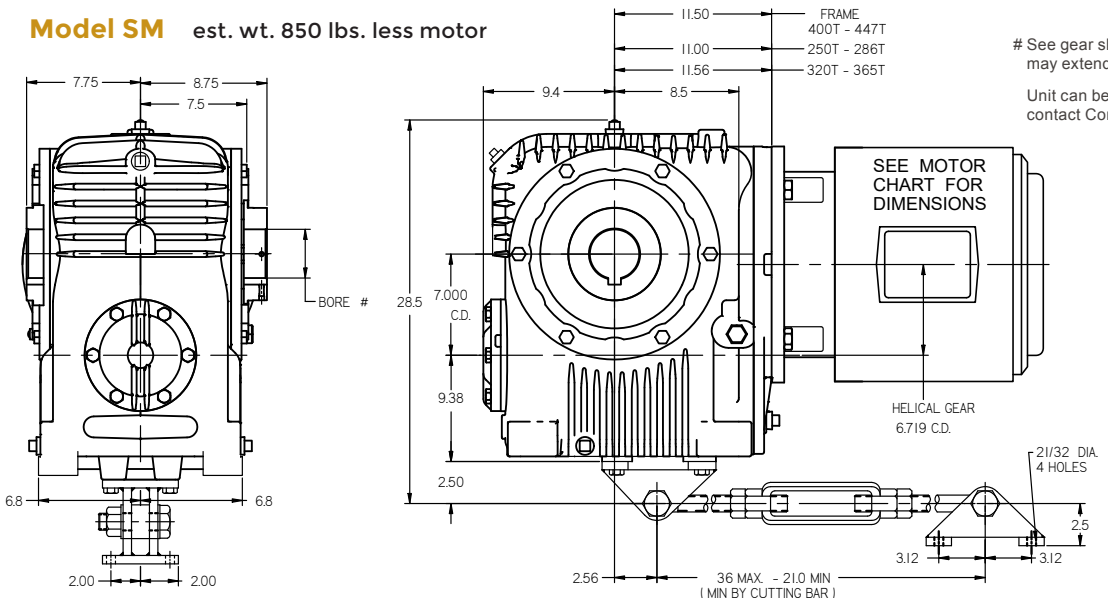


Model MV est. wt. 900 lbs. less motor



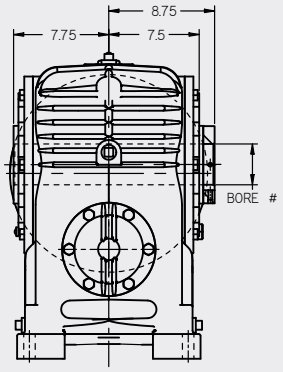
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SM est. wt. 850 lbs. less motor



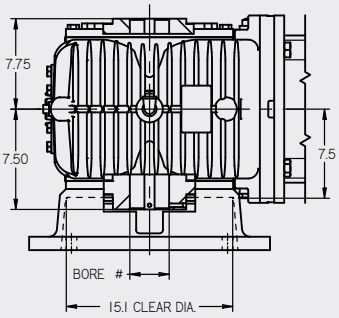
HOLLOW SHAFT

SMU est. wt. 850 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SMV est. wt. 900 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

See gear shaft chart. Set screw end of shaft, may extend on either side.

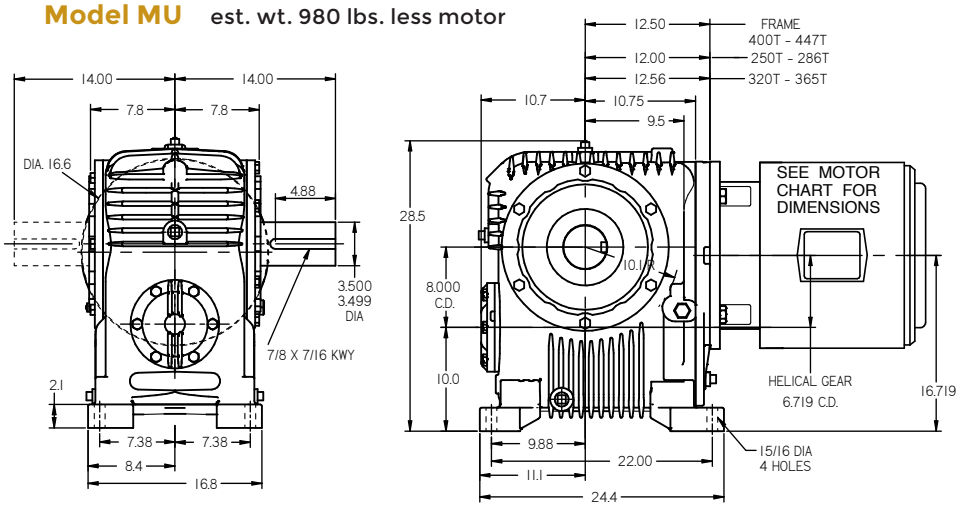
Unit can be supplied with solid shaft, contact Cone Drive.

Size 80 Helical Worm Reducer D-Flange Dimensions

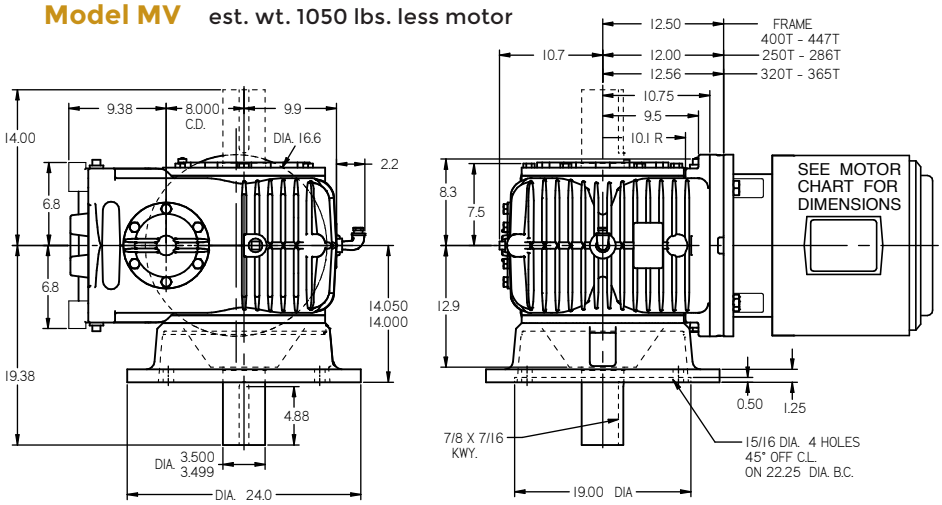
8.000" C.D. SOLID SHAFT

(all dimensions in inches)

Model MU est. wt. 980 lbs. less motor

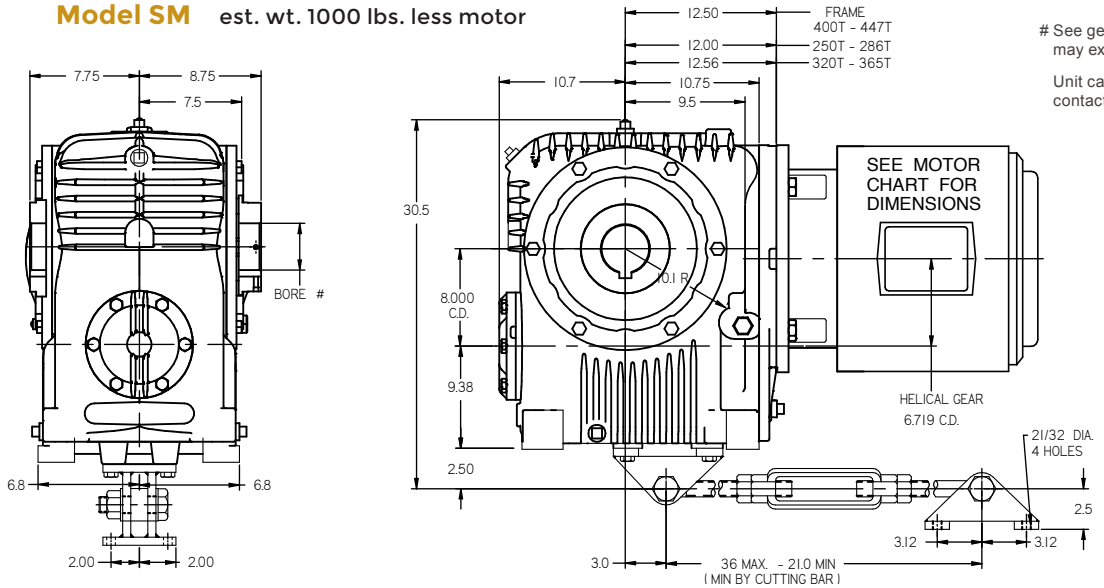


Model MV est. wt. 1050 lbs. less motor



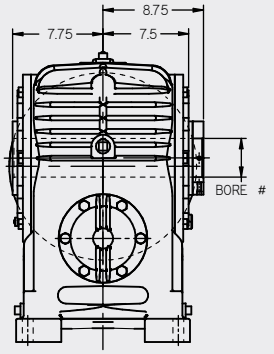
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SM est. wt. 1000 lbs. less motor



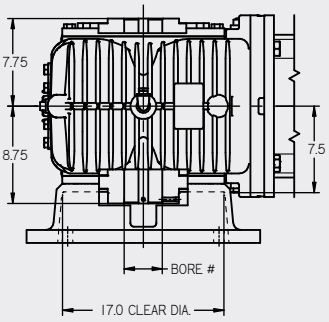
HOLLOW SHAFT

SMU est. wt. 980 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SMV est. wt. 1050 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

See gear shaft chart. Set screw end of shaft, may extend on either side.

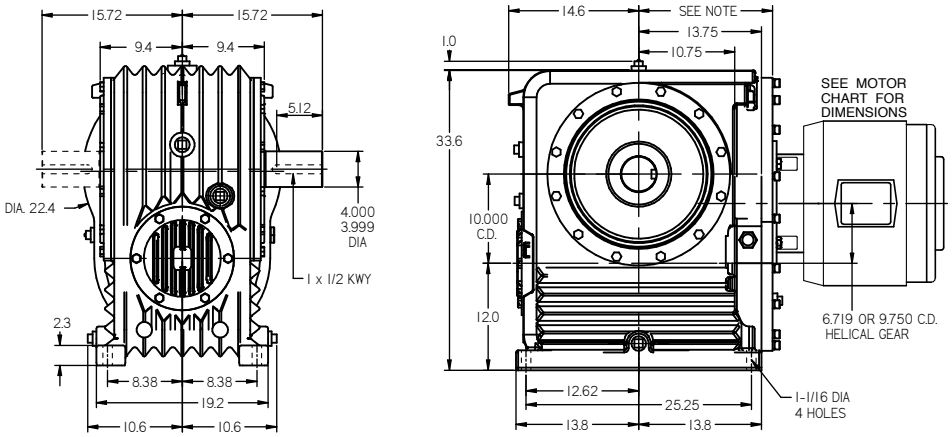
Unit can be supplied with solid shaft, contact Cone Drive.

10.000" C.D. SOLID SHAFT

(all dimensions in inches)

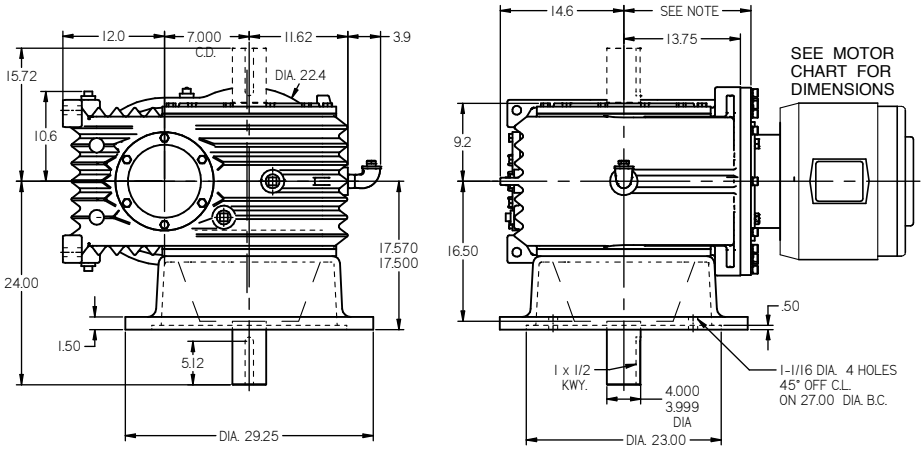
Model MU est. wt. 1600 lbs. less motor

100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS



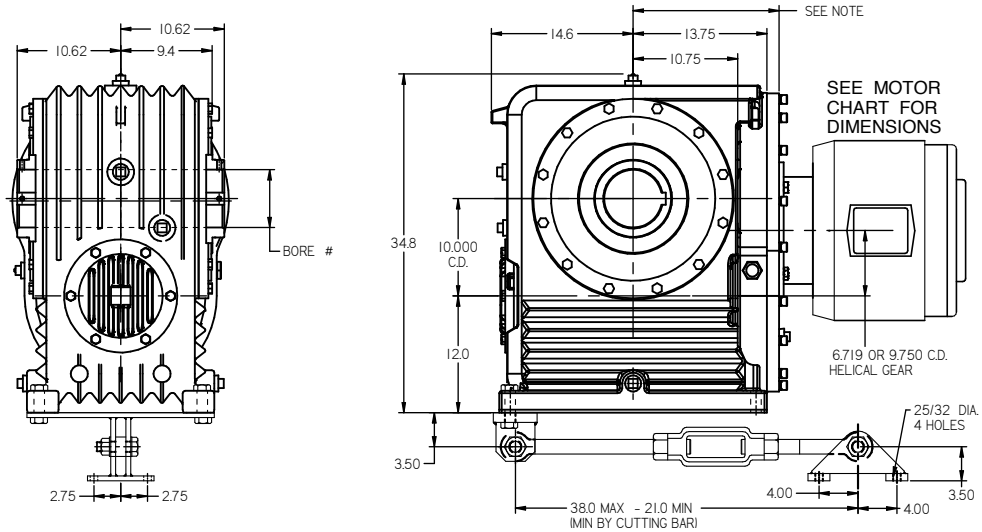
Model MV est. wt. 1675 lbs. less motor

100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS



SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SM est. wt. 1650 lbs. less motor



100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS

See gear shaft chart. Set screw end of shaft, may extend on either side.

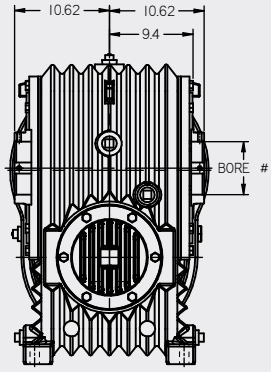
Unit can be supplied with solid shaft, contact Cone Drive.

Torque arm bracket can be mounted on either end of housing.

Note: hollow shaft is double extended.

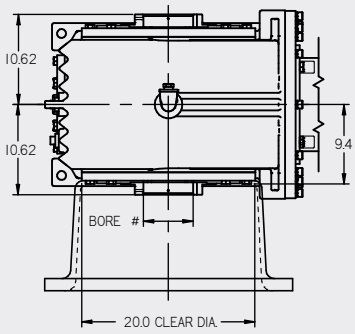
HOLLOW SHAFT

SMU est. wt. 1600 lbs. less motor



See gear shaft chart. Set screw end of shaft, may extend on either side.

SMV est. wt. 1675 lbs. less motor

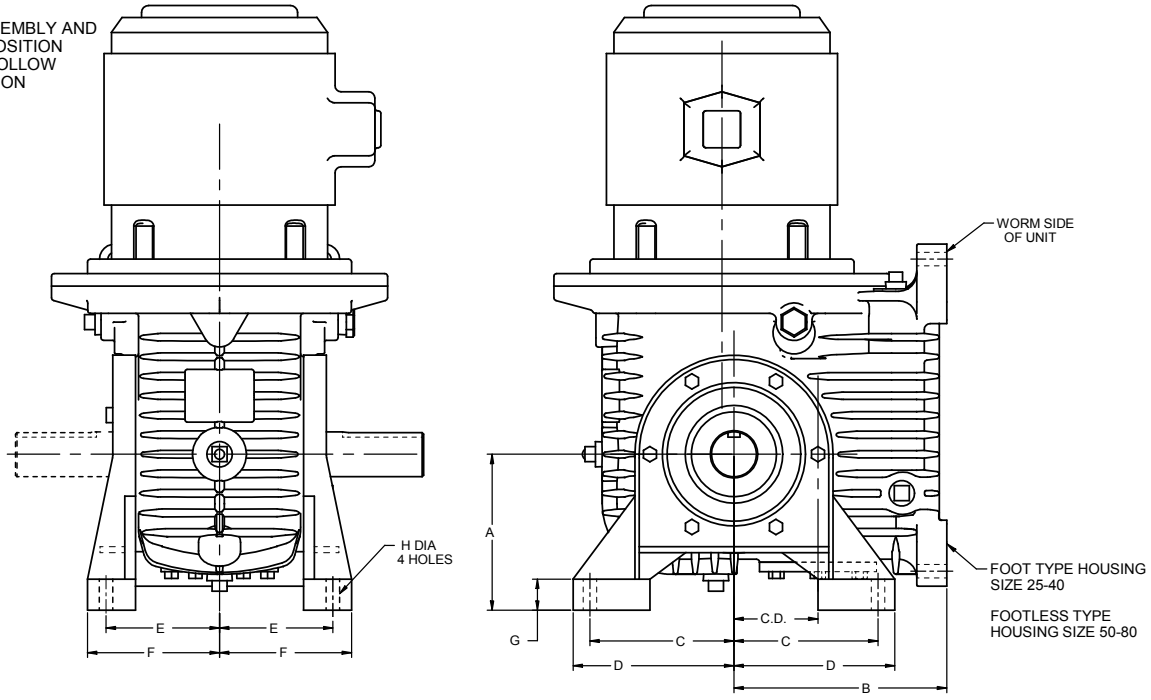


See gear shaft chart. Set screw end of shaft, may extend on either side.

MODELS FRV, FRU, FSR, FSRU, FSRV

Special Foot Brackets

HAND OF ASSEMBLY AND MOUNTING POSITION DIAGRAMS, FOLLOW IN THIS SECTION

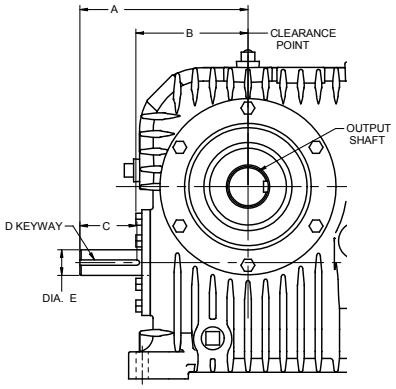


Model available in all solide and hollow output shaft configurations.
For all other dimensions refer to corresponding size model SR or RU.

SIZE	C.D.	A	B	C	D	E	F	G	H
	(in)								
25	2.500	4.50	6.25	4.25	4.8	4.75	5.4	0.9	15/32
30	3.000	5.50	7.75	5.00	5.7	5.25	5.9	1.2	9/16
35	3.500	6.50	8.87	6.00	6.7	6.50	7.2	1.3	9/16
40	4.000	7.50	10.00	6.75	7.6	7.75	8.6	1.5	11/16
50	5.000	8.50	11.8	7.50	8.4	8.25	9.2	1.8	13/16
60	6.000	8.50	13.4	8.25	9.1	9.00	9.9	1.5	13/16
70	7.000	13.75	16.4	10.00	11.3	9.75	10.8	1.5	15/16
80	8.000	15.50	17.4	11.50	12.8	10.30	11.3	1.8	15/16

Worm Extension Opposite Reducer Input

SIZE	C.D.	A	B	C	D	E
	(in)					
25	2.500	5.25	3.8	1.00	3/16 x 3/32	0.750
30	3.000	6.69	4.6	1.75	1/4 x 1/8	1.000
35	3.500	7.75	5.2	2.62	1/4 x 1/8	1.1875
40	4.000	9.31	6.1	2.75	3/8 x 3/16	1.500
50	5.000	10.50	7.2	2.75	3/8 x 3/16	1.500
60	6.000	11.75	7.8	3.50	3/8 x 3/16	1.750
70	7.000	14.50	9.4	4.50	1/2 x 1/4	1.875
80	8.000	15.50	10.8	4.75	1/2 x 1/4	2.000
100	10.000	19.25	14.5	4.20	5/8 x 5/16	2.375



FOR SHAFT SPEED DIVIDE INPUT SPEED BY HELICAL GEAR RATIO.

MODEL NUMBERS FMU, FMV, FSM, FSMU, FSMV

Cone Drive fan-cooled helical worm double reduction gearmotors are available in all models size 40 through 100. (see note below.) They are identical with standard models except for the use of an extended worm shaft, fan and air-flow control cover.

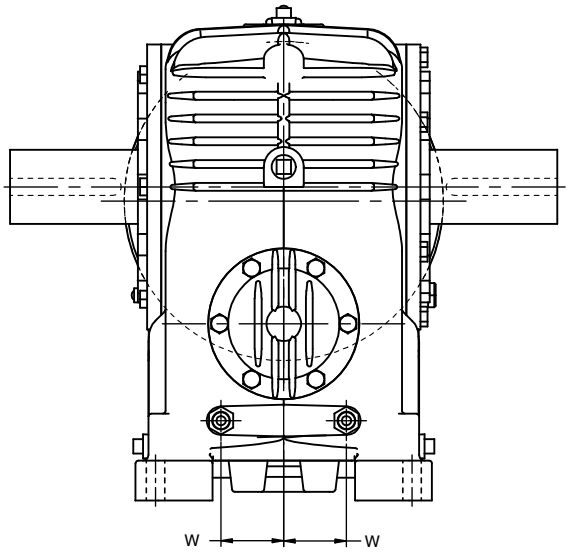
The control cover directs air over the lower portion of the reducer housing and the fins on the housing guide the air for maximum cooling efficiency.

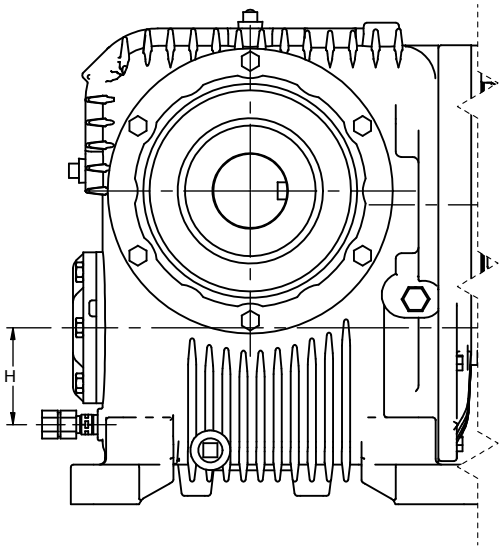
Thermal horsepower ratings are naturally increased with fan cooling.

CLEARANCE DIMENSION FROM CENTERLINE OF UNIT OVER FAN COVER						
SIZE	40	50	60	70	80	100
DIM.	8.0	9.5	10.2	12.9	14.3	16.5

MODEL MU SMU, SHOWN MV, SMV, SM

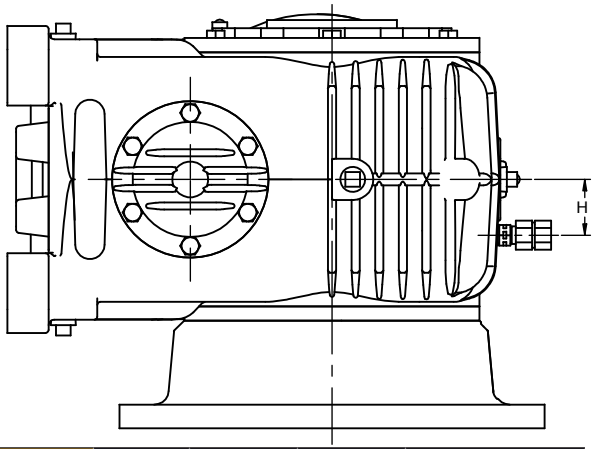
Floor Mounted Position Shown

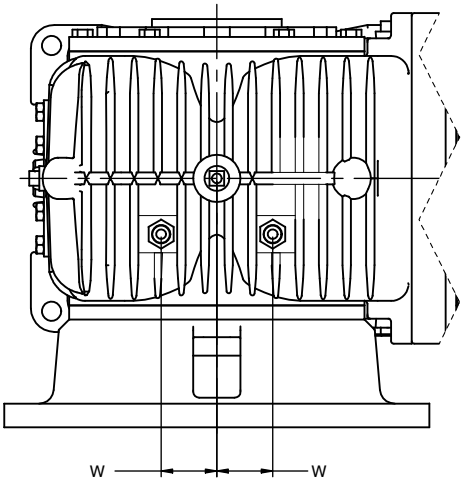




MV AND SMV, Shown Sizes 70-100 Only

Floor Mounted Position Shown





GEARBOX SIZE	MODEL	W	H	FEMALE THREAD
	(in)			
40	MU	2.43	3.50	3/8 - 18 NPT
	SM			
	MV			
50	MU	2.25	3.75	
	SM			
	MV			
60	MU	2.06	4.44	
	SM			
	MV			
70	MU	3.25	5.88	
	SM			
	MV	3.00	3.75	
80	MU	3.25	5.88	
	SM			
	MV	3.50	3.75	
100	MU	4.25	8.00	
	SM			
	MV	5.00	4.25	

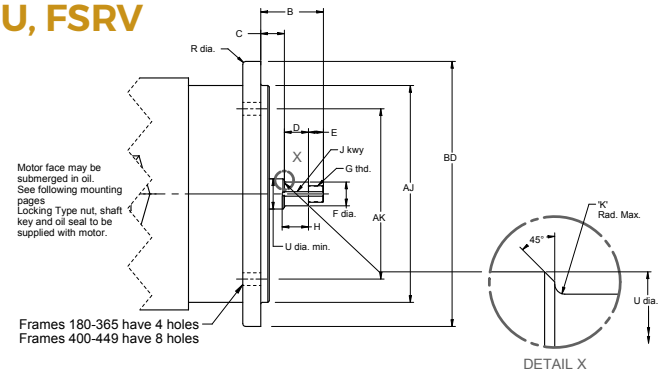
NOTES

- When assembling external piping to reducer inlet and outlet fittings, a backup wrench must be used on reducer fittings to prevent turning to avoid damage to cooling coil inside unit.
- Inlet and outlet locations may vary depending on mounting position of unit.
- All size 40 fan-cooled models have thermal horsepower ratings equal to mechanical horsepower ratings, regardless of ratio. In the rating table on this page are shown thermal horsepower ratings for certain ratios of size 50 through size 80 models. Any ratio and speed not listed is limited to the maximum thermal ratings found on ratings page of this section.

MODELS FRV, FRU, FSR, FSRU, FSRV

(all dimensions in inches)

Dimensions for Mounting NEMA 'D' Flange Motor
Standard Helical Stocked Ratios are: 1:1, 1.5:1, 1.8:1, 2.5:1, and 4:1. Other ratios are also available. For information Contact Cone Drive.
2.5:1 and 4:1 ratios are not available with all motor shaft sizes. See chart below.



FRAME	AK	AJ	BD	B	C	D	E	F +.0000 -.0005	G	H	K	J	U	R	RATIOS	HELICAL PINION DET.
REDUCER SIZES: 25 & 30, HELICAL C.D. 3.000																
180DZ-210DZ 140TDZ-184TDZ*	9.00	10.00	11.00	2.375	.968	.968	.44	.6697	1/2 - 20	1.00	.06	3/16 x 3/32	.88	.53	all ratios	30-700
210TDZ-215TDZ*	9.00	10.00	11.00	2.688	.875	1.062	.75	.9847	7/8 - 14	1.12	.06	3/16 x 3/32	1.38	.53	all ratios but 2.5:1,4:1	30-710
210TDZ-215TDZ*	9.00	10.00	11.00	2.375	.968	.968	.44	.6697	1/2 - 20	1.00	.06	3/16 x 3/32	.88	.53	for ratios 2.5:1,4:1	30-700
REDUCER SIZES: 35 & 40, HELICAL C.D 4.000																
180DZ-210DZ 140TDZ-184TDZ	9.00	10.00	11.00	2.375	.968	.968	.44	.6697	1/2 - 20	1.00	.06	3/16 x 3/32	.88	.53	all ratios	40-700
210TDZ-215TDZ	9.00	10.00	11.00	2.688	.875	1.062	.75	.9847	7/8 - 14	1.12	.06	3/16 x 3/32	1.38	.53	all ratios	40-710
254UDZ-286UDZ 250TDZ-256TDZ*	11.00	12.50	14.00	3.094	1.281	1.218	.59	.9847	7/8 - 14	1.31	.06	3/16 x 3/32	1.50	.81	all ratios	40-710
REDUCER SIZES: 50 & 60, HELICAL C.D 5.375																
180DZ-210DZ 140TDZ-184TDZ	9.00	10.00	11.00	2.375	.968	.968	.44	.6697	1/2-20	1.00	.06	3/16 x 3/32	.88	.53	all ratios	53-700
210TDZ-215TDZ	9.00	10.00	11.00	2.688	.875	1.062	.75	.9847	7/8-14	1.12	.06	3/16 x 3/32	1.38	.53	all ratios	53-710
254UDZ-286UDZ 250TDZ-256TDZ	11.00	12.50	14.00	3.094	1.281	1.218	.59	.9847	7/8-14	1.31	.06	3/16 x 3/32	1.50	.81	all ratios	53-710
280TDZ-286TDZ	11.00	12.50	14.00	3.875	.968	1.593	1.31	1.5013	1 1/4-12	1.68	.12	3/8 x 3/16	1.88	.81	all ratios but 4:1	53-720
320UDZ-360UDZ 320TDZ-326TDZ	14.00	16.00	18.00	4.750	1.875	1.562	1.31	1.5013	1 1/4 - 12	1.75	.12	3/8 x 3/16	1.88	.81	all ratios but 4:1	53-720
280TDZ-286TDZ	11.00	12.50	14.00	3.094	1.281	1.218	.59	.9847	7/8-14	1.31	.06	3/16 x 3/32	1.50	.81	for 4:1 ratios	53-710
320UDZ-360UDZ 320TDZ-326TDZ	14.00	16.00	18.00	3.906	2.093	1.218	.59	.9847	7/8-14	1.31	.06	3/16 x 3/32	1.50	.81	for 4:1 ratio	53-710
REDUCER SIZES: 70 & 80, 100L HELICAL C.D 6.719																
210TDZ-215TDZ	9.00	10.00	11.00	2.688	.875	1.062	.75	.9847	7/8-14	1.12	.06	3/16 x 3/32	1.38	.53	all ratios	67-715
254UDZ-286UDZ 250TDZ-256TDZ	11.00	12.50	14.00	3.094	1.281	1.218	.59	.9847	7/8-14	1.31	.06	3/16 x 3/32	1.50	.81	all ratios	67-715
280TDZ-286TDZ	11.00	12.50	14.00	3.875	.968	1.593	1.31	1.5013	1 1/4-12	1.68	.12	3/8 x 3/16	1.88	.81	all ratios	67-725
320UDZ-360UDZ 320TDZ-326TDZ	14.00	16.00	18.00	4.750	1.875	1.562	1.31	1.5013	1 1/4 -12	1.75	.12	3/8 x 3/16	1.88	.81	all ratios	67-725
360TDZ-365TDZ	14.00	16.00	18.00	5.000	1.875	1.687	1.44	1.875	1 1/2-12	1.88	.12	1/2 x 1/4	2.38	.81	all ratios but 4:1	67-730
400UDZ-445UDZ 400TDZ-445TDZ	18.00	20.00	22.00	5.000	1.812	1.687	1.50	1.875	1 1/2 -12	1.88	.12	1/2 x 1/4	2.38	.81	all ratios but 4:1	67-730
360TDZ-365TDZ	14.00	16.00	18.00	4.750	1.875	1.562	1.31	1.5013	1 1/4-12	1.75	.12	3/8 x 3/16	1.88	.81	for 4:1	67-725
400UDZ-445UDZ 400TDZ-445TDZ	18.00	20.00	22.00	4.688	1.812	1.562	1.31	1.5013	1 1/4 -12	1.75	.12	3/8 x 3/16	1.88	.81	for 4:1	67-725
REDUCER SIZE: 100, HELICAL C.D. 9.750																
324UDZ-365UDZ 324TDZ-365TDZ	14.00	16.00	18.00	4.75	1.250	2.687	.75	1.875	1.767-18 1.731P.D.	2.87	.06	1/2 x 1/4	2.38	.81	all ratios	97-735
400UDZ-445UDZ 400TDZ-449TDZ	18.00	20.00	22.00	5.375	1.875	2.687	.81	2.375	2.360-18 2.324P.D.	2.87	.06	5/8 x 5/16	2.81	.81	all ratios but 4:1	97-740
400UDZ-445UDZ 400TDZ-449TDZ	18.00	20.00	22.00	5.312	1.875	2.687	.75	1.875	1.767-18 1.731P.D.	2.87	.06	1/2 x 1/4	2.38	.81	all ratios	97-735

*Reducers marked with asterisk do not require motor adapters.

Size 25 Helical Worm Reducer Ratings

3" Primary/2.5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5 1 x 5	$P_{1\,ME}$	hp	0.80	3.63	4.25	4.81	5.65	6.39	7.08	6,570	742
		kW	0.60	2.71	3.17	3.59	4.22	4.77	5.29		
	$P_{1\,TH}$	hp	0.80	3.55	3.93	4.26	4.61	4.84	5.06		
		kW	0.60	2.65	2.93	3.18	3.44	3.61	3.78		
	$T_{2\,ME}$	lb-in	2,190	1,740	1,640	1,560	1,380	1,240	1,140		
		Nm	247	197	186	176	156	140	129		
	η	%	86	88	88	89	89	89	89		
7.5 1.5 x 5	$P_{1\,ME}$	hp	0.55	2.62	3.13	3.63	4.44	5.14	5.69	6,570	742
		kW	0.41	1.96	2.33	2.71	3.31	3.83	4.25		
	$P_{1\,TH}$	hp	0.55	2.55	3.03	3.55	4.03	4.38	4.62		
		kW	0.41	1.90	2.26	2.65	3.01	3.27	3.45		
	$T_{2\,ME}$	lb-in	2,190	1,890	1,810	1,740	1,610	1,490	1,370		
		Nm	247	213	205	197	182	169	155		
	η	%	84	88	88	88	88	89	89		
9 1.8 x 5	$P_{1\,ME}$	hp	0.47	2.24	2.70	3.15	3.91	4.58	5.16	6,570	742
		kW	0.35	1.67	2.01	2.35	2.91	3.42	3.85		
	$P_{1\,TH}$	hp	0.47	2.22	2.62	3.05	3.71	4.12	4.39		
		kW	0.35	1.65	1.95	2.27	2.77	3.07	3.27		
	$T_{2\,ME}$	lb-in	2,190	1,930	1,880	1,810	1,700	1,590	1,490		
		Nm	247	218	212	205	192	180	169		
	η	%	82	88	88	88	88	89	89		
10 1 x 10	$P_{1\,ME}$	hp	0.51	2.33	2.75	3.14	3.73	4.23	4.68	7,770	878
		kW	0.38	1.74	2.05	2.34	2.78	3.15	3.49		
	$P_{1\,TH}$	hp	0.51	2.33	2.75	3.14	3.60	3.72	3.85		
		kW	0.38	1.74	2.05	2.34	2.69	2.78	2.87		
	$T_{2\,ME}$	lb-in	2,590	2,140	2,080	1,960	1,780	1,600	1,470		
		Nm	293	242	235	222	202	181	166		
	η	%	81	84	86	86	87	87	87		
12.5 2.5 x 5	$P_{1\,ME}$	hp	0.34	1.68	2.03	2.40	3.02	3.63	4.17	6,570	742
		kW	0.25	1.25	1.51	1.79	2.26	2.71	3.11		
	$P_{1\,TH}$	hp	0.34	1.68	2.03	2.35	2.93	3.55	3.87		
		kW	0.25	1.25	1.51	1.75	2.18	2.65	2.89		
	$T_{2\,ME}$	lb-in	2,190	1,990	1,960	1,920	1,830	1,740	1,660		
		Nm	247	225	221	216	207	197	187		
	η	%	82	87	88	88	88	88	88		
15 1.5 x 10	$P_{1\,ME}$	hp	0.35	1.67	2.00	2.33	2.88	3.37	3.76	7,770	878
		kW	0.26	1.25	1.49	1.74	2.15	2.51	2.81		
	$P_{1\,TH}$	hp	0.35	1.65	1.98	2.33	2.87	3.30	3.60		
		kW	0.26	1.23	1.47	1.74	2.15	2.46	2.69		
	$T_{2\,ME}$	lb-in	2,590	2,270	2,220	2,140	2,040	1,910	1,770		
		Nm	293	257	251	242	231	216	200		
	η	%	79	83	84	84	86	87	87		
18 1.8 x 10	$P_{1\,ME}$	hp	0.30	1.42	1.72	2.01	2.51	2.98	3.39	7,770	878
		kW	0.22	1.06	1.28	1.50	1.88	2.23	2.53		
	$P_{1\,TH}$	hp	0.30	1.42	1.69	1.99	2.51	2.98	3.31		
		kW	0.22	1.06	1.26	1.48	1.87	2.22	2.47		
	$T_{2\,ME}$	lb-in	2,590	2,320	2,260	2,210	2,120	2,010	1,920		
		Nm	293	262	255	250	239	228	216		
	η	%	77	83	83	84	85	86	87		
20 4 x 5	$P_{1\,ME}$	hp	0.21	1.12	1.35	1.59	2.02	2.48	2.90	6,570	742
		kW	0.16	0.84	1.01	1.18	1.51	1.85	2.17		
	$P_{1\,TH}$	hp	0.21	1.11	1.34	1.58	2.02	2.43	2.81		
		kW	0.16	0.83	1.00	1.18	1.51	1.81	2.10		
	$T_{2\,ME}$	lb-in	2,190	2,100	2,060	2,010	1,960	1,900	1,840		
		Nm	247	237	233	227	221	215	208		
	η	%	81	86	87	87	88	88	88		
22.5 1.5 x 15	$P_{1\,ME}$	hp	0.25	1.17	1.41	1.65	2.04	2.38	2.67	7,790	880
		kW	0.18	0.88	1.05	1.23	1.52	1.78	1.99		
	$P_{1\,TH}$	hp	0.25	1.16	1.39	1.64	2.04	2.37	2.66		
		kW	0.18	0.86	1.04	1.22	1.52	1.77	1.99		
	$T_{2\,ME}$	lb-in	2,600	2,310	2,260	2,210	2,100	1,990	1,850		
		Nm	293	261	256	250	237	225	209		
	η	%	75	81	81	82	83	85	85		

See Page 8.7 for Rating Definitions

3" Primary/2.5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
25 2.5 x 10	$P_{1\,ME}$	hp	0.21	1.07	1.29	1.52	1.93	2.33	2.70	7,770	878
		kW	0.16	0.80	0.96	1.14	1.44	1.74	2.01		
	$P_{1\,TH}$	hp	0.21	1.07	1.29	1.51	1.91	2.33	2.69		
		kW	0.16	0.80	0.96	1.13	1.42	1.74	2.01		
	$T_{2\,ME}$	lb-in	2,590	2,390	2,360	2,300	2,230	2,140	2,100		
		Nm	293	270	266	260	252	242	237		
	η	%	77	82	83	83	84	84	86		
27 1.8 x 15	$P_{1\,ME}$	hp	0.21	1.00	1.21	1.42	1.78	2.11	2.39	7,790	880
		kW	0.15	0.75	0.90	1.06	1.32	1.57	1.79		
	$P_{1\,TH}$	hp	0.21	0.99	1.19	1.40	1.77	2.11	2.38		
		kW	0.15	0.74	0.89	1.04	1.32	1.57	1.78		
	$T_{2\,ME}$	lb-in	2,600	2,330	2,330	2,260	2,190	2,070	1,990		
		Nm	293	264	263	255	248	234	224		
	η	%	74	80	81	81	83	84	85		
30 1.5 x 20	$P_{1\,ME}$	hp	0.19	0.90	1.08	1.26	1.56	1.83	2.05	7,540	851
		kW	0.14	0.67	0.81	0.94	1.16	1.37	1.53		
	$P_{1\,TH}$	hp	0.19	0.89	1.07	1.26	1.55	1.81	2.05		
		kW	0.14	0.66	0.80	0.94	1.16	1.35	1.53		
	$T_{2\,ME}$	lb-in	2,510	2,270	2,230	2,200	2,060	1,940	1,810		
		Nm	284	257	252	249	233	219	204		
	η	%	71	78	79	81	81	81	81		
36 1.8 x 20	$P_{1\,ME}$	hp	0.16	0.77	0.93	1.08	1.36	1.62	1.84	7,540	851
		kW	0.12	0.57	0.69	0.81	1.01	1.21	1.37		
	$P_{1\,TH}$	hp	0.16	0.76	0.91	1.07	1.35	1.61	1.82		
		kW	0.12	0.57	0.68	0.80	1.01	1.20	1.36		
	$T_{2\,ME}$	lb-in	2,510	2,260	2,260	2,220	2,160	2,040	1,940		
		Nm	284	256	256	251	244	230	219		
	η	%	69	76	78	79	81	81	81		
37.5 2.5 x 15	$P_{1\,ME}$	hp	0.15	0.75	0.91	1.07	1.36	1.65	1.90	7,790	880
		kW	0.11	0.56	0.68	0.80	1.02	1.23	1.42		
	$P_{1\,TH}$	hp	0.15	0.75	0.90	1.06	1.34	1.64	1.90		
		kW	0.11	0.56	0.68	0.79	1.00	1.22	1.42		
	$T_{2\,ME}$	lb-in	2,600	2,410	2,370	2,340	2,280	2,210	2,150		
		Nm	293	272	268	265	258	250	242		
	η	%	74	79	80	81	81	82	83		
40 4 x 10	$P_{1\,ME}$	hp	0.14	0.71	0.86	1.01	1.29	1.58	1.85	7,770	878
		kW	0.10	0.53	0.64	0.75	0.96	1.18	1.38		
	$P_{1\,TH}$	hp	0.14	0.70	0.85	1.01	1.29	1.56	1.83		
		kW	0.10	0.52	0.64	0.75	0.96	1.17	1.36		
	$T_{2\,ME}$	lb-in	2,590	2,520	2,470	2,420	2,360	2,290	2,230		
		Nm	293	284	279	273	266	259	252		
	η	%	76	81	82	82	83	83	83		
45 1.8 x 25	$P_{1\,ME}$	hp	0.13	0.62	0.75	0.87	1.10	1.30	1.48	7,180	812
		kW	0.10	0.46	0.56	0.65	0.82	0.97	1.10		
	$P_{1\,TH}$	hp	0.13	0.61	0.73	0.86	1.09	1.30	1.47		
		kW	0.10	0.46	0.55	0.64	0.81	0.97	1.10		
	$T_{2\,ME}$	lb-in	2,390	2,250	2,250	2,240	2,130	2,040	1,930		
		Nm	271	254	254	253	240	230	218		
	η	%	65	75	77	79	79	80	81		
50 2.5 x 20	$P_{1\,ME}$	hp	0.12	0.58	0.69	0.82	1.04	1.26	1.46	7,540	851
		kW	0.09	0.43	0.52	0.61	0.78	0.94	1.09		
	$P_{1\,TH}$	hp	0.12	0.57	0.69	0.81	1.03	1.26	1.45		
		kW	0.09	0.43	0.52	0.61	0.77	0.94	1.08		
	$T_{2\,ME}$	lb-in	2,510	2,330	2,300	2,270	2,240	2,200	2,110		
		Nm	284	264	260	257	253	249	239		
	η	%	69	75	76	77	79	81	81		
54 1.8 x 30	$P_{1\,ME}$	hp	0.11	0.52	0.62	0.73	0.92	1.09	1.24	6,900	780
		kW	0.08	0.38	0.47	0.55	0.68	0.81	0.92		
	$P_{1\,TH}$	hp	0.11	0.51	0.61	0.72	0.91	1.09	1.23		
		kW	0.08	0.38	0.46	0.54	0.68	0.81	0.92		
	$T_{2\,ME}$	lb-in	2,300	2,110	2,120	2,060	2,030	1,950	1,850		
		Nm	260	239	239	232	229	220	209		
	η	%	62	70	72	72	75	76	77		

See Page 8.7 for Rating Definitions

Size 25 Helical Worm Reducer Ratings

3" Primary/2.5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
60 4 x 15	$P_{1\,ME}$	hp	0.09	0.50	0.60	0.71	0.91	1.11	1.31	7,790	880
		kW	0.07	0.37	0.45	0.53	0.68	0.83	0.97		
	$P_{1\,TH}$	hp	0.09	0.50	0.60	0.71	0.90	1.09	1.28		
		kW	0.07	0.37	0.45	0.53	0.67	0.82	0.96		
	$T_{2\,ME}$	lb-in	2,600	2,520	2,490	2,430	2,370	2,330	2,300		
		Nm	293	285	281	274	268	263	260		
	η	%	73	78	79	79	80	81	81		
62.5 2.5 x 25	$P_{1\,ME}$	hp	0.09	0.46	0.56	0.66	0.84	1.01	1.18	7,180	812
		kW	0.07	0.35	0.42	0.49	0.63	0.76	0.88		
	$P_{1\,TH}$	hp	0.09	0.46	0.56	0.65	0.82	1.01	1.17		
		kW	0.07	0.35	0.42	0.49	0.62	0.75	0.87		
	$T_{2\,ME}$	lb-in	2,390	2,290	2,260	2,260	2,230	2,170	2,080		
		Nm	271	259	255	255	252	245	235		
	η	%	65	73	74	76	78	79	79		
72 1.8 x 40	$P_{1\,ME}$	hp	0.08	0.39	0.47	0.55	0.69	0.82	0.93	6,220	703
		kW	0.06	0.29	0.35	0.41	0.52	0.61	0.70		
	$P_{1\,TH}$	hp	0.08	0.38	0.46	0.54	0.69	0.82	0.93		
		kW	0.06	0.29	0.34	0.41	0.51	0.61	0.69		
	$T_{2\,ME}$	lb-in	2,070	1,970	1,980	1,950	1,960	1,870	1,760		
		Nm	234	223	224	221	221	212	199		
	η	%	55	65	67	68	72	73	73		
75 2.5 x 30	$P_{1\,ME}$	hp	0.08	0.39	0.47	0.55	0.70	0.85	0.98	6,900	780
		kW	0.06	0.29	0.35	0.41	0.52	0.63	0.73		
	$P_{1\,TH}$	hp	0.08	0.39	0.47	0.55	0.69	0.85	0.98		
		kW	0.06	0.29	0.35	0.41	0.52	0.63	0.73		
	$T_{2\,ME}$	lb-in	2,300	2,180	2,140	2,120	2,070	2,010	2,010		
		Nm	260	246	242	240	234	227	227		
	η	%	62	69	70	71	72	73	76		
80 4 x 20	$P_{1\,ME}$	hp	0.07	0.38	0.46	0.54	0.69	0.85	1.00	7,540	851
		kW	0.06	0.28	0.34	0.41	0.52	0.63	0.75		
	$P_{1\,TH}$	hp	0.07	0.38	0.46	0.54	0.69	0.84	0.98		
		kW	0.06	0.28	0.34	0.41	0.52	0.63	0.74		
	$T_{2\,ME}$	lb-in	2,510	2,440	2,410	2,350	2,300	2,270	2,260		
		Nm	284	276	272	266	260	257	256		
	η	%	68	74	75	75	76	77	79		
90 1.8 x 50	$P_{1\,ME}$	hp	0.07	0.31	0.38	0.44	0.55	0.66	0.75	5,520	624
		kW	0.05	0.23	0.28	0.33	0.41	0.49	0.56		
	$P_{1\,TH}$	hp	0.07	0.31	0.37	0.44	0.55	0.66	0.75		
		kW	0.05	0.23	0.28	0.33	0.41	0.49	0.56		
	$T_{2\,ME}$	lb-in	1,840	1,890	1,900	1,910	1,880	1,800	1,700		
		Nm	208	214	215	215	213	204	192		
	η	%	49	62	64	66	69	70	70		
100 4 x 25	$P_{1\,ME}$	hp	0.06	0.31	0.37	0.44	0.56	0.68	0.81	7,180	812
		kW	0.04	0.23	0.28	0.33	0.42	0.51	0.60		
	$P_{1\,TH}$	hp	0.06	0.30	0.37	0.44	0.56	0.67	0.79		
		kW	0.04	0.23	0.28	0.33	0.42	0.50	0.59		
	$T_{2\,ME}$	lb-in	2,390	2,340	2,330	2,310	2,260	2,260	2,220		
		Nm	271	264	264	261	255	255	251		
	η	%	64	70	72	73	74	76	77		
108 1.8 x 60	$P_{1\,ME}$	hp	0.06	0.26	0.32	0.37	0.46	0.55	0.63	5,430	613
		kW	0.04	0.19	0.24	0.28	0.35	0.41	0.47		
	$P_{1\,TH}$	hp	0.06	0.26	0.31	0.37	0.46	0.55	0.63		
		kW	0.04	0.19	0.23	0.28	0.35	0.41	0.47		
	$T_{2\,ME}$	lb-in	1,810	1,810	1,820	1,800	1,780	1,720	1,630		
		Nm	204	204	206	203	201	194	184		
	η	%	48	59	61	62	65	66	67		
120 4 x 30	$P_{1\,ME}$	hp	0.05	0.26	0.31	0.37	0.47	0.57	0.67	6,900	780
		kW	0.04	0.19	0.23	0.27	0.35	0.43	0.50		
	$P_{1\,TH}$	hp	0.05	0.26	0.31	0.37	0.47	0.57	0.66		
		kW	0.04	0.19	0.23	0.27	0.35	0.42	0.49		
	$T_{2\,ME}$	lb-in	2,300	2,250	2,220	2,200	2,140	2,110	2,090		
		Nm	260	254	251	248	242	239	236		
	η	%	61	67	68	69	70	71	72		

See Page 8.7 for Rating Definitions

3” Primary/2.5” Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
125 2.5 x 50	$P_{1\,ME}$	hp	0.05	0.23	0.28	0.33	0.42	0.51	0.60	5,520	624
		kW	0.04	0.17	0.21	0.25	0.32	0.38	0.44		
	$P_{1\,TH}$	hp	0.05	0.23	0.28	0.33	0.42	0.51	0.59		
		kW	0.04	0.17	0.21	0.24	0.31	0.38	0.44		
	$T_{2\,ME}$	lb-in	1,840	1,910	1,890	1,910	1,920	1,890	1,870		
		Nm	208	216	214	215	217	214	212		
	η	%	49	60	61	63	66	68	70		
150 2.5 x 60	$P_{1\,ME}$	hp	0.04	0.20	0.24	0.28	0.35	0.43	0.50	5,430	613
		kW	0.03	0.15	0.18	0.21	0.26	0.32	0.37		
	$P_{1\,TH}$	hp	0.04	0.20	0.24	0.28	0.35	0.43	0.49		
		kW	0.03	0.15	0.18	0.21	0.26	0.32	0.37		
	$T_{2\,ME}$	lb-in	1,810	1,820	1,810	1,820	1,810	1,790	1,770		
		Nm	204	206	204	206	205	202	200		
	η	%	47	57	58	60	62	64	66		
30 1.5 x 20	$P_{1\,ME}$	hp	0.04	0.19	0.23	0.28	0.35	0.43	0.51	6,220	703
		kW	0.03	0.14	0.18	0.21	0.26	0.32	0.38		
	$P_{1\,TH}$	hp	0.04	0.19	0.23	0.28	0.35	0.42	0.50		
		kW	0.03	0.14	0.17	0.21	0.26	0.32	0.37		
	$T_{2\,ME}$	lb-in	2,070	2,030	2,010	1,960	1,980	1,990	1,980		
		Nm	234	229	227	221	223	225	224		
	η	%	54	60	61	61	64	66	68		
160 4 x 40	$P_{1\,ME}$	hp	0.03	0.16	0.19	0.22	0.28	0.35	0.41	5,520	624
		kW	0.02	0.12	0.14	0.17	0.21	0.26	0.30		
	$P_{1\,TH}$	hp	0.03	0.16	0.19	0.22	0.28	0.34	0.40		
		kW	0.02	0.12	0.14	0.16	0.21	0.25	0.30		
	$T_{2\,ME}$	lb-in	1,840	1,870	1,890	1,900	1,890	1,910	1,900		
		Nm	208	211	213	215	214	216	215		
	η	%	48	55	57	59	61	63	65		
200 4 x 50	$P_{1\,ME}$	hp	0.03	0.13	0.16	0.19	0.24	0.29	0.34	5,430	613
		kW	0.02	0.10	0.12	0.14	0.18	0.22	0.25		
	$P_{1\,TH}$	hp	0.03	0.13	0.16	0.19	0.24	0.29	0.34		
		kW	0.02	0.10	0.12	0.14	0.18	0.22	0.25		
	$T_{2\,ME}$	lb-in	1,810	1,840	1,860	1,840	1,810	1,820	1,820		
		Nm	204	208	210	208	204	206	206		
	η	%	47	54	56	57	58	61	62		
240 4 x 60	$P_{1\,ME}$	hp	0.71	0.86	0.86	1.01	1.29	1.58	1.85	7,770	878
		kW	0.53	0.64	0.64	0.75	0.96	1.18	1.38		
	$P_{1\,TH}$	hp	0.70	0.85	0.85	1.01	1.29	1.56	1.83		
		kW	0.52	0.64	0.64	0.75	0.96	1.17	1.36		
	$T_{2\,ME}$	lb-in	2,520	2,470	2,470	2,420	2,360	2,290	2,230		
		Nm	284	279	279	273	266	259	252		
	η	%	81	82	82	82	83	83	83		

See Page 8.7 for Rating Definitions

Size 30 Helical Worm Reducer Ratings

3" Primary/3" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5 1 x 5	$P_{1\,ME}$	hp	1.16	6.23	7.19	8.04	9.29	10.6	11.7	9,470	1,070
		kW	0.87	4.65	5.36	6.00	6.94	7.88	8.72		
	$P_{1\,TH}$	hp	1.16	4.14	4.67	4.98	5.47	5.87	6.27		
		kW	0.87	3.09	3.49	3.72	4.09	4.38	4.68		
	$P_{1\,TH\,Fan}$	hp	n/a	4.14	5.14	5.97	7.39	8.39	9.39		
		kW	n/a	3.09	3.84	4.45	5.52	6.26	7.01		
	$T_{2\,ME}$	lb-in	3,160	2,990	2,780	2,600	2,270	2,050	1,880		
		Nm	357	338	314	294	257	231	212		
	η	%	86	88	88	89	89	89	89		
7.5 1.5 x 5	$P_{1\,ME}$	hp	0.97	4.58	5.42	6.23	7.49	8.51	9.38	11,600	1,310
		kW	0.72	3.42	4.05	4.65	5.59	6.35	7.00		
	$P_{1\,TH}$	hp	0.97	3.35	3.74	4.14	4.77	5.15	5.50		
		kW	0.72	2.50	2.79	3.09	3.56	3.84	4.10		
	$P_{1\,TH\,Fan}$	hp	n/a	3.35	3.74	4.14	5.40	6.46	7.45		
		kW	n/a	2.50	2.79	3.09	4.03	4.82	5.56		
	$T_{2\,ME}$	lb-in	3,870	3,290	3,140	2,990	2,720	2,480	2,260		
		Nm	437	372	355	338	307	280	255		
	η	%	84	88	88	88	88	89	89		
9 1.8 x 5	$P_{1\,ME}$	hp	0.83	3.93	4.70	5.46	6.66	7.70	8.53	11,600	1,310
		kW	0.62	2.94	3.51	4.07	4.97	5.74	6.36		
	$P_{1\,TH}$	hp	0.83	3.09	3.41	3.75	4.37	4.85	5.16		
		kW	0.62	2.31	2.54	2.80	3.26	3.62	3.85		
	$P_{1\,TH\,Fan}$	hp	n/a	3.09	3.41	3.75	4.56	5.61	6.49		
		kW	n/a	2.31	2.54	2.80	3.41	4.19	4.84		
	$T_{2\,ME}$	lb-in	3,870	3,400	3,270	3,140	2,900	2,670	2,470		
		Nm	437	384	369	355	327	302	279		
	η	%	82	88	88	88	88	89	89		
10 1 x 10	$P_{1\,ME}$	hp	0.91	4.10	4.80	5.42	6.36	7.19	7.95	13,800	1,560
		kW	0.68	3.06	3.58	4.04	4.75	5.37	5.93		
	$P_{1\,TH}$	hp	0.91	3.64	3.89	4.23	4.53	4.77	5.02		
		kW	0.68	2.72	2.90	3.15	3.38	3.56	3.75		
	$P_{1\,TH\,Fan}$	hp	n/a	3.64	4.28	5.07	6.11	6.82	7.54		
		kW	n/a	2.72	3.19	3.79	4.56	5.09	5.62		
	$T_{2\,ME}$	lb-in	4,610	3,760	3,630	3,390	3,040	2,730	2,500		
		Nm	521	424	410	383	344	308	282		
	η	%	81	84	86	86	87	87	87		
12.5 2.5 x 5	$P_{1\,ME}$	hp	0.60	2.96	3.58	4.20	5.25	6.23	7.06	11,600	1,310
		kW	0.44	2.21	2.67	3.13	3.91	4.65	5.27		
	$P_{1\,TH}$	hp	0.60	2.59	2.93	3.20	3.65	4.14	4.59		
		kW	0.44	1.93	2.18	2.39	2.73	3.09	3.43		
	$P_{1\,TH\,Fan}$	hp	n/a	2.59	2.93	3.20	3.65	4.14	5.00		
		kW	n/a	1.93	2.18	2.39	2.73	3.09	3.73		
	$T_{2\,ME}$	lb-in	3,870	3,510	3,460	3,350	3,170	2,990	2,810		
		Nm	437	397	391	379	358	338	317		
	η	%	82	87	88	88	88	88	88		
15 1.5 x 10	$P_{1\,ME}$	hp	0.62	2.96	3.53	4.10	4.99	5.78	6.39	13,800	1,560
		kW	0.46	2.21	2.63	3.06	3.73	4.31	4.77		
	$P_{1\,TH}$	hp	0.62	2.96	3.31	3.64	3.99	4.33	4.54		
		kW	0.46	2.21	2.47	2.72	2.98	3.23	3.39		
	$P_{1\,TH\,Fan}$	hp	n/a	2.96	3.31	3.64	4.53	5.43	6.15		
		kW	n/a	2.21	2.47	2.72	3.38	4.05	4.59		
	$T_{2\,ME}$	lb-in	4,610	4,020	3,910	3,760	3,540	3,290	3,020		
		Nm	521	455	442	424	401	372	341		
	η	%	79	83	84	84	86	87	87		
18 1.8 x 10	$P_{1\,ME}$	hp	0.53	2.53	3.04	3.55	4.41	5.16	5.79	13,800	1,560
		kW	0.40	1.89	2.27	2.65	3.29	3.85	4.32		
	$P_{1\,TH}$	hp	0.53	2.53	3.04	3.32	3.74	4.08	4.34		
		kW	0.40	1.89	2.27	2.48	2.79	3.05	3.24		
	$P_{1\,TH\,Fan}$	hp	n/a	2.53	3.04	3.32	3.91	4.73	5.45		
		kW	n/a	1.89	2.27	2.48	2.92	3.53	4.07		
	$T_{2\,ME}$	lb-in	4,610	4,130	4,000	3,900	3,710	3,490	3,280		
		Nm	521	467	452	441	419	394	371		
	η	%	77	83	83	84	85	86	87		

See Page 8.7 for Rating Definitions

3" Primary/3" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
20 4 x 5	$P_{1\,ME}$	hp	0.34	1.83	2.22	2.68	3.46	4.23	5.00	11,100	1,250
		kW	0.25	1.37	1.66	2.00	2.58	3.16	3.73		
	$P_{1\,TH}$	hp	0.34	1.78	2.15	2.50	2.92	3.26	3.56		
		kW	0.25	1.32	1.61	1.86	2.18	2.43	2.66		
	$P_{1\,TH\,Fan}$	hp	n/a	1.83	2.22	2.50	2.92	3.26	3.56		
		kW	n/a	1.37	1.66	1.86	2.18	2.43	2.66		
	$T_{2\,ME}$	lb-in	3,490	3,430	3,390	3,390	3,350	3,250	3,180		
		Nm	395	388	383	383	378	367	359		
	η	%	81	86	87	87	88	88	88		
22.5 1.5 x 15	$P_{1\,ME}$	hp	0.44	2.08	2.49	2.89	3.54	4.11	4.55	13,900	1,570
		kW	0.33	1.55	1.86	2.16	2.64	3.06	3.40		
	$P_{1\,TH}$	hp	0.44	2.08	2.49	2.89	3.36	3.58	3.73		
		kW	0.33	1.55	1.86	2.16	2.51	2.67	2.79		
	$P_{1\,TH\,Fan}$	hp	n/a	2.08	2.49	2.89	3.54	4.11	4.55		
		kW	n/a	1.55	1.86	2.16	2.64	3.06	3.40		
	$T_{2\,ME}$	lb-in	4,630	4,100	4,000	3,890	3,640	3,430	3,150		
		Nm	523	463	451	439	412	387	356		
	η	%	75	81	81	82	83	85	85		
25 2.5 x 10	$P_{1\,ME}$	hp	0.38	1.90	2.29	2.71	3.41	4.10	4.69	13,800	1,560
		kW	0.29	1.42	1.71	2.02	2.55	3.06	3.50		
	$P_{1\,TH}$	hp	0.38	1.90	2.29	2.71	3.25	3.64	3.85		
		kW	0.29	1.42	1.71	2.02	2.42	2.72	2.87		
	$P_{1\,TH\,Fan}$	hp	n/a	1.90	2.29	2.71	3.25	3.64	4.19		
		kW	n/a	1.42	1.71	2.02	2.42	2.72	3.12		
	$T_{2\,ME}$	lb-in	4,610	4,260	4,190	4,090	3,950	3,760	3,650		
		Nm	521	481	473	462	446	424	412		
	η	%	77	82	83	83	84	84	86		
27 1.8 x 15	$P_{1\,ME}$	hp	0.37	1.78	2.14	2.50	3.11	3.66	4.12	13,900	1,570
		kW	0.28	1.33	1.60	1.87	2.32	2.73	3.07		
	$P_{1\,TH}$	hp	0.37	1.78	2.14	2.50	3.11	3.42	3.58		
		kW	0.28	1.33	1.60	1.87	2.32	2.55	2.67		
	$P_{1\,TH\,Fan}$	hp	n/a	1.78	2.14	2.50	3.11	3.66	4.12		
		kW	n/a	1.33	1.60	1.87	2.32	2.73	3.07		
	$T_{2\,ME}$	lb-in	4,630	4,160	4,130	3,990	3,840	3,600	3,420		
		Nm	523	470	467	451	434	407	386		
	η	%	74	80	81	81	83	84	85		
30 1.5 x 20	$P_{1\,ME}$	hp	0.34	1.59	1.91	2.22	2.72	3.15	3.50	13,500	1,520
		kW	0.25	1.19	1.42	1.66	2.03	2.35	2.61		
	$P_{1\,TH}$	hp	0.34	1.59	1.91	2.22	2.72	3.15	3.36		
		kW	0.25	1.19	1.42	1.66	2.03	2.35	2.51		
	$P_{1\,TH\,Fan}$	hp	n/a	1.59	1.91	2.22	2.72	3.15	3.50		
		kW	n/a	1.19	1.42	1.66	2.03	2.35	2.61		
	$T_{2\,ME}$	lb-in	4,490	4,030	3,930	3,880	3,600	3,350	3,080		
		Nm	507	456	444	439	407	378	348		
	η	%	71	78	79	81	81	81	81		
36 1.8 x 20	$P_{1\,ME}$	hp	0.29	1.36	1.64	1.92	2.39	2.81	3.16	13,500	1,520
		kW	0.21	1.02	1.22	1.43	1.78	2.10	2.36		
	$P_{1\,TH}$	hp	0.29	1.36	1.64	1.92	2.39	2.81	3.16		
		kW	0.21	1.02	1.22	1.43	1.78	2.10	2.36		
	$P_{1\,TH\,Fan}$	hp	n/a	1.36	1.64	1.92	2.39	2.81	3.16		
		kW	n/a	1.02	1.22	1.43	1.78	2.10	2.36		
	$T_{2\,ME}$	lb-in	4,490	4,040	4,010	3,930	3,790	3,540	3,340		
		Nm	507	456	453	444	428	400	377		
	η	%	69	76	78	79	81	81	81		
37.5 2.5 x 15	$P_{1\,ME}$	hp	0.27	1.33	1.61	1.91	2.40	2.89	3.33	13,900	1,570
		kW	0.20	1.00	1.20	1.42	1.79	2.16	2.48		
	$P_{1\,TH}$	hp	0.27	1.33	1.61	1.91	2.40	2.89	3.27		
		kW	0.20	1.00	1.20	1.42	1.79	2.16	2.44		
	$P_{1\,TH\,Fan}$	hp	n/a	1.33	1.61	1.91	2.40	2.89	3.33		
		kW	n/a	1.00	1.20	1.42	1.79	2.16	2.48		
	$T_{2\,ME}$	lb-in	4,630	4,270	4,210	4,170	4,030	3,890	3,750		
		Nm	523	483	476	471	455	439	424		
	η	%	74	79	80	81	81	82	83		

See Page 8.7 for Rating Definitions

Size 30 Helical Worm Reducer Ratings

3" Primary/3" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
40 4 x 10	$P_{1\,ME}$	hp	0.24	1.26	1.52	1.79	2.29	2.80	3.28	13,800	1,560
		kW	0.18	0.94	1.14	1.34	1.71	2.09	2.44		
	$P_{1\,TH}$	hp	0.24	1.26	1.52	1.79	2.29	2.80	3.17		
		kW	0.18	0.94	1.14	1.34	1.71	2.09	2.37		
	$P_{1\,TH\,Fan}$	hp	n/a	1.26	1.52	1.79	2.29	2.80	3.17		
		kW	n/a	0.94	1.14	1.34	1.71	2.09	2.37		
	$T_{2\,ME}$	lb-in	4,610	4,480	4,400	4,290	4,190	4,070	3,940		
		Nm	521	506	497	485	473	459	445		
	η	%	76	81	82	82	83	83	83		
45 1.8 x 25	$P_{1\,ME}$	hp	0.23	1.10	1.32	1.55	1.93	2.27	2.55	12,800	1,450
		kW	0.17	0.82	0.99	1.15	1.44	1.69	1.91		
	$P_{1\,TH}$	hp	0.23	1.10	1.32	1.55	1.93	2.27	2.55		
		kW	0.17	0.82	0.99	1.15	1.44	1.69	1.91		
	$P_{1\,TH\,Fan}$	hp	n/a	1.10	1.32	1.55	1.93	2.27	2.55		
		kW	n/a	0.82	0.99	1.15	1.44	1.69	1.91		
	$T_{2\,ME}$	lb-in	4,280	4,010	4,000	3,960	3,730	3,540	3,330		
		Nm	483	454	452	447	422	400	376		
	η	%	65	75	77	79	79	80	81		
50 2.5 x 20	$P_{1\,ME}$	hp	0.21	1.02	1.23	1.46	1.84	2.22	2.55	13,500	1,520
		kW	0.15	0.76	0.92	1.09	1.38	1.66	1.90		
	$P_{1\,TH}$	hp	0.21	1.02	1.23	1.46	1.84	2.22	2.55		
		kW	0.15	0.76	0.92	1.09	1.38	1.66	1.90		
	$P_{1\,TH\,Fan}$	hp	n/a	1.02	1.23	1.46	1.84	2.22	2.55		
		kW	n/a	0.76	0.92	1.09	1.38	1.66	1.90		
	$T_{2\,ME}$	lb-in	4,490	4,150	4,090	4,050	3,970	3,880	3,700		
		Nm	507	469	462	457	448	439	418		
	η	%	69	75	76	77	79	81	81		
54 1.8 x 30	$P_{1\,ME}$	hp	0.19	0.92	1.11	1.29	1.61	1.90	2.14	12,300	1,390
		kW	0.15	0.69	0.83	0.96	1.20	1.42	1.60		
	$P_{1\,TH}$	hp	0.19	0.92	1.11	1.29	1.61	1.90	2.14		
		kW	0.15	0.69	0.83	0.96	1.20	1.42	1.60		
	$P_{1\,TH\,Fan}$	hp	n/a	0.92	1.11	1.29	1.61	1.90	2.14		
		kW	n/a	0.69	0.83	0.96	1.20	1.42	1.60		
	$T_{2\,ME}$	lb-in	4,110	3,770	3,760	3,630	3,560	3,380	3,190		
		Nm	465	426	425	410	402	382	360		
	η	%	62	70	72	72	75	76	77		
60 4 x 15	$P_{1\,ME}$	hp	0.17	0.89	1.07	1.26	1.61	1.97	2.31	13,900	1,570
		kW	0.13	0.66	0.80	0.94	1.20	1.47	1.72		
	$P_{1\,TH}$	hp	0.17	0.89	1.07	1.26	1.61	1.97	2.31		
		kW	0.13	0.66	0.80	0.94	1.20	1.47	1.72		
	$P_{1\,TH\,Fan}$	hp	n/a	0.89	1.07	1.26	1.61	1.97	2.31		
		kW	n/a	0.66	0.80	0.94	1.20	1.47	1.72		
	$T_{2\,ME}$	lb-in	4,630	4,500	4,420	4,310	4,210	4,150	4,070		
		Nm	523	509	500	487	476	468	460		
	η	%	73	78	79	79	80	81	81		
62.5 2.5 x 25	$P_{1\,ME}$	hp	0.17	0.82	1.00	1.17	1.49	1.79	2.06	12,800	1,450
		kW	0.12	0.62	0.74	0.88	1.11	1.33	1.54		
	$P_{1\,TH}$	hp	0.17	0.82	1.00	1.17	1.49	1.79	2.06		
		kW	0.12	0.62	0.74	0.88	1.11	1.33	1.54		
	$P_{1\,TH\,Fan}$	hp	n/a	0.82	1.00	1.17	1.49	1.79	2.06		
		kW	n/a	0.62	0.74	0.88	1.11	1.33	1.54		
	$T_{2\,ME}$	lb-in	4,280	4,070	4,020	4,020	3,950	3,810	3,640		
		Nm	483	460	454	455	447	431	411		
	η	%	65	73	74	76	78	79	79		
72 1.8 x 40	$P_{1\,ME}$	hp	0.15	0.69	0.83	0.98	1.21	1.43	1.61	11,100	1,260
		kW	0.11	0.52	0.62	0.73	0.91	1.07	1.20		
	$P_{1\,TH}$	hp	0.15	0.69	0.83	0.98	1.21	1.43	1.61		
		kW	0.11	0.52	0.62	0.73	0.91	1.07	1.20		
	$P_{1\,TH\,Fan}$	hp	n/a	0.69	0.83	0.98	1.21	1.43	1.61		
		kW	n/a	0.52	0.62	0.73	0.91	1.07	1.20		
	$T_{2\,ME}$	lb-in	3,700	3,520	3,520	3,460	3,440	3,260	3,040		
		Nm	419	398	398	390	388	368	344		
	η	%	55	65	67	68	72	73	73		

See Page 8.7 for Rating Definitions

3" Primary/3" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 2.5 x 30	$P_{1\,ME}$	hp	0.14	0.69	0.83	0.98	1.24	1.50	1.72	12,300	1,390
		kW	0.10	0.51	0.62	0.73	0.93	1.12	1.28		
	$P_{1\,TH}$	hp	0.14	0.69	0.83	0.98	1.24	1.50	1.72		
		kW	0.10	0.51	0.62	0.73	0.93	1.12	1.28		
	$P_{1\,TH\,Fan}$	hp	n/a	0.69	0.83	0.98	1.24	1.50	1.72		
		kW	n/a	0.51	0.62	0.73	0.93	1.12	1.28		
	$T_{2\,ME}$	lb-in	4,110	3,870	3,820	3,780	3,670	3,550	3,520		
		Nm	465	437	431	427	415	401	397		
	η	%	62	69	70	71	72	73	76		
80 4 x 20	$P_{1\,ME}$	hp	0.13	0.68	0.82	0.97	1.23	1.51	1.77	13,500	1,520
		kW	0.10	0.51	0.61	0.72	0.92	1.13	1.32		
	$P_{1\,TH}$	hp	0.13	0.68	0.82	0.97	1.23	1.51	1.77		
		kW	0.10	0.51	0.61	0.72	0.92	1.13	1.32		
	$P_{1\,TH\,Fan}$	hp	n/a	0.68	0.82	0.97	1.23	1.51	1.77		
		kW	n/a	0.51	0.61	0.72	0.92	1.13	1.32		
	$T_{2\,ME}$	lb-in	4,490	4,360	4,280	4,180	4,090	4,050	4,000		
		Nm	507	492	484	472	462	457	452		
	η	%	68	74	75	75	76	77	79		
90 1.8 x 50	$P_{1\,ME}$	hp	0.12	0.56	0.67	0.78	0.97	1.15	1.30	9,860	1,110
		kW	0.09	0.41	0.50	0.58	0.73	0.86	0.97		
	$P_{1\,TH}$	hp	0.12	0.56	0.67	0.78	0.97	1.15	1.30		
		kW	0.09	0.41	0.50	0.58	0.73	0.86	0.97		
	$P_{1\,TH\,Fan}$	hp	n/a	0.56	0.67	0.78	0.97	1.15	1.30		
		kW	n/a	0.41	0.50	0.58	0.73	0.86	0.97		
	$T_{2\,ME}$	lb-in	3,290	3,370	3,370	3,370	3,310	3,140	2,930		
		Nm	372	381	381	380	374	354	331		
	η	%	49	62	64	66	69	70	70		
100 4 x 25	$P_{1\,ME}$	hp	0.11	0.55	0.66	0.78	0.99	1.22	1.43	12,800	1,450
		kW	0.08	0.41	0.49	0.58	0.74	0.91	1.07		
	$P_{1\,TH}$	hp	0.11	0.55	0.66	0.78	0.99	1.22	1.43		
		kW	0.08	0.41	0.49	0.58	0.74	0.91	1.07		
	$P_{1\,TH\,Fan}$	hp	n/a	0.55	0.66	0.78	0.99	1.22	1.43		
		kW	n/a	0.41	0.49	0.58	0.74	0.91	1.07		
	$T_{2\,ME}$	lb-in	4,280	4,170	4,150	4,100	4,020	4,020	3,940		
		Nm	483	471	469	463	454	454	445		
	η	%	64	70	72	73	74	76	77		
108 1.8 x 60	$P_{1\,ME}$	hp	0.10	0.46	0.56	0.65	0.81	0.96	1.08	9,700	1,100
		kW	0.08	0.35	0.42	0.49	0.61	0.72	0.81		
	$P_{1\,TH}$	hp	0.10	0.46	0.56	0.65	0.81	0.96	1.08		
		kW	0.08	0.35	0.42	0.49	0.61	0.72	0.81		
	$P_{1\,TH\,Fan}$	hp	n/a	0.46	0.56	0.65	0.81	0.96	1.08		
		kW	n/a	0.35	0.42	0.49	0.61	0.72	0.81		
	$T_{2\,ME}$	lb-in	3,230	3,220	3,230	3,170	3,130	2,980	2,820		
		Nm	365	364	365	359	354	337	318		
	η	%	48	59	61	62	65	66	67		
120 4 x 30	$P_{1\,ME}$	hp	0.09	0.46	0.55	0.65	0.83	1.02	1.19	12,300	1,390
		kW	0.07	0.34	0.41	0.49	0.62	0.76	0.89		
	$P_{1\,TH}$	hp	0.09	0.46	0.55	0.65	0.83	1.02	1.19		
		kW	0.07	0.34	0.41	0.49	0.62	0.76	0.89		
	$P_{1\,TH\,Fan}$	hp	n/a	0.46	0.55	0.65	0.83	1.02	1.19		
		kW	n/a	0.34	0.41	0.49	0.62	0.76	0.89		
	$T_{2\,ME}$	lb-in	4,110	4,010	3,940	3,890	3,820	3,760	3,700		
		Nm	465	453	445	440	431	425	418		
	η	%	61	67	68	69	70	71	72		
125 2.5 x 50	$P_{1\,ME}$	hp	0.09	0.42	0.50	0.59	0.75	0.91	1.04	9,860	1,110
		kW	0.06	0.31	0.38	0.44	0.56	0.68	0.78		
	$P_{1\,TH}$	hp	0.09	0.42	0.50	0.59	0.75	0.91	1.04		
		kW	0.06	0.31	0.38	0.44	0.56	0.68	0.78		
	$P_{1\,TH\,Fan}$	hp	n/a	0.42	0.50	0.59	0.75	0.91	1.04		
		kW	n/a	0.31	0.38	0.44	0.56	0.68	0.78		
	$T_{2\,ME}$	lb-in	3,290	3,410	3,360	3,390	3,400	3,340	3,270		
		Nm	372	385	380	384	384	378	370		
	η	%	49	60	61	63	66	68	70		

See Page 8.7 for Rating Definitions

Size 30 Helical Worm Reducer Ratings

3" Primary/3" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
150 2.5 x 60	$P_{1\,ME}$	hp	0.07	0.35	0.42	0.50	0.63	0.76	0.87	9,700	1,100
		kW	0.06	0.26	0.31	0.37	0.47	0.56	0.65		
	$P_{1\,TH}$	hp	0.07	0.35	0.42	0.50	0.63	0.76	0.87		
		kW	0.06	0.26	0.31	0.37	0.47	0.56	0.65		
	$P_{1\,TH\,Fan}$	hp	n/a	0.35	0.42	0.50	0.63	0.76	0.87		
		kW	n/a	0.26	0.31	0.37	0.47	0.56	0.65		
	$T_{2\,ME}$	lb-in	3,230	3,250	3,210	3,240	3,200	3,160	3,100		
		Nm	365	367	363	367	362	357	350		
	η	%	47	57	58	60	62	64	66		
160 4 x 40	$P_{1\,ME}$	hp	0.07	0.35	0.42	0.49	0.63	0.77	0.90	11,100	1,260
		kW	0.05	0.26	0.31	0.37	0.47	0.57	0.67		
	$P_{1\,TH}$	hp	0.07	0.35	0.42	0.49	0.63	0.77	0.90		
		kW	0.05	0.26	0.31	0.37	0.47	0.57	0.67		
	$P_{1\,TH\,Fan}$	hp	n/a	0.35	0.42	0.49	0.63	0.77	0.90		
		kW	n/a	0.26	0.31	0.37	0.47	0.57	0.67		
	$T_{2\,ME}$	lb-in	3,700	3,620	3,560	3,480	3,510	3,540	3,520		
		Nm	419	409	403	393	397	400	398		
	η	%	54	60	61	61	64	66	68		
200 4 x 50	$P_{1\,ME}$	hp	0.06	0.28	0.33	0.39	0.50	0.62	0.72	9,860	1,110
		kW	0.04	0.21	0.25	0.29	0.37	0.46	0.54		
	$P_{1\,TH}$	hp	0.06	0.28	0.33	0.39	0.50	0.62	0.72		
		kW	0.04	0.21	0.25	0.29	0.37	0.46	0.54		
	$P_{1\,TH\,Fan}$	hp	n/a	0.28	0.33	0.39	0.50	0.62	0.72		
		kW	n/a	0.21	0.25	0.29	0.37	0.46	0.54		
	$T_{2\,ME}$	lb-in	3,290	3,340	3,340	3,370	3,360	3,400	3,380		
		Nm	372	377	378	381	380	384	382		
	η	%	48	55	57	59	61	63	65		
240 4 x 60	$P_{1\,ME}$	hp	0.05	0.23	0.28	0.33	0.42	0.51	0.60	9,700	1,100
		kW	0.03	0.17	0.21	0.25	0.31	0.38	0.45		
	$P_{1\,TH}$	hp	0.05	0.23	0.28	0.33	0.42	0.51	0.60		
		kW	0.03	0.17	0.21	0.25	0.31	0.38	0.45		
	$P_{1\,TH\,Fan}$	hp	n/a	0.23	0.28	0.33	0.42	0.51	0.60		
		kW	n/a	0.17	0.21	0.25	0.31	0.38	0.45		
	$T_{2\,ME}$	lb-in	3,230	3,280	3,290	3,270	3,210	3,250	3,230		
		Nm	365	371	372	369	363	367	365		
	η	%	47	54	56	57	58	61	62		

See Page 8.7 for Rating Definitions

4" Primary/3.5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5 1 x 5	$P_{1\,ME}$	hp	1.60	8.59	10.5	12.6	16.2	18.4	20.2	13,100	1,480
		kW	1.19	6.41	7.85	9.39	12.1	13.8	15.1		
	$P_{1\,TH}$	hp	1.60	8.33	9.38	10.1	10.9	11.5	12.1		
		kW	1.19	6.22	7.00	7.54	8.16	8.58	9.00		
	$P_{1\,TH\,Fan}$	hp	n/a	8.40	10.3	12.1	14.8	16.4	18.1		
		kW	n/a	6.27	7.70	9.05	11.0	12.3	13.5		
	$T_{2\,ME}$	lb-in	4,350	4,120	4,060	4,070	3,970	3,580	3,250		
		Nm	492	465	459	459	449	404	367		
	η	%	86	88	88	89	89	89	89		
7.5 1.5 x 5	$P_{1\,ME}$	hp	1.32	7.14	8.76	10.5	13.1	14.8	16.4	16,200	1,830
		kW	0.99	5.33	6.54	7.81	9.76	11.0	12.3		
	$P_{1\,TH}$	hp	1.32	6.66	7.50	8.40	9.61	10.4	11.0		
		kW	0.99	4.97	5.60	6.27	7.17	7.75	8.18		
	$P_{1\,TH\,Fan}$	hp	n/a	6.66	7.50	8.40	10.9	13.0	14.8		
		kW	n/a	4.97	5.60	6.27	8.12	9.72	11.1		
	$T_{2\,ME}$	lb-in	5,260	5,140	5,080	5,020	4,750	4,300	3,960		
		Nm	595	580	574	567	536	486	448		
	η	%	84	88	88	88	88	89	89		
9 1.8 x 5	$P_{1\,ME}$	hp	1.17	6.40	7.86	9.39	11.8	13.4	14.8	17,200	1,940
		kW	0.87	4.78	5.87	7.01	8.82	10.0	11.1		
	$P_{1\,TH}$	hp	1.17	6.08	6.78	7.53	8.81	9.79	10.4		
		kW	0.87	4.53	5.06	5.62	6.58	7.31	7.76		
	$P_{1\,TH\,Fan}$	hp	n/a	6.08	6.78	7.53	9.21	11.3	13.1		
		kW	n/a	4.53	5.06	5.62	6.87	8.47	9.76		
	$T_{2\,ME}$	lb-in	5,470	5,520	5,470	5,400	5,150	4,660	4,290		
		Nm	618	624	618	611	581	527	485		
	η	%	82	88	88	88	88	89	89		
10 1 x 10	$P_{1\,ME}$	hp	1.60	7.35	8.47	9.49	11.0	12.5	13.8	24,400	2,750
		kW	1.19	5.48	6.32	7.08	8.20	9.32	10.3		
	$P_{1\,TH}$	hp	1.60	6.82	7.44	7.97	8.58	8.90	9.22		
		kW	1.19	5.09	5.55	5.95	6.40	6.64	6.88		
	$P_{1\,TH\,Fan}$	hp	n/a	6.82	8.19	9.49	11.0	12.5	13.8		
		kW	n/a	5.09	6.11	7.08	8.20	9.32	10.3		
	$T_{2\,ME}$	lb-in	8,120	6,740	6,400	5,940	5,260	4,740	4,340		
		Nm	917	761	724	671	594	535	490		
	η	%	81	84	86	86	87	87	87		
12.5 2.5 x 5	$P_{1\,ME}$	hp	0.95	5.18	6.37	7.61	9.47	11.1	12.5	19,400	2,190
		kW	0.71	3.87	4.75	5.68	7.07	8.29	9.30		
	$P_{1\,TH}$	hp	0.95	4.98	5.72	6.31	7.32	8.40	9.24		
		kW	0.71	3.72	4.27	4.71	5.46	6.27	6.90		
	$P_{1\,TH\,Fan}$	hp	n/a	4.98	5.72	6.31	7.32	8.40	10.0		
		kW	n/a	3.72	4.27	4.71	5.46	6.27	7.50		
	$T_{2\,ME}$	lb-in	6,170	6,140	6,150	6,080	5,730	5,330	4,950		
		Nm	697	694	695	687	647	602	559		
	η	%	82	87	88	88	88	88	88		
15 1.5 x 10	$P_{1\,ME}$	hp	1.15	5.39	6.39	7.35	8.83	10.0	11.1	25,500	2,880
		kW	0.85	4.02	4.77	5.48	6.59	7.49	8.26		
	$P_{1\,TH}$	hp	1.15	5.13	5.95	6.82	7.61	8.18	8.60		
		kW	0.85	3.83	4.44	5.09	5.68	6.10	6.41		
	$P_{1\,TH\,Fan}$	hp	n/a	5.13	5.95	6.82	8.62	10.0	11.1		
		kW	n/a	3.83	4.44	5.09	6.43	7.49	8.26		
	$T_{2\,ME}$	lb-in	8,500	7,320	7,080	6,740	6,260	5,710	5,220		
		Nm	961	827	800	761	708	645	590		
	η	%	79	83	84	84	86	87	87		
18 1.8 x 10	$P_{1\,ME}$	hp	0.98	4.64	5.54	6.42	7.85	9.09	10.1	25,500	2,880
		kW	0.73	3.46	4.13	4.79	5.86	6.78	7.51		
	$P_{1\,TH}$	hp	0.98	4.57	5.25	5.98	7.08	7.74	8.19		
		kW	0.73	3.41	3.92	4.46	5.29	5.78	6.11		
	$P_{1\,TH\,Fan}$	hp	n/a	4.57	5.25	5.98	7.40	8.97	10.1		
		kW	n/a	3.41	3.92	4.46	5.52	6.70	7.51		
	$T_{2\,ME}$	lb-in	8,500	7,570	7,280	7,070	6,610	6,140	5,700		
		Nm	961	855	823	798	747	694	644		
	η	%	77	83	83	84	85	86	87		

See Page 8.7 for Rating Definitions

Size 35 Helical Worm Reducer Ratings

4" Primary/3.5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
20 4 x 5	$P_{1\,ME}$	hp	0.90	3.98	4.62	5.18	6.02	6.82	7.55	24,800	2,800
		kW	0.67	2.97	3.44	3.87	4.49	5.09	5.63		
	$P_{1\,TH}$	hp	0.90	3.98	4.62	5.18	5.77	5.90	6.03		
		kW	0.67	2.97	3.44	3.87	4.31	4.40	4.50		
	$P_{1\,TH\,Fan}$	hp	n/a	3.98	4.62	5.18	6.02	6.82	7.55		
		kW	n/a	2.97	3.44	3.87	4.49	5.09	5.63		
	$T_{2\,ME}$	lb-in	8,260	6,970	6,510	6,040	5,380	4,890	4,480		
		Nm	934	787	735	683	607	552	507		
	η	%	73	81	81	81	81	82	82		
22.5 1.5 x 15	$P_{1\,ME}$	hp	0.81	3.80	4.51	5.20	6.25	7.14	7.89	25,600	2,890
		kW	0.60	2.84	3.37	3.88	4.67	5.32	5.89		
	$P_{1\,TH}$	hp	0.81	3.74	4.45	5.20	6.14	6.51	6.76		
		kW	0.60	2.79	3.32	3.88	4.58	4.86	5.04		
	$P_{1\,TH\,Fan}$	hp	n/a	3.74	4.45	5.20	6.25	7.14	7.89		
		kW	n/a	2.79	3.32	3.88	4.67	5.32	5.89		
	$T_{2\,ME}$	lb-in	8,530	7,480	7,240	6,990	6,430	5,950	5,460		
		Nm	964	845	818	790	727	673	616		
	η	%	75	81	81	82	83	85	85		
25 2.5 x 10	$P_{1\,ME}$	hp	0.70	3.49	4.22	4.95	6.19	7.35	8.33	25,500	2,880
		kW	0.53	2.60	3.15	3.69	4.62	5.48	6.22		
	$P_{1\,TH}$	hp	0.70	3.49	4.22	4.79	5.77	6.82	7.35		
		kW	0.53	2.60	3.15	3.58	4.31	5.09	5.49		
	$P_{1\,TH\,Fan}$	hp	n/a	3.49	4.22	4.79	5.77	6.82	7.99		
		kW	n/a	2.60	3.15	3.58	4.31	5.09	5.96		
	$T_{2\,ME}$	lb-in	8,500	7,810	7,700	7,470	7,160	6,740	6,470		
		Nm	961	883	870	844	809	761	731		
	η	%	77	82	83	83	84	84	86		
27 1.8 x 15	$P_{1\,ME}$	hp	0.68	3.27	3.90	4.53	5.56	6.45	7.16	25,600	2,890
		kW	0.51	2.44	2.91	3.38	4.15	4.81	5.34		
	$P_{1\,TH}$	hp	0.68	3.25	3.84	4.47	5.55	6.24	6.52		
		kW	0.51	2.43	2.87	3.34	4.14	4.65	4.87		
	$P_{1\,TH\,Fan}$	hp	n/a	3.25	3.84	4.47	5.56	6.45	7.16		
		kW	n/a	2.43	2.87	3.34	4.15	4.81	5.34		
	$T_{2\,ME}$	lb-in	8,530	7,620	7,520	7,230	6,860	6,340	5,940		
		Nm	964	861	849	816	775	716	671		
	η	%	74	80	81	81	83	84	85		
30 1.5 x 20	$P_{1\,ME}$	hp	0.62	2.91	3.46	3.98	4.80	5.49	6.07	24,800	2,800
		kW	0.46	2.17	2.58	2.97	3.58	4.10	4.53		
	$P_{1\,TH}$	hp	0.62	2.86	3.40	3.98	4.80	5.39	5.78		
		kW	0.46	2.13	2.54	2.97	3.58	4.02	4.31		
	$P_{1\,TH\,Fan}$	hp	n/a	2.86	3.40	3.98	4.80	5.49	6.07		
		kW	n/a	2.13	2.54	2.97	3.58	4.10	4.53		
	$T_{2\,ME}$	lb-in	8,260	7,360	7,140	6,970	6,350	5,830	5,340		
		Nm	934	832	807	787	718	659	603		
	η	%	71	78	79	81	81	81	81		
36 1.8 x 20	$P_{1\,ME}$	hp	0.53	2.50	2.99	3.48	4.26	4.95	5.51	24,800	2,800
		kW	0.39	1.87	2.23	2.59	3.18	3.70	4.11		
	$P_{1\,TH}$	hp	0.53	2.48	2.94	3.42	4.26	4.95	5.40		
		kW	0.39	1.85	2.19	2.56	3.18	3.69	4.03		
	$P_{1\,TH\,Fan}$	hp	n/a	2.48	2.94	3.42	4.26	4.95	5.51		
		kW	n/a	1.85	2.19	2.56	3.18	3.70	4.11		
	$T_{2\,ME}$	lb-in	8,260	7,400	7,310	7,130	6,770	6,240	5,820		
		Nm	934	836	826	805	765	705	658		
	η	%	69	76	78	79	81	81	81		
37.5 2.5 x 15	$P_{1\,ME}$	hp	0.49	2.45	2.97	3.48	4.36	5.20	5.90	25,600	2,890
		kW	0.37	1.83	2.21	2.60	3.26	3.88	4.40		
	$P_{1\,TH}$	hp	0.49	2.45	2.97	3.45	4.30	5.20	5.90		
		kW	0.37	1.83	2.21	2.57	3.21	3.88	4.40		
	$P_{1\,TH\,Fan}$	hp	n/a	2.45	2.97	3.45	4.30	5.20	5.90		
		kW	n/a	1.83	2.21	2.57	3.21	3.88	4.40		
	$T_{2\,ME}$	lb-in	8,530	7,840	7,740	7,620	7,310	6,990	6,640		
		Nm	964	885	875	861	826	790	751		
	η	%	74	79	80	81	81	82	83		

See Page 8.7 for Rating Definitions

4” Primary/3.5” Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
40 4 x 10	$P_{1\,ME}$	hp	0.45	2.31	2.79	3.30	4.21	5.11	5.95	25,500	2,880
		kW	0.33	1.73	2.08	2.46	3.14	3.82	4.44		
	$P_{1\,TH}$	hp	0.45	2.31	2.79	3.30	4.21	4.92	5.58		
		kW	0.33	1.72	2.08	2.46	3.14	3.67	4.16		
	$P_{1\,TH\,Fan}$	hp	n/a	2.31	2.79	3.30	4.21	4.92	5.58		
		kW	n/a	1.72	2.08	2.46	3.14	3.67	4.16		
	$T_{2\,ME}$	lb-in	8,500	8,190	8,070	7,880	7,700	7,420	7,150		
		Nm	961	926	911	890	870	838	808		
	η	%	76	81	82	82	83	83	83		
45 1.8 x 25	$P_{1\,ME}$	hp	0.43	2.01	2.41	2.81	3.44	4.00	4.45	23,600	2,670
		kW	0.32	1.50	1.80	2.09	2.57	2.98	3.32		
	$P_{1\,TH}$	hp	0.43	2.00	2.37	2.77	3.44	3.99	4.44		
		kW	0.32	1.49	1.77	2.07	2.57	2.98	3.31		
	$P_{1\,TH\,Fan}$	hp	n/a	2.00	2.37	2.77	3.44	4.00	4.45		
		kW	n/a	1.49	1.77	2.07	2.57	2.98	3.32		
	$T_{2\,ME}$	lb-in	7,870	7,350	7,280	7,190	6,670	6,250	5,800		
		Nm	890	831	822	812	753	706	656		
	η	%	65	75	77	79	79	80	81		
50 2.5 x 20	$P_{1\,ME}$	hp	0.38	1.88	2.27	2.67	3.35	3.98	4.53	24,800	2,800
		kW	0.28	1.40	1.69	1.99	2.50	2.97	3.38		
	$P_{1\,TH}$	hp	0.38	1.87	2.27	2.63	3.29	3.98	4.53		
		kW	0.28	1.40	1.69	1.96	2.45	2.97	3.38		
	$P_{1\,TH\,Fan}$	hp	n/a	1.87	2.27	2.63	3.29	3.98	4.53		
		kW	n/a	1.40	1.69	1.96	2.45	2.97	3.38		
	$T_{2\,ME}$	lb-in	8,260	7,610	7,520	7,410	7,210	6,970	6,560		
		Nm	934	860	849	838	814	787	741		
	η	%	69	75	76	77	79	81	81		
54 1.8 x 30	$P_{1\,ME}$	hp	0.36	1.69	2.02	2.35	2.88	3.34	3.72	22,700	2,570
		kW	0.27	1.26	1.50	1.75	2.15	2.50	2.78		
	$P_{1\,TH}$	hp	0.36	1.68	1.99	2.32	2.88	3.34	3.72		
		kW	0.27	1.25	1.48	1.73	2.15	2.50	2.77		
	$P_{1\,TH\,Fan}$	hp	n/a	1.68	1.99	2.32	2.88	3.34	3.72		
		kW	n/a	1.25	1.48	1.73	2.15	2.50	2.78		
	$T_{2\,ME}$	lb-in	7,570	6,910	6,840	6,590	6,370	5,970	5,540		
		Nm	855	781	773	745	720	674	627		
	η	%	62	70	72	72	75	76	77		
60 4 x 15	$P_{1\,ME}$	hp	0.31	1.63	1.96	2.32	2.96	3.60	4.20	25,600	2,890
		kW	0.23	1.22	1.47	1.73	2.21	2.69	3.13		
	$P_{1\,TH}$	hp	0.31	1.62	1.96	2.32	2.96	3.56	4.13		
		kW	0.23	1.21	1.47	1.73	2.21	2.65	3.08		
	$P_{1\,TH\,Fan}$	hp	n/a	1.62	1.96	2.32	2.96	3.56	4.13		
		kW	n/a	1.21	1.47	1.73	2.21	2.65	3.08		
	$T_{2\,ME}$	lb-in	8,530	8,240	8,100	7,930	7,740	7,560	7,390		
		Nm	964	931	916	896	875	855	835		
	η	%	73	78	79	79	80	81	81		
62.5 2.5 x 25	$P_{1\,ME}$	hp	0.31	1.51	1.83	2.15	2.70	3.21	3.65	23,600	2,670
		kW	0.23	1.13	1.37	1.61	2.01	2.40	2.73		
	$P_{1\,TH}$	hp	0.31	1.51	1.83	2.12	2.66	3.21	3.65		
		kW	0.23	1.13	1.36	1.59	1.98	2.40	2.73		
	$P_{1\,TH\,Fan}$	hp	n/a	1.51	1.83	2.12	2.66	3.21	3.65		
		kW	n/a	1.13	1.36	1.59	1.98	2.40	2.73		
	$T_{2\,ME}$	lb-in	7,870	7,470	7,390	7,370	7,170	6,860	6,460		
		Nm	890	844	835	833	810	775	730		
	η	%	65	73	74	76	78	79	79		
72 1.8 x 40	$P_{1\,ME}$	hp	0.27	1.27	1.52	1.77	2.17	2.52	2.81	20,500	2,310
		kW	0.20	0.95	1.13	1.32	1.62	1.88	2.10		
	$P_{1\,TH}$	hp	0.27	1.26	1.49	1.74	2.17	2.52	2.80		
		kW	0.20	0.94	1.12	1.30	1.62	1.88	2.09		
	$P_{1\,TH\,Fan}$	hp	n/a	1.26	1.49	1.74	2.17	2.52	2.81		
		kW	n/a	0.94	1.12	1.30	1.62	1.88	2.10		
	$T_{2\,ME}$	lb-in	6,820	6,460	6,410	6,260	6,150	5,750	5,300		
		Nm	771	730	724	707	695	649	599		
	η	%	55	65	67	68	72	73	73		

See Page 8.7 for Rating Definitions

Size 35 Helical Worm Reducer Ratings

4" Primary/3.5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
75 2.5 x 30	$P_{1\,ME}$	hp	0.26	1.26	1.53	1.80	2.25	2.69	3.05	22,700	2,570
		kW	0.19	0.94	1.14	1.34	1.68	2.01	2.28		
	$P_{1\,TH}$	hp	0.26	1.26	1.53	1.78	2.22	2.69	3.05		
		kW	0.19	0.94	1.14	1.33	1.66	2.01	2.28		
	$P_{1\,TH\,Fan}$	hp	n/a	1.26	1.53	1.78	2.22	2.69	3.05		
		kW	n/a	0.94	1.14	1.33	1.66	2.01	2.28		
	$T_{2\,ME}$	lb-in	7,570	7,090	7,020	6,920	6,650	6,390	6,240		
		Nm	855	802	794	782	752	721	705		
	η	%	62	69	70	71	72	73	76		
80 4 x 20	$P_{1\,ME}$	hp	0.24	1.25	1.50	1.77	2.27	2.76	3.21	24,800	2,800
		kW	0.18	0.93	1.12	1.32	1.69	2.06	2.40		
	$P_{1\,TH}$	hp	0.24	1.24	1.50	1.77	2.26	2.72	3.16		
		kW	0.18	0.93	1.12	1.32	1.69	2.03	2.35		
	$P_{1\,TH\,Fan}$	hp	n/a	1.24	1.50	1.77	2.26	2.72	3.16		
		kW	n/a	0.93	1.12	1.32	1.69	2.03	2.35		
	$T_{2\,ME}$	lb-in	8,260	7,990	7,860	7,680	7,530	7,380	7,270		
		Nm	934	903	888	868	851	834	822		
	η	%	68	74	75	75	76	77	79		
90 1.8 x 50	$P_{1\,ME}$	hp	0.22	1.02	1.22	1.42	1.74	2.03	2.25	18,200	2,050
		kW	0.16	0.76	0.91	1.06	1.30	1.51	1.68		
	$P_{1\,TH}$	hp	0.22	1.01	1.20	1.40	1.74	2.02	2.25		
		kW	0.16	0.76	0.89	1.04	1.30	1.51	1.68		
	$P_{1\,TH\,Fan}$	hp	n/a	1.01	1.20	1.40	1.74	2.03	2.25		
		kW	n/a	0.76	0.89	1.04	1.30	1.51	1.68		
	$T_{2\,ME}$	lb-in	6,050	6,190	6,140	6,100	5,920	5,530	5,100		
		Nm	684	699	694	689	669	625	576		
	η	%	49	62	64	66	69	70	70		
100 4 x 25	$P_{1\,ME}$	hp	0.20	1.01	1.21	1.43	1.83	2.23	2.59	23,600	2,670
		kW	0.15	0.75	0.91	1.07	1.36	1.66	1.94		
	$P_{1\,TH}$	hp	0.20	1.00	1.21	1.43	1.83	2.19	2.55		
		kW	0.15	0.75	0.90	1.07	1.36	1.64	1.90		
	$P_{1\,TH\,Fan}$	hp	n/a	1.00	1.21	1.43	1.83	2.19	2.55		
		kW	n/a	0.75	0.90	1.07	1.36	1.64	1.90		
	$T_{2\,ME}$	lb-in	7,870	7,630	7,630	7,530	7,390	7,350	7,160		
		Nm	890	862	862	851	835	831	809		
	η	%	64	70	72	73	74	76	77		
108 1.8 x 60	$P_{1\,ME}$	hp	0.18	0.85	1.02	1.18	1.45	1.69	1.88	17,900	2,020
		kW	0.14	0.64	0.76	0.88	1.09	1.26	1.41		
	$P_{1\,TH}$	hp	0.18	0.85	1.00	1.17	1.45	1.69	1.88		
		kW	0.14	0.63	0.75	0.87	1.08	1.26	1.40		
	$P_{1\,TH\,Fan}$	hp	n/a	0.85	1.00	1.17	1.45	1.69	1.88		
		kW	n/a	0.63	0.75	0.87	1.09	1.26	1.41		
	$T_{2\,ME}$	lb-in	5,950	5,910	5,880	5,750	5,590	5,260	4,900		
		Nm	672	668	664	650	632	595	554		
	η	%	48	59	61	62	65	66	67		
120 4 x 30	$P_{1\,ME}$	hp	0.16	0.84	1.02	1.20	1.53	1.86	2.17	22,700	2,570
		kW	0.12	0.63	0.76	0.89	1.14	1.39	1.62		
	$P_{1\,TH}$	hp	0.16	0.84	1.01	1.20	1.53	1.84	2.13		
		kW	0.12	0.62	0.76	0.89	1.14	1.37	1.59		
	$P_{1\,TH\,Fan}$	hp	n/a	0.84	1.01	1.20	1.53	1.84	2.13		
		kW	n/a	0.62	0.76	0.89	1.14	1.37	1.59		
	$T_{2\,ME}$	lb-in	7,570	7,340	7,240	7,160	7,020	6,870	6,730		
		Nm	855	829	819	809	793	777	760		
	η	%	61	67	68	69	70	71	72		
125 2.5 x 50	$P_{1\,ME}$	hp	0.16	0.77	0.93	1.09	1.36	1.63	1.85	18,200	2,050
		kW	0.12	0.57	0.69	0.81	1.02	1.21	1.38		
	$P_{1\,TH}$	hp	0.16	0.76	0.92	1.07	1.34	1.63	1.85		
		kW	0.12	0.57	0.69	0.80	1.00	1.21	1.38		
	$P_{1\,TH\,Fan}$	hp	n/a	0.76	0.92	1.07	1.34	1.63	1.85		
		kW	n/a	0.57	0.69	0.80	1.00	1.21	1.38		
	$T_{2\,ME}$	lb-in	6,050	6,250	6,190	6,210	6,170	6,000	5,830		
		Nm	684	706	699	701	697	678	659		
	η	%	49	60	61	63	66	68	70		

See Page 8.7 for Rating Definitions

4” Primary/3.5” Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
150 2.5 x 60	$P_{1\,ME}$	hp	0.14	0.64	0.77	0.91	1.14	1.36	1.55	17,900	2,020
		kW	0.10	0.48	0.58	0.68	0.85	1.01	1.15		
	$P_{1\,TH}$	hp	0.14	0.64	0.77	0.90	1.12	1.36	1.55		
		kW	0.10	0.48	0.58	0.67	0.84	1.01	1.15		
	$P_{1\,TH\,Fan}$	hp	n/a	0.64	0.77	0.90	1.12	1.36	1.55		
		kW	n/a	0.48	0.58	0.67	0.84	1.01	1.15		
	$T_{2\,ME}$	lb-in	5,950	5,960	5,900	5,930	5,820	5,670	5,510		
		Nm	672	673	667	670	657	641	623		
	η	%	47	57	58	60	62	64	66		
160 4 x 40	$P_{1\,ME}$	hp	0.12	0.63	0.77	0.90	1.15	1.40	1.63	20,500	2,310
		kW	0.09	0.47	0.57	0.67	0.86	1.05	1.22		
	$P_{1\,TH}$	hp	0.12	0.63	0.77	0.90	1.15	1.38	1.61		
		kW	0.09	0.47	0.57	0.67	0.86	1.03	1.20		
	$P_{1\,TH\,Fan}$	hp	n/a	0.63	0.77	0.90	1.15	1.38	1.61		
		kW	n/a	0.47	0.57	0.67	0.86	1.03	1.20		
	$T_{2\,ME}$	lb-in	6,820	6,620	6,550	6,390	6,460	6,470	6,390		
		Nm	771	749	740	722	730	731	722		
	η	%	54	60	61	61	64	66	68		
200 4 x 50	$P_{1\,ME}$	hp	0.10	0.51	0.61	0.72	0.92	1.12	1.31	18,200	2,050
		kW	0.08	0.38	0.46	0.54	0.69	0.84	0.98		
	$P_{1\,TH}$	hp	0.10	0.51	0.61	0.72	0.92	1.11	1.29		
		kW	0.08	0.38	0.46	0.54	0.69	0.83	0.96		
	$P_{1\,TH\,Fan}$	hp	n/a	0.51	0.61	0.72	0.92	1.11	1.29		
		kW	n/a	0.38	0.46	0.54	0.69	0.83	0.96		
	$T_{2\,ME}$	lb-in	6,050	6,110	6,150	6,200	6,190	6,200	6,130		
		Nm	684	690	695	700	699	700	693		
	η	%	48	55	57	59	61	63	65		
240 4 x 60	$P_{1\,ME}$	hp	0.09	0.42	0.51	0.60	0.77	0.94	1.09	17,900	2,020
		kW	0.06	0.32	0.38	0.45	0.58	0.70	0.82		
	$P_{1\,TH}$	hp	0.09	0.42	0.51	0.60	0.77	0.93	1.08		
		kW	0.06	0.32	0.38	0.45	0.58	0.69	0.80		
	$P_{1\,TH\,Fan}$	hp	n/a	0.42	0.51	0.60	0.77	0.93	1.08		
		kW	n/a	0.32	0.38	0.45	0.58	0.69	0.80		
	$T_{2\,ME}$	lb-in	5,950	6,010	6,060	6,010	5,900	5,920	5,870		
		Nm	672	679	684	679	667	669	663		
	η	%	47	54	56	57	58	61	62		

See Page 8.7 for Rating Definitions

Size 40 Helical Worm Reducer Ratings

4" Primary/4" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5 1 x 5	$P_{1\,ME}$	hp	1.60	8.59	10.5	12.6	16.2	20.0	23.8	13,500	1,530
		kW	1.19	6.41	7.85	9.39	12.1	14.9	17.8		
	$P_{1\,TH}$	hp	1.60	8.33	10.2	11.9	12.9	13.6	14.2		
		kW	1.19	6.22	7.62	8.85	9.62	10.1	10.6		
	$P_{1\,TH\,Fan}$	hp	n/a	8.59	10.5	12.6	16.2	20.0	21.8		
		kW	n/a	6.41	7.85	9.39	12.1	14.9	16.2		
	$P_{1\,TH\,WH}$	hp	1.60	8.59	10.5	12.6	16.2	20.0	23.8		
		kW	1.19	6.41	7.85	9.39	12.1	14.9	17.8		
	$T_{2\,ME}$	lb-in	4,500	4,260	4,200	4,200	4,100	4,010	3,950		
		Nm	508	481	474	474	463	453	446		
	η	%	89	91	91	92	92	92	92		
7.5 1.5 x 5	$P_{1\,ME}$	hp	1.32	7.14	8.76	10.5	13.7	16.9	20.1	16,700	1,890
		kW	0.99	5.33	6.54	7.81	10.2	12.6	15.0		
	$P_{1\,TH}$	hp	1.32	6.93	8.50	9.90	11.3	12.2	12.9		
		kW	0.99	5.17	6.34	7.39	8.42	9.11	9.64		
	$P_{1\,TH\,Fan}$	hp	n/a	7.14	8.76	10.5	13.7	16.5	18.5		
		kW	n/a	5.33	6.54	7.81	10.2	12.3	13.8		
	$P_{1\,TH\,WH}$	hp	1.32	7.14	8.76	10.5	13.7	16.9	20.1		
		kW	0.99	5.33	6.54	7.81	10.2	12.6	15.0		
	$T_{2\,ME}$	lb-in	5,440	5,310	5,240	5,190	5,130	5,070	5,000		
		Nm	615	600	593	586	580	573	565		
	η	%	87	91	91	91	91	92	92		
9 1.8 x 5	$P_{1\,ME}$	hp	1.17	6.40	7.86	9.39	12.1	15.0	17.9	17,800	2,010
		kW	0.87	4.78	5.87	7.01	9.05	11.2	13.4		
	$P_{1\,TH}$	hp	1.17	6.21	7.62	8.86	10.4	11.5	12.2		
		kW	0.87	4.63	5.69	6.62	7.74	8.58	9.13		
	$P_{1\,TH\,Fan}$	hp	n/a	6.40	7.86	8.86	12.1	14.6	16.5		
		kW	n/a	4.78	5.87	6.62	9.05	10.9	12.3		
	$P_{1\,TH\,WH}$	hp	1.17	6.40	7.86	9.39	12.1	15.0	17.9		
		kW	0.87	4.78	5.87	7.01	9.05	11.2	13.4		
	$T_{2\,ME}$	lb-in	5,660	5,710	5,650	5,580	5,460	5,380	5,350		
		Nm	640	645	638	631	616	608	604		
	η	%	85	91	91	91	91	92	92		
10 1 x 10	$P_{1\,ME}$	hp	1.60	8.59	10.5	12.6	15.3	17.3	19.0	25,200	2,850
		kW	1.19	6.41	7.85	9.39	11.4	12.9	14.2		
	$P_{1\,TH}$	hp	1.60	8.04	8.76	9.38	10.1	10.5	10.8		
		kW	1.19	6.00	6.54	7.00	7.54	7.81	8.08		
	$P_{1\,TH\,Fan}$	hp	n/a	8.59	10.5	12.2	14.4	15.5	16.6		
		kW	n/a	6.41	7.85	9.10	10.8	11.6	12.4		
	$P_{1\,TH\,WH}$	hp	1.60	8.59	10.5	12.6	15.3	17.3	19.0		
		kW	1.19	6.41	7.85	9.39	11.4	12.9	14.2		
	$T_{2\,ME}$	lb-in	8,410	8,150	8,220	8,130	7,560	6,780	6,170		
		Nm	951	921	929	919	854	766	697		
	η	%	83	87	89	89	90	90	90		
12.5 2.5 x 5	$P_{1\,ME}$	hp	0.95	5.18	6.37	7.61	9.93	12.3	14.6	20,000	2,260
		kW	0.71	3.87	4.75	5.68	7.41	9.15	10.9		
	$P_{1\,TH}$	hp	0.95	5.02	6.18	7.38	8.62	9.90	10.9		
		kW	0.71	3.75	4.61	5.51	6.43	7.39	8.11		
	$P_{1\,TH\,Fan}$	hp	n/a	5.18	6.37	7.42	8.62	11.4	13.3		
		kW	n/a	3.87	4.75	5.54	6.43	8.49	9.89		
	$P_{1\,TH\,WH}$	hp	0.95	5.18	6.37	7.61	9.93	12.3	14.6		
		kW	0.71	3.87	4.75	5.68	7.41	9.15	10.9		
	$T_{2\,ME}$	lb-in	6,390	6,350	6,360	6,280	6,200	6,080	5,990		
		Nm	722	717	718	710	701	687	677		
	η	%	85	90	91	91	91	91	91		
15 1.5 x 10	$P_{1\,ME}$	hp	1.32	7.14	8.76	10.4	12.3	13.9	15.4	31,200	3,530
		kW	0.99	5.33	6.54	7.73	9.16	10.4	11.5		
	$P_{1\,TH}$	hp	1.32	6.48	7.23	8.04	8.96	9.63	10.1		
		kW	0.99	4.83	5.40	6.00	6.68	7.19	7.55		
	$P_{1\,TH\,Fan}$	hp	n/a	6.48	7.23	9.25	11.2	13.0	14.5		
		kW	n/a	4.83	5.40	6.90	8.38	9.68	10.8		
	$P_{1\,TH\,WH}$	hp	1.32	7.14	8.76	10.4	12.3	13.9	15.4		
		kW	0.99	5.33	6.54	7.73	9.16	10.4	11.5		
	$T_{2\,ME}$	lb-in	10,200	10,000	10,000	9,820	9,000	8,150	7,510		
		Nm	1,150	1,140	1,130	1,110	1,020	921	849		
	η	%	81	86	87	87	89	90	90		

See Page 8.7 for Rating Definitions

4" Primary/4" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
18 1.8 x 10	$P_{1\,ME}$	hp	1.17	6.40	7.86	9.14	11.0	12.6	13.9	33,200	3,750
		kW	0.87	4.78	5.87	6.82	8.22	9.39	10.4		
	$P_{1\,TH}$	hp	1.17	5.95	6.58	7.26	8.34	9.12	9.64		
		kW	0.87	4.44	4.91	5.42	6.23	6.80	7.20		
	$P_{1\,TH\,Fan}$	hp	n/a	5.95	6.58	7.26	9.89	11.6	13.0		
		kW	n/a	4.44	4.91	5.42	7.38	8.65	9.71		
	$P_{1\,TH\,WH}$	hp	1.17	6.40	7.86	9.14	11.0	12.6	13.9		
		kW	0.87	4.78	5.87	6.82	8.22	9.39	10.4		
	$T_{2\,ME}$	lb-in	10,600	10,800	10,700	10,400	9,590	8,790	8,150		
		Nm	1,190	1,220	1,210	1,180	1,080	993	921		
	η	%	80	86	86	87	88	89	90		
20 4 x 5	$P_{1\,ME}$	hp	0.61	3.17	3.89	4.59	5.91	7.22	8.53	20,600	2,330
		kW	0.46	2.37	2.90	3.43	4.41	5.39	6.37		
	$P_{1\,TH}$	hp	0.61	3.07	3.77	4.45	5.73	7.00	8.27		
		kW	0.46	2.29	2.82	3.32	4.28	5.23	6.17		
	$P_{1\,TH\,Fan}$	hp	n/a	3.17	3.89	4.59	5.91	7.22	8.38		
		kW	n/a	2.37	2.90	3.43	4.41	5.39	6.25		
	$P_{1\,TH\,WH}$	hp	0.61	3.17	3.89	4.59	5.91	7.22	8.53		
		kW	0.46	2.37	2.90	3.43	4.41	5.39	6.37		
	$T_{2\,ME}$	lb-in	6,490	6,150	6,140	6,000	5,910	5,720	5,600		
		Nm	733	695	694	678	667	647	633		
	η	%	84	89	90	90	91	91	91		
22.5 1.5 x 15	$P_{1\,ME}$	hp	1.17	5.44	6.42	7.33	8.73	9.89	10.9	38,500	4,350
		kW	0.87	4.06	4.79	5.47	6.51	7.38	8.14		
	$P_{1\,TH}$	hp	1.17	5.10	5.82	6.60	7.24	7.67	7.96		
		kW	0.87	3.80	4.34	4.92	5.40	5.72	5.94		
	$P_{1\,TH\,Fan}$	hp	n/a	5.10	5.82	7.33	8.73	9.89	10.9		
		kW	n/a	3.80	4.34	5.47	6.51	7.38	8.14		
	$P_{1\,TH\,WH}$	hp	1.17	5.44	6.42	7.33	8.73	9.89	10.9		
		kW	0.87	4.06	4.79	5.47	6.51	7.38	8.14		
	$T_{2\,ME}$	lb-in	12,800	11,100	10,700	10,200	9,290	8,540	7,800		
		Nm	1,450	1,250	1,210	1,150	1,050	965	882		
	η	%	78	83	84	85	86	88	88		
25 2.5 x 10	$P_{1\,ME}$	hp	0.95	5.04	6.06	7.08	8.80	10.4	11.7	37,500	4,230
		kW	0.71	3.76	4.52	5.28	6.57	7.73	8.69		
	$P_{1\,TH}$	hp	0.95	4.85	5.61	6.16	7.07	8.04	8.66		
		kW	0.71	3.62	4.19	4.60	5.28	6.00	6.46		
	$P_{1\,TH\,Fan}$	hp	n/a	4.85	5.61	6.16	7.07	9.25	10.6		
		kW	n/a	3.62	4.19	4.60	5.28	6.90	7.88		
	$P_{1\,TH\,WH}$	hp	0.95	5.04	6.06	7.08	8.80	10.4	11.7		
		kW	0.71	3.76	4.52	5.28	6.57	7.73	8.69		
	$T_{2\,ME}$	lb-in	11,900	11,700	11,500	11,100	10,500	9,820	9,360		
		Nm	1,350	1,320	1,290	1,250	1,190	1,110	1,060		
	η	%	80	85	86	86	87	87	89		
27 1.8 x 15	$P_{1\,ME}$	hp	0.98	4.69	5.58	6.45	7.82	8.96	9.91	38,500	4,350
		kW	0.73	3.50	4.17	4.81	5.84	6.68	7.40		
	$P_{1\,TH}$	hp	0.98	4.60	5.20	5.85	6.81	7.35	7.68		
		kW	0.73	3.43	3.88	4.36	5.09	5.48	5.73		
	$P_{1\,TH\,Fan}$	hp	n/a	4.60	5.20	5.85	7.82	8.96	9.91		
		kW	n/a	3.43	3.88	4.36	5.84	6.68	7.40		
	$P_{1\,TH\,WH}$	hp	0.98	4.69	5.58	6.45	7.82	8.96	9.91		
		kW	0.73	3.50	4.17	4.81	5.84	6.68	7.40		
	$T_{2\,ME}$	lb-in	12,800	11,400	11,100	10,700	9,990	9,110	8,510		
		Nm	1,450	1,280	1,260	1,200	1,130	1,030	961		
	η	%	77	82	84	84	86	87	88		
30 1.5 x 20	$P_{1\,ME}$	hp	0.89	4.16	4.92	5.64	6.70	7.60	8.40	37,300	4,220
		kW	0.67	3.11	3.67	4.21	5.00	5.67	6.27		
	$P_{1\,TH}$	hp	0.89	4.07	4.82	5.62	6.47	6.60	6.81		
		kW	0.67	3.04	3.60	4.19	4.83	4.93	5.08		
	$P_{1\,TH\,Fan}$	hp	n/a	4.07	4.82	5.64	6.70	7.60	8.40		
		kW	n/a	3.04	3.60	4.21	5.00	5.67	6.27		
	$P_{1\,TH\,WH}$	hp	0.89	4.16	4.92	5.64	6.70	7.60	8.40		
		kW	0.67	3.11	3.67	4.21	5.00	5.67	6.27		
	$T_{2\,ME}$	lb-in	12,400	10,900	10,500	10,200	9,190	8,360	7,650		
		Nm	1,410	1,230	1,190	1,150	1,040	944	865		
	η	%	74	81	81	83	83	84	84		

See Page 8.7 for Rating Definitions

Size 40 Helical Worm Reducer Ratings

4" Primary/4" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
36 1.8 x 20	$P_{1\,ME}$	hp	0.76	3.59	4.27	4.95	6.00	6.88	7.62	37,300	4,220
		kW	0.57	2.68	3.19	3.69	4.48	5.14	5.69		
	$P_{1\,TH}$	hp	0.76	3.56	4.18	4.85	5.97	6.48	6.61		
		kW	0.57	2.66	3.12	3.62	4.46	4.83	4.93		
	$P_{1\,TH\,Fan}$	hp	n/a	3.56	4.18	4.85	6.00	6.88	7.62		
		kW	n/a	2.66	3.12	3.62	4.48	5.14	5.69		
	$P_{1\,TH\,WH}$	hp	0.76	3.59	4.27	4.95	6.00	6.88	7.62		
		kW	0.57	2.68	3.19	3.69	4.48	5.14	5.69		
	$T_{2\,ME}$	lb-in	12,400	11,000	10,800	10,500	9,880	8,990	8,340		
		Nm	1,410	1,250	1,230	1,190	1,120	1,020	942		
	η	%	72	79	81	81	83	83	84		
37.5 2.5 x 15	$P_{1\,ME}$	hp	0.71	3.54	4.27	4.99	6.21	7.33	8.27	38,500	4,350
		kW	0.53	2.64	3.19	3.73	4.64	5.47	6.17		
	$P_{1\,TH}$	hp	0.71	3.53	4.27	4.80	5.67	6.60	7.04		
		kW	0.53	2.64	3.18	3.58	4.23	4.92	5.25		
	$P_{1\,TH\,Fan}$	hp	n/a	3.53	4.27	4.80	5.67	7.33	8.27		
		kW	n/a	2.64	3.18	3.58	4.23	5.47	6.17		
	$P_{1\,TH\,WH}$	hp	0.71	3.54	4.27	4.99	6.21	7.33	8.27		
		kW	0.53	2.64	3.19	3.73	4.64	5.47	6.17		
	$T_{2\,ME}$	lb-in	12,800	11,800	11,600	11,300	10,800	10,200	9,650		
		Nm	1,450	1,330	1,310	1,280	1,220	1,150	1,090		
	η	%	77	81	82	83	84	85	86		
40 4 x 10	$P_{1\,ME}$	hp	0.61	3.17	3.89	4.59	5.91	7.22	8.48	38,200	4,320
		kW	0.46	2.37	2.90	3.43	4.41	5.39	6.33		
	$P_{1\,TH}$	hp	0.61	3.07	3.77	4.45	5.60	6.28	6.89		
		kW	0.46	2.29	2.82	3.32	4.18	4.69	5.14		
	$P_{1\,TH\,Fan}$	hp	n/a	3.17	3.89	4.59	5.60	6.28	6.89		
		kW	n/a	2.37	2.90	3.43	4.18	4.69	5.14		
	$P_{1\,TH\,WH}$	hp	0.61	3.17	3.89	4.59	5.91	7.22	8.48		
		kW	0.46	2.37	2.90	3.43	4.41	5.39	6.33		
	$T_{2\,ME}$	lb-in	12,100	11,600	11,600	11,400	11,200	10,800	10,600		
		Nm	1,370	1,310	1,310	1,280	1,260	1,220	1,190		
	η	%	79	84	85	85	86	86	86		
45 1.8 x 25	$P_{1\,ME}$	hp	0.62	2.89	3.45	3.99	4.84	5.57	6.16	35,600	4,030
		kW	0.46	2.16	2.57	2.97	3.62	4.15	4.59		
	$P_{1\,TH}$	hp	0.62	2.88	3.38	3.91	4.82	5.35	5.54		
		kW	0.46	2.15	2.52	2.92	3.60	3.99	4.13		
	$P_{1\,TH\,Fan}$	hp	n/a	2.88	3.38	3.91	4.84	5.57	6.16		
		kW	n/a	2.15	2.52	2.92	3.62	4.15	4.59		
	$P_{1\,TH\,WH}$	hp	0.62	2.89	3.45	3.99	4.84	5.57	6.16		
		kW	0.46	2.16	2.57	2.97	3.62	4.15	4.59		
	$T_{2\,ME}$	lb-in	11,900	11,000	10,800	10,600	9,730	9,010	8,320		
		Nm	1,340	1,240	1,220	1,200	1,100	1,020	940		
	η	%	68	78	80	81	81	83	83		
50 2.5 x 20	$P_{1\,ME}$	hp	0.55	2.71	3.27	3.82	4.77	5.64	6.35	37,300	4,220
		kW	0.41	2.02	2.44	2.85	3.56	4.21	4.74		
	$P_{1\,TH}$	hp	0.55	2.70	3.26	3.76	4.66	5.62	6.33		
		kW	0.41	2.02	2.43	2.81	3.48	4.19	4.73		
	$P_{1\,TH\,Fan}$	hp	n/a	2.70	3.26	3.76	4.66	5.64	6.35		
		kW	n/a	2.02	2.43	2.81	3.48	4.21	4.74		
	$P_{1\,TH\,WH}$	hp	0.55	2.71	3.27	3.82	4.77	5.64	6.35		
		kW	0.41	2.02	2.44	2.85	3.56	4.21	4.74		
	$T_{2\,ME}$	lb-in	12,400	11,400	11,200	11,000	10,600	10,200	9,540		
		Nm	1,410	1,290	1,270	1,240	1,200	1,150	1,080		
	η	%	72	78	79	80	81	83	83		
54 1.8 x 30	$P_{1\,ME}$	hp	0.52	2.42	2.88	3.34	4.05	4.65	5.15	34,300	3,880
		kW	0.39	1.81	2.15	2.49	3.02	3.47	3.84		
	$P_{1\,TH}$	hp	0.52	2.41	2.83	3.28	4.04	4.65	4.89		
		kW	0.39	1.80	2.11	2.45	3.02	3.47	3.65		
	$P_{1\,TH\,Fan}$	hp	n/a	2.41	2.83	3.28	4.05	4.65	5.15		
		kW	n/a	1.80	2.11	2.45	3.02	3.47	3.84		
	$P_{1\,TH\,WH}$	hp	0.52	2.42	2.88	3.34	4.05	4.65	5.15		
		kW	0.39	1.81	2.15	2.49	3.02	3.47	3.84		
	$T_{2\,ME}$	lb-in	11,400	10,300	10,200	9,760	9,300	8,620	7,960		
		Nm	1,290	1,170	1,150	1,100	1,050	974	900		
	η	%	65	73	75	75	78	79	80		

See Page 8.7 for Rating Definitions

4" Primary/4" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
60 4 x 15	$P_{1\,ME}$	hp	0.45	2.35	2.84	3.35	4.27	5.16	5.98	38,500	4,350
		kW	0.33	1.76	2.12	2.50	3.19	3.85	4.46		
	$P_{1\,TH}$	hp	0.45	2.34	2.83	3.34	4.26	4.91	5.49		
		kW	0.33	1.74	2.11	2.49	3.18	3.66	4.10		
	$P_{1\,TH\,Fan}$	hp	n/a	2.34	2.83	3.34	4.26	4.91	5.49		
		kW	n/a	1.74	2.11	2.49	3.18	3.66	4.10		
	$P_{1\,TH\,WH}$	hp	0.45	2.35	2.84	3.35	4.27	5.16	5.98		
		kW	0.33	1.76	2.12	2.50	3.19	3.85	4.46		
	$T_{2\,ME}$	lb-in	12,800	12,300	12,200	11,800	11,600	11,200	10,900		
		Nm	1,450	1,400	1,370	1,340	1,310	1,270	1,230		
	η	%	76	81	81	81	82	83	84		
62.5 2.5 x 25	$P_{1\,ME}$	hp	0.44	2.18	2.64	3.08	3.85	4.55	5.13	35,600	4,030
		kW	0.33	1.63	1.97	2.30	2.87	3.39	3.83		
	$P_{1\,TH}$	hp	0.44	2.18	2.63	3.04	3.76	4.54	5.11		
		kW	0.33	1.63	1.97	2.27	2.81	3.39	3.81		
	$P_{1\,TH\,Fan}$	hp	n/a	2.18	2.63	3.04	3.76	4.55	5.13		
		kW	n/a	1.63	1.97	2.27	2.81	3.39	3.83		
	$P_{1\,TH\,WH}$	hp	0.44	2.18	2.64	3.08	3.85	4.55	5.13		
		kW	0.33	1.63	1.97	2.30	2.87	3.39	3.83		
	$T_{2\,ME}$	lb-in	11,900	11,200	11,100	11,000	10,600	10,100	9,400		
		Nm	1,340	1,270	1,250	1,240	1,200	1,140	1,060		
	η	%	68	76	77	79	81	81	81		
72 1.8 x 40	$P_{1\,ME}$	hp	0.39	1.83	2.18	2.52	3.05	3.51	3.89	31,100	3,520
		kW	0.29	1.36	1.62	1.88	2.28	2.62	2.90		
	$P_{1\,TH}$	hp	0.39	1.81	2.13	2.47	3.04	3.50	3.87		
		kW	0.29	1.35	1.59	1.84	2.27	2.61	2.89		
	$P_{1\,TH\,Fan}$	hp	n/a	1.81	2.13	2.47	3.05	3.51	3.89		
		kW	n/a	1.35	1.59	1.84	2.28	2.62	2.90		
	$P_{1\,TH\,WH}$	hp	0.39	1.83	2.18	2.52	3.05	3.51	3.89		
		kW	0.29	1.36	1.62	1.88	2.28	2.62	2.90		
	$T_{2\,ME}$	lb-in	10,400	9,700	9,580	9,290	8,990	8,320	7,630		
		Nm	1,170	1,100	1,080	1,050	1,020	940	862		
	η	%	58	68	70	71	75	76	76		
75 2.5 x 30	$P_{1\,ME}$	hp	0.37	1.83	2.21	2.58	3.22	3.80	4.29	34,300	3,880
		kW	0.28	1.36	1.65	1.93	2.40	2.84	3.20		
	$P_{1\,TH}$	hp	0.37	1.83	2.21	2.55	3.15	3.80	4.29		
		kW	0.28	1.36	1.65	1.90	2.35	2.84	3.20		
	$P_{1\,TH\,Fan}$	hp	n/a	1.83	2.21	2.55	3.15	3.80	4.29		
		kW	n/a	1.36	1.65	1.90	2.35	2.84	3.20		
	$P_{1\,TH\,WH}$	hp	0.37	1.83	2.21	2.58	3.22	3.80	4.29		
		kW	0.28	1.36	1.65	1.93	2.40	2.84	3.20		
	$T_{2\,ME}$	lb-in	11,400	10,700	10,500	10,300	9,880	9,380	9,100		
		Nm	1,290	1,210	1,190	1,170	1,120	1,060	1,030		
	η	%	65	72	73	74	75	76	79		
80 4 x 20	$P_{1\,ME}$	hp	0.35	1.80	2.17	2.56	3.26	3.95	4.59	37,300	4,220
		kW	0.26	1.34	1.62	1.91	2.43	2.95	3.42		
	$P_{1\,TH}$	hp	0.35	1.79	2.16	2.56	3.26	3.88	4.48		
		kW	0.26	1.33	1.62	1.91	2.43	2.90	3.34		
	$P_{1\,TH\,Fan}$	hp	n/a	1.79	2.16	2.56	3.26	3.88	4.48		
		kW	n/a	1.33	1.62	1.91	2.43	2.90	3.34		
	$P_{1\,TH\,WH}$	hp	0.35	1.80	2.17	2.56	3.26	3.95	4.59		
		kW	0.26	1.34	1.62	1.91	2.43	2.95	3.42		
	$T_{2\,ME}$	lb-in	12,400	12,000	11,800	11,500	11,200	11,000	10,800		
		Nm	1,410	1,360	1,330	1,300	1,270	1,240	1,220		
	η	%	71	77	78	78	79	80	81		
90 1.8 x 50	$P_{1\,ME}$	hp	0.32	1.46	1.75	2.02	2.45	2.82	3.12	27,800	3,140
		kW	0.24	1.09	1.30	1.51	1.83	2.10	2.33		
	$P_{1\,TH}$	hp	0.32	1.45	1.71	1.98	2.44	2.81	3.11		
		kW	0.24	1.09	1.28	1.48	1.82	2.10	2.32		
	$P_{1\,TH\,Fan}$	hp	n/a	1.45	1.71	1.98	2.45	2.82	3.12		
		kW	n/a	1.09	1.28	1.48	1.83	2.10	2.33		
	$P_{1\,TH\,WH}$	hp	0.32	1.46	1.75	2.02	2.45	2.82	3.12		
		kW	0.24	1.09	1.30	1.51	1.83	2.10	2.33		
	$T_{2\,ME}$	lb-in	9,260	9,310	9,210	9,080	8,690	8,020	7,350		
		Nm	1,050	1,050	1,040	1,030	981	906	831		
	η	%	51	65	67	69	72	73	73		

See Page 8.7 for Rating Definitions

Size 40 Helical Worm Reducer Ratings

4" Primary/4" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
100 4 x 25	$P_{1\,ME}$	hp	0.28	1.45	1.75	2.06	2.63	3.19	3.70	35,600	4,030
		kW	0.21	1.08	1.31	1.54	1.96	2.38	2.76		
	$P_{1\,TH}$	hp	0.28	1.44	1.74	2.06	2.63	3.13	3.62		
		kW	0.21	1.08	1.30	1.54	1.96	2.34	2.70		
	$P_{1\,TH\,Fan}$	hp	n/a	1.44	1.74	2.06	2.63	3.13	3.62		
		kW	n/a	1.08	1.30	1.54	1.96	2.34	2.70		
	$P_{1\,TH\,WH}$	hp	0.28	1.45	1.75	2.06	2.63	3.19	3.70		
		kW	0.21	1.08	1.31	1.54	1.96	2.38	2.76		
	$T_{2\,ME}$	lb-in	11,900	11,500	11,400	11,300	11,100	10,900	10,600		
		Nm	1,340	1,300	1,290	1,280	1,250	1,240	1,200		
	η	%	67	73	75	76	77	79	80		
108 1.8 x 60	$P_{1\,ME}$	hp	0.27	1.22	1.46	1.69	2.05	2.35	2.60	27,400	3,090
		kW	0.20	0.91	1.09	1.26	1.53	1.76	1.94		
	$P_{1\,TH}$	hp	0.27	1.22	1.43	1.65	2.04	2.35	2.60		
		kW	0.20	0.91	1.06	1.23	1.52	1.75	1.94		
	$P_{1\,TH\,Fan}$	hp	n/a	1.22	1.43	1.65	2.05	2.35	2.60		
		kW	n/a	0.91	1.06	1.23	1.53	1.76	1.94		
	$P_{1\,TH\,WH}$	hp	0.27	1.22	1.46	1.69	2.05	2.35	2.60		
		kW	0.20	0.91	1.09	1.26	1.53	1.76	1.94		
	$T_{2\,ME}$	lb-in	9,120	8,910	8,820	8,590	8,230	7,650	7,070		
		Nm	1,030	1,010	997	970	930	864	799		
	η	%	50	62	64	65	68	69	70		
120 4 x 30	$P_{1\,ME}$	hp	0.24	1.21	1.46	1.73	2.20	2.67	3.09	34,300	3,880
		kW	0.18	0.91	1.09	1.29	1.64	1.99	2.31		
	$P_{1\,TH}$	hp	0.24	1.21	1.46	1.73	2.20	2.63	3.03		
		kW	0.18	0.90	1.09	1.29	1.64	1.96	2.26		
	$P_{1\,TH\,Fan}$	hp	n/a	1.21	1.46	1.73	2.20	2.63	3.03		
		kW	n/a	0.90	1.09	1.29	1.64	1.96	2.26		
	$P_{1\,TH\,WH}$	hp	0.24	1.21	1.46	1.73	2.20	2.67	3.09		
		kW	0.18	0.91	1.09	1.29	1.64	1.99	2.31		
	$T_{2\,ME}$	lb-in	11,400	11,100	10,900	10,800	10,500	10,300	9,990		
		Nm	1,290	1,250	1,230	1,220	1,190	1,160	1,130		
	η	%	64	70	71	72	73	74	75		
125 2.5 x 50	$P_{1\,ME}$	hp	0.23	1.11	1.33	1.56	1.95	2.30	2.60	27,800	3,140
		kW	0.17	0.83	0.99	1.16	1.45	1.72	1.94		
	$P_{1\,TH}$	hp	0.23	1.10	1.33	1.54	1.91	2.30	2.59		
		kW	0.17	0.82	0.99	1.15	1.42	1.72	1.93		
	$P_{1\,TH\,Fan}$	hp	n/a	1.10	1.33	1.54	1.91	2.30	2.60		
		kW	n/a	0.82	0.99	1.15	1.42	1.72	1.94		
	$P_{1\,TH\,WH}$	hp	0.23	1.11	1.33	1.56	1.95	2.30	2.60		
		kW	0.17	0.83	0.99	1.16	1.45	1.72	1.94		
	$T_{2\,ME}$	lb-in	9,260	9,470	9,340	9,310	9,190	8,840	8,500		
		Nm	1,050	1,070	1,050	1,050	1,040	999	961		
	η	%	51	63	64	66	69	71	73		
150 2.5 x 60	$P_{1\,ME}$	hp	0.19	0.92	1.11	1.30	1.63	1.92	2.17	27,400	3,090
		kW	0.15	0.69	0.83	0.97	1.21	1.43	1.62		
	$P_{1\,TH}$	hp	0.19	0.92	1.11	1.29	1.59	1.92	2.16		
		kW	0.15	0.69	0.83	0.96	1.19	1.43	1.62		
	$P_{1\,TH\,Fan}$	hp	n/a	0.92	1.11	1.29	1.59	1.92	2.17		
		kW	n/a	0.69	0.83	0.96	1.19	1.43	1.62		
	$P_{1\,TH\,WH}$	hp	0.19	0.92	1.11	1.30	1.63	1.92	2.17		
		kW	0.15	0.69	0.83	0.97	1.21	1.43	1.62		
	$T_{2\,ME}$	lb-in	9,120	9,050	8,930	8,920	8,690	8,370	8,060		
		Nm	1,030	1,020	1,010	1,010	981	946	911		
	η	%	49	60	61	63	65	67	69		
160 4 x 40	$P_{1\,ME}$	hp	0.18	0.92	1.10	1.30	1.66	2.01	2.33	31,100	3,520
		kW	0.13	0.68	0.82	0.97	1.24	1.50	1.74		
	$P_{1\,TH}$	hp	0.18	0.91	1.10	1.30	1.66	1.98	2.28		
		kW	0.13	0.68	0.82	0.97	1.24	1.48	1.70		
	$P_{1\,TH\,Fan}$	hp	n/a	0.91	1.10	1.30	1.66	1.98	2.28		
		kW	n/a	0.68	0.82	0.97	1.24	1.48	1.70		
	$P_{1\,TH\,WH}$	hp	0.18	0.92	1.10	1.30	1.66	2.01	2.33		
		kW	0.13	0.68	0.82	0.97	1.24	1.50	1.74		
	$T_{2\,ME}$	lb-in	10,400	10,000	9,890	9,660	9,730	9,680	9,510		
		Nm	1,170	1,130	1,120	1,090	1,100	1,090	1,070		
	η	%	57	63	64	64	67	69	71		

See Page 8.7 for Rating Definitions

4” Primary/4” Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
200 4 x 50	$P_{1\,ME}$	hp	0.15	0.73	0.88	1.04	1.33	1.61	1.87	27,800	3,140
		kW	0.11	0.55	0.66	0.78	0.99	1.20	1.40		
	$P_{1\,TH}$	hp	0.15	0.73	0.88	1.04	1.33	1.59	1.83		
		kW	0.11	0.54	0.66	0.78	0.99	1.18	1.37		
	$P_{1\,TH\,Fan}$	hp	n/a	0.73	0.88	1.04	1.33	1.59	1.83		
		kW	n/a	0.54	0.66	0.78	0.99	1.18	1.37		
	$P_{1\,TH\,WH}$	hp	0.15	0.73	0.88	1.04	1.33	1.61	1.87		
		kW	0.11	0.55	0.66	0.78	0.99	1.20	1.40		
	$T_{2\,ME}$	lb-in	9,260	9,280	9,310	9,390	9,330	9,290	9,160		
		Nm	1,050	1,050	1,050	1,060	1,050	1,050	1,040		
	η	%	50	58	60	62	64	66	68		
240 4 x 60	$P_{1\,ME}$	hp	0.12	0.61	0.74	0.87	1.11	1.35	1.56	27,400	3,090
		kW	0.09	0.46	0.55	0.65	0.83	1.00	1.17		
	$P_{1\,TH}$	hp	0.12	0.61	0.74	0.87	1.11	1.32	1.53		
		kW	0.09	0.46	0.55	0.65	0.83	0.99	1.14		
	$P_{1\,TH\,Fan}$	hp	n/a	0.61	0.74	0.87	1.11	1.32	1.53		
		kW	n/a	0.46	0.55	0.65	0.83	0.99	1.14		
	$P_{1\,TH\,WH}$	hp	0.12	0.61	0.74	0.87	1.11	1.35	1.56		
		kW	0.09	0.46	0.55	0.65	0.83	1.00	1.17		
	$T_{2\,ME}$	lb-in	9,120	9,150	9,180	9,110	8,930	8,900	8,780		
		Nm	1,030	1,030	1,040	1,030	1,010	1,010	993		
	η	%	49	57	59	60	61	63	65		

See Page 8.7 for Rating Definitions

Size 50 Helical Worm Reducer Ratings

5.375" Primary/5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5 1 x 5	$P_{1\,ME}$	hp	3.74	19.8	24.3	29.0	37.5	45.2	48.7	31,600	3,570
		kW	2.79	14.8	18.1	21.7	28.0	33.8	36.4		
	$P_{1\,TH}$	hp	3.74	12.3	13.7	14.7	16.0	16.8	17.5		
		kW	2.79	9.16	10.2	11.0	11.9	12.5	13.1		
	$P_{1\,TH\,Fan}$	hp	n/a	15.9	18.5	20.6	24.0	25.6	27.2		
		kW	n/a	11.9	13.8	15.4	17.9	19.1	20.3		
	$P_{1\,TH\,WH}$	hp	3.74	19.8	24.3	29.0	35.5	36.3	37.0		
		kW	2.79	14.8	18.1	21.7	26.5	27.1	27.6		
	$T_{2\,ME}$	lb-in	10,500	9,820	9,710	9,690	9,460	9,060	8,080		
		Nm	1,190	1,110	1,100	1,090	1,070	1,020	913		
	η	%	89	91	91	92	92	92	92		
7.5 1.5 x 5	$P_{1\,ME}$	hp	3.17	17.0	20.6	24.6	32.0	37.2	40.9	40,100	4,530
		kW	2.37	12.7	15.4	18.4	23.9	27.8	30.5		
	$P_{1\,TH}$	hp	3.17	9.16	10.7	12.3	14.0	15.2	16.0		
		kW	2.37	6.84	7.96	9.16	10.5	11.3	12.0		
	$P_{1\,TH\,Fan}$	hp	n/a	9.16	10.7	15.9	19.2	21.8	24.1		
		kW	n/a	6.84	7.96	11.9	14.3	16.3	18.0		
	$P_{1\,TH\,WH}$	hp	3.17	17.0	20.6	24.6	30.3	34.7	35.5		
		kW	2.37	12.7	15.4	18.4	22.6	25.9	26.5		
	$T_{2\,ME}$	lb-in	13,100	12,600	12,300	12,200	12,000	11,200	10,200		
		Nm	1,480	1,430	1,390	1,380	1,350	1,260	1,150		
	η	%	87	91	91	91	91	92	92		
9 1.8 x 5	$P_{1\,ME}$	hp	2.81	15.1	18.7	22.1	28.9	33.8	37.3	42,700	4,820
		kW	2.10	11.3	14.0	16.5	21.6	25.2	27.9		
	$P_{1\,TH}$	hp	2.81	8.13	9.38	10.7	12.9	14.3	15.2		
		kW	2.10	6.07	7.00	8.00	9.61	10.7	11.3		
	$P_{1\,TH\,Fan}$	hp	n/a	8.13	9.38	10.7	17.0	19.7	21.9		
		kW	n/a	6.07	7.00	8.00	12.7	14.7	16.3		
	$P_{1\,TH\,WH}$	hp	2.81	15.1	18.7	22.1	28.9	31.6	34.7		
		kW	2.10	11.3	14.0	16.5	21.6	23.6	25.9		
	$T_{2\,ME}$	lb-in	13,600	13,500	13,400	13,200	13,000	12,100	11,200		
		Nm	1,540	1,520	1,520	1,490	1,470	1,370	1,260		
	η	%	85	91	91	91	91	92	92		
10 1 x 10	$P_{1\,ME}$	hp	3.74	19.3	21.7	24.0	27.9	31.3	34.2	59,000	6,670
		kW	2.79	14.4	16.2	17.9	20.8	23.3	25.5		
	$P_{1\,TH}$	hp	3.74	9.95	10.8	11.5	12.5	12.9	13.3		
		kW	2.79	7.42	8.08	8.62	9.31	9.62	9.92		
	$P_{1\,TH\,Fan}$	hp	n/a	12.9	14.6	16.2	18.7	19.7	20.6		
		kW	n/a	9.66	10.9	12.1	14.0	14.7	15.4		
	$P_{1\,TH\,WH}$	hp	3.74	19.3	21.7	23.7	26.4	26.8	27.2		
		kW	2.79	14.4	16.2	17.7	19.7	20.0	20.3		
	$T_{2\,ME}$	lb-in	19,700	18,300	16,900	15,500	13,800	12,300	11,100		
		Nm	2,220	2,070	1,910	1,750	1,560	1,390	1,260		
	η	%	83	87	89	89	90	90	90		
12.5 2.5 x 5	$P_{1\,ME}$	hp	2.24	12.3	14.9	18.0	23.3	28.3	31.2	47,200	5,340
		kW	1.67	9.16	11.1	13.4	17.4	21.1	23.3		
	$P_{1\,TH}$	hp	2.24	7.01	7.64	8.54	10.3	12.3	13.5		
		kW	1.67	5.23	5.70	6.38	7.72	9.16	10.1		
	$P_{1\,TH\,Fan}$	hp	n/a	7.01	7.64	8.54	10.3	15.9	18.1		
		kW	n/a	5.23	5.70	6.38	7.72	11.9	13.5		
	$P_{1\,TH\,WH}$	hp	2.24	12.3	14.9	18.0	23.3	28.3	29.8		
		kW	1.67	9.16	11.1	13.4	17.4	21.1	22.2		
	$T_{2\,ME}$	lb-in	15,100	15,000	14,900	14,900	14,500	14,000	12,800		
		Nm	1,700	1,700	1,680	1,680	1,640	1,580	1,450		
	η	%	85	90	91	91	91	91	91		
15 1.5 x 10	$P_{1\,ME}$	hp	3.17	14.8	17.1	19.3	22.4	25.4	28.1	74,800	8,450
		kW	2.37	11.0	12.8	14.4	16.7	19.0	21.0		
	$P_{1\,TH}$	hp	3.17	8.03	8.95	9.95	11.0	11.9	12.5		
		kW	2.37	5.99	6.68	7.42	8.25	8.86	9.33		
	$P_{1\,TH\,Fan}$	hp	n/a	8.03	8.95	12.9	15.1	17.0	18.8		
		kW	n/a	5.99	6.68	9.66	11.3	12.7	14.0		
	$P_{1\,TH\,WH}$	hp	3.17	14.8	17.1	19.3	22.4	25.4	26.4		
		kW	2.37	11.0	12.8	14.4	16.7	19.0	19.7		
	$T_{2\,ME}$	lb-in	24,400	20,800	19,600	18,300	16,400	15,000	13,700		
		Nm	2,760	2,350	2,220	2,070	1,860	1,690	1,550		
	η	%	81	86	87	87	89	90	90		

See Page 8.7 for Rating Definitions

5.375" Primary/5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
18 1.8 x 10	$P_{1\,ME}$	hp	2.76	12.9	15.1	17.2	20.3	23.0	25.5	74,800	8,450
		kW	2.06	9.60	11.3	12.8	15.2	17.1	19.0		
	$P_{1\,TH}$	hp	2.76	7.39	8.16	8.99	10.3	11.2	11.9		
		kW	2.06	5.51	6.09	6.71	7.70	8.39	8.87		
	$P_{1\,TH\,Fan}$	hp	n/a	7.39	8.16	8.99	13.6	15.5	17.1		
		kW	n/a	5.51	6.09	6.71	10.2	11.6	12.8		
	$P_{1\,TH\,WH}$	hp	2.76	12.9	15.1	17.2	20.3	23.0	25.5		
		kW	2.06	9.60	11.3	12.8	15.2	17.1	19.0		
	$T_{2\,ME}$	lb-in	24,900	21,700	20,600	19,600	17,700	16,000	14,900		
		Nm	2,820	2,450	2,320	2,210	2,000	1,810	1,690		
	η	%	80	86	86	87	88	89	90		
20 4 x 5	$P_{1\,ME}$	hp	2.55	10.5	11.8	13.1	15.2	17.2	18.7	73,000	8,240
		kW	1.90	7.84	8.84	9.74	11.4	12.8	14.0		
	$P_{1\,TH}$	hp	2.55	7.22	7.70	8.06	8.40	8.58	8.76		
		kW	1.90	5.39	5.75	6.02	6.27	6.40	6.54		
	$P_{1\,TH\,Fan}$	hp	n/a	9.38	10.4	11.3	12.6	13.1	13.6		
		kW	n/a	7.00	7.76	8.42	9.41	9.77	10.1		
	$P_{1\,TH\,WH}$	hp	2.55	10.5	11.8	13.1	15.2	16.7	16.9		
		kW	1.90	7.84	8.84	9.74	11.4	12.5	12.6		
	$T_{2\,ME}$	lb-in	24,300	19,000	17,300	15,800	14,100	12,700	11,500		
		Nm	2,750	2,150	1,950	1,780	1,590	1,440	1,300		
	η	%	76	83	83	83	84	85	85		
22.5 1.5 x 15	$P_{1\,ME}$	hp	2.28	10.4	12.1	13.7	15.9	18.1	20.0	75,200	8,490
		kW	1.70	7.79	9.06	10.2	11.9	13.5	14.9		
	$P_{1\,TH}$	hp	2.28	6.75	7.45	8.20	8.95	9.43	9.81		
		kW	1.70	5.04	5.56	6.12	6.68	7.04	7.32		
	$P_{1\,TH\,Fan}$	hp	n/a	6.75	7.45	10.7	12.2	13.5	14.7		
		kW	n/a	5.04	5.56	7.96	9.12	10.1	11.0		
	$P_{1\,TH\,WH}$	hp	2.28	10.4	12.1	13.7	15.9	18.1	20.0		
		kW	1.70	7.79	9.06	10.2	11.9	13.5	14.9		
	$T_{2\,ME}$	lb-in	25,100	21,300	20,200	19,000	17,000	15,600	14,300		
		Nm	2,830	2,410	2,280	2,150	1,920	1,760	1,620		
	η	%	78	83	84	85	86	88	88		
25 2.5 x 10	$P_{1\,ME}$	hp	1.99	9.84	11.8	13.6	16.6	19.3	21.3	74,800	8,450
		kW	1.48	7.34	8.77	10.2	12.4	14.4	15.9		
	$P_{1\,TH}$	hp	1.99	6.11	6.98	7.64	8.76	9.95	10.7		
		kW	1.48	4.56	5.21	5.70	6.53	7.42	7.98		
	$P_{1\,TH\,Fan}$	hp	n/a	6.11	6.98	7.64	8.76	12.9	14.4		
		kW	n/a	4.56	5.21	5.70	6.53	9.66	10.7		
	$P_{1\,TH\,WH}$	hp	1.99	9.84	11.8	13.6	16.6	19.3	21.3		
		kW	1.48	7.34	8.77	10.2	12.4	14.4	15.9		
	$T_{2\,ME}$	lb-in	24,900	22,800	22,200	21,300	19,900	18,300	17,200		
		Nm	2,820	2,580	2,510	2,410	2,250	2,070	1,940		
	η	%	80	85	86	86	87	87	89		
27 1.8 x 15	$P_{1\,ME}$	hp	1.92	9.08	10.7	12.2	14.5	16.4	18.1	75,200	8,490
		kW	1.43	6.77	7.98	9.11	10.8	12.2	13.5		
	$P_{1\,TH}$	hp	1.92	6.27	6.85	7.47	8.46	9.06	9.44		
		kW	1.43	4.68	5.11	5.58	6.31	6.76	7.05		
	$P_{1\,TH\,Fan}$	hp	n/a	6.27	6.85	7.47	11.2	12.5	13.6		
		kW	n/a	4.68	5.11	5.58	8.34	9.32	10.1		
	$P_{1\,TH\,WH}$	hp	1.92	9.08	10.7	12.2	14.5	16.4	18.1		
		kW	1.43	6.77	7.98	9.11	10.8	12.2	13.5		
	$T_{2\,ME}$	lb-in	25,100	22,000	21,300	20,100	18,500	16,600	15,600		
		Nm	2,830	2,480	2,410	2,280	2,090	1,880	1,760		
	η	%	77	82	84	84	86	87	88		
30 1.5 x 20	$P_{1\,ME}$	hp	1.75	8.01	9.32	10.5	12.3	13.9	15.4	73,000	8,240
		kW	1.30	5.98	6.95	7.84	9.15	10.4	11.5		
	$P_{1\,TH}$	hp	1.75	5.96	6.56	7.22	7.81	8.18	8.41		
		kW	1.30	4.45	4.90	5.39	5.83	6.10	6.28		
	$P_{1\,TH\,Fan}$	hp	n/a	5.96	6.56	9.38	10.7	11.7	12.6		
		kW	n/a	4.45	4.90	7.00	7.96	8.76	9.43		
	$P_{1\,TH\,WH}$	hp	1.75	8.01	9.32	10.5	12.3	13.9	15.4		
		kW	1.30	5.98	6.95	7.84	9.15	10.4	11.5		
	$T_{2\,ME}$	lb-in	24,300	21,000	19,900	19,000	16,800	15,300	14,000		
		Nm	2,750	2,370	2,250	2,150	1,900	1,730	1,580		
	η	%	74	81	81	83	83	84	84		

See Page 8.7 for Rating Definitions

Size 50 Helical Worm Reducer Ratings

5.375" Primary/5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
36 1.8 x 20	$P_{1\,ME}$	hp	1.49	6.95	8.20	9.36	11.1	12.6	13.9	73,000	8,240
		kW	1.11	5.19	6.12	6.99	8.30	9.40	10.4		
	$P_{1\,TH}$	hp	1.49	5.54	6.04	6.59	7.42	7.91	8.19		
		kW	1.11	4.13	4.51	4.92	5.54	5.90	6.11		
	$P_{1\,TH\,Fan}$	hp	n/a	5.54	6.04	6.59	9.81	10.9	11.8		
		kW	n/a	4.13	4.51	4.92	7.32	8.14	8.78		
	$P_{1\,TH\,WH}$	hp	1.49	6.95	8.20	9.36	11.1	12.6	13.9		
		kW	1.11	5.19	6.12	6.99	8.30	9.40	10.4		
	$T_{2\,ME}$	lb-in	24,300	21,400	20,800	19,900	18,300	16,400	15,200		
		Nm	2,750	2,410	2,350	2,250	2,070	1,860	1,720		
	η	%	72	79	81	81	83	83	84		
37.5 2.5 x 15	$P_{1\,ME}$	hp	1.38	6.94	8.30	9.64	11.8	13.7	15.2	75,200	8,490
		kW	1.03	5.18	6.19	7.19	8.81	10.2	11.3		
	$P_{1\,TH}$	hp	1.38	5.28	5.96	6.46	7.30	8.20	8.73		
		kW	1.03	3.94	4.45	4.82	5.45	6.12	6.51		
	$P_{1\,TH\,Fan}$	hp	n/a	5.28	5.96	6.46	7.30	10.7	11.7		
		kW	n/a	3.94	4.45	4.82	5.45	7.96	8.75		
	$P_{1\,TH\,WH}$	hp	1.38	6.94	8.30	9.64	11.8	13.7	15.2		
		kW	1.03	5.18	6.19	7.19	8.81	10.2	11.3		
	$T_{2\,ME}$	lb-in	25,100	23,000	22,500	21,800	20,500	19,000	17,700		
		Nm	2,830	2,600	2,540	2,470	2,310	2,150	2,000		
	η	%	77	81	82	83	84	85	86		
40 4 x 10	$P_{1\,ME}$	hp	1.26	6.55	7.92	9.34	11.7	14.1	16.1	74,800	8,450
		kW	0.94	4.88	5.91	6.97	8.76	10.5	12.0		
	$P_{1\,TH}$	hp	1.26	4.68	5.27	5.88	6.97	7.79	8.53		
		kW	0.94	3.49	3.93	4.39	5.20	5.81	6.37		
	$P_{1\,TH\,Fan}$	hp	n/a	4.68	5.27	5.88	6.97	7.79	8.53		
		kW	n/a	3.49	3.93	4.39	5.20	5.81	6.37		
	$P_{1\,TH\,WH}$	hp	1.26	6.55	7.92	9.34	11.7	14.1	16.1		
		kW	0.94	4.88	5.91	6.97	8.76	10.5	12.0		
	$T_{2\,ME}$	lb-in	24,900	24,000	23,700	23,100	22,200	21,100	20,000		
		Nm	2,820	2,710	2,670	2,610	2,510	2,390	2,260		
	η	%	79	84	85	85	86	86	86		
45 1.8 x 25	$P_{1\,ME}$	hp	1.21	5.61	6.62	7.56	8.98	10.2	11.3	69,700	7,880
		kW	0.90	4.18	4.94	5.64	6.70	7.58	8.40		
	$P_{1\,TH}$	hp	1.21	4.77	5.24	5.73	6.43	6.72	6.88		
		kW	0.90	3.56	3.91	4.28	4.80	5.01	5.13		
	$P_{1\,TH\,Fan}$	hp	n/a	4.77	5.24	5.73	8.50	9.26	9.89		
		kW	n/a	3.56	3.91	4.28	6.34	6.91	7.38		
	$P_{1\,TH\,WH}$	hp	1.21	5.61	6.62	7.56	8.98	10.2	11.3		
		kW	0.90	4.18	4.94	5.64	6.70	7.58	8.40		
	$T_{2\,ME}$	lb-in	23,200	21,300	20,700	20,100	18,000	16,500	15,200		
		Nm	2,630	2,400	2,340	2,270	2,040	1,860	1,720		
	η	%	68	78	80	81	81	83	83		
50 2.5 x 20	$P_{1\,ME}$	hp	1.08	5.31	6.35	7.38	9.06	10.5	11.7	73,000	8,240
		kW	0.80	3.97	4.74	5.51	6.76	7.84	8.72		
	$P_{1\,TH}$	hp	1.08	4.68	5.27	5.70	6.43	7.22	7.63		
		kW	0.80	3.49	3.93	4.26	4.80	5.39	5.70		
	$P_{1\,TH\,Fan}$	hp	n/a	4.68	5.27	5.70	6.43	9.38	10.2		
		kW	n/a	3.49	3.93	4.26	4.80	7.00	7.65		
	$P_{1\,TH\,WH}$	hp	1.08	5.31	6.35	7.38	9.06	10.5	11.7		
		kW	0.80	3.97	4.74	5.51	6.76	7.84	8.72		
	$T_{2\,ME}$	lb-in	24,300	22,400	21,800	21,300	20,200	19,000	17,600		
		Nm	2,750	2,530	2,470	2,400	2,290	2,150	1,980		
	η	%	72	78	79	80	81	83	83		
54 1.8 x 30	$P_{1\,ME}$	hp	1.01	4.69	5.54	6.32	7.51	8.51	9.41	67,100	7,580
		kW	0.75	3.50	4.13	4.72	5.61	6.35	7.03		
	$P_{1\,TH}$	hp	1.01	4.12	4.52	4.96	5.58	5.86	6.00		
		kW	0.75	3.07	3.38	3.70	4.16	4.37	4.48		
	$P_{1\,TH\,Fan}$	hp	n/a	4.12	4.52	4.96	7.38	8.08	8.63		
		kW	n/a	3.07	3.38	3.70	5.50	6.03	6.44		
	$P_{1\,TH\,WH}$	hp	1.01	4.69	5.54	6.32	7.51	8.51	9.41		
		kW	0.75	3.50	4.13	4.72	5.61	6.35	7.03		
	$T_{2\,ME}$	lb-in	22,400	20,000	19,500	18,500	17,300	15,800	14,600		
		Nm	2,530	2,260	2,210	2,090	1,950	1,780	1,650		
	η	%	65	73	75	75	78	79	80		

See Page 8.7 for Rating Definitions

5.375" Primary/5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
60 4 x 15	$P_{1\,ME}$	hp	0.88	4.61	5.57	6.57	8.28	9.94	11.4	75,200	8,490
		kW	0.65	3.44	4.16	4.90	6.18	7.42	8.50		
	$P_{1\,TH}$	hp	0.88	4.05	4.59	5.11	5.95	6.57	7.13		
		kW	0.65	3.02	3.42	3.81	4.44	4.90	5.32		
	$P_{1\,TH\,Fan}$	hp	n/a	4.05	4.59	5.11	5.95	6.57	7.13		
		kW	n/a	3.02	3.42	3.81	4.44	4.90	5.32		
	$P_{1\,TH\,WH}$	hp	0.88	4.61	5.57	6.57	8.28	9.94	11.4		
		kW	0.65	3.44	4.16	4.90	6.18	7.42	8.50		
	$T_{2\,ME}$	lb-in	25,100	24,200	23,800	23,300	22,500	21,600	20,800		
		Nm	2,830	2,730	2,690	2,630	2,540	2,440	2,350		
	η	%	76	81	81	81	82	83	84		
62.5 2.5 x 25	$P_{1\,ME}$	hp	0.87	4.28	5.12	5.95	7.30	8.48	9.43	69,700	7,880
		kW	0.65	3.19	3.82	4.44	5.45	6.33	7.04		
	$P_{1\,TH}$	hp	0.87	4.06	4.54	4.93	5.59	6.31	6.56		
		kW	0.65	3.03	3.39	3.68	4.17	4.71	4.89		
	$P_{1\,TH\,Fan}$	hp	n/a	4.06	4.54	4.93	5.59	8.21	8.81		
		kW	n/a	3.03	3.39	3.68	4.17	6.12	6.57		
	$P_{1\,TH\,WH}$	hp	0.87	4.28	5.12	5.95	7.30	8.48	9.43		
		kW	0.65	3.19	3.82	4.44	5.45	6.33	7.04		
	$T_{2\,ME}$	lb-in	23,200	22,000	21,400	21,200	20,100	18,800	17,300		
		Nm	2,630	2,490	2,420	2,390	2,270	2,120	1,950		
	η	%	68	76	77	79	81	81	81		
72 1.8 x 40	$P_{1\,ME}$	hp	0.77	3.54	4.17	4.77	5.67	6.42	7.09	60,800	6,870
		kW	0.57	2.64	3.11	3.56	4.23	4.79	5.29		
	$P_{1\,TH}$	hp	0.77	3.45	3.80	4.18	4.74	5.01	5.18		
		kW	0.57	2.58	2.84	3.12	3.53	3.74	3.87		
	$P_{1\,TH\,Fan}$	hp	n/a	3.45	3.80	4.18	5.67	6.42	7.09		
		kW	n/a	2.58	2.84	3.12	4.23	4.79	5.29		
	$P_{1\,TH\,WH}$	hp	0.77	3.54	4.17	4.77	5.67	6.42	7.09		
		kW	0.57	2.64	3.11	3.56	4.23	4.79	5.29		
	$T_{2\,ME}$	lb-in	20,300	18,800	18,400	17,600	16,700	15,200	13,900		
		Nm	2,290	2,120	2,070	1,990	1,890	1,720	1,570		
	η	%	58	68	70	71	75	76	76		
75 2.5 x 30	$P_{1\,ME}$	hp	0.73	3.58	4.29	4.99	6.12	7.11	7.90	67,100	7,580
		kW	0.54	2.67	3.20	3.72	4.56	5.30	5.89		
	$P_{1\,TH}$	hp	0.73	3.44	3.90	4.25	4.84	5.46	5.70		
		kW	0.54	2.57	2.91	3.17	3.61	4.08	4.26		
	$P_{1\,TH\,Fan}$	hp	n/a	3.44	3.90	4.25	4.84	7.10	7.66		
		kW	n/a	2.57	2.91	3.17	3.61	5.30	5.72		
	$P_{1\,TH\,WH}$	hp	0.73	3.58	4.29	4.99	6.12	7.11	7.90		
		kW	0.54	2.67	3.20	3.72	4.56	5.30	5.89		
	$T_{2\,ME}$	lb-in	22,400	20,900	20,500	20,000	18,800	17,500	16,800		
		Nm	2,530	2,370	2,310	2,260	2,120	1,980	1,890		
	η	%	65	72	73	74	75	76	79		
80 4 x 20	$P_{1\,ME}$	hp	0.68	3.53	4.26	5.03	6.34	7.61	8.74	73,000	8,240
		kW	0.51	2.63	3.18	3.75	4.73	5.68	6.52		
	$P_{1\,TH}$	hp	0.68	3.36	3.99	4.52	5.26	5.80	6.29		
		kW	0.51	2.51	2.97	3.38	3.93	4.33	4.69		
	$P_{1\,TH\,Fan}$	hp	n/a	3.36	3.99	4.52	5.26	5.80	6.29		
		kW	n/a	2.51	2.97	3.38	3.93	4.33	4.69		
	$P_{1\,TH\,WH}$	hp	0.68	3.53	4.26	5.03	6.34	7.61	8.74		
		kW	0.51	2.63	3.18	3.75	4.73	5.68	6.52		
	$T_{2\,ME}$	lb-in	24,300	23,500	23,200	22,600	21,800	21,100	20,500		
		Nm	2,750	2,650	2,620	2,550	2,470	2,390	2,320		
	η	%	71	77	78	78	79	80	81		
90 1.8 x 50	$P_{1\,ME}$	hp	0.62	2.84	3.35	3.83	4.55	5.15	5.69	54,300	6,130
		kW	0.46	2.12	2.50	2.86	3.40	3.85	4.25		
	$P_{1\,TH}$	hp	0.62	2.78	3.11	3.45	3.94	4.19	4.38		
		kW	0.46	2.08	2.32	2.58	2.94	3.12	3.27		
	$P_{1\,TH\,Fan}$	hp	n/a	2.78	3.11	3.45	4.55	5.15	5.69		
		kW	n/a	2.08	2.32	2.58	3.40	3.85	4.25		
	$P_{1\,TH\,WH}$	hp	0.62	2.84	3.35	3.83	4.55	5.15	5.69		
		kW	0.46	2.12	2.50	2.86	3.40	3.85	4.25		
	$T_{2\,ME}$	lb-in	18,100	18,000	17,700	17,200	16,100	14,700	13,400		
		Nm	2,040	2,040	2,000	1,940	1,820	1,660	1,520		
	η	%	51	65	67	69	72	73	73		

See Page 8.7 for Rating Definitions

Size 50 Helical Worm Reducer Ratings

5.375" Primary/5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
100 4 x 25	$P_{1\,ME}$	hp	0.55	2.84	3.43	4.06	5.12	6.14	7.06	69,700	7,880
		kW	0.41	2.12	2.56	3.03	3.82	4.58	5.26		
	$P_{1\,TH}$	hp	0.55	2.84	3.43	3.93	4.53	5.01	5.46		
		kW	0.41	2.12	2.56	2.94	3.38	3.74	4.07		
	$P_{1\,TH\,Fan}$	hp	n/a	2.84	3.43	3.93	4.53	5.01	5.46		
		kW	n/a	2.12	2.56	2.94	3.38	3.74	4.07		
	$P_{1\,TH\,WH}$	hp	0.55	2.84	3.43	4.06	5.12	6.14	7.06		
		kW	0.41	2.12	2.56	3.03	3.82	4.58	5.26		
	$T_{2\,ME}$	lb-in	23,200	22,500	22,400	22,200	21,500	21,100	20,200		
		Nm	2,630	2,540	2,540	2,510	2,430	2,380	2,280		
	η	%	67	73	75	76	77	79	80		
108 1.8 x 60	$P_{1\,ME}$	hp	0.52	2.37	2.80	3.19	3.80	4.31	4.75	53,400	6,030
		kW	0.39	1.77	2.09	2.38	2.84	3.21	3.54		
	$P_{1\,TH}$	hp	0.52	2.34	2.65	2.98	3.45	3.69	3.91		
		kW	0.39	1.74	1.97	2.22	2.57	2.75	2.92		
	$P_{1\,TH\,Fan}$	hp	n/a	2.34	2.65	2.98	3.80	4.31	4.75		
		kW	n/a	1.74	1.97	2.22	2.84	3.21	3.54		
	$P_{1\,TH\,WH}$	hp	0.52	2.37	2.80	3.19	3.80	4.31	4.75		
		kW	0.39	1.77	2.09	2.38	2.84	3.21	3.54		
	$T_{2\,ME}$	lb-in	17,800	17,300	16,900	16,200	15,300	14,000	12,900		
		Nm	2,010	1,950	1,910	1,840	1,730	1,580	1,460		
	η	%	50	62	64	65	68	69	70		
120 4 x 30	$P_{1\,ME}$	hp	0.46	2.38	2.87	3.39	4.28	5.14	5.90	67,100	7,580
		kW	0.34	1.77	2.14	2.53	3.19	3.83	4.40		
	$P_{1\,TH}$	hp	0.46	2.38	2.87	3.32	3.90	4.33	4.72		
		kW	0.34	1.77	2.14	2.48	2.91	3.23	3.52		
	$P_{1\,TH\,Fan}$	hp	n/a	2.38	2.87	3.32	3.90	4.33	4.72		
		kW	n/a	1.77	2.14	2.48	2.91	3.23	3.52		
	$P_{1\,TH\,WH}$	hp	0.46	2.38	2.87	3.39	4.28	5.14	5.90		
		kW	0.34	1.77	2.14	2.53	3.19	3.83	4.40		
	$T_{2\,ME}$	lb-in	22,400	21,600	21,400	21,200	20,500	19,800	19,000		
		Nm	2,530	2,440	2,410	2,390	2,310	2,230	2,150		
	η	%	64	70	71	72	73	74	75		
125 2.5 x 50	$P_{1\,ME}$	hp	0.45	2.17	2.59	3.01	3.70	4.30	4.78	54,300	6,130
		kW	0.33	1.62	1.93	2.25	2.76	3.21	3.57		
	$P_{1\,TH}$	hp	0.45	2.16	2.59	2.89	3.36	3.86	4.03		
		kW	0.33	1.62	1.93	2.16	2.50	2.88	3.01		
	$P_{1\,TH\,Fan}$	hp	n/a	2.16	2.59	2.89	3.36	4.30	4.78		
		kW	n/a	1.62	1.93	2.16	2.50	3.21	3.57		
	$P_{1\,TH\,WH}$	hp	0.45	2.17	2.59	3.01	3.70	4.30	4.78		
		kW	0.33	1.62	1.93	2.25	2.76	3.21	3.57		
	$T_{2\,ME}$	lb-in	18,100	18,600	18,100	18,000	17,500	16,600	15,700		
		Nm	2,040	2,100	2,050	2,030	1,970	1,870	1,770		
	η	%	51	63	64	66	69	71	73		
150 2.5 x 60	$P_{1\,ME}$	hp	0.38	1.81	2.16	2.52	3.09	3.59	3.99	53,400	6,030
		kW	0.28	1.35	1.61	1.88	2.31	2.68	2.98		
	$P_{1\,TH}$	hp	0.38	1.81	2.16	2.44	2.88	3.36	3.54		
		kW	0.28	1.35	1.61	1.82	2.15	2.51	2.64		
	$P_{1\,TH\,Fan}$	hp	n/a	1.81	2.16	2.44	2.88	3.59	3.99		
		kW	n/a	1.35	1.61	1.82	2.15	2.68	2.98		
	$P_{1\,TH\,WH}$	hp	0.38	1.81	2.16	2.52	3.09	3.59	3.99		
		kW	0.28	1.35	1.61	1.88	2.31	2.68	2.98		
	$T_{2\,ME}$	lb-in	17,800	17,700	17,300	17,200	16,500	15,700	14,900		
		Nm	2,010	2,000	1,960	1,950	1,870	1,770	1,680		
	η	%	49	60	61	63	65	67	69		
160 4 x 40	$P_{1\,ME}$	hp	0.35	1.79	2.17	2.55	3.22	3.88	4.45	60,800	6,870
		kW	0.26	1.34	1.62	1.91	2.41	2.89	3.32		
	$P_{1\,TH}$	hp	0.35	1.79	2.17	2.55	3.22	3.63	3.97		
		kW	0.26	1.34	1.62	1.91	2.41	2.71	2.97		
	$P_{1\,TH\,Fan}$	hp	n/a	1.79	2.17	2.55	3.22	3.63	3.97		
		kW	n/a	1.34	1.62	1.91	2.41	2.71	2.97		
	$P_{1\,TH\,WH}$	hp	0.35	1.79	2.17	2.55	3.22	3.88	4.45		
		kW	0.26	1.34	1.62	1.91	2.41	2.89	3.32		
	$T_{2\,ME}$	lb-in	20,300	19,700	19,400	19,000	18,900	18,700	18,200		
		Nm	2,290	2,220	2,190	2,140	2,140	2,110	2,050		
	η	%	57	63	64	64	67	69	71		

See Page 8.7 for Rating Definitions

5.375" Primary/5" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
175 2.5 x 70	$P_{1\,ME}$	hp	0.32	1.55	1.86	2.16	2.65	3.08	3.43	52,700	5,950
		kW	0.24	1.16	1.38	1.61	1.98	2.30	2.56		
	$P_{1\,TH}$	hp	0.32	1.55	1.86	2.13	2.59	3.08	3.32		
		kW	0.24	1.16	1.38	1.59	1.94	2.30	2.48		
	$P_{1\,TH\,Fan}$	hp	n/a	1.55	1.86	2.13	2.59	3.08	3.43		
		kW	n/a	1.16	1.38	1.59	1.94	2.30	2.56		
	$P_{1\,TH\,WH}$	hp	0.32	1.55	1.86	2.16	2.65	3.08	3.43		
		kW	0.24	1.16	1.38	1.61	1.98	2.30	2.56		
	$T_{2\,ME}$	lb-in	17,600	17,500	17,100	17,000	16,300	15,500	14,700		
		Nm	1,980	1,970	1,930	1,920	1,840	1,750	1,660		
	η	%	49	59	60	62	64	66	68		
200 4 x 50	$P_{1\,ME}$	hp	0.28	1.44	1.74	2.05	2.59	3.11	3.57	54,300	6,130
		kW	0.21	1.07	1.30	1.53	1.93	2.32	2.67		
	$P_{1\,TH}$	hp	0.28	1.44	1.74	2.05	2.59	2.95	3.26		
		kW	0.21	1.07	1.30	1.53	1.93	2.20	2.43		
	$P_{1\,TH\,Fan}$	hp	n/a	1.44	1.74	2.05	2.59	2.95	3.26		
		kW	n/a	1.07	1.30	1.53	1.93	2.20	2.43		
	$P_{1\,TH\,WH}$	hp	0.28	1.44	1.74	2.05	2.59	3.11	3.57		
		kW	0.21	1.07	1.30	1.53	1.93	2.32	2.67		
	$T_{2\,ME}$	lb-in	18,100	18,200	18,300	18,400	18,100	17,900	17,500		
		Nm	2,040	2,060	2,070	2,080	2,050	2,030	1,970		
	η	%	50	58	60	62	64	66	68		
240 4 x 60	$P_{1\,ME}$	hp	0.24	1.20	1.45	1.71	2.16	2.60	2.98	53,400	6,030
		kW	0.18	0.90	1.08	1.28	1.61	1.94	2.23		
	$P_{1\,TH}$	hp	0.24	1.20	1.45	1.71	2.16	2.50	2.79		
		kW	0.18	0.90	1.08	1.28	1.61	1.86	2.09		
	$P_{1\,TH\,Fan}$	hp	n/a	1.20	1.45	1.71	2.16	2.50	2.79		
		kW	n/a	0.90	1.08	1.28	1.61	1.86	2.09		
	$P_{1\,TH\,WH}$	hp	0.24	1.20	1.45	1.71	2.16	2.60	2.98		
		kW	0.18	0.90	1.08	1.28	1.61	1.94	2.23		
	$T_{2\,ME}$	lb-in	17,800	17,900	18,000	17,900	17,300	17,200	16,700		
		Nm	2,010	2,020	2,040	2,020	1,960	1,940	1,890		
	η	%	49	57	59	60	61	63	65		
280 4 x 70	$P_{1\,ME}$	hp	0.21	1.03	1.24	1.47	1.85	2.23	2.56	52,700	5,950
		kW	0.15	0.77	0.93	1.10	1.38	1.66	1.91		
	$P_{1\,TH}$	hp	0.21	1.03	1.24	1.47	1.85	2.19	2.50		
		kW	0.15	0.77	0.93	1.10	1.38	1.63	1.87		
	$P_{1\,TH\,Fan}$	hp	n/a	1.03	1.24	1.47	1.85	2.19	2.50		
		kW	n/a	0.77	0.93	1.10	1.38	1.63	1.87		
	$P_{1\,TH\,WH}$	hp	0.21	1.03	1.24	1.47	1.85	2.23	2.56		
		kW	0.15	0.77	0.93	1.10	1.38	1.66	1.91		
	$T_{2\,ME}$	lb-in	17,600	17,600	17,800	17,700	17,100	16,900	16,500		
		Nm	1,980	1,990	2,010	1,990	1,930	1,910	1,870		
	η	%	49	56	58	59	60	62	64		

See Page 8.7 for Rating Definitions

Size 60 Helical Worm Reducer Ratings

5.375" Primary/6" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5 1 x 5	$P_{1\,ME}$	hp	3.74	19.8	24.3	29.0	37.5	46.2	54.9	31,600	3,570
		kW	2.79	14.8	18.1	21.7	28.0	34.5	40.9		
	$P_{1\,TH}$	hp	3.74	18.0	20.1	21.6	23.5	24.6	25.8		
		kW	2.79	13.5	15.0	16.2	17.5	18.4	19.2		
	$P_{1\,TH\,Fan}$	hp	n/a	19.8	24.3	29.0	35.3	37.6	39.9		
		kW	n/a	14.8	18.1	21.7	26.3	28.1	29.8		
	$P_{1\,TH\,WH}$	hp	3.74	19.8	24.3	29.0	37.5	46.2	50.2		
		kW	2.79	14.8	18.1	21.7	28.0	34.5	37.4		
	$T_{2\,ME}$	lb-in	10,500	9,820	9,710	9,690	9,460	9,250	9,100		
		Nm	1,190	1,110	1,100	1,090	1,070	1,040	1,030		
	η	%	89	91	91	92	92	92	92		
7.5 1.5 x 5	$P_{1\,ME}$	hp	3.17	17.0	20.6	24.6	32.0	39.6	47.2	40,100	4,530
		kW	2.37	12.7	15.4	18.4	23.9	29.5	35.2		
	$P_{1\,TH}$	hp	3.17	14.3	16.1	18.0	20.6	22.3	23.6		
		kW	2.37	10.6	12.0	13.5	15.4	16.6	17.6		
	$P_{1\,TH\,Fan}$	hp	n/a	14.3	16.1	23.5	28.1	32.0	35.4		
		kW	n/a	10.6	12.0	17.5	21.0	23.9	26.4		
	$P_{1\,TH\,WH}$	hp	3.17	17.0	20.6	24.6	32.0	39.6	47.2		
		kW	2.37	12.7	15.4	18.4	23.9	29.5	35.2		
	$T_{2\,ME}$	lb-in	13,100	12,600	12,300	12,200	12,000	11,900	11,700		
		Nm	1,480	1,430	1,390	1,380	1,350	1,340	1,330		
	η	%	87	91	91	91	91	92	92		
9 1.8 x 5	$P_{1\,ME}$	hp	2.81	15.1	18.7	22.1	28.9	35.6	42.4	42,700	4,820
		kW	2.10	11.3	14.0	16.5	21.6	26.6	31.6		
	$P_{1\,TH}$	hp	2.81	13.0	14.5	16.2	18.9	21.0	22.3		
		kW	2.10	9.71	10.8	12.1	14.1	15.7	16.7		
	$P_{1\,TH\,Fan}$	hp	n/a	13.0	14.5	16.2	25.0	28.9	32.1		
		kW	n/a	9.71	10.8	12.1	18.7	21.6	24.0		
	$P_{1\,TH\,WH}$	hp	2.81	15.1	18.7	22.1	28.9	35.6	42.4		
		kW	2.10	11.3	14.0	16.5	21.6	26.6	31.6		
	$T_{2\,ME}$	lb-in	13,600	13,500	13,400	13,200	13,000	12,800	12,700		
		Nm	1,540	1,520	1,520	1,490	1,470	1,440	1,430		
	η	%	85	91	91	91	91	92	92		
10 1 x 10	$P_{1\,ME}$	hp	3.74	19.8	24.3	29.0	37.5	44.8	48.2	59,000	6,670
		kW	2.79	14.8	18.1	21.7	28.0	33.4	36.0		
	$P_{1\,TH}$	hp	3.74	14.6	16.0	17.0	18.4	19.0	19.6		
		kW	2.79	10.9	11.9	12.7	13.7	14.2	14.6		
	$P_{1\,TH\,Fan}$	hp	n/a	19.0	21.6	23.8	27.5	28.9	30.4		
		kW	n/a	14.2	16.1	17.8	20.5	21.6	22.7		
	$P_{1\,TH\,WH}$	hp	3.74	19.8	24.3	29.0	35.8	36.4	37.0		
		kW	2.79	14.8	18.1	21.7	26.7	27.2	27.6		
	$T_{2\,ME}$	lb-in	19,700	18,800	19,000	18,800	18,500	17,600	15,700		
		Nm	2,220	2,120	2,150	2,120	2,090	1,980	1,770		
	η	%	83	87	89	89	90	90	90		
12.5 2.5 x 5	$P_{1\,ME}$	hp	2.24	12.3	14.9	18.0	23.3	28.7	34.2	47,200	5,340
		kW	1.67	9.16	11.1	13.4	17.4	21.4	25.5		
	$P_{1\,TH}$	hp	2.24	10.7	12.2	13.5	15.7	18.0	19.8		
		kW	1.67	7.97	9.14	10.1	11.7	13.5	14.8		
	$P_{1\,TH\,Fan}$	hp	n/a	10.7	12.2	13.5	15.7	23.5	26.6		
		kW	n/a	7.97	9.14	10.1	11.7	17.5	19.9		
	$P_{1\,TH\,WH}$	hp	2.24	12.3	14.9	18.0	23.3	28.7	34.2		
		kW	1.67	9.16	11.1	13.4	17.4	21.4	25.5		
	$T_{2\,ME}$	lb-in	15,100	15,000	14,900	14,900	14,500	14,200	14,000		
		Nm	1,700	1,700	1,680	1,680	1,640	1,610	1,580		
	η	%	85	90	91	91	91	91	91		
15 1.5 x 10	$P_{1\,ME}$	hp	3.17	17.0	20.6	24.6	32.0	36.8	40.5	75,000	8,470
		kW	2.37	12.7	15.4	18.4	23.9	27.5	30.2		
	$P_{1\,TH}$	hp	3.17	11.8	13.2	14.6	16.3	17.5	18.4		
		kW	2.37	8.80	9.83	10.9	12.2	13.0	13.7		
	$P_{1\,TH\,Fan}$	hp	n/a	11.8	13.2	19.0	22.3	25.1	27.6		
		kW	n/a	8.80	9.83	14.2	16.6	18.7	20.6		
	$P_{1\,TH\,WH}$	hp	3.17	17.0	20.6	24.6	31.5	34.8	35.8		
		kW	2.37	12.7	15.4	18.4	23.5	25.9	26.7		
	$T_{2\,ME}$	lb-in	24,400	23,900	23,600	23,400	23,500	21,600	19,700		
		Nm	2,760	2,710	2,670	2,640	2,650	2,440	2,230		
	η	%	81	86	87	87	89	90	90		

See Page 8.7 for Rating Definitions

5.375" Primary/6" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
18 1.8 x 10	$P_{1\,ME}$	hp	2.81	15.1	18.7	22.1	28.9	33.4	36.9	79,800	9,010
		kW	2.10	11.3	14.0	16.5	21.6	25.0	27.6		
	$P_{1\,TH}$	hp	2.81	10.8	12.0	13.2	15.2	16.6	17.5		
		kW	2.10	8.09	8.95	9.86	11.3	12.4	13.1		
	$P_{1\,TH\,Fan}$	hp	n/a	10.8	12.0	13.2	20.1	22.9	25.2		
		kW	n/a	8.09	8.95	9.86	15.0	17.1	18.8		
	$P_{1\,TH\,WH}$	hp	2.81	15.1	18.7	22.1	28.8	31.8	34.9		
		kW	2.10	11.3	14.0	16.5	21.5	23.7	26.1		
	$T_{2\,ME}$	lb-in	25,400	25,500	25,500	25,200	25,100	23,400	21,600		
		Nm	2,870	2,880	2,880	2,850	2,840	2,640	2,440		
	η	%	80	86	86	87	88	89	90		
20 4 x 5	$P_{1\,ME}$	hp	3.74	15.3	17.0	19.0	21.8	24.5	26.5	107,000	12,100
		kW	2.79	11.4	12.7	14.2	16.3	18.3	19.8		
	$P_{1\,TH}$	hp	3.74	10.6	11.3	11.9	12.4	12.6	12.9		
		kW	2.79	7.92	8.46	8.85	9.23	9.42	9.62		
	$P_{1\,TH\,Fan}$	hp	n/a	13.8	15.3	16.6	18.6	19.3	20.0		
		kW	n/a	10.3	11.4	12.4	13.8	14.4	14.9		
	$P_{1\,TH\,WH}$	hp	3.74	15.3	17.0	19.0	21.8	22.8	23.0		
		kW	2.79	11.4	12.7	14.2	16.2	17.0	17.2		
	$T_{2\,ME}$	lb-in	35,700	27,700	24,900	22,900	20,200	18,200	16,300		
		Nm	4,030	3,120	2,810	2,590	2,280	2,050	1,840		
	η	%	76	83	83	83	84	85	85		
22.5 1.5 x 15	$P_{1\,ME}$	hp	3.17	15.6	17.9	19.8	23.0	26.1	28.7	107,000	12,100
		kW	2.37	11.6	13.3	14.8	17.2	19.5	21.4		
	$P_{1\,TH}$	hp	3.17	9.93	11.0	12.1	13.2	13.9	14.5		
		kW	2.37	7.41	8.18	9.00	9.84	10.4	10.8		
	$P_{1\,TH\,Fan}$	hp	n/a	9.93	11.0	15.7	18.0	19.9	21.7		
		kW	n/a	7.41	8.18	11.7	13.4	14.9	16.2		
	$P_{1\,TH\,WH}$	hp	3.17	15.6	17.9	19.8	23.0	26.1	28.0		
		kW	2.37	11.6	13.3	14.8	17.2	19.5	20.9		
	$T_{2\,ME}$	lb-in	34,900	31,800	29,700	27,600	24,500	22,500	20,500		
		Nm	3,940	3,590	3,360	3,120	2,770	2,550	2,320		
	η	%	78	83	84	85	86	88	88		
25 2.5 x 10	$P_{1\,ME}$	hp	2.24	12.3	14.9	18.0	23.3	28.0	30.8	88,300	9,980
		kW	1.67	9.16	11.1	13.4	17.4	20.9	23.0		
	$P_{1\,TH}$	hp	2.24	8.97	10.2	11.2	12.9	14.6	15.8		
		kW	1.67	6.70	7.64	8.37	9.61	10.9	11.8		
	$P_{1\,TH\,Fan}$	hp	n/a	8.97	10.2	11.2	12.9	19.0	21.2		
		kW	n/a	6.70	7.64	8.37	9.61	14.2	15.8		
	$P_{1\,TH\,WH}$	hp	2.24	12.3	14.9	18.0	23.3	26.8	30.8		
		kW	1.67	9.16	11.1	13.4	17.4	20.0	23.0		
	$T_{2\,ME}$	lb-in	28,100	28,500	28,100	28,200	27,800	26,500	24,800		
		Nm	3,170	3,220	3,180	3,180	3,150	3,000	2,800		
	η	%	80	85	86	86	87	87	89		
27 1.8 x 15	$P_{1\,ME}$	hp	2.81	13.7	15.9	17.9	20.9	23.7	26.2	114,000	12,900
		kW	2.10	10.2	11.9	13.4	15.6	17.7	19.5		
	$P_{1\,TH}$	hp	2.81	9.21	10.1	11.0	12.5	13.3	13.9		
		kW	2.10	6.88	7.52	8.20	9.29	9.96	10.4		
	$P_{1\,TH\,Fan}$	hp	n/a	9.21	10.1	11.0	16.5	18.4	20.0		
		kW	n/a	6.88	7.52	8.20	12.3	13.7	14.9		
	$P_{1\,TH\,WH}$	hp	2.81	13.7	15.9	17.9	20.9	23.7	26.2		
		kW	2.10	10.2	11.9	13.4	15.6	17.7	19.5		
	$T_{2\,ME}$	lb-in	36,600	33,200	31,700	29,600	26,700	24,100	22,500		
		Nm	4,140	3,750	3,590	3,340	3,020	2,730	2,540		
	η	%	77	82	84	84	86	87	88		
30 1.5 x 20	$P_{1\,ME}$	hp	2.70	12.0	13.7	15.3	17.7	20.1	22.1	113,000	12,700
		kW	2.01	8.94	10.2	11.4	13.2	15.0	16.5		
	$P_{1\,TH}$	hp	2.70	8.77	9.66	10.6	11.5	12.0	12.4		
		kW	2.01	6.54	7.21	7.92	8.58	8.98	9.24		
	$P_{1\,TH\,Fan}$	hp	n/a	8.77	9.66	13.8	15.7	17.3	18.6		
		kW	n/a	6.54	7.21	10.3	11.7	12.9	13.9		
	$P_{1\,TH\,WH}$	hp	2.70	12.0	13.7	15.3	17.7	20.1	21.8		
		kW	2.01	8.94	10.2	11.4	13.2	15.0	16.2		
	$T_{2\,ME}$	lb-in	37,600	31,400	29,300	27,700	24,300	22,100	20,100		
		Nm	4,240	3,550	3,320	3,120	2,740	2,490	2,270		
	η	%	74	81	81	83	83	84	84		

See Page 8.7 for Rating Definitions

Size 60 Helical Worm Reducer Ratings

5.375" Primary/6" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
36 1.8 x 20	$P_{1\,ME}$	hp	2.31	10.5	12.2	13.8	16.0	18.2	20.1	113,000	12,700
		kW	1.72	7.83	9.11	10.3	12.0	13.6	15.0		
	$P_{1\,TH}$	hp	2.31	8.15	8.90	9.69	10.9	11.6	12.0		
		kW	1.72	6.08	6.64	7.23	8.15	8.68	8.99		
	$P_{1\,TH\,Fan}$	hp	n/a	8.15	8.90	9.69	14.4	16.0	17.3		
		kW	n/a	6.08	6.64	7.23	10.8	12.0	12.9		
	$P_{1\,TH\,WH}$	hp	2.31	10.5	12.2	13.8	16.0	18.2	20.1		
		kW	1.72	7.83	9.11	10.3	12.0	13.6	15.0		
	$T_{2\,ME}$	lb-in	37,600	32,300	31,000	29,300	26,400	23,800	22,000		
		Nm	4,240	3,650	3,500	3,310	2,980	2,690	2,490		
	η	%	72	79	81	81	83	83	84		
37.5 2.5 x 15	$P_{1\,ME}$	hp	2.13	10.6	12.6	14.5	17.4	19.8	21.9	116,000	13,100
		kW	1.59	7.91	9.40	10.8	13.0	14.8	16.3		
	$P_{1\,TH}$	hp	2.13	7.78	8.76	9.50	10.7	12.1	12.9		
		kW	1.59	5.80	6.54	7.09	8.01	9.00	9.59		
	$P_{1\,TH\,Fan}$	hp	n/a	7.78	8.76	9.50	10.7	15.7	17.3		
		kW	n/a	5.80	6.54	7.09	8.01	11.7	12.9		
	$P_{1\,TH\,WH}$	hp	2.13	10.6	12.6	14.5	17.4	19.8	21.9		
		kW	1.59	7.91	9.40	10.8	13.0	14.8	16.3		
	$T_{2\,ME}$	lb-in	38,600	35,200	34,100	32,800	30,200	27,600	25,500		
		Nm	4,360	3,970	3,850	3,710	3,410	3,120	2,880		
	η	%	77	81	82	83	84	85	86		
40 4 x 10	$P_{1\,ME}$	hp	1.46	7.47	9.73	10.8	13.7	16.7	19.8	92,100	10,400
		kW	1.09	5.57	7.26	8.06	10.2	12.5	14.7		
	$P_{1\,TH}$	hp	1.46	6.89	7.75	8.64	10.2	11.4	12.5		
		kW	1.09	5.14	5.79	6.45	7.64	8.53	9.36		
	$P_{1\,TH\,Fan}$	hp	n/a	6.89	7.75	8.64	10.2	11.4	12.5		
		kW	n/a	5.14	5.79	6.45	7.64	8.53	9.36		
	$P_{1\,TH\,WH}$	hp	1.46	7.47	9.73	10.8	13.7	16.7	19.8		
		kW	1.09	5.57	7.26	8.06	10.2	12.5	14.7		
	$T_{2\,ME}$	lb-in	28,900	27,400	29,100	26,700	26,000	25,100	24,600		
		Nm	3,270	3,100	3,290	3,020	2,930	2,840	2,780		
	η	%	79	84	85	85	86	86	86		
45 1.8 x 25	$P_{1\,ME}$	hp	1.86	8.47	9.86	11.1	13.0	14.7	16.3	108,000	12,200
		kW	1.39	6.32	7.36	8.30	9.68	11.0	12.1		
	$P_{1\,TH}$	hp	1.86	7.00	7.69	8.42	9.45	9.87	10.1		
		kW	1.39	5.22	5.74	6.29	7.05	7.36	7.55		
	$P_{1\,TH\,Fan}$	hp	n/a	7.00	7.69	8.42	12.5	13.6	14.5		
		kW	n/a	5.22	5.74	6.29	9.32	10.2	10.8		
	$P_{1\,TH\,WH}$	hp	1.86	8.47	9.86	11.1	13.0	14.7	16.3		
		kW	1.39	6.32	7.36	8.30	9.68	11.0	12.1		
	$T_{2\,ME}$	lb-in	35,900	32,200	30,900	29,500	26,100	23,800	22,000		
		Nm	4,050	3,630	3,490	3,340	2,950	2,690	2,480		
	η	%	68	78	80	81	81	83	83		
50 2.5 x 20	$P_{1\,ME}$	hp	1.66	8.12	9.64	11.1	13.4	15.3	16.9	113,000	12,700
		kW	1.24	6.06	7.20	8.29	9.97	11.4	12.6		
	$P_{1\,TH}$	hp	1.66	6.89	7.75	8.40	9.47	10.6	11.2		
		kW	1.24	5.14	5.79	6.27	7.07	7.92	8.39		
	$P_{1\,TH\,Fan}$	hp	n/a	6.89	7.75	8.40	9.47	13.8	15.1		
		kW	n/a	5.14	5.79	6.27	7.07	10.3	11.3		
	$P_{1\,TH\,WH}$	hp	1.66	8.12	9.64	11.1	13.4	15.3	16.9		
		kW	1.24	6.06	7.20	8.29	9.97	11.4	12.6		
	$T_{2\,ME}$	lb-in	37,600	34,300	33,200	32,000	29,800	27,700	25,300		
		Nm	4,240	3,870	3,750	3,620	3,370	3,120	2,860		
	η	%	72	78	79	80	81	83	83		
54 1.8 x 30	$P_{1\,ME}$	hp	1.56	7.09	8.26	9.31	10.9	12.3	13.6	104,000	11,700
		kW	1.17	5.29	6.16	6.95	8.11	9.19	10.2		
	$P_{1\,TH}$	hp	1.56	6.05	6.65	7.29	8.21	8.63	8.84		
		kW	1.17	4.51	4.96	5.44	6.13	6.44	6.60		
	$P_{1\,TH\,Fan}$	hp	n/a	6.05	6.65	7.29	10.9	11.9	12.7		
		kW	n/a	4.51	4.96	5.44	8.10	8.88	9.48		
	$P_{1\,TH\,WH}$	hp	1.56	7.09	8.26	9.31	10.9	12.3	13.6		
		kW	1.17	5.29	6.16	6.95	8.11	9.19	10.2		
	$T_{2\,ME}$	lb-in	34,500	30,300	29,200	27,200	24,900	22,800	21,100		
		Nm	3,900	3,420	3,300	3,070	2,820	2,580	2,380		
	η	%	65	73	75	75	78	79	80		

See Page 8.7 for Rating Definitions

5.375" Primary/6" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
60 4 x 15	$P_{1\,ME}$	hp	1.35	7.11	8.58	10.1	12.6	14.9	16.9	116,000	13,100
		kW	1.01	5.30	6.40	7.51	9.38	11.1	12.6		
	$P_{1\,TH}$	hp	1.35	6.07	6.80	7.52	8.75	9.66	10.5		
		kW	1.01	4.53	5.07	5.61	6.53	7.21	7.83		
	$P_{1\,TH\,Fan}$	hp	n/a	6.07	6.80	7.52	8.75	9.66	10.5		
		kW	n/a	4.53	5.07	5.61	6.53	7.21	7.83		
	$P_{1\,TH\,WH}$	hp	1.35	7.11	8.58	10.1	12.6	14.9	16.9		
		kW	1.01	5.30	6.40	7.51	9.38	11.1	12.6		
	$T_{2\,ME}$	lb-in	38,600	37,300	36,700	35,600	34,100	32,400	30,800		
		Nm	4,360	4,220	4,150	4,030	3,850	3,670	3,480		
	η	%	76	81	81	81	82	83	84		
62.5 2.5 x 25	$P_{1\,ME}$	hp	1.34	6.54	7.78	8.95	10.8	12.3	13.6	108,000	12,200
		kW	1.00	4.88	5.81	6.68	8.05	9.20	10.1		
	$P_{1\,TH}$	hp	1.34	5.89	6.64	7.23	8.22	9.28	9.63		
		kW	1.00	4.40	4.96	5.39	6.13	6.92	7.19		
	$P_{1\,TH\,Fan}$	hp	n/a	5.89	6.64	7.23	8.22	12.1	12.9		
		kW	n/a	4.40	4.96	5.39	6.13	9.00	9.65		
	$P_{1\,TH\,WH}$	hp	1.34	6.54	7.78	8.95	10.8	12.3	13.6		
		kW	1.00	4.88	5.81	6.68	8.05	9.20	10.1		
	$T_{2\,ME}$	lb-in	35,900	33,600	32,600	31,800	29,800	27,300	24,900		
		Nm	4,050	3,800	3,690	3,600	3,360	3,080	2,820		
	η	%	68	76	77	79	81	81	81		
72 1.8 x 40	$P_{1\,ME}$	hp	1.19	5.35	6.22	7.03	8.19	9.28	10.3	94,000	10,600
		kW	0.89	3.99	4.64	5.25	6.11	6.93	7.66		
	$P_{1\,TH}$	hp	1.19	5.19	5.68	6.20	6.98	7.39	7.64		
		kW	0.89	3.87	4.24	4.63	5.21	5.52	5.70		
	$P_{1\,TH\,Fan}$	hp	n/a	5.19	5.68	6.20	8.19	9.28	10.3		
		kW	n/a	3.87	4.24	4.63	6.11	6.93	7.66		
	$P_{1\,TH\,WH}$	hp	1.19	5.35	6.22	7.03	8.19	9.28	10.3		
		kW	0.89	3.99	4.64	5.25	6.11	6.93	7.66		
	$T_{2\,ME}$	lb-in	31,300	28,400	27,400	26,000	24,100	22,000	20,200		
		Nm	3,540	3,210	3,090	2,930	2,730	2,480	2,280		
	η	%	58	68	70	71	75	76	76		
75 2.5 x 30	$P_{1\,ME}$	hp	1.12	5.47	6.51	7.50	9.02	10.3	11.4	104,000	11,700
		kW	0.84	4.08	4.86	5.60	6.73	7.69	8.49		
	$P_{1\,TH}$	hp	1.12	4.96	5.72	6.25	7.11	8.04	8.39		
		kW	0.84	3.71	4.27	4.66	5.31	6.00	6.26		
	$P_{1\,TH\,Fan}$	hp	n/a	4.96	5.72	6.25	7.11	10.3	11.3		
		kW	n/a	3.71	4.27	4.66	5.31	7.69	8.41		
	$P_{1\,TH\,WH}$	hp	1.12	5.47	6.51	7.50	9.02	10.3	11.4		
		kW	0.84	4.08	4.86	5.60	6.73	7.69	8.49		
	$T_{2\,ME}$	lb-in	34,500	32,000	31,100	30,000	27,700	25,400	24,100		
		Nm	3,900	3,620	3,510	3,400	3,130	2,870	2,730		
	η	%	65	72	73	74	75	76	79		
80 4 x 20	$P_{1\,ME}$	hp	1.05	5.43	6.57	7.70	9.63	11.4	13.0	113,000	12,700
		kW	0.79	4.05	4.90	5.75	7.18	8.54	9.67		
	$P_{1\,TH}$	hp	1.05	5.04	5.90	6.66	7.74	8.54	9.25		
		kW	0.79	3.76	4.40	4.97	5.78	6.37	6.91		
	$P_{1\,TH\,Fan}$	hp	n/a	5.04	5.90	6.66	7.74	8.54	9.25		
		kW	n/a	3.76	4.40	4.97	5.78	6.37	6.91		
	$P_{1\,TH\,WH}$	hp	1.05	5.43	6.57	7.70	9.63	11.4	13.0		
		kW	0.79	4.05	4.90	5.75	7.18	8.54	9.67		
	$T_{2\,ME}$	lb-in	37,600	36,200	35,700	34,600	33,200	31,800	30,400		
		Nm	4,240	4,090	4,030	3,910	3,750	3,590	3,440		
	η	%	71	77	78	78	79	80	81		
90 1.8 x 50	$P_{1\,ME}$	hp	0.96	4.29	4.99	5.64	6.58	7.44	8.24	83,900	9,480
		kW	0.72	3.20	3.72	4.21	4.91	5.56	6.15		
	$P_{1\,TH}$	hp	0.96	4.18	4.63	5.11	5.80	6.16	6.44		
		kW	0.72	3.12	3.45	3.81	4.33	4.59	4.81		
	$P_{1\,TH\,Fan}$	hp	n/a	4.18	4.63	5.11	6.58	7.44	8.24		
		kW	n/a	3.12	3.45	3.81	4.91	5.56	6.15		
	$P_{1\,TH\,WH}$	hp	0.96	4.29	4.99	5.64	6.58	7.44	8.24		
		kW	0.72	3.20	3.72	4.21	4.91	5.56	6.15		
	$T_{2\,ME}$	lb-in	28,000	27,300	26,300	25,300	23,300	21,200	19,400		
		Nm	3,160	3,080	2,970	2,860	2,630	2,390	2,200		
	η	%	51	65	67	69	72	73	73		

See Page 8.7 for Rating Definitions

Size 60 Helical Worm Reducer Ratings

5.375" Primary/6" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
100 4 x 25	$P_{1\,ME}$	hp	0.85	4.38	5.29	6.21	7.77	9.23	10.5	108,000	12,200
		kW	0.63	3.27	3.95	4.64	5.80	6.89	7.81		
	$P_{1\,TH}$	hp	0.85	4.20	5.00	5.70	6.64	7.36	8.02		
		kW	0.63	3.13	3.73	4.25	4.95	5.49	5.98		
	$P_{1\,TH\,Fan}$	hp	n/a	4.20	5.00	5.70	6.64	7.36	8.02		
		kW	n/a	3.13	3.73	4.25	4.95	5.49	5.98		
	$P_{1\,TH\,WH}$	hp	0.85	4.38	5.29	6.21	7.77	9.23	10.5		
		kW	0.63	3.27	3.95	4.64	5.80	6.89	7.81		
	$T_{2\,ME}$	lb-in	35,900	34,600	34,600	34,100	32,600	31,700	30,000		
		Nm	4,050	3,910	3,910	3,850	3,690	3,580	3,390		
	η	%	67	73	75	76	77	79	80		
108 1.8 x 60	$P_{1\,ME}$	hp	0.80	3.58	4.18	4.71	5.49	6.21	6.88	82,600	9,330
		kW	0.60	2.67	3.12	3.51	4.10	4.64	5.14		
	$P_{1\,TH}$	hp	0.80	3.51	3.94	4.41	5.08	5.43	5.76		
		kW	0.60	2.62	2.94	3.29	3.79	4.06	4.29		
	$P_{1\,TH\,Fan}$	hp	n/a	3.51	3.94	4.41	5.49	6.21	6.88		
		kW	n/a	2.62	2.94	3.29	4.10	4.64	5.14		
	$P_{1\,TH\,WH}$	hp	0.80	3.58	4.18	4.71	5.49	6.21	6.88		
		kW	0.60	2.67	3.12	3.51	4.10	4.64	5.14		
	$T_{2\,ME}$	lb-in	27,500	26,100	25,300	23,900	22,100	20,200	18,700		
		Nm	3,110	2,950	2,860	2,710	2,490	2,280	2,110		
	η	%	50	62	64	65	68	69	70		
120 4 x 30	$P_{1\,ME}$	hp	0.71	3.66	4.42	5.20	6.51	7.72	8.75	104,000	11,700
		kW	0.53	2.73	3.30	3.88	4.86	5.76	6.53		
	$P_{1\,TH}$	hp	0.71	3.50	4.16	4.77	5.71	6.36	6.94		
		kW	0.53	2.61	3.10	3.56	4.26	4.75	5.18		
	$P_{1\,TH\,Fan}$	hp	n/a	3.50	4.16	4.77	5.71	6.36	6.94		
		kW	n/a	2.61	3.10	3.56	4.26	4.75	5.18		
	$P_{1\,TH\,WH}$	hp	0.71	3.66	4.42	5.20	6.51	7.72	8.75		
		kW	0.53	2.73	3.30	3.88	4.86	5.76	6.53		
	$T_{2\,ME}$	lb-in	34,500	33,400	32,900	32,400	31,100	29,700	28,200		
		Nm	3,900	3,770	3,720	3,660	3,520	3,350	3,190		
	η	%	64	70	71	72	73	74	75		
125 2.5 x 50	$P_{1\,ME}$	hp	0.69	3.31	3.94	4.53	5.46	6.25	6.90	83,900	9,480
		kW	0.52	2.47	2.94	3.38	4.08	4.66	5.15		
	$P_{1\,TH}$	hp	0.69	3.29	3.92	4.33	4.98	5.67	5.94		
		kW	0.52	2.45	2.92	3.23	3.71	4.23	4.43		
	$P_{1\,TH\,Fan}$	hp	n/a	3.29	3.92	4.33	4.98	6.25	6.90		
		kW	n/a	2.45	2.92	3.23	3.71	4.66	5.15		
	$P_{1\,TH\,WH}$	hp	0.69	3.31	3.94	4.53	5.46	6.25	6.90		
		kW	0.52	2.47	2.94	3.38	4.08	4.66	5.15		
	$T_{2\,ME}$	lb-in	28,000	28,400	27,600	27,100	25,800	24,000	22,600		
		Nm	3,160	3,210	3,120	3,060	2,910	2,720	2,550		
	η	%	51	63	64	66	69	71	73		
150 2.5 x 60	$P_{1\,ME}$	hp	0.59	2.77	3.29	3.78	4.56	5.22	5.76	82,600	9,330
		kW	0.44	2.06	2.45	2.82	3.40	3.90	4.30		
	$P_{1\,TH}$	hp	0.59	2.74	3.27	3.65	4.28	4.95	5.21		
		kW	0.44	2.05	2.44	2.72	3.19	3.69	3.89		
	$P_{1\,TH\,Fan}$	hp	n/a	2.74	3.27	3.65	4.28	5.22	5.76		
		kW	n/a	2.05	2.44	2.72	3.19	3.90	4.30		
	$P_{1\,TH\,WH}$	hp	0.59	2.77	3.29	3.78	4.56	5.22	5.76		
		kW	0.44	2.06	2.45	2.82	3.40	3.90	4.30		
	$T_{2\,ME}$	lb-in	27,500	27,100	26,400	25,900	24,400	22,800	21,400		
		Nm	3,110	3,060	2,980	2,930	2,750	2,570	2,420		
	η	%	49	60	61	63	65	67	69		
160 4 x 40	$P_{1\,ME}$	hp	0.54	2.76	3.34	3.91	4.90	5.82	6.61	94,000	10,600
		kW	0.41	2.06	2.49	2.92	3.66	4.34	4.93		
	$P_{1\,TH}$	hp	0.54	2.74	3.32	3.89	4.88	5.44	5.91		
		kW	0.41	2.05	2.48	2.91	3.64	4.06	4.41		
	$P_{1\,TH\,Fan}$	hp	n/a	2.74	3.32	3.89	4.88	5.44	5.91		
		kW	n/a	2.05	2.48	2.91	3.64	4.06	4.41		
	$P_{1\,TH\,WH}$	hp	0.54	2.76	3.34	3.91	4.90	5.82	6.61		
		kW	0.41	2.06	2.49	2.92	3.66	4.34	4.93		
	$T_{2\,ME}$	lb-in	31,300	30,300	29,900	29,000	28,800	28,000	27,000		
		Nm	3,540	3,420	3,380	3,280	3,250	3,160	3,050		
	η	%	57	63	64	64	67	69	71		

See Page 8.7 for Rating Definitions

5.375" Primary/6" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
175 2.5 x 70	$P_{1\,ME}$	hp	0.50	2.37	2.82	3.25	3.91	4.48	4.94	81,200	9,180
		kW	0.37	1.77	2.11	2.42	2.92	3.34	3.69		
	$P_{1\,TH}$	hp	0.50	2.35	2.81	3.18	3.80	4.47	4.94		
		kW	0.37	1.76	2.10	2.37	2.84	3.34	3.69		
	$P_{1\,TH\,Fan}$	hp	n/a	2.35	2.81	3.18	3.80	4.48	4.94		
		kW	n/a	1.76	2.10	2.37	2.84	3.34	3.69		
	$P_{1\,TH\,WH}$	hp	0.50	2.37	2.82	3.25	3.91	4.48	4.94		
		kW	0.37	1.77	2.11	2.42	2.92	3.34	3.69		
	$T_{2\,ME}$	lb-in	27,100	26,700	26,000	25,600	24,000	22,500	21,200		
		Nm	3,060	3,020	2,940	2,890	2,720	2,540	2,390		
	η	%	49	59	60	62	64	66	68		
200 4 x 50	$P_{1\,ME}$	hp	0.44	2.21	2.68	3.14	3.93	4.67	5.30	83,900	9,480
		kW	0.33	1.65	2.00	2.34	2.93	3.48	3.95		
	$P_{1\,TH}$	hp	0.44	2.20	2.66	3.12	3.91	4.41	4.85		
		kW	0.33	1.64	1.99	2.33	2.92	3.29	3.62		
	$P_{1\,TH\,Fan}$	hp	n/a	2.20	2.66	3.12	3.91	4.41	4.85		
		kW	n/a	1.64	1.99	2.33	2.92	3.29	3.62		
	$P_{1\,TH\,WH}$	hp	0.44	2.21	2.68	3.14	3.93	4.67	5.30		
		kW	0.33	1.65	2.00	2.34	2.93	3.48	3.95		
	$T_{2\,ME}$	lb-in	28,000	28,000	28,200	28,200	27,600	26,900	25,900		
		Nm	3,160	3,160	3,190	3,190	3,120	3,040	2,930		
	η	%	50	58	60	62	64	66	68		
240 4 x 60	$P_{1\,ME}$	hp	0.37	1.85	2.24	2.62	3.28	3.90	4.42	82,600	9,330
		kW	0.27	1.38	1.67	1.96	2.45	2.91	3.30		
	$P_{1\,TH}$	hp	0.37	1.84	2.22	2.61	3.26	3.73	4.15		
		kW	0.27	1.37	1.66	1.95	2.44	2.78	3.10		
	$P_{1\,TH\,Fan}$	hp	n/a	1.84	2.22	2.61	3.26	3.73	4.15		
		kW	n/a	1.37	1.66	1.95	2.44	2.78	3.10		
	$P_{1\,TH\,WH}$	hp	0.37	1.85	2.24	2.62	3.28	3.90	4.42		
		kW	0.27	1.38	1.67	1.96	2.45	2.91	3.30		
	$T_{2\,ME}$	lb-in	27,500	27,600	27,800	27,400	26,400	25,800	24,800		
		Nm	3,110	3,120	3,140	3,100	2,980	2,920	2,810		
	η	%	49	57	59	60	61	63	65		
280 4 x 70	$P_{1\,ME}$	hp	0.32	1.59	1.92	2.25	2.82	3.35	3.80	81,200	9,180
		kW	0.24	1.18	1.43	1.68	2.10	2.50	2.83		
	$P_{1\,TH}$	hp	0.32	1.57	1.90	2.24	2.81	3.26	3.68		
		kW	0.24	1.17	1.42	1.67	2.09	2.43	2.74		
	$P_{1\,TH\,Fan}$	hp	n/a	1.57	1.90	2.24	2.81	3.26	3.68		
		kW	n/a	1.17	1.42	1.67	2.09	2.43	2.74		
	$P_{1\,TH\,WH}$	hp	0.32	1.59	1.92	2.25	2.82	3.35	3.80		
		kW	0.24	1.18	1.43	1.68	2.10	2.50	2.83		
	$T_{2\,ME}$	lb-in	27,100	27,200	27,400	27,000	26,000	25,500	24,500		
		Nm	3,060	3,070	3,090	3,050	2,940	2,880	2,770		
	η	%	49	56	58	59	60	62	64		

See Page 8.7 for Rating Definitions

Size 70 Helical Worm Reducer Ratings

6.719" Primary/7" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5 1 x 5	$P_{1\,ME}$	hp	8.77	46.4	56.2	67.9	86.1	92.2	99.1	74,000	8,360
		kW	6.54	34.6	42.0	50.7	64.2	68.8	73.9		
	$P_{1\,TH}$	hp	8.76	24.3	27.1	29.3	31.8	33.3	34.8		
		kW	6.54	18.2	20.2	21.8	23.7	24.8	26.0		
	$P_{1\,TH\,Fan}$	hp	n/a	33.3	38.5	43.0	50.2	53.5	56.8		
		kW	n/a	24.9	28.7	32.1	37.4	39.9	42.4		
	$P_{1\,TH\,WH}$	hp	8.76	46.4	56.2	67.9	73.2	74.8	76.3		
		kW	6.54	34.6	42.0	50.7	54.6	55.8	56.9		
	$T_{2\,ME}$	lb-in	24,700	23,000	22,400	22,700	21,700	18,500	16,400		
		Nm	2,790	2,600	2,540	2,560	2,460	2,090	1,860		
	η	%	89	91	91	92	92	92	92		
7.5 1.5 x 5	$P_{1\,ME}$	hp	7.03	37.3	46.3	55.3	71.2	79.9	86.7	89,000	10,100
		kW	5.25	27.8	34.5	41.2	53.1	59.6	64.7		
	$P_{1\,TH}$	hp	6.97	19.3	21.7	24.3	27.8	30.1	31.8		
		kW	5.20	14.4	16.2	18.2	20.7	22.5	23.8		
	$P_{1\,TH\,Fan}$	hp	n/a	19.3	21.7	33.3	39.9	45.5	50.3		
		kW	n/a	14.4	16.2	24.9	29.8	34.0	37.6		
	$P_{1\,TH\,WH}$	hp	6.97	37.3	46.3	55.3	62.3	71.6	73.3		
		kW	5.20	27.8	34.5	41.2	46.5	53.4	54.7		
	$T_{2\,ME}$	lb-in	29,000	27,700	27,700	27,400	26,700	24,000	21,600		
		Nm	3,280	3,130	3,130	3,090	3,010	2,710	2,440		
	η	%	87	91	91	91	91	92	92		
9 1.8 x 5	$P_{1\,ME}$	hp	6.44	34.6	42.4	50.7	64.8	73.0	80.0	97,800	11,100
		kW	4.81	25.8	31.6	37.8	48.4	54.5	59.7		
	$P_{1\,TH}$	hp	5.84	17.6	19.6	21.8	25.5	28.3	30.2		
		kW	4.36	13.1	14.6	16.3	19.0	21.2	22.5		
	$P_{1\,TH\,Fan}$	hp	n/a	17.6	19.6	21.8	35.5	41.1	45.6		
		kW	n/a	13.1	14.6	16.3	26.5	30.7	34.1		
	$P_{1\,TH\,WH}$	hp	5.84	34.6	42.4	50.7	60.1	65.2	71.6		
		kW	4.36	25.8	31.6	37.8	44.8	48.7	53.5		
	$T_{2\,ME}$	lb-in	31,200	30,800	30,500	30,100	29,100	26,100	23,900		
		Nm	3,520	3,480	3,440	3,400	3,290	2,950	2,700		
	η	%	85	91	91	91	91	92	92		
10 1 x 10	$P_{1\,ME}$	hp	8.77	42.4	47.8	52.8	60.5	67.0	70.6	138,000	15,600
		kW	6.54	31.7	35.6	39.4	45.2	50.0	52.7		
	$P_{1\,TH}$	hp	7.78	19.7	21.5	23.1	24.7	25.6	26.5		
		kW	5.81	14.7	16.1	17.2	18.5	19.1	19.8		
	$P_{1\,TH\,Fan}$	hp	n/a	27.0	30.6	33.9	39.1	41.1	43.2		
		kW	n/a	20.1	22.8	25.3	29.2	30.7	32.2		
	$P_{1\,TH\,WH}$	hp	7.78	40.4	47.5	49.0	54.4	55.2	56.1		
		kW	5.81	30.2	35.4	36.6	40.6	41.2	41.9		
	$T_{2\,ME}$	lb-in	46,100	40,300	37,300	34,200	29,900	26,300	22,900		
		Nm	5,210	4,550	4,220	3,860	3,380	2,970	2,590		
	η	%	83	87	89	89	90	90	90		
12.5 2.5 x 5	$P_{1\,ME}$	hp	5.21	28.0	34.7	41.0	53.5	61.9	68.2	110,000	12,400
		kW	3.89	20.9	25.9	30.6	39.9	46.2	50.9		
	$P_{1\,TH}$	hp	5.21	14.4	16.6	18.3	21.2	24.3	26.7		
		kW	3.89	10.8	12.4	13.6	15.8	18.2	19.9		
	$P_{1\,TH\,Fan}$	hp	n/a	14.4	16.6	18.3	21.2	33.3	37.8		
		kW	n/a	10.8	12.4	13.6	15.8	24.9	28.2		
	$P_{1\,TH\,WH}$	hp	5.21	28.0	34.7	41.0	53.5	58.9	61.3		
		kW	3.89	20.9	25.9	30.6	39.9	43.9	45.7		
	$T_{2\,ME}$	lb-in	35,000	34,300	34,600	33,900	33,400	30,600	28,000		
		Nm	3,960	3,870	3,910	3,830	3,780	3,460	3,160		
	η	%	85	90	91	91	91	91	91		
15 1.5 x 10	$P_{1\,ME}$	hp	7.03	33.9	38.4	42.4	49.3	55.4	61.0	166,000	18,800
		kW	5.25	25.3	28.6	31.7	36.8	41.4	45.5		
	$P_{1\,TH}$	hp	6.78	15.9	17.7	19.7	22.0	23.7	24.8		
		kW	5.06	11.9	13.2	14.7	16.4	17.7	18.5		
	$P_{1\,TH\,Fan}$	hp	n/a	15.9	17.7	27.0	31.6	35.7	39.2		
		kW	n/a	11.9	13.2	20.1	23.6	26.7	29.3		
	$P_{1\,TH\,WH}$	hp	6.78	33.9	38.4	40.4	47.9	53.0	54.4		
		kW	5.06	25.3	28.6	30.2	35.8	39.6	40.6		
	$T_{2\,ME}$	lb-in	54,100	47,700	44,000	40,300	36,200	32,600	29,700		
		Nm	6,110	5,390	4,970	4,550	4,090	3,680	3,360		
	η	%	81	86	87	87	89	90	90		

See Page 8.7 for Rating Definitions

6.719" Primary/7" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
18 1.8 x 10	$P_{1\,ME}$	hp	6.44	30.1	34.6	38.6	44.7	50.6	55.6	182,000	20,600
		kW	4.81	22.5	25.8	28.8	33.3	37.7	41.5		
	$P_{1\,TH}$	hp	6.05	14.7	16.2	17.8	20.5	22.4	23.7		
		kW	4.52	10.9	12.1	13.3	15.3	16.7	17.7		
	$P_{1\,TH\,Fan}$	hp	n/a	14.7	16.2	17.8	28.5	32.5	35.8		
		kW	n/a	10.9	12.1	13.3	21.3	24.3	26.7		
	$P_{1\,TH\,WH}$	hp	6.05	30.1	34.6	38.5	43.5	48.3	53.3		
		kW	4.52	22.5	25.8	28.8	32.5	36.1	39.8		
	$T_{2\,ME}$	lb-in	58,100	50,800	47,000	43,900	38,900	35,300	32,500		
		Nm	6,570	5,740	5,320	4,960	4,390	3,990	3,670		
	η	%	80	86	86	87	88	89	90		
20 4 x 5	$P_{1\,ME}$	hp	6.23	23.3	26.2	28.9	33.3	37.0	39.3	178,000	20,100
		kW	4.65	17.4	19.5	21.6	24.8	27.6	29.3		
	$P_{1\,TH}$	hp	6.22	14.3	15.4	16.0	16.7	17.1	17.4		
		kW	4.64	10.7	11.5	11.9	12.5	12.7	13.0		
	$P_{1\,TH\,Fan}$	hp	n/a	19.6	21.8	23.5	26.4	27.4	28.4		
		kW	n/a	14.6	16.3	17.5	19.7	20.4	21.2		
	$P_{1\,TH\,WH}$	hp	6.22	23.3	26.2	28.9	32.6	34.3	34.7		
		kW	4.64	17.4	19.5	21.6	24.4	25.6	25.9		
	$T_{2\,ME}$	lb-in	59,400	42,200	38,200	35,000	30,800	27,400	24,200		
		Nm	6,710	4,760	4,320	3,950	3,480	3,100	2,730		
	η	%	76	83	83	83	84	85	85		
22.5 1.5 x 15	$P_{1\,ME}$	hp	5.56	24.1	27.4	30.3	35.2	39.8	43.6	184,000	20,700
		kW	4.15	18.0	20.4	22.6	26.2	29.7	32.5		
	$P_{1\,TH}$	hp	5.56	13.4	14.8	16.3	17.8	18.7	19.5		
		kW	4.15	9.98	11.0	12.2	13.3	14.0	14.6		
	$P_{1\,TH\,Fan}$	hp	n/a	13.4	14.8	22.3	25.5	28.3	30.9		
		kW	n/a	9.98	11.0	16.7	19.1	21.1	23.0		
	$P_{1\,TH\,WH}$	hp	5.56	24.1	27.4	30.3	35.2	39.8	42.6		
		kW	4.15	18.0	20.4	22.6	26.2	29.7	31.8		
	$T_{2\,ME}$	lb-in	61,200	49,200	45,500	42,100	37,400	34,300	31,200		
		Nm	6,910	5,550	5,140	4,760	4,230	3,880	3,520		
	η	%	78	83	84	85	86	88	88		
25 2.5 x 10	$P_{1\,ME}$	hp	4.85	23.6	27.8	31.7	37.5	42.4	47.0	182,000	20,600
		kW	3.62	17.6	20.7	23.7	28.0	31.7	35.1		
	$P_{1\,TH}$	hp	4.85	12.1	13.9	15.2	17.3	19.7	21.3		
		kW	3.62	9.05	10.3	11.3	12.9	14.7	15.9		
	$P_{1\,TH\,Fan}$	hp	n/a	12.1	13.9	15.2	17.3	27.0	30.1		
		kW	n/a	9.05	10.3	11.3	12.9	20.1	22.4		
	$P_{1\,TH\,WH}$	hp	4.85	23.6	27.8	31.7	37.5	40.4	47.0		
		kW	3.62	17.6	20.7	23.7	28.0	30.2	35.1		
	$T_{2\,ME}$	lb-in	60,700	54,800	52,500	49,600	44,900	40,300	37,800		
		Nm	6,860	6,190	5,930	5,600	5,070	4,550	4,270		
	η	%	80	85	86	86	87	87	89		
27 1.8 x 15	$P_{1\,ME}$	hp	4.69	21.3	24.6	27.4	31.8	36.1	39.8	184,000	20,700
		kW	3.50	15.9	18.4	20.5	23.7	26.9	29.7		
	$P_{1\,TH}$	hp	4.69	12.4	13.6	14.8	16.8	18.0	18.8		
		kW	3.50	9.25	10.1	11.1	12.5	13.4	14.0		
	$P_{1\,TH\,Fan}$	hp	n/a	12.4	13.6	14.8	23.4	26.1	28.4		
		kW	n/a	9.25	10.1	11.1	17.5	19.5	21.2		
	$P_{1\,TH\,WH}$	hp	4.69	21.3	24.6	27.4	31.8	36.1	39.8		
		kW	3.50	15.9	18.4	20.5	23.7	26.9	29.7		
	$T_{2\,ME}$	lb-in	61,200	51,500	49,100	45,300	40,600	36,700	34,200		
		Nm	6,910	5,820	5,550	5,120	4,580	4,150	3,860		
	η	%	77	82	84	84	86	87	88		
30 1.5 x 20	$P_{1\,ME}$	hp	4.26	18.5	21.0	23.3	27.0	30.6	33.5	178,000	20,100
		kW	3.18	13.8	15.7	17.4	20.2	22.8	25.0		
	$P_{1\,TH}$	hp	4.26	11.8	13.0	14.3	15.6	16.2	16.7		
		kW	3.18	8.83	9.73	10.7	11.6	12.1	12.5		
	$P_{1\,TH\,Fan}$	hp	n/a	11.8	13.0	19.6	22.3	24.5	26.4		
		kW	n/a	8.83	9.73	14.6	16.7	18.3	19.7		
	$P_{1\,TH\,WH}$	hp	4.26	18.5	21.0	23.3	27.0	30.6	32.7		
		kW	3.18	13.8	15.7	17.4	20.2	22.8	24.4		
	$T_{2\,ME}$	lb-in	59,400	48,500	44,900	42,200	37,100	33,600	30,500		
		Nm	6,710	5,480	5,080	4,760	4,190	3,800	3,450		
	η	%	74	81	81	83	83	84	84		

See Page 8.7 for Rating Definitions

Size 70 Helical Worm Reducer Ratings

6.719" Primary/7" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
36 1.8 x 20	$P_{1\,ME}$	hp	3.65	16.3	18.9	21.1	24.4	27.7	30.7	178,000	20,100
		kW	2.72	12.2	14.1	15.7	18.2	20.7	22.9		
	$P_{1\,TH}$	hp	3.65	11.0	12.0	13.1	14.8	15.7	16.2		
		kW	2.72	8.21	8.96	9.76	11.0	11.7	12.1		
	$P_{1\,TH\,Fan}$	hp	n/a	11.0	12.0	13.1	20.5	22.8	24.6		
		kW	n/a	8.21	8.96	9.76	15.3	17.0	18.3		
	$P_{1\,TH\,WH}$	hp	3.65	16.3	18.9	21.1	24.4	27.7	30.7		
		kW	2.72	12.2	14.1	15.7	18.2	20.7	22.9		
	$T_{2\,ME}$	lb-in	59,400	50,200	47,900	44,800	40,200	36,200	33,600		
		Nm	6,710	5,680	5,410	5,070	4,540	4,090	3,790		
	η	%	72	79	81	81	83	83	84		
37.5 2.5 x 15	$P_{1\,ME}$	hp	3.38	16.7	19.7	22.5	26.7	30.3	33.4	184,000	20,700
		kW	2.52	12.4	14.7	16.8	19.9	22.6	24.9		
	$P_{1\,TH}$	hp	3.38	10.5	11.8	12.8	14.5	16.3	17.3		
		kW	2.52	7.82	8.79	9.54	10.8	12.2	12.9		
	$P_{1\,TH\,Fan}$	hp	n/a	10.5	11.8	12.8	14.5	22.3	24.5		
		kW	n/a	7.82	8.79	9.54	10.8	16.7	18.3		
	$P_{1\,TH\,WH}$	hp	3.38	16.7	19.7	22.5	26.7	30.3	33.4		
		kW	2.52	12.4	14.7	16.8	19.9	22.6	24.9		
	$T_{2\,ME}$	lb-in	61,200	55,400	53,300	51,000	46,300	42,100	39,000		
		Nm	6,910	6,260	6,020	5,760	5,240	4,760	4,400		
	η	%	77	81	82	83	84	85	86		
40 4 x 10	$P_{1\,ME}$	hp	3.07	16.0	19.2	22.4	27.8	32.5	36.5	182,000	20,600
		kW	2.29	11.9	14.3	16.7	20.7	24.3	27.2		
	$P_{1\,TH}$	hp	3.07	9.29	10.5	11.7	13.8	15.4	16.9		
		kW	2.29	6.93	7.81	8.71	10.3	11.5	12.6		
	$P_{1\,TH\,Fan}$	hp	n/a	9.29	10.5	11.7	13.8	15.4	16.9		
		kW	n/a	6.93	7.81	8.71	10.3	11.5	12.6		
	$P_{1\,TH\,WH}$	hp	3.07	16.0	19.2	22.4	27.8	32.5	35.8		
		kW	2.29	11.9	14.3	16.7	20.7	24.3	26.7		
	$T_{2\,ME}$	lb-in	60,700	58,700	57,400	55,400	52,600	48,800	45,400		
		Nm	6,860	6,630	6,480	6,260	5,940	5,520	5,130		
	η	%	79	84	85	85	86	86	86		
45 1.8 x 25	$P_{1\,ME}$	hp	2.95	13.2	15.3	17.1	19.7	22.4	24.8	170,000	19,200
		kW	2.20	9.84	11.4	12.7	14.7	16.7	18.5		
	$P_{1\,TH}$	hp	2.95	9.45	10.4	11.4	12.8	13.3	13.7		
		kW	2.20	7.05	7.75	8.51	9.55	9.95	10.2		
	$P_{1\,TH\,Fan}$	hp	n/a	9.45	10.4	11.4	17.8	19.3	20.6		
		kW	n/a	7.05	7.75	8.51	13.3	14.4	15.4		
	$P_{1\,TH\,WH}$	hp	2.95	13.2	15.3	17.1	19.7	22.4	24.8		
		kW	2.20	9.84	11.4	12.7	14.7	16.7	18.5		
	$T_{2\,ME}$	lb-in	56,700	50,000	47,900	45,300	39,600	36,300	33,500		
		Nm	6,410	5,660	5,410	5,120	4,480	4,100	3,790		
	η	%	68	78	80	81	81	83	83		
50 2.5 x 20	$P_{1\,ME}$	hp	2.62	12.8	15.1	17.2	20.5	23.3	25.7	178,000	20,100
		kW	1.96	9.53	11.3	12.8	15.3	17.4	19.2		
	$P_{1\,TH}$	hp	2.62	9.30	10.5	11.3	12.8	14.3	15.2		
		kW	1.96	6.94	7.81	8.46	9.54	10.7	11.4		
	$P_{1\,TH\,Fan}$	hp	n/a	9.30	10.5	11.3	12.8	19.6	21.5		
		kW	n/a	6.94	7.81	8.46	9.54	14.6	16.0		
	$P_{1\,TH\,WH}$	hp	2.62	12.8	15.1	17.2	20.5	23.3	25.7		
		kW	1.96	9.53	11.3	12.8	15.3	17.4	19.2		
	$T_{2\,ME}$	lb-in	59,400	53,800	51,900	49,600	45,800	42,200	38,600		
		Nm	6,710	6,080	5,860	5,600	5,180	4,760	4,360		
	η	%	72	78	79	80	81	83	83		
54 1.8 x 30	$P_{1\,ME}$	hp	2.47	11.1	12.8	14.3	16.5	18.8	20.8	164,000	18,500
		kW	1.84	8.25	9.53	10.7	12.3	14.0	15.5		
	$P_{1\,TH}$	hp	2.47	8.13	8.78	9.49	10.4	10.6	11.3		
		kW	1.84	6.06	6.56	7.08	7.73	7.95	8.42		
	$P_{1\,TH\,Fan}$	hp	n/a	8.13	8.78	9.49	14.4	15.4	17.1		
		kW	n/a	6.06	6.56	7.08	10.7	11.5	12.7		
	$P_{1\,TH\,WH}$	hp	2.47	11.1	12.8	14.3	16.5	18.8	20.8		
		kW	1.84	8.25	9.53	10.7	12.3	14.0	15.5		
	$T_{2\,ME}$	lb-in	54,600	47,200	45,100	41,700	37,900	34,800	32,100		
		Nm	6,170	5,330	5,100	4,710	4,290	3,930	3,630		
	η	%	65	73	75	75	78	79	80		

See Page 8.7 for Rating Definitions

6.719" Primary/7" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
60 4 x 15	$P_{1\,ME}$	hp	2.14	11.3	13.5	15.8	19.7	23.1	26.0	184,000	20,700
		kW	1.60	8.41	10.1	11.8	14.7	17.2	19.4		
	$P_{1\,TH}$	hp	2.14	8.13	9.15	10.1	11.8	13.0	14.1		
		kW	1.60	6.06	6.83	7.57	8.79	9.71	10.6		
	$P_{1\,TH\,Fan}$	hp	n/a	8.13	9.15	10.1	11.8	13.0	14.1		
		kW	n/a	6.06	6.83	7.57	8.79	9.71	10.6		
	$P_{1\,TH\,WH}$	hp	2.14	11.3	13.5	15.8	19.7	23.1	26.0		
		kW	1.60	8.41	10.1	11.8	14.7	17.2	19.4		
	$T_{2\,ME}$	lb-in	61,200	59,100	58,000	56,000	53,300	50,200	47,400		
		Nm	6,910	6,680	6,550	6,330	6,020	5,670	5,350		
	η	%	76	81	81	81	82	83	84		
62.5 2.5 x 25	$P_{1\,ME}$	hp	2.12	10.3	12.2	13.9	16.6	18.8	20.7	170,000	19,200
		kW	1.58	7.69	9.08	10.4	12.4	14.0	15.5		
	$P_{1\,TH}$	hp	2.12	7.95	8.96	9.76	11.1	12.6	13.0		
		kW	1.58	5.93	6.69	7.28	8.30	9.39	9.72		
	$P_{1\,TH\,Fan}$	hp	n/a	7.95	8.96	9.76	11.1	17.2	18.4		
		kW	n/a	5.93	6.69	7.28	8.30	12.9	13.7		
	$P_{1\,TH\,WH}$	hp	2.12	10.3	12.2	13.9	16.6	18.8	20.7		
		kW	1.58	7.69	9.08	10.4	12.4	14.0	15.5		
	$T_{2\,ME}$	lb-in	56,700	53,000	51,000	49,500	45,700	41,600	38,100		
		Nm	6,410	5,980	5,770	5,600	5,160	4,700	4,300		
	η	%	68	76	77	79	81	81	81		
72 1.8 x 40	$P_{1\,ME}$	hp	1.87	8.33	9.62	10.8	12.5	14.2	15.7	148,000	16,800
		kW	1.40	6.21	7.18	8.04	9.30	10.6	11.7		
	$P_{1\,TH}$	hp	1.87	6.88	7.57	8.31	9.41	9.98	10.3		
		kW	1.40	5.13	5.65	6.20	7.03	7.45	7.70		
	$P_{1\,TH\,Fan}$	hp	n/a	6.88	7.57	8.31	12.5	14.2	15.6		
		kW	n/a	5.13	5.65	6.20	9.30	10.6	11.6		
	$P_{1\,TH\,WH}$	hp	1.87	8.33	9.62	10.8	12.5	14.2	15.7		
		kW	1.40	6.21	7.18	8.04	9.30	10.6	11.7		
	$T_{2\,ME}$	lb-in	49,400	44,200	42,400	39,800	36,700	33,500	30,700		
		Nm	5,590	5,000	4,790	4,490	4,150	3,790	3,470		
	η	%	58	68	70	71	75	76	76		
75 2.5 x 30	$P_{1\,ME}$	hp	1.78	8.62	10.2	11.7	13.9	15.7	17.4	164,000	18,500
		kW	1.33	6.43	7.61	8.71	10.4	11.8	13.0		
	$P_{1\,TH}$	hp	1.78	6.71	7.72	8.34	9.29	10.3	10.4		
		kW	1.33	5.01	5.76	6.23	6.94	7.69	7.76		
	$P_{1\,TH\,Fan}$	hp	n/a	6.71	7.72	8.34	9.29	14.1	14.7		
		kW	n/a	5.01	5.76	6.23	6.94	10.5	11.0		
	$P_{1\,TH\,WH}$	hp	1.78	8.62	10.2	11.7	13.9	15.7	17.4		
		kW	1.33	6.43	7.61	8.71	10.4	11.8	13.0		
	$T_{2\,ME}$	lb-in	54,600	50,400	48,700	46,700	42,700	38,800	36,900		
		Nm	6,170	5,700	5,500	5,280	4,820	4,390	4,170		
	η	%	65	72	73	74	75	76	79		
80 4 x 20	$P_{1\,ME}$	hp	1.66	8.62	10.4	12.1	15.1	17.7	19.9	178,000	20,100
		kW	1.24	6.44	7.74	9.03	11.2	13.2	14.9		
	$P_{1\,TH}$	hp	1.66	7.30	8.15	9.00	10.5	11.5	12.5		
		kW	1.24	5.45	6.08	6.71	7.81	8.60	9.32		
	$P_{1\,TH\,Fan}$	hp	n/a	7.30	8.15	9.00	10.5	11.5	12.5		
		kW	n/a	5.45	6.08	6.71	7.81	8.60	9.32		
	$P_{1\,TH\,WH}$	hp	1.66	8.62	10.4	12.1	15.1	17.7	19.9		
		kW	1.24	6.44	7.74	9.03	11.2	13.2	14.9		
	$T_{2\,ME}$	lb-in	59,400	57,400	56,400	54,400	51,900	49,200	46,800		
		Nm	6,710	6,490	6,370	6,150	5,860	5,560	5,290		
	η	%	71	77	78	78	79	80	81		
90 1.8 x 50	$P_{1\,ME}$	hp	1.51	6.68	7.74	8.65	10.0	11.4	12.6	132,000	15,000
		kW	1.13	4.98	5.77	6.45	7.47	8.47	9.39		
	$P_{1\,TH}$	hp	1.51	5.88	6.41	6.99	7.83	8.32	8.70		
		kW	1.13	4.38	4.79	5.22	5.85	6.21	6.49		
	$P_{1\,TH\,Fan}$	hp	n/a	5.88	6.41	6.99	10.0	11.4	12.6		
		kW	n/a	4.38	4.79	5.22	7.47	8.47	9.39		
	$P_{1\,TH\,WH}$	hp	1.51	6.68	7.74	8.65	10.0	11.4	12.6		
		kW	1.13	4.98	5.77	6.45	7.47	8.47	9.39		
	$T_{2\,ME}$	lb-in	44,200	42,400	40,800	38,800	35,400	32,300	29,700		
		Nm	4,990	4,800	4,610	4,390	4,000	3,650	3,350		
	η	%	51	65	67	69	72	73	73		

See Page 8.7 for Rating Definitions

Size 70 Helical Worm Reducer Ratings

6.719" Primary/7" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
100 4 x 25	$P_{1\,ME}$	hp	1.34	6.95	8.37	9.77	12.2	14.3	16.1	170,000	19,200
		kW	1.00	5.18	6.25	7.29	9.08	10.7	12.0		
	$P_{1\,TH}$	hp	1.34	6.07	6.90	7.69	8.95	9.93	10.8		
		kW	1.00	4.53	5.15	5.74	6.68	7.41	8.09		
	$P_{1\,TH\,Fan}$	hp	n/a	6.07	6.90	7.69	8.95	9.93	10.8		
		kW	n/a	4.53	5.15	5.74	6.68	7.41	8.09		
	$P_{1\,TH\,WH}$	hp	1.34	6.95	8.37	9.77	12.2	14.3	16.1		
		kW	1.00	5.18	6.25	7.29	9.08	10.7	12.0		
	$T_{2\,ME}$	lb-in	56,700	54,900	54,700	53,500	51,100	49,000	46,100		
		Nm	6,410	6,200	6,180	6,050	5,780	5,540	5,210		
	η	%	67	73	75	76	77	79	80		
108 1.8 x 60	$P_{1\,ME}$	hp	1.27	5.59	6.46	7.22	8.37	9.48	10.5	130,000	14,700
		kW	0.94	4.17	4.82	5.39	6.25	7.07	7.84		
	$P_{1\,TH}$	hp	1.27	5.02	5.52	6.06	6.86	7.35	7.77		
		kW	0.94	3.75	4.12	4.52	5.12	5.48	5.80		
	$P_{1\,TH\,Fan}$	hp	n/a	5.02	5.52	6.06	8.37	9.48	10.5		
		kW	n/a	3.75	4.12	4.52	6.25	7.07	7.84		
	$P_{1\,TH\,WH}$	hp	1.27	5.59	6.46	7.22	8.37	9.48	10.5		
		kW	0.94	4.17	4.82	5.39	6.25	7.07	7.84		
	$T_{2\,ME}$	lb-in	43,500	40,700	39,100	36,700	33,600	30,800	28,500		
		Nm	4,910	4,600	4,420	4,150	3,800	3,480	3,220		
	η	%	50	62	64	65	68	69	70		
120 4 x 30	$P_{1\,ME}$	hp	1.13	5.82	7.00	8.18	10.2	12.0	13.5	164,000	18,500
		kW	0.84	4.34	5.22	6.11	7.60	8.94	10.1		
	$P_{1\,TH}$	hp	1.13	5.07	5.75	6.45	7.71	8.47	9.10		
		kW	0.84	3.78	4.29	4.81	5.76	6.32	6.79		
	$P_{1\,TH\,Fan}$	hp	n/a	5.07	5.75	6.45	7.71	8.47	9.10		
		kW	n/a	3.78	4.29	4.81	5.76	6.32	6.79		
	$P_{1\,TH\,WH}$	hp	1.13	5.82	7.00	8.18	10.2	12.0	13.5		
		kW	0.84	4.34	5.22	6.11	7.60	8.94	10.1		
	$T_{2\,ME}$	lb-in	54,600	53,000	52,100	51,100	48,700	46,100	43,500		
		Nm	6,170	5,990	5,880	5,770	5,500	5,210	4,920		
	η	%	64	70	71	72	73	74	75		
125 2.5 x 50	$P_{1\,ME}$	hp	1.09	5.21	6.16	7.05	8.40	9.53	10.5	132,000	15,000
		kW	0.81	3.89	4.60	5.26	6.27	7.11	7.87		
	$P_{1\,TH}$	hp	1.09	4.86	5.57	6.05	6.83	7.66	8.01		
		kW	0.81	3.63	4.16	4.52	5.10	5.72	5.98		
	$P_{1\,TH\,Fan}$	hp	n/a	4.86	5.57	6.05	6.83	9.53	10.5		
		kW	n/a	3.63	4.16	4.52	5.10	7.11	7.87		
	$P_{1\,TH\,WH}$	hp	1.09	5.21	6.16	7.05	8.40	9.53	10.5		
		kW	0.81	3.89	4.60	5.26	6.27	7.11	7.87		
	$T_{2\,ME}$	lb-in	44,200	44,600	43,200	42,100	39,700	36,700	34,500		
		Nm	4,990	5,040	4,880	4,760	4,480	4,140	3,900		
	η	%	51	63	64	66	69	71	73		
150 2.5 x 60	$P_{1\,ME}$	hp	0.93	4.35	5.14	5.89	7.02	7.95	8.80	130,000	14,700
		kW	0.69	3.24	3.84	4.39	5.24	5.93	6.57		
	$P_{1\,TH}$	hp	0.93	4.18	4.75	5.19	5.91	6.68	7.05		
		kW	0.69	3.12	3.55	3.87	4.41	4.99	5.26		
	$P_{1\,TH\,Fan}$	hp	n/a	4.18	4.75	5.19	5.91	7.95	8.80		
		kW	n/a	3.12	3.55	3.87	4.41	5.93	6.57		
	$P_{1\,TH\,WH}$	hp	0.93	4.35	5.14	5.89	7.02	7.95	8.80		
		kW	0.69	3.24	3.84	4.39	5.24	5.93	6.57		
	$T_{2\,ME}$	lb-in	43,500	42,600	41,300	40,300	37,500	34,700	32,700		
		Nm	4,910	4,810	4,660	4,560	4,240	3,920	3,700		
	η	%	49	60	61	63	65	67	69		
160 4 x 40	$P_{1\,ME}$	hp	0.86	4.38	5.28	6.17	7.67	9.02	10.2	148,000	16,800
		kW	0.64	3.27	3.94	4.60	5.72	6.73	7.59		
	$P_{1\,TH}$	hp	0.86	4.05	4.75	5.42	6.49	7.24	7.91		
		kW	0.64	3.03	3.55	4.05	4.84	5.40	5.90		
	$P_{1\,TH\,Fan}$	hp	n/a	4.05	4.75	5.42	6.49	7.24	7.91		
		kW	n/a	3.03	3.55	4.05	4.84	5.40	5.90		
	$P_{1\,TH\,WH}$	hp	0.86	4.38	5.28	6.17	7.67	9.02	10.2		
		kW	0.64	3.27	3.94	4.60	5.72	6.73	7.59		
	$T_{2\,ME}$	lb-in	49,400	48,100	47,400	45,800	45,000	43,500	41,500		
		Nm	5,590	5,430	5,350	5,170	5,080	4,910	4,690		
	η	%	57	63	64	64	67	69	71		

See Page 8.7 for Rating Definitions

6.719" Primary/7" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
175 2.5 x 70	$P_{1\,ME}$	hp	0.78	3.73	4.41	5.05	6.03	6.83	7.55	128,000	14,500
		kW	0.59	2.78	3.29	3.77	4.50	5.09	5.64		
	$P_{1\,TH}$	hp	0.78	3.70	4.40	4.84	5.53	6.27	6.62		
		kW	0.59	2.76	3.28	3.61	4.13	4.68	4.94		
	$P_{1\,TH\,Fan}$	hp	n/a	3.70	4.40	4.84	5.53	6.83	7.55		
		kW	n/a	2.76	3.28	3.61	4.13	5.09	5.64		
	$P_{1\,TH\,WH}$	hp	0.78	3.73	4.41	5.05	6.03	6.83	7.55		
		kW	0.59	2.78	3.29	3.77	4.50	5.09	5.64		
	$T_{2\,ME}$	lb-in	42,800	42,000	40,700	39,800	37,000	34,200	32,300		
		Nm	4,840	4,740	4,600	4,490	4,180	3,870	3,650		
	η	%	49	59	60	62	64	66	68		
200 4 x 50	$P_{1\,ME}$	hp	0.69	3.52	4.24	4.95	6.15	7.24	8.16	132,000	15,000
		kW	0.52	2.62	3.16	3.69	4.59	5.40	6.09		
	$P_{1\,TH}$	hp	0.69	3.40	4.07	4.68	5.56	6.15	6.67		
		kW	0.52	2.54	3.04	3.49	4.15	4.59	4.98		
	$P_{1\,TH\,Fan}$	hp	n/a	3.40	4.07	4.68	5.56	6.15	6.67		
		kW	n/a	2.54	3.04	3.49	4.15	4.59	4.98		
	$P_{1\,TH\,WH}$	hp	0.69	3.52	4.24	4.95	6.15	7.24	8.16		
		kW	0.52	2.62	3.16	3.69	4.59	5.40	6.09		
	$T_{2\,ME}$	lb-in	44,200	44,500	44,600	44,500	43,200	41,700	39,900		
		Nm	4,990	5,030	5,040	5,020	4,880	4,720	4,510		
	η	%	50	58	60	62	64	66	68		
240 4 x 60	$P_{1\,ME}$	hp	0.58	2.94	3.54	4.13	5.15	6.04	6.82	130,000	14,700
		kW	0.43	2.19	2.64	3.08	3.84	4.51	5.09		
	$P_{1\,TH}$	hp	0.58	2.89	3.50	4.03	4.75	5.28	5.76		
		kW	0.43	2.16	2.61	3.00	3.54	3.94	4.30		
	$P_{1\,TH\,Fan}$	hp	n/a	2.89	3.50	4.03	4.75	5.28	5.76		
		kW	n/a	2.16	2.61	3.00	3.54	3.94	4.30		
	$P_{1\,TH\,WH}$	hp	0.58	2.94	3.54	4.13	5.15	6.04	6.82		
		kW	0.43	2.19	2.64	3.08	3.84	4.51	5.09		
	$T_{2\,ME}$	lb-in	43,500	43,800	44,000	43,200	41,400	40,000	38,300		
		Nm	4,910	4,950	4,970	4,880	4,670	4,520	4,330		
	η	%	49	57	59	60	61	63	65		
280 4 x 70	$P_{1\,ME}$	hp	0.50	2.52	3.04	3.54	4.42	5.19	5.85	128,000	14,500
		kW	0.37	1.88	2.27	2.64	3.30	3.87	4.37		
	$P_{1\,TH}$	hp	0.50	2.48	3.00	3.52	4.39	4.93	5.39		
		kW	0.37	1.85	2.24	2.62	3.28	3.68	4.02		
	$P_{1\,TH\,Fan}$	hp	n/a	2.48	3.00	3.52	4.39	4.93	5.39		
		kW	n/a	1.85	2.24	2.62	3.28	3.68	4.02		
	$P_{1\,TH\,WH}$	hp	0.50	2.52	3.04	3.54	4.42	5.19	5.85		
		kW	0.37	1.88	2.27	2.64	3.30	3.87	4.37		
	$T_{2\,ME}$	lb-in	42,800	43,100	43,300	42,500	40,700	39,400	37,800		
		Nm	4,840	4,870	4,890	4,810	4,600	4,450	4,270		
	η	%	49	56	58	59	60	62	64		

See Page 8.7 for Rating Definitions

Size 80 Helical Worm Reducer Ratings

6.719" Primary/8" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5 1 x 5	$P_{1\,ME}$	hp	8.77	46.4	56.2	67.9	87.7	108	128	74,000	8,360
		kW	6.54	34.6	42.0	50.7	65.4	80.6	95.9		
	$P_{1\,TH}$	hp	8.77	37.0	41.2	43.4	48.1	50.5	52.9		
		kW	6.54	27.6	30.8	32.4	35.9	37.7	39.5		
	$P_{1\,TH\,Fan}$	hp	n/a	46.4	56.2	66.8	79.4	84.9	90.4		
		kW	n/a	34.6	42.0	49.9	59.3	63.4	67.5		
	$P_{1\,TH\,WH}$	hp	8.77	46.4	56.2	67.9	87.7	92.0	94.4		
		kW	6.54	34.6	42.0	50.7	65.4	68.6	70.4		
	$T_{2\,ME}$	lb-in	24,700	23,000	22,400	22,700	22,100	21,600	21,300		
		Nm	2,790	2,600	2,540	2,560	2,500	2,450	2,410		
	η	%	89	91	91	92	92	92	92		
7.5 1.5 x 5	$P_{1\,ME}$	hp	7.03	37.3	46.3	55.3	72.2	87.1	102	89,000	10,100
		kW	5.25	27.8	34.5	41.2	53.9	65.0	76.1		
	$P_{1\,TH}$	hp	7.03	29.3	33.0	37.0	41.9	45.0	48.3		
		kW	5.25	21.8	24.6	27.6	31.3	33.6	36.0		
	$P_{1\,TH\,Fan}$	hp	n/a	29.3	34.0	52.9	63.1	71.2	79.7		
		kW	n/a	21.8	25.4	39.5	47.1	53.1	59.5		
	$P_{1\,TH\,WH}$	hp	7.03	37.3	46.3	55.3	72.2	86.5	89.7		
		kW	5.25	27.8	34.5	41.2	53.9	64.6	67.0		
	$T_{2\,ME}$	lb-in	29,000	27,700	27,700	27,400	27,100	26,200	25,400		
		Nm	3,280	3,130	3,130	3,090	3,060	2,950	2,870		
	η	%	87	91	91	91	91	92	92		
9 1.8 x 5	$P_{1\,ME}$	hp	6.44	34.6	42.4	50.7	65.3	81.2	97.0	97,800	11,100
		kW	4.81	25.8	31.6	37.8	48.8	60.6	72.4		
	$P_{1\,TH}$	hp	6.44	26.7	29.8	33.1	38.8	42.5	45.1		
		kW	4.81	19.9	22.2	24.7	28.9	31.7	33.7		
	$P_{1\,TH\,Fan}$	hp	n/a	26.7	29.8	34.7	56.5	64.5	71.4		
		kW	n/a	19.9	22.2	25.9	42.2	48.1	53.3		
	$P_{1\,TH\,WH}$	hp	6.44	34.6	42.4	50.7	65.3	79.3	86.6		
		kW	4.81	25.8	31.6	37.8	48.8	59.2	64.6		
	$T_{2\,ME}$	lb-in	31,200	30,800	30,500	30,100	29,400	29,100	29,000		
		Nm	3,520	3,480	3,440	3,400	3,320	3,290	3,270		
	η	%	85	91	91	91	91	92	92		
10 1 x 10	$P_{1\,ME}$	hp	8.77	46.4	56.2	67.9	86.9	95.5	101	138,000	15,600
		kW	6.54	34.6	42.0	50.7	64.8	71.3	75.3		
	$P_{1\,TH}$	hp	8.77	30.0	32.8	34.3	37.5	38.9	40.2		
		kW	6.54	22.4	24.5	25.6	28.0	29.0	30.0		
	$P_{1\,TH\,Fan}$	hp	n/a	42.9	48.8	52.9	61.9	65.3	68.8		
		kW	n/a	32.0	36.5	39.5	46.2	48.8	51.3		
	$P_{1\,TH\,WH}$	hp	8.77	46.4	56.2	60.2	67.1	68.5	69.8		
		kW	6.54	34.6	42.0	45.0	50.1	51.1	52.1		
	$T_{2\,ME}$	lb-in	46,100	44,000	43,900	43,900	42,900	37,500	32,800		
		Nm	5,210	4,970	4,960	4,960	4,850	4,230	3,710		
	η	%	83	87	89	89	90	90	90		
12.5 2.5 x 5	$P_{1\,ME}$	hp	5.21	28.0	34.7	41.0	53.5	66.0	78.6	110,000	12,400
		kW	3.89	20.9	25.9	30.6	39.9	49.3	58.6		
	$P_{1\,TH}$	hp	5.21	21.9	25.1	27.7	32.2	37.0	40.6		
		kW	3.89	16.4	18.7	20.7	24.0	27.6	30.3		
	$P_{1\,TH\,Fan}$	hp	n/a	21.9	25.1	27.7	32.2	52.9	60.2		
		kW	n/a	16.4	18.7	20.7	24.0	39.5	44.9		
	$P_{1\,TH\,WH}$	hp	5.21	28.0	34.7	41.0	53.5	66.0	75.2		
		kW	3.89	20.9	25.9	30.6	39.9	49.3	56.1		
	$T_{2\,ME}$	lb-in	35,000	34,300	34,600	33,900	33,400	32,700	32,200		
		Nm	3,960	3,870	3,910	3,830	3,780	3,700	3,640		
	η	%	85	90	91	91	91	91	91		
15 1.5 x 10	$P_{1\,ME}$	hp	7.03	37.3	46.3	55.3	71.3	80.2	87.3	166,000	18,800
		kW	5.25	27.8	34.5	41.2	53.2	59.8	65.1		
	$P_{1\,TH}$	hp	7.03	24.2	27.0	30.0	33.3	35.4	37.6		
		kW	5.25	18.0	20.1	22.4	24.8	26.4	28.1		
	$P_{1\,TH\,Fan}$	hp	n/a	24.2	27.6	42.9	50.1	56.0	62.1		
		kW	n/a	18.0	20.6	32.0	37.4	41.8	46.3		
	$P_{1\,TH\,WH}$	hp	7.03	37.3	46.3	50.7	59.2	64.8	67.2		
		kW	5.25	27.8	34.5	37.9	44.2	48.4	50.2		
	$T_{2\,ME}$	lb-in	54,100	52,400	53,000	52,400	52,300	47,100	42,500		
		Nm	6,110	5,930	5,990	5,920	5,910	5,330	4,810		
	η	%	81	86	87	87	89	90	90		

See Page 8.7 for Rating Definitions

6.719" Primary/8" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
18 1.8 x 10	$P_{1\,ME}$	hp	6.44	34.6	42.4	50.7	64.7	73.3	80.4	183,000	20,700
		kW	4.81	25.8	31.6	37.8	48.3	54.7	60.0		
	$P_{1\,TH}$	hp	6.44	22.2	24.6	27.1	31.2	33.7	35.5		
		kW	4.81	16.6	18.3	20.2	23.3	25.1	26.5		
	$P_{1\,TH\,Fan}$	hp	n/a	22.2	24.6	28.1	45.4	51.1	56.2		
		kW	n/a	16.6	18.3	21.0	33.9	38.2	41.9		
	$P_{1\,TH\,WH}$	hp	6.44	34.6	42.4	47.8	54.2	59.6	65.1		
		kW	4.81	25.8	31.6	35.7	40.4	44.5	48.6		
	$T_{2\,ME}$	lb-in	58,100	58,400	57,700	57,700	56,300	51,100	47,000		
		Nm	6,570	6,600	6,520	6,520	6,370	5,780	5,310		
	η	%	80	86	86	87	88	89	90		
20 4 x 5	$P_{1\,ME}$	hp	8.77	33.6	37.8	41.9	48.0	52.9	55.8	251,000	28,400
		kW	6.54	25.1	28.2	31.3	35.8	39.5	41.6		
	$P_{1\,TH}$	hp	8.77	21.8	23.1	23.8	25.6	27.4	29.3		
		kW	6.54	16.2	17.2	17.8	19.1	20.5	21.8		
	$P_{1\,TH\,Fan}$	hp	n/a	31.1	34.4	36.7	42.2	46.1	50.1		
		kW	n/a	23.2	25.7	27.4	31.5	34.4	37.4		
	$P_{1\,TH\,WH}$	hp	8.77	33.6	37.8	38.6	41.5	44.7	46.6		
		kW	6.54	25.1	28.2	28.8	31.0	33.4	34.7		
	$T_{2\,ME}$	lb-in	83,600	60,900	55,200	50,600	44,400	39,300	34,300		
		Nm	9,450	6,890	6,240	5,720	5,020	4,440	3,880		
	η	%	76	83	83	83	84	85	85		
22.5 1.5 x 15	$P_{1\,ME}$	hp	7.03	35.0	39.6	43.8	50.8	57.3	62.7	238,000	26,900
		kW	5.25	26.2	29.6	32.7	37.9	42.8	46.8		
	$P_{1\,TH}$	hp	7.03	20.3	22.5	24.7	26.8	28.0	29.5		
		kW	5.25	15.2	16.8	18.5	20.0	20.9	22.0		
	$P_{1\,TH\,Fan}$	hp	n/a	20.3	22.7	35.4	40.4	44.3	48.7		
		kW	n/a	15.2	17.0	26.4	30.1	33.0	36.3		
	$P_{1\,TH\,WH}$	hp	7.03	35.0	38.4	42.0	45.7	50.9	52.5		
		kW	5.25	26.2	28.7	31.4	34.1	38.0	39.2		
	$T_{2\,ME}$	lb-in	77,300	71,500	65,900	61,000	54,100	49,400	44,900		
		Nm	8,740	8,080	7,450	6,890	6,120	5,580	5,070		
	η	%	78	83	84	85	86	88	88		
25 2.5 x 10	$P_{1\,ME}$	hp	5.21	28.0	34.7	41.0	53.5	61.1	67.8	205,000	23,200
		kW	3.89	20.9	25.9	30.6	39.9	45.6	50.6		
	$P_{1\,TH}$	hp	5.21	18.4	21.0	23.0	26.4	30.0	32.4		
		kW	3.89	13.7	15.7	17.2	19.7	22.4	24.2		
	$P_{1\,TH\,Fan}$	hp	n/a	18.4	21.0	23.0	26.4	42.9	48.0		
		kW	n/a	13.7	15.7	17.2	19.7	32.0	35.8		
	$P_{1\,TH\,WH}$	hp	5.21	28.0	34.7	41.0	47.1	50.7	58.3		
		kW	3.89	20.9	25.9	30.6	35.2	37.9	43.5		
	$T_{2\,ME}$	lb-in	65,300	64,900	65,500	64,100	64,000	58,000	54,500		
		Nm	7,380	7,330	7,400	7,240	7,230	6,550	6,150		
	η	%	80	85	86	86	87	87	89		
27 1.8 x 15	$P_{1\,ME}$	hp	6.44	31.1	35.8	39.8	46.1	52.3	57.5	261,000	29,500
		kW	4.81	23.2	26.7	29.7	34.4	39.0	42.9		
	$P_{1\,TH}$	hp	6.44	18.9	20.6	22.5	25.5	27.0	28.1		
		kW	4.81	14.1	15.4	16.8	19.0	20.2	20.9		
	$P_{1\,TH\,Fan}$	hp	n/a	18.9	20.6	23.2	37.2	41.0	44.4		
		kW	n/a	14.1	15.4	17.3	27.7	30.6	33.1		
	$P_{1\,TH\,WH}$	hp	6.44	31.1	35.8	38.5	44.4	46.5	51.1		
		kW	4.81	23.2	26.7	28.7	33.1	34.7	38.1		
	$T_{2\,ME}$	lb-in	84,000	75,400	71,300	65,700	58,900	53,200	49,400		
		Nm	9,490	8,510	8,060	7,420	6,650	6,010	5,580		
	η	%	77	82	84	84	86	87	88		
30 1.5 x 20	$P_{1\,ME}$	hp	6.30	26.9	30.4	33.6	39.1	43.9	48.3	263,000	29,700
		kW	4.70	20.1	22.7	25.1	29.2	32.8	36.0		
	$P_{1\,TH}$	hp	6.30	18.0	19.8	21.8	23.3	24.4	25.7		
		kW	4.70	13.4	14.8	16.2	17.4	18.2	19.2		
	$P_{1\,TH\,Fan}$	hp	n/a	18.0	20.0	31.1	35.1	38.6	42.4		
		kW	n/a	13.4	14.9	23.2	26.2	28.8	31.6		
	$P_{1\,TH\,WH}$	hp	6.30	26.9	30.4	33.6	38.1	40.3	41.6		
		kW	4.70	20.1	22.7	25.1	28.5	30.1	31.1		
	$T_{2\,ME}$	lb-in	87,700	70,600	65,100	60,900	53,600	48,300	44,000		
		Nm	9,910	7,980	7,360	6,890	6,060	5,460	4,970		
	η	%	74	81	81	83	83	84	84		

See Page 8.7 for Rating Definitions

Size 80 Helical Worm Reducer Ratings

6.719" Primary/8" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
36 1.8 x 20	$P_{1\,ME}$	hp	5.39	23.9	27.5	30.5	35.5	40.2	44.1	263,000	29,700
		kW	4.02	17.8	20.5	22.8	26.5	30.0	32.9		
	$P_{1\,TH}$	hp	5.39	16.7	18.2	19.9	22.3	23.5	24.5		
		kW	4.02	12.5	13.6	14.8	16.7	17.5	18.2		
	$P_{1\,TH\,Fan}$	hp	n/a	16.7	18.2	20.4	32.5	35.7	38.7		
		kW	n/a	12.5	13.6	15.2	24.3	26.6	28.9		
	$P_{1\,TH\,WH}$	hp	5.39	23.9	27.5	30.5	35.5	38.3	40.4		
		kW	4.02	17.8	20.5	22.8	26.5	28.6	30.2		
	$T_{2\,ME}$	lb-in	87,700	73,500	69,700	64,900	58,400	52,400	48,200		
		Nm	9,910	8,300	7,870	7,330	6,600	5,930	5,450		
	η	%	72	79	81	81	83	83	84		
37.5 2.5 x 15	$P_{1\,ME}$	hp	5.00	24.5	28.8	32.8	38.7	43.8	48.7	272,000	30,700
		kW	3.73	18.3	21.5	24.5	28.9	32.7	36.3		
	$P_{1\,TH}$	hp	5.00	15.9	17.9	19.4	22.0	24.7	26.3		
		kW	3.73	11.9	13.4	14.5	16.4	18.5	19.7		
	$P_{1\,TH\,Fan}$	hp	n/a	15.9	17.9	19.4	22.0	35.4	39.0		
		kW	n/a	11.9	13.4	14.5	16.4	26.4	29.1		
	$P_{1\,TH\,WH}$	hp	5.00	24.5	28.8	32.8	38.0	42.0	45.2		
		kW	3.73	18.3	21.5	24.5	28.3	31.4	33.7		
	$T_{2\,ME}$	lb-in	90,500	81,400	78,000	74,300	67,100	61,000	56,700		
		Nm	10,200	9,200	8,810	8,400	7,580	6,890	6,410		
	η	%	77	81	82	83	84	85	86		
40 4 x 10	$P_{1\,ME}$	hp	3.38	17.0	20.6	24.3	30.8	37.6	44.3	213,000	24,100
		kW	2.52	12.7	15.4	18.1	23.0	28.0	33.1		
	$P_{1\,TH}$	hp	3.38	14.1	15.9	17.7	21.0	23.4	25.7		
		kW	2.52	10.5	11.8	13.2	15.6	17.5	19.2		
	$P_{1\,TH\,Fan}$	hp	n/a	14.1	15.9	17.7	21.0	23.4	25.7		
		kW	n/a	10.5	11.8	13.2	15.6	17.5	19.2		
	$P_{1\,TH\,WH}$	hp	3.38	17.0	20.6	24.3	30.8	37.6	44.3		
		kW	2.52	12.7	15.4	18.1	23.0	28.0	33.1		
	$T_{2\,ME}$	lb-in	66,900	62,500	61,700	60,000	58,300	56,400	55,100		
		Nm	7,560	7,060	6,970	6,780	6,590	6,370	6,230		
	η	%	79	84	85	85	86	86	86		
45 1.8 x 25	$P_{1\,ME}$	hp	4.36	19.3	22.2	24.7	28.7	32.4	35.6	252,000	28,400
		kW	3.25	14.4	16.6	18.4	21.4	24.2	26.6		
	$P_{1\,TH}$	hp	4.36	14.3	15.7	17.2	19.3	19.9	20.6		
		kW	3.25	10.7	11.7	12.9	14.4	14.9	15.4		
	$P_{1\,TH\,Fan}$	hp	n/a	14.3	15.7	17.8	28.1	30.2	32.6		
		kW	n/a	10.7	11.7	13.3	21.0	22.6	24.3		
	$P_{1\,TH\,WH}$	hp	4.36	19.3	22.2	24.7	28.7	32.4	35.4		
		kW	3.25	14.4	16.6	18.4	21.4	24.2	26.4		
	$T_{2\,ME}$	lb-in	83,900	73,200	69,600	65,700	57,600	52,400	48,100		
		Nm	9,480	8,270	7,860	7,420	6,510	5,930	5,440		
	η	%	68	78	80	81	81	83	83		
50 2.5 x 20	$P_{1\,ME}$	hp	3.88	18.8	22.1	25.1	29.7	33.6	37.3	263,000	29,700
		kW	2.89	14.0	16.5	18.7	22.2	25.1	27.9		
	$P_{1\,TH}$	hp	3.88	14.1	15.9	17.2	19.4	21.8	22.9		
		kW	2.89	10.5	11.9	12.9	14.5	16.2	17.1		
	$P_{1\,TH\,Fan}$	hp	n/a	14.1	15.9	17.2	19.4	31.1	33.9		
		kW	n/a	10.5	11.9	12.9	14.5	23.2	25.3		
	$P_{1\,TH\,WH}$	hp	3.88	18.8	22.1	25.1	29.7	33.6	37.3		
		kW	2.89	14.0	16.5	18.7	22.2	25.1	27.9		
	$T_{2\,ME}$	lb-in	87,700	79,200	75,900	72,400	66,400	60,900	56,100		
		Nm	9,910	8,940	8,570	8,180	7,500	6,890	6,340		
	η	%	72	78	79	80	81	83	83		
54 1.8 x 30	$P_{1\,ME}$	hp	3.65	16.2	18.6	20.7	24.0	27.2	29.8	242,000	27,400
		kW	2.73	12.1	13.9	15.4	17.9	20.3	22.3		
	$P_{1\,TH}$	hp	3.65	12.4	13.6	15.0	16.8	17.5	17.9		
		kW	2.73	9.26	10.2	11.2	12.6	13.1	13.4		
	$P_{1\,TH\,Fan}$	hp	n/a	12.4	13.6	15.4	24.0	26.6	28.3		
		kW	n/a	9.26	10.2	11.5	17.9	19.8	21.1		
	$P_{1\,TH\,WH}$	hp	3.65	16.2	18.6	20.7	24.0	27.2	29.4		
		kW	2.73	12.1	13.9	15.4	17.9	20.3	21.9		
	$T_{2\,ME}$	lb-in	80,800	69,000	65,600	60,500	55,100	50,300	46,200		
		Nm	9,130	7,800	7,410	6,830	6,220	5,690	5,220		
	η	%	65	73	75	75	78	79	80		

See Page 8.7 for Rating Definitions

6.719" Primary/8" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
60 4 x 15	$P_{1\,ME}$	hp	3.16	16.6	20.0	23.3	28.8	33.7	37.7	272,000	30,700
		kW	2.36	12.4	14.9	17.4	21.5	25.1	28.1		
	$P_{1\,TH}$	hp	3.16	12.4	13.9	15.4	17.9	19.8	21.5		
		kW	2.36	9.22	10.4	11.5	13.4	14.8	16.0		
	$P_{1\,TH\,Fan}$	hp	n/a	12.4	13.9	15.4	17.9	19.8	21.5		
		kW	n/a	9.22	10.4	11.5	13.4	14.8	16.0		
	$P_{1\,TH\,WH}$	hp	3.16	16.6	20.0	23.3	28.8	33.7	37.4		
		kW	2.36	12.4	14.9	17.4	21.5	25.1	27.9		
	$T_{2\,ME}$	lb-in	90,500	87,300	85,600	82,500	78,000	73,200	68,700		
		Nm	10,200	9,870	9,670	9,320	8,810	8,270	7,760		
	η	%	76	81	81	81	82	83	84		
62.5 2.5 x 25	$P_{1\,ME}$	hp	3.14	15.1	17.8	20.3	24.0	27.2	30.2	252,000	28,400
		kW	2.34	11.3	13.3	15.1	17.9	20.3	22.5		
	$P_{1\,TH}$	hp	3.14	12.1	13.6	14.8	16.8	19.0	19.7		
		kW	2.34	9.03	10.1	11.0	12.5	14.2	14.7		
	$P_{1\,TH\,Fan}$	hp	n/a	12.1	13.6	14.8	16.8	27.1	29.2		
		kW	n/a	9.03	10.1	11.0	12.5	20.2	21.8		
	$P_{1\,TH\,WH}$	hp	3.14	15.1	17.8	20.3	24.0	27.2	30.2		
		kW	2.34	11.3	13.3	15.1	17.9	20.3	22.5		
	$T_{2\,ME}$	lb-in	83,900	77,800	74,800	72,100	66,300	60,300	55,300		
		Nm	9,480	8,800	8,450	8,150	7,490	6,810	6,250		
	η	%	68	76	77	79	81	81	81		
72 1.8 x 40	$P_{1\,ME}$	hp	2.77	12.2	14.0	15.6	18.1	20.5	22.5	219,000	24,800
		kW	2.07	9.09	10.5	11.6	13.5	15.3	16.8		
	$P_{1\,TH}$	hp	2.77	10.4	11.5	12.6	14.3	15.0	15.5		
		kW	2.07	7.77	8.56	9.40	10.7	11.2	11.6		
	$P_{1\,TH\,Fan}$	hp	n/a	10.4	11.5	13.0	18.1	20.5	22.5		
		kW	n/a	7.77	8.56	9.73	13.5	15.3	16.8		
	$P_{1\,TH\,WH}$	hp	2.77	12.2	14.0	15.6	18.1	20.5	22.5		
		kW	2.07	9.09	10.5	11.6	13.5	15.3	16.8		
	$T_{2\,ME}$	lb-in	73,200	64,700	61,700	57,700	53,300	48,400	44,200		
		Nm	8,270	7,310	6,980	6,510	6,020	5,470	4,990		
	η	%	58	68	70	71	75	76	76		
75 2.5 x 30	$P_{1\,ME}$	hp	2.63	12.7	14.9	17.0	20.1	22.8	25.3	242,000	27,400
		kW	1.96	9.45	11.1	12.7	15.0	17.0	18.9		
	$P_{1\,TH}$	hp	2.63	10.2	11.7	12.8	14.6	16.5	17.2		
		kW	1.96	7.59	8.75	9.57	10.9	12.3	12.8		
	$P_{1\,TH\,Fan}$	hp	n/a	10.2	11.7	12.8	14.6	22.8	25.3		
		kW	n/a	7.59	8.75	9.57	10.9	17.0	18.9		
	$P_{1\,TH\,WH}$	hp	2.63	12.7	14.9	17.0	20.1	22.8	25.3		
		kW	1.96	9.45	11.1	12.7	15.0	17.0	18.9		
	$T_{2\,ME}$	lb-in	80,800	74,100	71,300	68,200	61,800	56,200	53,600		
		Nm	9,130	8,370	8,050	7,710	6,980	6,350	6,060		
	η	%	65	72	73	74	75	76	79		
80 4 x 20	$P_{1\,ME}$	hp	2.46	12.7	15.3	17.8	22.1	25.8	28.9	263,000	29,700
		kW	1.83	9.50	11.4	13.3	16.5	19.3	21.6		
	$P_{1\,TH}$	hp	2.46	11.0	12.3	13.7	15.9	17.5	19.0		
		kW	1.83	8.21	9.20	10.2	11.9	13.1	14.2		
	$P_{1\,TH\,Fan}$	hp	n/a	11.0	12.3	13.7	15.9	17.5	19.0		
		kW	n/a	8.21	9.20	10.2	11.9	13.1	14.2		
	$P_{1\,TH\,WH}$	hp	2.46	12.7	15.3	17.8	22.1	25.8	28.9		
		kW	1.83	9.50	11.4	13.3	16.5	19.3	21.6		
	$T_{2\,ME}$	lb-in	87,700	84,800	83,100	80,200	76,000	71,800	67,900		
		Nm	9,910	9,590	9,380	9,060	8,590	8,110	7,670		
	η	%	71	77	78	78	79	80	81		
90 1.8 x 50	$P_{1\,ME}$	hp	2.24	9.77	11.2	12.5	14.5	16.4	18.1	196,000	22,100
		kW	1.67	7.29	8.40	9.36	10.8	12.2	13.5		
	$P_{1\,TH}$	hp	2.24	8.90	9.73	10.6	11.9	12.4	13.0		
		kW	1.67	6.64	7.26	7.92	8.89	9.29	9.70		
	$P_{1\,TH\,Fan}$	hp	n/a	8.90	9.73	10.9	14.5	16.4	18.1		
		kW	n/a	6.64	7.26	8.14	10.8	12.2	13.5		
	$P_{1\,TH\,WH}$	hp	2.24	9.77	11.2	12.5	14.5	16.4	18.1		
		kW	1.67	7.29	8.40	9.36	10.8	12.2	13.5		
	$T_{2\,ME}$	lb-in	65,300	62,100	59,300	56,300	51,400	46,700	42,600		
		Nm	7,380	7,020	6,700	6,360	5,810	5,280	4,820		
	η	%	51	65	67	69	72	73	73		

See Page 8.7 for Rating Definitions

Size 80 Helical Worm Reducer Ratings

6.719" Primary/8" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
100 4 x 25	$P_{1\,ME}$	hp	1.99	10.3	12.3	14.4	17.8	20.8	23.4	252,000	28,400
		kW	1.48	7.67	9.20	10.7	13.3	15.6	17.4		
	$P_{1\,TH}$	hp	1.99	9.17	10.5	11.7	13.6	15.0	16.4		
		kW	1.48	6.85	7.83	8.74	10.1	11.2	12.2		
	$P_{1\,TH\,Fan}$	hp	n/a	9.17	10.5	11.7	13.6	15.0	16.4		
		kW	n/a	6.85	7.83	8.74	10.1	11.2	12.2		
	$P_{1\,TH\,WH}$	hp	1.99	10.3	12.3	14.4	17.8	20.8	23.4		
		kW	1.48	7.67	9.20	10.7	13.3	15.6	17.4		
	$T_{2\,ME}$	lb-in	83,900	81,200	80,600	78,900	74,800	71,500	67,000		
		Nm	9,480	9,180	9,110	8,910	8,450	8,080	7,570		
	η	%	67	73	75	76	77	79	80		
108 1.8 x 60	$P_{1\,ME}$	hp	1.87	8.15	9.39	10.5	12.1	13.7	15.1	193,000	21,800
		kW	1.40	6.08	7.01	7.81	9.05	10.2	11.3		
	$P_{1\,TH}$	hp	1.87	7.64	8.40	9.21	10.4	11.1	11.7		
		kW	1.40	5.70	6.27	6.87	7.79	8.25	8.75		
	$P_{1\,TH\,Fan}$	hp	n/a	7.64	8.40	9.51	12.1	13.7	15.1		
		kW	n/a	5.70	6.27	7.10	9.05	10.2	11.3		
	$P_{1\,TH\,WH}$	hp	1.87	8.15	9.39	10.5	12.1	13.7	15.1		
		kW	1.40	6.08	7.01	7.81	9.05	10.2	11.3		
	$T_{2\,ME}$	lb-in	64,300	59,400	56,800	53,200	48,800	44,600	41,000		
		Nm	7,270	6,710	6,420	6,010	5,510	5,040	4,640		
	η	%	50	62	64	65	68	69	70		
120 4 x 30	$P_{1\,ME}$	hp	1.67	8.59	10.3	12.0	14.9	17.5	19.6	242,000	27,400
		kW	1.25	6.41	7.70	8.98	11.1	13.0	14.6		
	$P_{1\,TH}$	hp	1.67	7.62	8.68	9.77	11.7	13.1	14.2		
		kW	1.25	5.69	6.47	7.29	8.74	9.74	10.6		
	$P_{1\,TH\,Fan}$	hp	n/a	7.62	8.68	9.77	11.7	13.1	14.2		
		kW	n/a	5.69	6.47	7.29	8.74	9.74	10.6		
	$P_{1\,TH\,WH}$	hp	1.67	8.59	10.3	12.0	14.9	17.5	19.6		
		kW	1.25	6.41	7.70	8.98	11.1	13.0	14.6		
	$T_{2\,ME}$	lb-in	80,800	78,300	76,700	75,100	71,400	67,200	63,200		
		Nm	9,130	8,840	8,670	8,480	8,070	7,590	7,150		
	η	%	64	70	71	72	73	74	75		
125 2.5 x 50	$P_{1\,ME}$	hp	1.61	7.67	9.04	10.3	12.2	13.8	15.3	196,000	22,100
		kW	1.20	5.72	6.74	7.68	9.10	10.3	11.4		
	$P_{1\,TH}$	hp	1.61	7.43	8.44	9.17	10.4	11.6	12.2		
		kW	1.20	5.55	6.30	6.85	7.74	8.69	9.09		
	$P_{1\,TH\,Fan}$	hp	n/a	7.43	8.44	9.17	10.4	13.8	15.3		
		kW	n/a	5.55	6.30	6.85	7.74	10.3	11.4		
	$P_{1\,TH\,WH}$	hp	1.61	7.67	9.04	10.3	12.2	13.8	15.3		
		kW	1.20	5.72	6.74	7.68	9.10	10.3	11.4		
	$T_{2\,ME}$	lb-in	65,300	65,700	63,300	61,400	57,500	53,100	50,100		
		Nm	7,380	7,420	7,150	6,940	6,500	6,000	5,670		
	η	%	51	63	64	66	69	71	73		
150 2.5 x 60	$P_{1\,ME}$	hp	1.37	6.40	7.54	8.59	10.2	11.5	12.8	193,000	21,800
		kW	1.03	4.78	5.63	6.41	7.60	8.60	9.54		
	$P_{1\,TH}$	hp	1.37	6.27	7.22	7.89	8.98	10.2	10.7		
		kW	1.03	4.68	5.39	5.89	6.70	7.58	8.01		
	$P_{1\,TH\,Fan}$	hp	n/a	6.27	7.22	7.89	8.98	11.5	12.8		
		kW	n/a	4.68	5.39	5.89	6.70	8.60	9.54		
	$P_{1\,TH\,WH}$	hp	1.37	6.40	7.54	8.59	10.2	11.5	12.8		
		kW	1.03	4.78	5.63	6.41	7.60	8.60	9.54		
	$T_{2\,ME}$	lb-in	64,300	62,800	60,500	58,800	54,400	50,300	47,600		
		Nm	7,270	7,090	6,840	6,650	6,150	5,680	5,370		
	η	%	49	60	61	63	65	67	69		
160 4 x 40	$P_{1\,ME}$	hp	1.27	6.48	7.78	9.07	11.2	13.2	14.8	219,000	24,800
		kW	0.95	4.84	5.81	6.77	8.39	9.82	11.0		
	$P_{1\,TH}$	hp	1.27	6.12	7.21	8.23	9.82	11.0	12.0		
		kW	0.95	4.57	5.38	6.14	7.33	8.18	8.94		
	$P_{1\,TH\,Fan}$	hp	n/a	6.12	7.21	8.23	9.82	11.0	12.0		
		kW	n/a	4.57	5.38	6.14	7.33	8.18	8.94		
	$P_{1\,TH\,WH}$	hp	1.27	6.48	7.78	9.07	11.2	13.2	14.8		
		kW	0.95	4.84	5.81	6.77	8.39	9.82	11.0		
	$T_{2\,ME}$	lb-in	73,200	71,100	69,800	67,300	66,000	63,400	60,300		
		Nm	8,270	8,030	7,890	7,600	7,460	7,160	6,810		
	η	%	57	63	64	64	67	69	71		

See Page 8.7 for Rating Definitions

6.719" Primary/8" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
175 2.5 x 70	$P_{1\,ME}$	hp	1.16	5.50	6.47	7.39	8.74	9.89	11.0	190,000	21,500
		kW	0.87	4.10	4.83	5.51	6.52	7.38	8.19		
	$P_{1\,TH}$	hp	1.16	5.49	6.47	7.28	8.59	9.89	10.1		
		kW	0.87	4.10	4.83	5.43	6.41	7.38	7.56		
	$P_{1\,TH\,Fan}$	hp	n/a	5.49	6.47	7.28	8.59	9.89	11.0		
		kW	n/a	4.10	4.83	5.43	6.41	7.38	8.19		
	$P_{1\,TH\,WH}$	hp	1.16	5.50	6.47	7.39	8.74	9.89	11.0		
		kW	0.87	4.10	4.83	5.51	6.52	7.38	8.19		
	$T_{2\,ME}$	lb-in	63,300	61,800	59,600	58,100	53,700	49,600	46,900		
		Nm	7,160	6,990	6,740	6,570	6,070	5,610	5,300		
	η	%	49	59	60	62	64	66	68		
200 4 x 50	$P_{1\,ME}$	hp	1.03	5.20	6.24	7.29	9.02	10.6	11.9	196,000	22,100
		kW	0.77	3.88	4.66	5.44	6.73	7.90	8.85		
	$P_{1\,TH}$	hp	1.03	5.17	6.24	7.17	8.43	9.33	10.1		
		kW	0.77	3.86	4.66	5.35	6.29	6.96	7.56		
	$P_{1\,TH\,Fan}$	hp	n/a	5.17	6.24	7.17	8.43	9.33	10.1		
		kW	n/a	3.86	4.66	5.35	6.29	6.96	7.56		
	$P_{1\,TH\,WH}$	hp	1.03	5.20	6.24	7.29	9.02	10.6	11.9		
		kW	0.77	3.88	4.66	5.44	6.73	7.90	8.85		
	$T_{2\,ME}$	lb-in	65,300	65,800	65,700	65,500	63,300	61,000	58,000		
		Nm	7,380	7,430	7,430	7,400	7,150	6,890	6,550		
	η	%	50	58	60	62	64	66	68		
240 4 x 60	$P_{1\,ME}$	hp	0.86	4.34	5.21	6.08	7.53	8.83	9.91	193,000	21,800
		kW	0.64	3.24	3.89	4.54	5.62	6.59	7.39		
	$P_{1\,TH}$	hp	0.86	4.32	5.21	6.02	7.21	8.03	8.76		
		kW	0.64	3.22	3.89	4.49	5.38	5.99	6.54		
	$P_{1\,TH\,Fan}$	hp	n/a	4.32	5.21	6.02	7.21	8.03	8.76		
		kW	n/a	3.22	3.89	4.49	5.38	5.99	6.54		
	$P_{1\,TH\,WH}$	hp	0.86	4.34	5.21	6.08	7.53	8.83	9.91		
		kW	0.64	3.24	3.89	4.54	5.62	6.59	7.39		
	$T_{2\,ME}$	lb-in	64,300	64,800	64,800	63,600	60,500	58,400	55,600		
		Nm	7,270	7,320	7,320	7,190	6,840	6,600	6,290		
	η	%	49	57	59	60	61	63	65		
280 4 x 70	$P_{1\,ME}$	hp	0.74	3.73	4.47	5.22	6.46	7.58	8.50	190,000	21,500
		kW	0.55	2.78	3.34	3.90	4.82	5.66	6.34		
	$P_{1\,TH}$	hp	0.74	3.70	4.47	5.22	6.46	7.45	8.33		
		kW	0.55	2.76	3.34	3.90	4.82	5.56	6.21		
	$P_{1\,TH\,Fan}$	hp	n/a	3.70	4.47	5.22	6.46	7.45	8.33		
		kW	n/a	2.76	3.34	3.90	4.82	5.56	6.21		
	$P_{1\,TH\,WH}$	hp	0.74	3.73	4.47	5.22	6.46	7.58	8.50		
		kW	0.55	2.78	3.34	3.90	4.82	5.66	6.34		
	$T_{2\,ME}$	lb-in	63,300	63,800	63,800	62,700	59,600	57,600	54,900		
		Nm	7,160	7,210	7,210	7,080	6,740	6,510	6,200		
	η	%	49	56	58	59	60	62	64		

See Page 8.7 for Rating Definitions

Size 100 Helical Worm Reducer Ratings

6.719" Primary/10" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5 1 x 5	$P_{1\,ME}$	hp	8.77	46.4	56.2	67.9	87.7	108	128	75,600	8,540
		kW	6.54	34.6	42.0	50.7	65.4	80.6	95.9		
	$P_{1\,TH}$	hp	8.77	45.0	54.5	65.9	85.0	105	125		
		kW	6.54	33.6	40.7	49.2	63.5	78.2	93.0		
	$P_{1\,TH\,Fan}$	hp	n/a	46.4	56.2	67.9	87.7	108	128		
		kW	n/a	34.6	42.0	50.7	65.4	80.6	95.9		
	$P_{1\,TH\,WH}$	hp	8.77	46.4	56.2	67.9	87.7	108	128		
		kW	6.54	34.6	42.0	50.7	65.4	80.6	95.9		
	$T_{2\,ME}$	lb-in	25,200	23,500	22,900	23,200	22,600	22,100	21,800		
		Nm	2,850	2,650	2,590	2,620	2,550	2,500	2,460		
	η	%	91	93	93	94	94	94	94		
7.5 1.5 x 5	$P_{1\,ME}$	hp	7.03	37.3	46.3	55.3	72.2	87.1	102	90,900	10,300
		kW	5.25	27.8	34.5	41.2	53.9	65.0	76.1		
	$P_{1\,TH}$	hp	7.03	36.2	44.9	53.6	70.0	83.4	89.2		
		kW	5.25	27.0	33.5	40.0	52.3	62.2	66.5		
	$P_{1\,TH\,Fan}$	hp	n/a	37.3	46.3	55.3	72.2	87.1	102		
		kW	n/a	27.8	34.5	41.2	53.9	65.0	76.1		
	$P_{1\,TH\,WH}$	hp	7.03	37.3	46.3	55.3	72.2	87.1	102		
		kW	5.25	27.8	34.5	41.2	53.9	65.0	76.1		
	$T_{2\,ME}$	lb-in	29,600	28,300	28,300	28,000	27,600	26,700	25,900		
		Nm	3,350	3,200	3,200	3,160	3,120	3,020	2,930		
	η	%	89	93	93	93	93	94	94		
9 1.8 x 5	$P_{1\,ME}$	hp	6.44	34.6	42.4	50.7	65.3	81.2	97.0	99,900	11,300
		kW	4.81	25.8	31.6	37.8	48.8	60.6	72.4		
	$P_{1\,TH}$	hp	6.44	33.5	41.1	49.1	63.4	78.5	83.5		
		kW	4.81	25.0	30.7	36.7	47.3	58.6	62.3		
	$P_{1\,TH\,Fan}$	hp	n/a	34.6	42.4	50.7	65.3	81.2	97.0		
		kW	n/a	25.8	31.6	37.8	48.8	60.6	72.4		
	$P_{1\,TH\,WH}$	hp	6.44	34.6	42.4	50.7	65.3	81.2	97.0		
		kW	4.81	25.8	31.6	37.8	48.8	60.6	72.4		
	$T_{2\,ME}$	lb-in	31,900	31,500	31,100	30,800	30,000	29,700	29,600		
		Nm	3,600	3,560	3,520	3,480	3,390	3,350	3,340		
	η	%	87	93	93	93	93	93	94		
10 1 x 10	$P_{1\,ME}$	hp	8.77	46.4	56.2	67.9	87.7	108	128	142,000	16,000
		kW	6.54	34.6	42.0	50.7	65.4	80.6	95.9		
	$P_{1\,TH}$	hp	8.77	45.0	54.5	63.2	68.7	70.9	73.2		
		kW	6.54	33.6	40.7	47.2	51.2	52.9	54.6		
	$P_{1\,TH\,Fan}$	hp	n/a	46.4	56.2	67.9	87.7	108	128		
		kW	n/a	34.6	42.0	50.7	65.4	80.6	95.9		
	$P_{1\,TH\,WH}$	hp	8.77	46.4	56.2	67.9	87.7	108	123		
		kW	6.54	34.6	42.0	50.7	65.4	80.6	91.9		
	$T_{2\,ME}$	lb-in	47,200	45,000	44,900	44,900	44,300	43,300	42,600		
		Nm	5,330	5,090	5,070	5,070	5,000	4,890	4,820		
	η	%	85	89	91	91	92	92	92		
12.5 2.5 x 5	$P_{1\,ME}$	hp	5.21	28.0	34.7	41.0	53.5	66.0	78.6	112,000	12,700
		kW	3.89	20.9	25.9	30.6	39.9	49.3	58.6		
	$P_{1\,TH}$	hp	5.21	27.1	33.6	39.8	51.9	64.1	74.2		
		kW	3.89	20.3	25.1	29.7	38.7	47.8	55.3		
	$P_{1\,TH\,Fan}$	hp	n/a	28.0	34.7	41.0	53.5	66.0	78.6		
		kW	n/a	20.9	25.9	30.6	39.9	49.3	58.6		
	$P_{1\,TH\,WH}$	hp	5.21	28.0	34.7	41.0	53.5	66.0	78.6		
		kW	3.89	20.9	25.9	30.6	39.9	49.3	58.6		
	$T_{2\,ME}$	lb-in	35,800	35,000	35,300	34,600	34,100	33,400	32,900		
		Nm	4,050	3,960	3,990	3,910	3,860	3,780	3,720		
	η	%	87	92	93	93	93	93	93		
15 1.5 x 10	$P_{1\,ME}$	hp	7.03	37.3	46.3	55.3	72.2	87.1	102	170,000	19,200
		kW	5.25	27.8	34.5	41.2	53.9	65.0	76.1		
	$P_{1\,TH}$	hp	7.03	36.2	44.9	53.6	60.9	65.1	68.8		
		kW	5.25	27.0	33.5	40.0	45.4	48.6	51.3		
	$P_{1\,TH\,Fan}$	hp	n/a	37.0	46.3	55.3	72.2	87.1	102		
		kW	n/a	27.6	34.5	41.2	53.9	65.0	76.1		
	$P_{1\,TH\,WH}$	hp	7.03	37.3	46.3	55.3	72.2	87.1	102		
		kW	5.25	27.8	34.5	41.2	53.9	65.0	76.1		
	$T_{2\,ME}$	lb-in	55,400	53,600	54,200	53,600	54,100	52,300	50,700		
		Nm	6,260	6,060	6,130	6,050	6,120	5,910	5,730		
	η	%	83	88	89	89	91	92	92		

See Page 8.7 for Rating Definitions

6.719" Primary/10" Secondary

i : 1	Ratings	Units	$N_{1\ NOM}$ rpm							$T_{2\ MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
18 1.8 x 10	$P_{1\ ME}$	hp	6.44	34.6	42.4	50.7	65.3	81.2	97.0	187,000	21,100
		kW	4.81	25.8	31.6	37.8	48.8	60.6	72.4		
	$P_{1\ TH}$	hp	6.44	31.1	38.2	45.9	56.9	61.7	65.2		
		kW	4.81	23.2	28.5	34.2	42.4	46.1	48.6		
	$P_{1\ TH\ Fan}$	hp	n/a	31.1	38.2	50.7	65.3	81.2	97.0		
		kW	n/a	23.2	28.5	37.8	48.8	60.6	72.4		
	$P_{1\ TH\ WH}$	hp	6.44	34.6	42.4	50.7	65.3	81.2	97.0		
		kW	4.81	25.8	31.6	37.8	48.8	60.6	72.4		
	$T_{2\ ME}$	lb-in	59,500	59,700	59,000	59,000	58,200	57,900	58,000		
		Nm	6,730	6,750	6,660	6,660	6,570	6,540	6,550		
	η	%	81	88	88	89	90	91	92		
20 4 x 5	$P_{1\ ME}$	hp	8.77	46.4	56.2	67.9	81.8	87.8	94.2	257,000	29,100
		kW	6.54	34.6	42.0	50.7	61.1	65.5	70.3		
	$P_{1\ TH}$	hp	8.77	39.8	42.5	44.3	46.4	47.3	48.2		
		kW	6.54	29.7	31.7	33.1	34.6	35.3	36.0		
	$P_{1\ TH\ Fan}$	hp	n/a	46.4	56.2	67.9	80.7	83.5	86.4		
		kW	n/a	34.6	42.0	50.7	60.2	62.3	64.4		
	$P_{1\ TH\ WH}$	hp	8.77	46.4	56.2	65.2	69.1	72.3	73.2		
		kW	6.54	34.6	42.0	48.6	51.6	54.0	54.7		
	$T_{2\ ME}$	lb-in	85,800	86,100	84,000	84,000	77,500	66,600	59,200		
		Nm	9,690	9,730	9,490	9,500	8,750	7,520	6,690		
	η	%	78	85	85	85	86	87	87		
22.5 1.5 x 15	$P_{1\ ME}$	hp	7.03	37.3	46.3	55.3	72.2	87.1	102	244,000	27,500
		kW	5.25	27.8	34.5	41.2	53.9	65.0	76.1		
	$P_{1\ TH}$	hp	7.03	36.2	41.0	45.2	49.4	52.1	54.1		
		kW	5.25	27.0	30.6	33.7	36.9	38.9	40.4		
	$P_{1\ TH\ Fan}$	hp	n/a	37.1	43.5	55.3	72.2	86.6	94.3		
		kW	n/a	27.7	32.5	41.2	53.9	64.6	70.3		
	$P_{1\ TH\ WH}$	hp	7.03	37.3	46.3	55.3	72.2	87.1	89.8		
		kW	5.25	27.8	34.5	41.2	53.9	65.0	67.0		
	$T_{2\ ME}$	lb-in	79,300	77,800	78,700	78,600	78,600	76,800	74,500		
		Nm	8,960	8,790	8,890	8,890	8,880	8,670	8,420		
	η	%	80	85	86	87	88	90	90		
25 2.5 x 10	$P_{1\ ME}$	hp	5.21	28.0	34.7	41.0	53.5	66.0	78.6	210,000	23,800
		kW	3.89	20.9	25.9	30.6	39.9	49.3	58.6		
	$P_{1\ TH}$	hp	5.21	27.1	29.3	33.5	43.7	54.7	59.1		
		kW	3.89	20.3	21.9	25.0	32.6	40.9	44.1		
	$P_{1\ TH\ Fan}$	hp	n/a	28.0	29.3	33.5	46.9	66.0	78.6		
		kW	n/a	20.9	21.9	25.0	35.0	49.3	58.6		
	$P_{1\ TH\ WH}$	hp	5.21	28.0	34.7	41.0	53.5	66.0	78.6		
		kW	3.89	20.9	25.9	30.6	39.9	49.3	58.6		
	$T_{2\ ME}$	lb-in	66,900	66,400	67,000	65,500	65,400	64,000	64,500		
		Nm	7,560	7,500	7,570	7,410	7,390	7,240	7,290		
	η	%	81	87	88	88	89	89	91		
27 1.8 x 15	$P_{1\ ME}$	hp	6.44	34.6	42.4	50.7	65.3	81.2	97.0	268,000	30,300
		kW	4.81	25.8	31.6	37.8	48.8	60.6	72.4		
	$P_{1\ TH}$	hp	6.44	33.5	37.7	41.1	46.6	50.0	52.1		
		kW	4.81	25.0	28.1	30.7	34.8	37.3	38.9		
	$P_{1\ TH\ Fan}$	hp	n/a	34.4	37.7	44.3	65.3	79.8	86.8		
		kW	n/a	25.7	28.1	33.1	48.8	59.5	64.8		
	$P_{1\ TH\ WH}$	hp	6.44	34.6	42.4	50.7	65.3	79.0	87.8		
		kW	4.81	25.8	31.6	37.8	48.8	59.0	65.6		
	$T_{2\ ME}$	lb-in	86,100	85,600	86,500	85,500	85,400	84,400	85,100		
		Nm	9,730	9,680	9,780	9,670	9,640	9,540	9,620		
	η	%	79	84	86	86	88	89	90		
30 1.5 x 20	$P_{1\ ME}$	hp	7.03	37.3	46.3	55.3	67.8	75.8	82.3	309,000	35,000
		kW	5.25	27.8	34.5	41.2	50.6	56.6	61.4		
	$P_{1\ TH}$	hp	7.03	32.8	36.2	39.8	43.1	45.0	46.4		
		kW	5.25	24.5	27.0	29.7	32.1	33.6	34.7		
	$P_{1\ TH\ Fan}$	hp	n/a	32.8	38.4	55.3	67.8	74.9	80.9		
		kW	n/a	24.5	28.6	41.2	50.6	55.9	60.4		
	$P_{1\ TH\ WH}$	hp	7.03	37.3	46.3	55.3	63.9	67.7	69.2		
		kW	5.25	27.8	34.5	41.2	47.7	50.5	51.6		
	$T_{2\ ME}$	lb-in	100,000	100,000	101,000	103,000	95,100	85,300	76,700		
		Nm	11,400	11,300	11,500	11,600	10,700	9,640	8,670		
	η	%	76	82	83	85	85	86	86		

See Page 8.7 for Rating Definitions

Size 100 Helical Worm Reducer Ratings

6.719" Primary/10" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
36 1.8 x 20	$P_{1\,ME}$	hp	6.44	34.6	42.4	50.7	61.8	69.7	76.1	340,000	38,400
		kW	4.81	25.8	31.6	37.8	46.1	52.0	56.8		
	$P_{1\,TH}$	hp	6.44	30.5	33.3	36.3	40.9	43.5	45.1		
		kW	4.81	22.8	24.8	27.1	30.5	32.5	33.6		
	$P_{1\,TH\,Fan}$	hp	n/a	30.5	33.3	39.1	61.8	69.4	75.1		
		kW	n/a	22.8	24.8	29.2	46.1	51.8	56.0		
	$P_{1\,TH\,WH}$	hp	6.44	34.6	42.4	50.7	61.8	64.4	67.8		
		kW	4.81	25.8	31.6	37.8	46.1	48.0	50.6		
	$T_{2\,ME}$	lb-in	108,000	109,000	110,000	110,000	104,000	93,200	85,100		
		Nm	12,200	12,300	12,500	12,500	11,800	10,500	9,620		
	η	%	74	81	82	83	85	85	86		
37.5 2.5 x 15	$P_{1\,ME}$	hp	5.21	28.0	34.7	41.0	53.5	66.0	78.6	301,000	34,000
		kW	3.89	20.9	25.9	30.6	39.9	49.3	58.6		
	$P_{1\,TH}$	hp	5.21	27.1	32.7	35.5	40.2	45.2	48.2		
		kW	3.89	20.3	24.4	26.5	30.0	33.7	35.9		
	$P_{1\,TH\,Fan}$	hp	n/a	28.0	32.7	35.5	40.2	66.0	74.7		
		kW	n/a	20.9	24.4	26.5	30.0	49.3	55.8		
	$P_{1\,TH\,WH}$	hp	5.21	28.0	34.7	41.0	53.5	66.0	75.9		
		kW	3.89	20.9	25.9	30.6	39.9	49.3	56.7		
	$T_{2\,ME}$	lb-in	96,700	95,100	96,100	95,100	95,000	94,000	93,700		
		Nm	10,900	10,700	10,900	10,700	10,700	10,600	10,600		
	η	%	79	83	84	85	86	87	88		
40 4 x 10	$P_{1\,ME}$	hp	3.38	17.0	20.6	24.3	30.8	37.6	44.3	218,000	24,700
		kW	2.52	12.7	15.4	18.1	23.0	28.0	33.1		
	$P_{1\,TH}$	hp	3.38	16.5	20.0	23.5	29.3	34.8	41.7		
		kW	2.52	12.3	14.9	17.6	21.9	26.0	31.1		
	$P_{1\,TH\,Fan}$	hp	n/a	17.0	20.6	24.3	29.3	34.8	41.7		
		kW	n/a	12.7	15.4	18.1	21.9	26.0	31.1		
	$P_{1\,TH\,WH}$	hp	3.38	17.0	20.6	24.3	30.8	37.6	44.3		
		kW	2.52	12.7	15.4	18.1	23.0	28.0	33.1		
	$T_{2\,ME}$	lb-in	68,600	63,900	63,100	61,400	59,700	57,700	56,400		
		Nm	7,750	7,220	7,130	6,930	6,740	6,520	6,370		
	η	%	81	86	87	87	88	88	88		
45 1.8 x 25	$P_{1\,ME}$	hp	6.44	34.5	38.9	43.0	49.9	56.3	61.5	404,000	45,600
		kW	4.81	25.8	29.0	32.1	37.3	42.1	45.9		
	$P_{1\,TH}$	hp	6.44	26.2	28.8	31.5	35.4	36.9	37.8		
		kW	4.81	19.6	21.5	23.5	26.4	27.6	28.2		
	$P_{1\,TH\,Fan}$	hp	n/a	26.2	28.8	34.1	49.9	56.3	61.5		
		kW	n/a	19.6	21.5	25.5	37.3	42.1	45.9		
	$P_{1\,TH\,WH}$	hp	6.44	34.5	38.9	43.0	49.9	56.3	58.7		
		kW	4.81	25.8	29.0	32.1	37.3	42.1	43.8		
	$T_{2\,ME}$	lb-in	128,000	134,000	125,000	117,000	103,000	93,400	85,000		
		Nm	14,400	15,200	14,100	13,200	11,600	10,600	9,610		
	η	%	70	80	81	83	83	85	85		
50 2.5 x 20	$P_{1\,ME}$	hp	5.21	28.0	34.7	41.0	51.9	58.9	65.1	382,000	43,200
		kW	3.89	20.9	25.9	30.6	38.7	43.9	48.6		
	$P_{1\,TH}$	hp	5.21	25.8	29.0	31.4	35.5	39.8	42.1		
		kW	3.89	19.2	21.6	23.4	26.5	29.7	31.4		
	$P_{1\,TH\,Fan}$	hp	n/a	25.8	29.0	31.4	35.5	58.9	65.1		
		kW	n/a	19.2	21.6	23.4	26.5	43.9	48.6		
	$P_{1\,TH\,WH}$	hp	5.21	28.0	34.7	41.0	51.9	58.9	62.9		
		kW	3.89	20.9	25.9	30.6	38.7	43.9	47.0		
	$T_{2\,ME}$	lb-in	121,000	121,000	122,000	121,000	119,000	109,000	100,000		
		Nm	13,700	13,700	13,800	13,700	13,400	12,300	11,300		
	η	%	74	80	81	81	83	85	85		
54 1.8 x 30	$P_{1\,ME}$	hp	6.44	28.9	32.6	35.9	41.9	47.3	51.5	466,000	52,600
		kW	4.81	21.6	24.3	26.8	31.3	35.3	38.4		
	$P_{1\,TH}$	hp	6.44	22.6	24.9	27.3	30.7	32.3	33.0		
		kW	4.81	16.9	18.6	20.4	22.9	24.1	24.7		
	$P_{1\,TH\,Fan}$	hp	n/a	22.6	24.9	29.6	41.9	47.3	51.5		
		kW	n/a	16.9	18.6	22.1	31.3	35.3	38.4		
	$P_{1\,TH\,WH}$	hp	6.44	28.9	32.6	35.9	41.9	47.3	48.7		
		kW	4.81	21.6	24.3	26.8	31.3	35.3	36.3		
	$T_{2\,ME}$	lb-in	147,000	127,000	118,000	108,000	98,600	89,700	81,600		
		Nm	16,600	14,300	13,300	12,200	11,100	10,100	9,220		
	η	%	67	75	77	77	80	81	81		

See Page 8.7 for Rating Definitions

6.719" Primary/10" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
60 4 x 15	$P_{1\,ME}$	hp	3.38	17.0	20.6	24.3	30.8	37.6	44.3	312,000	35,300
		kW	2.52	12.7	15.4	18.1	23.0	28.0	33.1		
	$P_{1\,TH}$	hp	3.38	16.5	20.0	23.5	29.9	36.1	39.2		
		kW	2.52	12.3	14.9	17.6	22.3	26.9	29.3		
	$P_{1\,TH\,Fan}$	hp	n/a	17.0	20.6	24.3	30.8	36.1	39.2		
		kW	n/a	12.7	15.4	18.1	23.0	26.9	29.3		
	$P_{1\,TH\,WH}$	hp	3.38	17.0	20.6	24.3	30.8	37.6	44.3		
		kW	2.52	12.7	15.4	18.1	23.0	28.0	33.1		
	$T_{2\,ME}$	lb-in	99,200	91,500	90,400	88,000	85,500	83,700	82,700		
		Nm	11,200	10,300	10,200	9,940	9,670	9,450	9,340		
	η	%	78	82	83	83	84	85	86		
62.5 2.5 x 25	$P_{1\,ME}$	hp	5.21	27.7	32.2	36.1	41.9	47.6	52.6	454,000	51,300
		kW	3.89	20.7	24.0	26.9	31.3	35.5	39.3		
	$P_{1\,TH}$	hp	5.21	22.0	24.9	27.1	30.8	34.7	36.1		
		kW	3.89	16.4	18.6	20.2	23.0	25.9	26.9		
	$P_{1\,TH\,Fan}$	hp	n/a	22.0	24.9	27.1	30.8	47.6	52.6		
		kW	n/a	16.4	18.6	20.2	23.0	35.5	39.3		
	$P_{1\,TH\,WH}$	hp	5.21	27.7	32.2	36.1	41.9	47.6	52.6		
		kW	3.89	20.7	24.0	26.9	31.3	35.5	39.3		
	$T_{2\,ME}$	lb-in	143,000	146,000	138,000	132,000	118,000	108,000	98,800		
		Nm	16,200	16,500	15,600	14,900	13,400	12,200	11,200		
	η	%	70	78	79	81	82	83	83		
72 1.8 x 40	$P_{1\,ME}$	hp	5.20	21.8	24.6	27.2	31.6	35.7	38.9	426,000	48,100
		kW	3.88	16.3	18.4	20.3	23.6	26.6	29.0		
	$P_{1\,TH}$	hp	5.20	19.0	21.0	23.0	26.1	33.5	38.9		
		kW	3.88	14.2	15.6	17.2	19.5	25.0	29.0		
	$P_{1\,TH\,Fan}$	hp	n/a	19.0	21.0	25.0	31.6	35.7	38.9		
		kW	n/a	14.2	15.6	18.7	23.6	26.6	29.0		
	$P_{1\,TH\,WH}$	hp	5.20	21.8	24.6	27.2	31.6	35.7	38.9		
		kW	3.88	16.3	18.4	20.3	23.6	26.6	29.0		
	$T_{2\,ME}$	lb-in	142,000	119,000	111,000	103,000	95,400	86,600	78,200		
		Nm	16,000	13,500	12,600	11,600	10,800	9,790	8,840		
	η	%	60	70	72	73	77	78	78		
75 2.5 x 30	$P_{1\,ME}$	hp	4.94	23.2	26.9	30.2	35.1	39.9	44.1	469,000	53,000
		kW	3.69	17.3	20.1	22.6	26.2	29.8	32.9		
	$P_{1\,TH}$	hp	4.94	18.5	21.4	23.4	26.6	30.1	31.3		
		kW	3.69	13.8	15.9	17.4	19.9	22.5	23.4		
	$P_{1\,TH\,Fan}$	hp	n/a	18.5	21.4	23.4	26.6	39.9	44.1		
		kW	n/a	13.8	15.9	17.4	19.9	29.8	32.9		
	$P_{1\,TH\,WH}$	hp	4.94	23.2	26.9	30.2	35.1	39.9	44.1		
		kW	3.69	17.3	20.1	22.6	26.2	29.8	32.9		
	$T_{2\,ME}$	lb-in	156,000	140,000	132,000	124,000	111,000	101,000	95,900		
		Nm	17,700	15,800	14,900	14,000	12,500	11,400	10,800		
	η	%	67	74	75	76	77	78	81		
80 4 x 20	$P_{1\,ME}$	hp	3.38	17.0	20.6	24.3	30.8	37.6	44.3	397,000	44,800
		kW	2.52	12.7	15.4	18.1	23.0	28.0	33.1		
	$P_{1\,TH}$	hp	3.38	16.5	20.0	23.5	29.0	31.9	34.7		
		kW	2.52	12.3	14.9	17.6	21.6	23.8	25.9		
	$P_{1\,TH\,Fan}$	hp	n/a	17.0	20.6	24.3	29.0	31.9	34.7		
		kW	n/a	12.7	15.4	18.1	21.6	23.8	25.9		
	$P_{1\,TH\,WH}$	hp	3.38	17.0	20.6	24.3	30.8	37.6	44.3		
		kW	2.52	12.7	15.4	18.1	23.0	28.0	33.1		
	$T_{2\,ME}$	lb-in	124,000	116,000	115,000	112,000	109,000	107,000	107,000		
		Nm	14,000	13,100	13,000	12,600	12,300	12,100	12,000		
	η	%	73	79	80	80	81	82	83		
90 1.8 x 50	$P_{1\,ME}$	hp	4.20	17.5	19.8	21.8	25.3	28.6	31.2	382,000	43,100
		kW	3.14	13.0	14.7	16.3	18.9	21.4	23.3		
	$P_{1\,TH}$	hp	4.20	16.3	17.8	19.4	21.7	23.0	24.1		
		kW	3.14	12.2	13.3	14.5	16.2	17.2	18.0		
	$P_{1\,TH\,Fan}$	hp	n/a	16.3	17.8	20.9	25.3	28.6	31.2		
		kW	n/a	12.2	13.3	15.6	18.9	21.4	23.3		
	$P_{1\,TH\,WH}$	hp	4.20	17.5	19.8	21.8	25.3	28.6	31.2		
		kW	3.14	13.0	14.7	16.3	18.9	21.4	23.3		
	$T_{2\,ME}$	lb-in	127,000	114,000	107,000	101,000	92,000	83,600	75,500		
		Nm	14,400	12,900	12,100	11,400	10,400	9,450	8,530		
	η	%	53	67	69	71	74	75	75		

See Page 8.7 for Rating Definitions

Size 100 Helical Worm Reducer Ratings

6.719" Primary/10" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
100 4 x 25	$P_{1\,ME}$	hp	3.38	17.0	20.6	24.3	30.8	36.9	40.8	471,000	53,200
		kW	2.52	12.7	15.4	18.1	23.0	27.6	30.5		
	$P_{1\,TH}$	hp	3.38	16.5	19.1	21.3	24.8	27.5	30.0		
		kW	2.52	12.3	14.3	15.9	18.5	20.5	22.4		
	$P_{1\,TH\,Fan}$	hp	n/a	16.9	19.1	21.3	24.8	27.5	30.0		
		kW	n/a	12.6	14.3	15.9	18.5	20.5	22.4		
	$P_{1\,TH\,WH}$	hp	3.38	17.0	20.6	24.3	30.8	36.9	40.8		
		kW	2.52	12.7	15.4	18.1	23.0	27.6	30.5		
	$T_{2\,ME}$	lb-in	147,000	138,000	138,000	136,000	133,000	130,000	120,000		
		Nm	16,600	15,600	15,600	15,400	15,000	14,700	13,500		
	η	%	69	75	77	78	79	81	81		
108 1.8 x 60	$P_{1\,ME}$	hp	3.51	14.6	16.5	18.2	21.1	23.9	26.1	376,000	42,500
		kW	2.62	10.9	12.3	13.6	15.8	17.8	19.5		
	$P_{1\,TH}$	hp	3.51	13.9	15.3	16.8	19.0	20.3	21.5		
		kW	2.62	10.4	11.4	12.5	14.2	15.2	16.1		
	$P_{1\,TH\,Fan}$	hp	n/a	13.9	15.3	18.2	21.1	23.9	26.1		
		kW	n/a	10.4	11.4	13.6	15.8	17.8	19.5		
	$P_{1\,TH\,WH}$	hp	3.51	14.6	16.5	18.2	21.1	23.9	26.1		
		kW	2.62	10.9	12.3	13.6	15.8	17.8	19.5		
	$T_{2\,ME}$	lb-in	125,000	110,000	103,000	95,300	87,400	79,900	72,800		
		Nm	14,200	12,400	11,600	10,800	9,870	9,020	8,230		
	η	%	52	64	66	67	70	71	72		
120 4 x 30	$P_{1\,ME}$	hp	3.13	16.1	19.1	22.2	26.9	30.9	34.2	469,000	53,000
		kW	2.34	12.0	14.3	16.5	20.1	23.1	25.5		
	$P_{1\,TH}$	hp	3.13	14.1	15.9	17.8	21.3	23.8	26.0		
		kW	2.34	10.5	11.8	13.3	15.9	17.7	19.4		
	$P_{1\,TH\,Fan}$	hp	n/a	14.1	15.9	17.8	21.3	23.8	26.0		
		kW	n/a	10.5	11.8	13.3	15.9	17.7	19.4		
	$P_{1\,TH\,WH}$	hp	3.13	16.1	19.1	22.2	26.9	30.9	34.2		
		kW	2.34	12.0	14.3	16.5	20.1	23.1	25.5		
	$T_{2\,ME}$	lb-in	156,000	150,000	146,000	142,000	132,000	122,000	113,000		
		Nm	17,700	17,000	16,500	16,100	14,900	13,800	12,800		
	η	%	66	72	73	74	75	76	77		
125 2.5 x 50	$P_{1\,ME}$	hp	3.03	14.1	16.3	18.3	21.3	24.2	26.7	382,000	43,100
		kW	2.26	10.5	12.2	13.7	15.9	18.0	19.9		
	$P_{1\,TH}$	hp	3.03	13.5	15.5	16.8	18.9	21.2	22.2		
		kW	2.26	10.1	11.5	12.5	14.1	15.8	16.6		
	$P_{1\,TH\,Fan}$	hp	n/a	13.5	15.5	16.8	18.9	24.2	26.7		
		kW	n/a	10.1	11.5	12.5	14.1	18.0	19.9		
	$P_{1\,TH\,WH}$	hp	3.03	14.1	16.3	18.3	21.3	24.2	26.7		
		kW	2.26	10.5	12.2	13.7	15.9	18.0	19.9		
	$T_{2\,ME}$	lb-in	127,000	124,000	118,000	113,000	103,000	95,500	89,800		
		Nm	14,400	14,000	13,300	12,700	11,700	10,800	10,100		
	η	%	53	65	66	68	71	73	75		
150 2.5 x 60	$P_{1\,ME}$	hp	2.58	11.7	13.6	15.3	17.8	20.2	22.3	376,000	42,500
		kW	1.92	8.77	10.1	11.4	13.3	15.1	16.6		
	$P_{1\,TH}$	hp	2.58	11.5	13.2	14.4	16.4	18.6	19.5		
		kW	1.92	8.61	9.82	10.7	12.2	13.8	14.6		
	$P_{1\,TH\,Fan}$	hp	n/a	11.5	13.2	14.4	16.4	20.2	22.3		
		kW	n/a	8.61	9.82	10.7	12.2	15.1	16.6		
	$P_{1\,TH\,WH}$	hp	2.58	11.7	13.6	15.3	17.8	20.2	22.3		
		kW	1.92	8.77	10.1	11.4	13.3	15.1	16.6		
	$T_{2\,ME}$	lb-in	125,000	119,000	113,000	108,000	97,800	90,600	85,300		
		Nm	14,200	13,400	12,700	12,200	11,000	10,200	9,640		
	η	%	51	62	63	65	67	69	71		
160 4 x 40	$P_{1\,ME}$	hp	2.38	12.1	14.4	16.7	20.3	23.3	25.8	426,000	48,100
		kW	1.78	9.03	10.8	12.5	15.1	17.4	19.3		
	$P_{1\,TH}$	hp	2.38	11.3	13.2	15.0	17.9	20.0	21.9		
		kW	1.78	8.42	9.82	11.2	13.4	14.9	16.3		
	$P_{1\,TH\,Fan}$	hp	n/a	11.3	13.2	15.0	17.9	20.0	21.9		
		kW	n/a	8.42	9.82	11.2	13.4	14.9	16.3		
	$P_{1\,TH\,WH}$	hp	2.38	12.1	14.4	16.7	20.3	23.3	25.8		
		kW	1.78	9.03	10.8	12.5	15.1	17.4	19.3		
	$T_{2\,ME}$	lb-in	142,000	137,000	133,000	128,000	122,000	116,000	108,000		
		Nm	16,000	15,400	15,100	14,400	13,800	13,100	12,200		
	η	%	59	65	66	66	69	71	73		

See Page 8.7 for Rating Definitions

6.719" Primary/10" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
175 2.5 x 70	$P_{1\,ME}$	hp	2.17	10.1	11.7	13.1	15.2	17.3	19.1	370,000	41,800
		kW	1.62	7.52	8.71	9.80	11.4	12.9	14.3		
	$P_{1\,TH}$	hp	2.17	10.0	11.7	13.0	15.1	17.3	18.4		
		kW	1.62	7.48	8.71	9.69	11.3	12.9	13.7		
	$P_{1\,TH\,Fan}$	hp	n/a	10.0	11.7	13.0	15.1	17.3	19.1		
		kW	n/a	7.48	8.71	9.69	11.3	12.9	14.3		
	$P_{1\,TH\,WH}$	hp	2.17	10.1	11.7	13.1	15.2	17.3	19.1		
		kW	1.62	7.52	8.71	9.80	11.4	12.9	14.3		
	$T_{2\,ME}$	lb-in	123,000	117,000	111,000	107,000	96,500	89,600	84,300		
		Nm	13,900	13,200	12,500	12,000	10,900	10,100	9,520		
	η	%	51	61	62	64	66	68	70		
200 4 x 50	$P_{1\,ME}$	hp	1.93	9.70	11.6	13.4	16.3	18.7	20.7	382,000	43,100
		kW	1.44	7.24	8.65	10.0	12.1	14.0	15.5		
	$P_{1\,TH}$	hp	1.93	9.48	11.3	13.0	15.4	17.1	18.5		
		kW	1.44	7.07	8.45	9.69	11.5	12.7	13.8		
	$P_{1\,TH\,Fan}$	hp	n/a	9.48	11.3	13.0	15.4	17.1	18.5		
		kW	n/a	7.07	8.45	9.69	11.5	12.7	13.8		
	$P_{1\,TH\,WH}$	hp	1.93	9.70	11.6	13.4	16.3	18.7	20.7		
		kW	1.44	7.24	8.65	10.0	12.1	14.0	15.5		
	$T_{2\,ME}$	lb-in	127,000	127,000	126,000	124,000	118,000	111,000	104,000		
		Nm	14,400	14,300	14,200	14,000	13,300	12,600	11,800		
	η	%	52	60	62	64	66	68	70		
240 4 x 60	$P_{1\,ME}$	hp	1.61	8.12	9.68	11.2	13.6	15.6	17.3	376,000	42,500
		kW	1.20	6.06	7.22	8.35	10.1	11.7	12.9		
	$P_{1\,TH}$	hp	1.61	8.04	9.68	11.1	13.1	14.6	16.0		
		kW	1.20	6.00	7.22	8.30	9.81	10.9	11.9		
	$P_{1\,TH\,Fan}$	hp	n/a	8.04	9.68	11.1	13.1	14.6	16.0		
		kW	n/a	6.00	7.22	8.30	9.81	10.9	11.9		
	$P_{1\,TH\,WH}$	hp	1.61	8.12	9.68	11.2	13.6	15.6	17.3		
		kW	1.20	6.06	7.22	8.35	10.1	11.7	12.9		
	$T_{2\,ME}$	lb-in	125,000	125,000	124,000	121,000	113,000	107,000	100,000		
		Nm	14,200	14,200	14,000	13,600	12,700	12,100	11,300		
	η	%	51	59	61	62	63	65	67		
280 4 x 70	$P_{1\,ME}$	hp	1.39	6.97	8.30	9.60	11.7	13.4	14.8	370,000	41,800
		kW	1.03	5.20	6.20	7.16	8.71	10.0	11.1		
	$P_{1\,TH}$	hp	1.39	6.88	8.28	9.60	11.7	13.3	14.7		
		kW	1.03	5.14	6.18	7.16	8.71	9.89	11.0		
	$P_{1\,TH\,Fan}$	hp	n/a	6.88	8.28	9.60	11.7	13.3	14.7		
		kW	n/a	5.14	6.18	7.16	8.71	9.89	11.0		
	$P_{1\,TH\,WH}$	hp	1.39	6.97	8.30	9.60	11.7	13.4	14.8		
		kW	1.03	5.20	6.20	7.16	8.71	10.0	11.1		
	$T_{2\,ME}$	lb-in	123,000	123,000	122,000	119,000	111,000	105,000	98,700		
		Nm	13,900	13,900	13,800	13,400	12,600	11,900	11,200		
	η	%	50	58	60	61	62	64	66		

See Page 8.7 for Rating Definitions

Size 100 Helical Worm Reducer Ratings

9.75" Primary/10" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
5 1 x 5	$P_{1\,ME}$	hp	34.9	151	168	182	197	216	231	301,000	34,000
		kW	26.0	113	125	136	147	161	172		
	$P_{1\,TH}$	hp	24.3	67.5	75.3	80.9	88.0	108	129		
		kW	18.2	50.4	56.2	60.4	65.7	80.9	96.2		
	$P_{1\,TH\,Fan}$	hp	n/a	101	117	131	153	192	231		
		kW	n/a	75.6	87.6	97.8	114	143	172		
	$P_{1\,TH\,WH}$	hp	24.3	130	138	164	171	192	212		
		kW	18.2	97.0	103	123	128	143	158		
	$T_{2\,ME}$	lb-in	100,000	76,500	68,300	61,900	50,900	44,200	39,100		
		Nm	11,300	8,640	7,720	6,990	5,750	4,990	4,420		
	η	%	91	93	93	94	94	94	94		
7.5 1.5 x 5	$P_{1\,ME}$	hp	28.4	122	137	151	173	187	199	367,000	41,500
		kW	21.2	91.2	103	113	129	140	148		
	$P_{1\,TH}$	hp	18.1	53.4	60.2	67.5	77.0	83.4	89.2		
		kW	13.5	39.8	44.9	50.4	57.5	62.2	66.5		
	$P_{1\,TH\,Fan}$	hp	n/a	53.4	65.1	101	122	139	155		
		kW	n/a	39.8	48.6	75.6	90.8	104	116		
	$P_{1\,TH\,WH}$	hp	18.1	116	123	130	140	167	173		
		kW	13.5	86.5	91.6	97.0	104	124	129		
	$T_{2\,ME}$	lb-in	120,000	92,700	84,000	76,500	66,200	57,400	50,500		
		Nm	13,500	10,500	9,500	8,640	7,490	6,480	5,700		
	η	%	89	93	93	93	93	94	94		
9 1.8 x 5	$P_{1\,ME}$	hp	25.4	111	125	138	159	176	187	394,000	44,500
		kW	19.0	82.8	93.1	103	119	132	140		
	$P_{1\,TH}$	hp	14.6	48.6	54.3	60.4	70.8	78.5	83.5		
		kW	10.9	36.3	40.6	45.1	52.8	58.6	62.3		
	$P_{1\,TH\,Fan}$	hp	n/a	48.6	54.3	66.3	108	125	139		
		kW	n/a	36.3	40.6	49.5	80.6	93.4	104		
	$P_{1\,TH\,WH}$	hp	14.6	111	117	123	133	147	167		
		kW	10.9	82.8	87.2	91.8	99.5	110	125		
	$T_{2\,ME}$	lb-in	126,000	101,000	91,500	83,800	73,000	64,500	57,200		
		Nm	14,200	11,400	10,300	9,470	8,250	7,290	6,460		
	η	%	87	93	93	93	93	93	94		
10 1 x 10	$P_{1\,ME}$	hp	32.2	107	120	132	148	159	170	519,000	58,600
		kW	24.0	79.9	89.3	98.2	110	119	127		
	$P_{1\,TH}$	hp	21.6	54.7	59.8	63.2	68.7	70.9	73.2		
		kW	16.2	40.9	44.6	47.2	51.2	52.9	54.6		
	$P_{1\,TH\,Fan}$	hp	n/a	82.1	93.3	102	119	125	131		
		kW	n/a	61.3	69.6	76.4	89.2	93.5	97.8		
	$P_{1\,TH\,WH}$	hp	21.6	86.0	101	105	119	121	123		
		kW	16.2	64.2	75.7	78.3	88.6	90.2	91.9		
	$T_{2\,ME}$	lb-in	173,000	104,000	95,500	86,900	74,600	63,600	56,500		
		Nm	19,500	11,700	10,800	9,820	8,430	7,190	6,380		
	η	%	85	89	91	91	92	92	92		
12.5 2.5 x 5	$P_{1\,ME}$	hp	20.6	92.6	104	115	134	151	165	426,000	48,200
		kW	15.4	69.1	78.0	86.2	99.9	113	123		
	$P_{1\,TH}$	hp	14.6	39.9	45.8	50.5	58.7	67.5	74.2		
		kW	10.9	29.8	34.1	37.7	43.8	50.4	55.3		
	$P_{1\,TH\,Fan}$	hp	n/a	39.9	45.8	50.5	58.7	101	115		
		kW	n/a	29.8	34.1	37.7	43.8	75.6	85.9		
	$P_{1\,TH\,WH}$	hp	14.6	89.9	104	113	121	130	137		
		kW	10.9	67.1	78.0	84.4	90.5	97.0	102		
	$T_{2\,ME}$	lb-in	142,000	116,000	106,000	97,400	85,400	76,500	69,300		
		Nm	16,000	13,100	12,000	11,000	9,650	8,640	7,830		
	η	%	87	92	93	93	93	93	93		
15 1.5 x 10	$P_{1\,ME}$	hp	22.0	86.3	96.6	107	124	138	149	519,000	58,600
		kW	16.4	64.4	72.1	79.9	92.5	103	111		
	$P_{1\,TH}$	hp	18.5	37.0	45.6	54.7	60.9	65.1	68.8		
		kW	13.8	27.6	34.0	40.9	45.4	48.6	51.3		
	$P_{1\,TH\,Fan}$	hp	n/a	37.0	52.8	82.1	96.1	108	120		
		kW	n/a	27.6	39.4	61.3	71.7	80.8	89.4		
	$P_{1\,TH\,WH}$	hp	18.5	64.8	76.8	86.0	103	115	119		
		kW	13.8	48.4	57.3	64.2	76.5	85.5	88.6		
	$T_{2\,ME}$	lb-in	173,000	124,000	113,000	104,000	92,900	82,900	74,000		
		Nm	19,500	14,000	12,800	11,700	10,500	9,370	8,370		
	η	%	83	88	89	89	91	92	92		

See Page 8.7 for Rating Definitions

9.75” Primary/10” Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
18 1.8 x 10	$P_{1\,ME}$	hp	18.7	78.1	87.8	97.3	113	127	139	519,000	58,600
		kW	14.0	58.3	65.5	72.6	84.4	94.7	103		
	$P_{1\,TH}$	hp	16.2	31.1	38.2	45.9	56.9	61.7	65.2		
		kW	12.1	23.2	28.5	34.2	42.4	46.1	48.6		
	$P_{1\,TH\,Fan}$	hp	n/a	31.1	38.2	53.8	86.8	98.5	109		
		kW	n/a	23.2	28.5	40.1	64.8	73.5	81.1		
	$P_{1\,TH\,WH}$	hp	16.2	58.9	66.0	77.1	92.6	103	115		
		kW	12.1	43.9	49.3	57.6	69.1	77.2	86.0		
	$T_{2\,ME}$	lb-in	173,000	135,000	122,000	113,000	101,000	90,500	82,800		
		Nm	19,500	15,200	13,800	12,800	11,400	10,200	9,360		
	η	%	81	88	88	89	90	91	92		
20 4 x 5	$P_{1\,ME}$	hp	17.3	58.9	66.0	72.4	81.8	87.8	94.2	508,000	57,400
		kW	12.9	43.9	49.3	54.0	61.1	65.5	70.3		
	$P_{1\,TH}$	hp	17.0	39.8	42.5	44.3	46.4	47.3	48.2		
		kW	12.7	29.7	31.7	33.1	34.6	35.3	36.0		
	$P_{1\,TH\,Fan}$	hp	n/a	58.9	66.0	71.8	80.7	83.5	86.4		
		kW	n/a	43.9	49.3	53.6	60.2	62.3	64.4		
	$P_{1\,TH\,WH}$	hp	17.0	58.9	63.3	65.2	69.1	72.3	73.2		
		kW	12.7	43.9	47.2	48.6	51.6	54.0	54.7		
	$T_{2\,ME}$	lb-in	169,000	109,000	98,700	89,500	77,500	66,600	59,200		
		Nm	19,100	12,300	11,200	10,100	8,750	7,520	6,690		
	η	%	78	85	85	85	86	87	87		
22.5 1.5 x 15	$P_{1\,ME}$	hp	15.4	61.5	68.8	76.5	88.1	98.7	107	522,000	59,000
		kW	11.5	45.9	51.3	57.1	65.7	73.6	79.8		
	$P_{1\,TH}$	hp	15.4	37.1	41.0	45.2	49.4	52.1	54.1		
		kW	11.5	27.7	30.6	33.7	36.9	38.9	40.4		
	$P_{1\,TH\,Fan}$	hp	n/a	37.1	43.5	67.7	78.0	86.6	94.3		
		kW	n/a	27.7	32.5	50.5	58.2	64.6	70.3		
	$P_{1\,TH\,WH}$	hp	15.4	57.9	63.7	70.2	77.2	87.5	89.8		
		kW	11.5	43.2	47.6	52.4	57.6	65.3	67.0		
	$T_{2\,ME}$	lb-in	174,000	128,000	117,000	109,000	95,900	87,000	78,100		
		Nm	19,700	14,500	13,200	12,300	10,800	9,830	8,830		
	η	%	80	85	86	87	88	90	90		
25 2.5 x 10	$P_{1\,ME}$	hp	13.5	63.3	73.0	81.5	94.2	107	118	519,000	58,600
		kW	10.1	47.2	54.5	60.8	70.3	79.9	88.4		
	$P_{1\,TH}$	hp	13.5	30.3	29.3	33.5	43.7	54.7	59.1		
		kW	10.1	22.6	21.9	25.0	32.6	40.9	44.1		
	$P_{1\,TH\,Fan}$	hp	n/a	30.3	29.3	33.5	46.9	82.1	91.7		
		kW	n/a	22.6	21.9	25.0	35.0	61.3	68.4		
	$P_{1\,TH\,WH}$	hp	13.5	55.3	57.1	61.3	75.0	86.0	101		
		kW	10.1	41.3	42.6	45.7	56.0	64.2	75.2		
	$T_{2\,ME}$	lb-in	173,000	150,000	141,000	130,000	115,000	104,000	97,200		
		Nm	19,500	17,000	15,900	14,700	13,000	11,700	11,000		
	η	%	81	87	88	88	89	89	91		
27 1.8 x 15	$P_{1\,ME}$	hp	13.0	55.6	62.7	69.1	80.6	90.7	98.7	522,000	59,000
		kW	9.72	41.5	46.8	51.6	60.1	67.7	73.7		
	$P_{1\,TH}$	hp	13.0	34.4	37.7	41.1	46.6	50.0	52.1		
		kW	9.72	25.7	28.1	30.7	34.8	37.3	38.9		
	$P_{1\,TH\,Fan}$	hp	n/a	34.4	37.7	44.3	71.2	79.8	86.8		
		kW	n/a	25.7	28.1	33.1	53.1	59.5	64.8		
	$P_{1\,TH\,WH}$	hp	13.0	53.7	60.4	63.9	74.4	79.0	87.8		
		kW	9.72	40.1	45.1	47.7	55.5	59.0	65.6		
	$T_{2\,ME}$	lb-in	174,000	165,000	158,000	151,000	138,000	127,000	116,000		
		Nm	19,700	18,700	17,900	17,100	15,600	14,400	13,200		
	η	%	79	84	86	86	88	89	90		
30 1.5 x 20	$P_{1\,ME}$	hp	11.8	47.3	53.0	58.9	67.8	75.8	82.3	508,000	57,400
		kW	8.84	35.3	39.6	43.9	50.6	56.6	61.4		
	$P_{1\,TH}$	hp	11.8	32.8	36.2	39.8	43.1	45.0	46.4		
		kW	8.84	24.5	27.0	29.7	32.1	33.6	34.7		
	$P_{1\,TH\,Fan}$	hp	n/a	32.8	38.4	58.9	67.8	74.9	80.9		
		kW	n/a	24.5	28.6	43.9	50.6	55.9	60.4		
	$P_{1\,TH\,WH}$	hp	11.8	47.3	53.0	58.9	63.9	67.7	69.2		
		kW	8.84	35.3	39.6	43.9	47.7	50.5	51.6		
	$T_{2\,ME}$	lb-in	169,000	127,000	116,000	109,000	95,100	85,300	76,700		
		Nm	19,100	14,400	13,100	12,300	10,700	9,640	8,670		
	η	%	76	82	83	85	85	86	86		

See Page 8.7 for Rating Definitions

Size 100 Helical Worm Reducer Ratings

9.75" Primary/10" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
36 1.8 x 20	$P_{1\,ME}$	hp	10.1	42.7	48.1	53.1	61.8	69.7	76.1	508,000	57,400
		kW	7.55	31.9	35.9	39.6	46.1	52.0	56.8		
	$P_{1\,TH}$	hp	10.1	30.5	33.3	36.3	40.9	43.5	45.1		
		kW	7.55	22.8	24.8	27.1	30.5	32.5	33.6		
	$P_{1\,TH\,Fan}$	hp	n/a	30.5	33.3	39.1	61.8	69.4	75.1		
		kW	n/a	22.8	24.8	29.2	46.1	51.8	56.0		
	$P_{1\,TH\,WH}$	hp	10.1	42.7	48.1	53.1	61.8	64.4	67.8		
		kW	7.55	31.9	35.9	39.6	46.1	48.0	50.6		
	$T_{2\,ME}$	lb-in	169,000	135,000	125,000	115,000	104,000	93,200	85,100		
		Nm	19,100	15,200	14,100	13,000	11,800	10,500	9,620		
	η	%	74	81	82	83	85	85	86		
37.5 2.5 x 15	$P_{1\,ME}$	hp	9.38	44.8	51.9	58.1	67.5	76.5	84.6	522,000	59,000
		kW	7.00	33.4	38.7	43.4	50.3	57.1	63.1		
	$P_{1\,TH}$	hp	9.38	29.1	32.7	35.5	40.2	45.2	48.2		
		kW	7.00	21.7	24.4	26.5	30.0	33.7	35.9		
	$P_{1\,TH\,Fan}$	hp	n/a	29.1	32.7	35.5	40.2	67.7	74.7		
		kW	n/a	21.7	24.4	26.5	30.0	50.5	55.8		
	$P_{1\,TH\,WH}$	hp	9.38	44.8	51.9	56.3	62.9	70.2	75.9		
		kW	7.00	33.4	38.7	42.0	46.9	52.4	56.7		
	$T_{2\,ME}$	lb-in	174,000	152,000	144,000	135,000	120,000	109,000	101,000		
		Nm	19,700	17,200	16,200	15,200	13,500	12,300	11,400		
	η	%	79	83	84	85	86	87	88		
40 4 x 10	$P_{1\,ME}$	hp	8.52	44.1	52.4	60.4	72.9	83.4	92.2	519,000	58,600
		kW	6.36	32.9	39.1	45.1	54.4	62.3	68.8		
	$P_{1\,TH}$	hp	8.52	25.8	29.1	30.6	29.3	34.8	41.7		
		kW	6.36	19.3	21.7	22.8	21.9	26.0	31.1		
	$P_{1\,TH\,Fan}$	hp	n/a	25.8	29.1	30.6	29.3	34.8	41.7		
		kW	n/a	19.3	21.7	22.8	21.9	26.0	31.1		
	$P_{1\,TH\,WH}$	hp	8.52	44.1	52.4	55.6	57.1	62.6	69.5		
		kW	6.36	32.9	39.1	41.5	42.6	46.7	51.8		
	$T_{2\,ME}$	lb-in	173,000	165,000	160,000	153,000	141,000	128,000	117,000		
		Nm	19,500	18,700	18,100	17,300	15,900	14,500	13,200		
	η	%	81	86	87	87	88	88	88		
45 1.8 x 25	$P_{1\,ME}$	hp	8.17	34.5	38.9	43.0	49.9	56.3	61.5	486,000	54,900
		kW	6.10	25.8	29.0	32.1	37.3	42.1	45.9		
	$P_{1\,TH}$	hp	8.17	26.2	28.8	31.5	35.4	36.9	37.8		
		kW	6.10	19.6	21.5	23.5	26.4	27.6	28.2		
	$P_{1\,TH\,Fan}$	hp	n/a	26.2	28.8	34.1	49.9	56.3	61.5		
		kW	n/a	19.6	21.5	25.5	37.3	42.1	45.9		
	$P_{1\,TH\,WH}$	hp	8.17	34.5	38.9	43.0	49.9	56.3	58.7		
		kW	6.10	25.8	29.0	32.1	37.3	42.1	43.8		
	$T_{2\,ME}$	lb-in	162,000	134,000	125,000	117,000	103,000	93,400	85,000		
		Nm	18,300	15,200	14,100	13,200	11,600	10,600	9,610		
	η	%	70	80	81	83	83	85	85		
50 2.5 x 20	$P_{1\,ME}$	hp	7.29	34.4	39.8	44.7	51.9	58.9	65.1	508,000	57,400
		kW	5.44	25.6	29.7	33.3	38.7	43.9	48.6		
	$P_{1\,TH}$	hp	7.29	25.8	29.0	31.4	35.5	39.8	42.1		
		kW	5.44	19.2	21.6	23.4	26.5	29.7	31.4		
	$P_{1\,TH\,Fan}$	hp	n/a	25.8	29.0	31.4	35.5	58.9	65.1		
		kW	n/a	19.2	21.6	23.4	26.5	43.9	48.6		
	$P_{1\,TH\,WH}$	hp	7.29	34.4	39.8	44.7	51.9	58.9	62.9		
		kW	5.44	25.6	29.7	33.3	38.7	43.9	47.0		
	$T_{2\,ME}$	lb-in	169,000	148,000	140,000	132,000	119,000	109,000	100,000		
		Nm	19,100	16,800	15,900	14,900	13,400	12,300	11,300		
	η	%	74	80	81	81	83	85	85		
54 1.8 x 30	$P_{1\,ME}$	hp	6.86	28.9	32.6	35.9	41.9	47.3	51.5	469,000	53,000
		kW	5.12	21.6	24.3	26.8	31.3	35.3	38.4		
	$P_{1\,TH}$	hp	6.86	22.6	24.9	27.3	30.7	32.3	33.0		
		kW	5.12	16.9	18.6	20.4	22.9	24.1	24.7		
	$P_{1\,TH\,Fan}$	hp	n/a	22.6	24.9	29.6	41.9	47.3	51.5		
		kW	n/a	16.9	18.6	22.1	31.3	35.3	38.4		
	$P_{1\,TH\,WH}$	hp	6.86	28.9	32.6	35.9	41.9	47.3	48.7		
		kW	5.12	21.6	24.3	26.8	31.3	35.3	36.3		
	$T_{2\,ME}$	lb-in	156,000	127,000	118,000	108,000	98,600	89,700	81,600		
		Nm	17,700	14,300	13,300	12,200	11,100	10,100	9,220		
	η	%	67	75	77	77	80	81	81		

See Page 8.7 for Rating Definitions

9.75” Primary/10” Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
60 4 x 15	$P_{1\,ME}$	hp	5.93	31.1	37.0	42.8	51.8	59.4	65.8	522,000	59,000
		kW	4.43	23.2	27.6	31.9	38.7	44.3	49.1		
	$P_{1\,TH}$	hp	5.93	22.5	25.4	28.1	32.7	36.1	39.2		
		kW	4.43	16.8	18.9	21.0	24.4	26.9	29.3		
	$P_{1\,TH\,Fan}$	hp	n/a	22.5	25.4	28.1	32.7	36.1	39.2		
		kW	n/a	16.8	18.9	21.0	24.4	26.9	29.3		
	$P_{1\,TH\,WH}$	hp	5.93	31.1	37.0	42.8	51.8	56.9	62.0		
		kW	4.43	23.2	27.6	31.9	38.7	42.5	46.2		
	$T_{2\,ME}$	lb-in	174,000	167,000	162,000	155,000	144,000	132,000	123,000		
		Nm	19,700	18,900	18,300	17,500	16,200	14,900	13,900		
	η	%	78	82	83	83	84	85	86		
62.5 2.5 x 25	$P_{1\,ME}$	hp	5.88	27.7	32.2	36.1	41.9	47.6	52.6	486,000	54,900
		kW	4.39	20.7	24.0	26.9	31.3	35.5	39.3		
	$P_{1\,TH}$	hp	5.88	22.0	24.9	27.1	30.8	34.7	36.1		
		kW	4.39	16.4	18.6	20.2	23.0	25.9	26.9		
	$P_{1\,TH\,Fan}$	hp	n/a	22.0	24.9	27.1	30.8	47.6	52.6		
		kW	n/a	16.4	18.6	20.2	23.0	35.5	39.3		
	$P_{1\,TH\,WH}$	hp	5.88	27.7	32.2	36.1	41.9	47.6	52.6		
		kW	4.39	20.7	24.0	26.9	31.3	35.5	39.3		
	$T_{2\,ME}$	lb-in	162,000	146,000	138,000	132,000	118,000	108,000	98,800		
		Nm	18,300	16,500	15,600	14,900	13,400	12,200	11,200		
	η	%	70	78	79	81	82	83	83		
72 1.8 x 40	$P_{1\,ME}$	hp	5.20	21.8	24.6	27.2	31.6	35.7	38.9	426,000	48,100
		kW	3.88	16.3	18.4	20.3	23.6	26.6	29.0		
	$P_{1\,TH}$	hp	5.20	19.0	21.0	23.0	26.1	33.5	38.9		
		kW	3.88	14.2	15.6	17.2	19.5	25.0	29.0		
	$P_{1\,TH\,Fan}$	hp	n/a	19.0	21.0	25.0	31.6	35.7	38.9		
		kW	n/a	14.2	15.6	18.7	23.6	26.6	29.0		
	$P_{1\,TH\,WH}$	hp	5.20	21.8	24.6	27.2	31.6	35.7	38.9		
		kW	3.88	16.3	18.4	20.3	23.6	26.6	29.0		
	$T_{2\,ME}$	lb-in	142,000	119,000	111,000	103,000	95,400	86,600	78,200		
		Nm	16,000	13,500	12,600	11,600	10,800	9,790	8,840		
	η	%	60	70	72	73	77	78	78		
75 2.5 x 30	$P_{1\,ME}$	hp	4.94	23.2	26.9	30.2	35.1	39.9	44.1	469,000	53,000
		kW	3.69	17.3	20.1	22.6	26.2	29.8	32.9		
	$P_{1\,TH}$	hp	4.94	18.5	21.4	23.4	26.6	30.1	31.3		
		kW	3.69	13.8	15.9	17.4	19.9	22.5	23.4		
	$P_{1\,TH\,Fan}$	hp	n/a	18.5	21.4	23.4	26.6	39.9	44.1		
		kW	n/a	13.8	15.9	17.4	19.9	29.8	32.9		
	$P_{1\,TH\,WH}$	hp	4.94	23.2	26.9	30.2	35.1	39.9	44.1		
		kW	3.69	17.3	20.1	22.6	26.2	29.8	32.9		
	$T_{2\,ME}$	lb-in	156,000	140,000	132,000	124,000	111,000	101,000	95,900		
		Nm	17,700	15,800	14,900	14,000	12,500	11,400	10,800		
	η	%	67	74	75	76	77	78	81		
80 4 x 20	$P_{1\,ME}$	hp	4.61	23.8	28.4	32.8	39.8	45.7	50.5	508,000	57,400
		kW	3.44	17.8	21.2	24.5	29.7	34.1	37.7		
	$P_{1\,TH}$	hp	4.61	20.1	22.5	24.9	29.0	31.9	34.7		
		kW	3.44	15.0	16.8	18.6	21.6	23.8	25.9		
	$P_{1\,TH\,Fan}$	hp	n/a	20.1	22.5	24.9	29.0	31.9	34.7		
		kW	n/a	15.0	16.8	18.6	21.6	23.8	25.9		
	$P_{1\,TH\,WH}$	hp	4.61	23.8	28.4	32.8	39.8	45.7	50.5		
		kW	3.44	17.8	21.2	24.5	29.7	34.1	37.7		
	$T_{2\,ME}$	lb-in	169,000	163,000	158,000	151,000	140,000	130,000	121,000		
		Nm	19,100	18,400	17,900	17,100	15,900	14,700	13,700		
	η	%	73	79	80	80	81	82	83		
90 1.8 x 50	$P_{1\,ME}$	hp	4.20	17.5	19.8	21.8	25.3	28.6	31.2	382,000	43,100
		kW	3.14	13.0	14.7	16.3	18.9	21.4	23.3		
	$P_{1\,TH}$	hp	4.20	16.3	17.8	19.4	21.7	23.0	24.1		
		kW	3.14	12.2	13.3	14.5	16.2	17.2	18.0		
	$P_{1\,TH\,Fan}$	hp	n/a	16.3	17.8	20.9	25.3	28.6	31.2		
		kW	n/a	12.2	13.3	15.6	18.9	21.4	23.3		
	$P_{1\,TH\,WH}$	hp	4.20	17.5	19.8	21.8	25.3	28.6	31.2		
		kW	3.14	13.0	14.7	16.3	18.9	21.4	23.3		
	$T_{2\,ME}$	lb-in	127,000	114,000	107,000	101,000	92,000	83,600	75,500		
		Nm	14,400	12,900	12,100	11,400	10,400	9,450	8,530		
	η	%	53	67	69	71	74	75	75		

See Page 8.7 for Rating Definitions

Size 100 Helical Worm Reducer Ratings

9.75" Primary/10" Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
100 4 x 25	$P_{1\,ME}$	hp	3.73	19.2	22.9	26.5	32.1	36.9	40.8	486,000	54,900
		kW	2.78	14.3	17.1	19.8	24.0	27.6	30.5		
	$P_{1\,TH}$	hp	3.73	16.9	19.1	21.3	24.8	27.5	30.0		
		kW	2.78	12.6	14.3	15.9	18.5	20.5	22.4		
	$P_{1\,TH\,Fan}$	hp	n/a	16.9	19.1	21.3	24.8	27.5	30.0		
		kW	n/a	12.6	14.3	15.9	18.5	20.5	22.4		
	$P_{1\,TH\,WH}$	hp	3.73	19.2	22.9	26.5	32.1	36.9	40.8		
		kW	2.78	14.3	17.1	19.8	24.0	27.6	30.5		
	$T_{2\,ME}$	lb-in	162,000	156,000	153,000	149,000	138,000	130,000	120,000		
		Nm	18,300	17,600	17,300	16,800	15,600	14,700	13,500		
	η	%	69	75	77	78	79	81	81		
108 1.8 x 60	$P_{1\,ME}$	hp	3.51	14.6	16.5	18.2	21.1	23.9	26.1	376,000	42,500
		kW	2.62	10.9	12.3	13.6	15.8	17.8	19.5		
	$P_{1\,TH}$	hp	3.51	13.9	15.3	16.8	19.0	20.3	21.5		
		kW	2.62	10.4	11.4	12.5	14.2	15.2	16.1		
	$P_{1\,TH\,Fan}$	hp	n/a	13.9	15.3	18.2	21.1	23.9	26.1		
		kW	n/a	10.4	11.4	13.6	15.8	17.8	19.5		
	$P_{1\,TH\,WH}$	hp	3.51	14.6	16.5	18.2	21.1	23.9	26.1		
		kW	2.62	10.9	12.3	13.6	15.8	17.8	19.5		
	$T_{2\,ME}$	lb-in	125,000	110,000	103,000	95,300	87,400	79,900	72,800		
		Nm	14,200	12,400	11,600	10,800	9,870	9,020	8,230		
	η	%	52	64	66	67	70	71	72		
120 4 x 30	$P_{1\,ME}$	hp	3.13	16.1	19.1	22.2	26.9	30.9	34.2	469,000	53,000
		kW	2.34	12.0	14.3	16.5	20.1	23.1	25.5		
	$P_{1\,TH}$	hp	3.13	14.1	15.9	17.8	21.3	23.8	26.0		
		kW	2.34	10.5	11.8	13.3	15.9	17.7	19.4		
	$P_{1\,TH\,Fan}$	hp	n/a	14.1	15.9	17.8	21.3	23.8	26.0		
		kW	n/a	10.5	11.8	13.3	15.9	17.7	19.4		
	$P_{1\,TH\,WH}$	hp	3.13	16.1	19.1	22.2	26.9	30.9	34.2		
		kW	2.34	12.0	14.3	16.5	20.1	23.1	25.5		
	$T_{2\,ME}$	lb-in	156,000	150,000	146,000	142,000	132,000	122,000	113,000		
		Nm	17,700	17,000	16,500	16,100	14,900	13,800	12,800		
	η	%	66	72	73	74	75	76	77		
125 2.5 x 50	$P_{1\,ME}$	hp	3.03	14.1	16.3	18.3	21.3	24.2	26.7	382,000	43,100
		kW	2.26	10.5	12.2	13.7	15.9	18.0	19.9		
	$P_{1\,TH}$	hp	3.03	13.5	15.5	16.8	18.9	21.2	22.2		
		kW	2.26	10.1	11.5	12.5	14.1	15.8	16.6		
	$P_{1\,TH\,Fan}$	hp	n/a	13.5	15.5	16.8	18.9	24.2	26.7		
		kW	n/a	10.1	11.5	12.5	14.1	18.0	19.9		
	$P_{1\,TH\,WH}$	hp	3.03	14.1	16.3	18.3	21.3	24.2	26.7		
		kW	2.26	10.5	12.2	13.7	15.9	18.0	19.9		
	$T_{2\,ME}$	lb-in	127,000	124,000	118,000	113,000	103,000	95,500	89,800		
		Nm	14,400	14,000	13,300	12,700	11,700	10,800	10,100		
	η	%	53	65	66	68	71	73	75		
150 2.5 x 60	$P_{1\,ME}$	hp	2.58	11.7	13.6	15.3	17.8	20.2	22.3	376,000	42,500
		kW	1.92	8.77	10.1	11.4	13.3	15.1	16.6		
	$P_{1\,TH}$	hp	2.58	11.5	13.2	14.4	16.4	18.6	19.5		
		kW	1.92	8.61	9.82	10.7	12.2	13.8	14.6		
	$P_{1\,TH\,Fan}$	hp	n/a	11.5	13.2	14.4	16.4	20.2	22.3		
		kW	n/a	8.61	9.82	10.7	12.2	15.1	16.6		
	$P_{1\,TH\,WH}$	hp	2.58	11.7	13.6	15.3	17.8	20.2	22.3		
		kW	1.92	8.77	10.1	11.4	13.3	15.1	16.6		
	$T_{2\,ME}$	lb-in	125,000	119,000	113,000	108,000	97,800	90,600	85,300		
		Nm	14,200	13,400	12,700	12,200	11,000	10,200	9,640		
	η	%	51	62	63	65	67	69	71		
160 4 x 40	$P_{1\,ME}$	hp	2.38	12.1	14.4	16.7	20.3	23.3	25.8	426,000	48,100
		kW	1.78	9.03	10.8	12.5	15.1	17.4	19.3		
	$P_{1\,TH}$	hp	2.38	11.3	13.2	15.0	17.9	20.0	21.9		
		kW	1.78	8.42	9.82	11.2	13.4	14.9	16.3		
	$P_{1\,TH\,Fan}$	hp	n/a	11.3	13.2	15.0	17.9	20.0	21.9		
		kW	n/a	8.42	9.82	11.2	13.4	14.9	16.3		
	$P_{1\,TH\,WH}$	hp	2.38	12.1	14.4	16.7	20.3	23.3	25.8		
		kW	1.78	9.03	10.8	12.5	15.1	17.4	19.3		
	$T_{2\,ME}$	lb-in	142,000	137,000	133,000	128,000	122,000	116,000	108,000		
		Nm	16,000	15,400	15,100	14,400	13,800	13,100	12,200		
	η	%	59	65	66	66	69	71	73		

See Page 8.7 for Rating Definitions

9.75” Primary/10” Secondary

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm							$T_{2\,MAX}$	
			100	580	720	870	1,150	1,450	1,750	lb-in	Nm
175 2.5 x 70	$P_{1\,ME}$	hp	2.17	10.1	11.7	13.1	15.2	17.3	19.1	370,000	41,800
		kW	1.62	7.52	8.71	9.80	11.4	12.9	14.3		
	$P_{1\,TH}$	hp	2.17	10.0	11.7	13.0	15.1	17.3	18.4		
		kW	1.62	7.48	8.71	9.69	11.3	12.9	13.7		
	$P_{1\,TH\,Fan}$	hp	n/a	10.0	11.7	13.0	15.1	17.3	19.1		
		kW	n/a	7.48	8.71	9.69	11.3	12.9	14.3		
	$P_{1\,TH\,WH}$	hp	2.17	10.1	11.7	13.1	15.2	17.3	19.1		
		kW	1.62	7.52	8.71	9.80	11.4	12.9	14.3		
	$T_{2\,ME}$	lb-in	123,000	117,000	111,000	107,000	96,500	89,600	84,300		
		Nm	13,900	13,200	12,500	12,000	10,900	10,100	9,520		
	η	%	51	61	62	64	66	68	70		
200 4 x 50	$P_{1\,ME}$	hp	1.93	9.70	11.6	13.4	16.3	18.7	20.7	382,000	43,100
		kW	1.44	7.24	8.65	10.0	12.1	14.0	15.5		
	$P_{1\,TH}$	hp	1.93	9.48	11.3	13.0	15.4	17.1	18.5		
		kW	1.44	7.07	8.45	9.69	11.5	12.7	13.8		
	$P_{1\,TH\,Fan}$	hp	n/a	9.48	11.3	13.0	15.4	17.1	18.5		
		kW	n/a	7.07	8.45	9.69	11.5	12.7	13.8		
	$P_{1\,TH\,WH}$	hp	1.93	9.70	11.6	13.4	16.3	18.7	20.7		
		kW	1.44	7.24	8.65	10.0	12.1	14.0	15.5		
	$T_{2\,ME}$	lb-in	127,000	127,000	126,000	124,000	118,000	111,000	104,000		
		Nm	14,400	14,300	14,200	14,000	13,300	12,600	11,800		
	η	%	52	60	62	64	66	68	70		
240 4 x 60	$P_{1\,ME}$	hp	1.61	8.12	9.68	11.2	13.6	15.6	17.3	376,000	42,500
		kW	1.20	6.06	7.22	8.35	10.1	11.7	12.9		
	$P_{1\,TH}$	hp	1.61	8.04	9.68	11.1	13.1	14.6	16.0		
		kW	1.20	6.00	7.22	8.30	9.81	10.9	11.9		
	$P_{1\,TH\,Fan}$	hp	n/a	8.04	9.68	11.1	13.1	14.6	16.0		
		kW	n/a	6.00	7.22	8.30	9.81	10.9	11.9		
	$P_{1\,TH\,WH}$	hp	1.61	8.12	9.68	11.2	13.6	15.6	17.3		
		kW	1.20	6.06	7.22	8.35	10.1	11.7	12.9		
	$T_{2\,ME}$	lb-in	125,000	125,000	124,000	121,000	113,000	107,000	100,000		
		Nm	14,200	14,200	14,000	13,600	12,700	12,100	11,300		
	η	%	51	59	61	62	63	65	67		
280 4 x 70	$P_{1\,ME}$	hp	1.39	6.97	8.30	9.60	11.7	13.4	14.8	370,000	41,800
		kW	1.03	5.20	6.20	7.16	8.71	10.0	11.1		
	$P_{1\,TH}$	hp	1.39	6.88	8.28	9.60	11.7	13.3	14.7		
		kW	1.03	5.14	6.18	7.16	8.71	9.89	11.0		
	$P_{1\,TH\,Fan}$	hp	n/a	6.88	8.28	9.60	11.7	13.3	14.7		
		kW	n/a	5.14	6.18	7.16	8.71	9.89	11.0		
	$P_{1\,TH\,WH}$	hp	1.39	6.97	8.30	9.60	11.7	13.4	14.8		
		kW	1.03	5.20	6.20	7.16	8.71	10.0	11.1		
	$T_{2\,ME}$	lb-in	123,000	123,000	122,000	119,000	111,000	105,000	98,700		
		Nm	13,900	13,900	13,800	13,400	12,600	11,900	11,200		
	η	%	50	58	60	61	62	64	66		

See Page 8.7 for Rating Definitions

6

Cone Drive
BY TIMKEN

SERIES HP

Cyclic Duty & Motion Control Applications

SERVO



6.2 Unit Designation
6.3 Mounting Positions
6.5 Shrink Disc Options
6.7 Dimensions
6.15 Ratings
6.29 Motor Adapter & Coupling Selection
6.33 Motor Code List

CYCLIC DUTY & MOTION CONTROL APPLICATIONS

U	3	5	C	A	-	1	-	D	1	1	H	C	D	F
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

1 UNIT TYPE

O	Worm Over
U	Worm Under
V	Gear Vertical

2 SIZE OF UNIT

3	0
3	5
4	0
5	0
6	0
7	0
8	0

4 EXACT RATIO & BACKLASH

5:1	A	Standard Backlash	5:1	B	Low Backlash
10:1	C	Standard Backlash	10:1	D	Low Backlash
15:1	E	Standard Backlash	15:1	F	Low Backlash
20:1	G	Standard Backlash	20:1	H	Low Backlash
25:1	J	Standard Backlash	25:1	K	Low Backlash
30:1	L	Standard Backlash	30:1	M	Low Backlash
40:1	N	Standard Backlash	40:1	P	Low Backlash
50:1	R	Standard Backlash	50:1	S	Low Backlash
60:1	T	Standard Backlash	60:1	U	Low Backlash
70:1	W	Standard Backlash*	70:1	X	Low Backlash*
		*Sizes 50 - 80 Only			*Sizes 50 - 80 Only

5 OUTPUT SHAFT

A	Solid Single Extended (inch)
B	Solid Double Extended (inch)
G	Hollow Shaft (See Table to right)
Y	Shrink Disc Shaft (See Page 6.5)

AVAILABLE HOLLOW SHAFT BORE SIZES

Bore Diameter	Reducer Size							Keyway	Bore Tolerance	Tapped Hole Size**
	30	35	40	50	60	70	80			
1.500	G							3/8 x 3/16	+0.002/-0.000	5/16 - 24
1.6875	H	H						3/8 x 3/16	+0.002/-0.000	5/16 - 24
1.9375	J	J						1/2 x 1/4	+0.002/-0.000	5/16 - 24
2.1875	L	L						1/2 x 1/4	+0.002/-0.000	5/16 - 24
2.188			L					5/8 x 5/16	+0.003/-0.000	5/16 - 24
2.4375	M							3/8 x 3/16	+0.002/-0.000	5/16 - 24
2.438		M	M					5/8 x 5/16	+0.003/-0.000	5/16 - 24
2.5	N	N						3/8 x 3/16	+0.002/-0.000	5/16 - 24
2.688		P						3/8 x 3/16	+0.002/-0.000	5/16 - 24
2.6875			P					5/8 x 5/16	+0.003/-0.000	5/16 - 24
2.750		Q						3/8 x 3/16	+0.002/-0.000	5/16 - 24
2.75				Q				5/8 x 5/16	+0.003/-0.000	5/16 - 24
2.938			R					5/8 x 5/16	+0.003/-0.000	5/16 - 24
2.9375					R			3/4 x 3/8	+0.003/-0.000	5/16 - 24
3.188				S				5/8 x 5/16	+0.003/-0.000	5/16 - 24
3.4375				T				5/8 x 5/16	+0.003/-0.000	5/16 - 24
3.438					T			3/4 x 3/8	+0.003/-0.000	5/16 - 24
3.9375					U			3/4 x 3/8	+0.003/-0.000	5/16 - 24
3.938						U	U	1 x 1/2	+0.003/-0.000	1/2 - 20
4.4375						V	V	1 x 1/2	+0.003/-0.000	1/2 - 20

Special hollow gear shaft bore sizes are available at additional cost.

**Two set screws at long end of shaft 90 degrees apart.

6, 7, 8 MOUNTING POSITION

-	1	-	(See Page 6.29 thru 6.36)

9, 10, 11 SERVO MOTOR CODE

D	1	1	(See Page 6.29 thru 6.36)

12 SERVO MOTOR SHAFT DIAMETER (MM)

A	14	K	28	T	55
B	15.875	L	28.575	U	60
C	16	M	31.75	V	70
D	19	N	32	W	75
E	19.05	O	34.925	Y	41.275
F	22	P	35		
G	22.22	Q	38		
H	24	R	42		
J	25.4	S	48		

13 COUPLING TYPE

L	Unit to fit motor less coupling
B	Bellows style coupling no keyway
C	Bellows style coupling with keyway
E	Jaw style coupling no keyway
F	Jaw style coupling with keyway

(See Page 6.29 thru 6.36 for coupling type)

14 MOTOR SPEED

A	0 - 100 RPM
B	101 - 500 RPM
C	501 - 1,000 RPM
D	1,001 - 2,000 RPM
E	2,001 - 3,000 RPM

15 COOLING OPTION & SPECIAL FEATURES

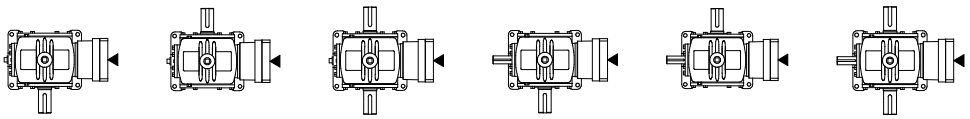
-	None
F	Fan Cooled

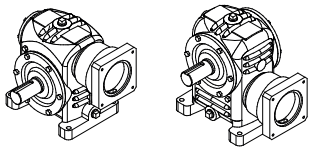
We reserve the right to improve or change product design and specifications without notice.

UNIT TYPE O & UNIT TYPE U

All diagrams show reducer with feet on far side.

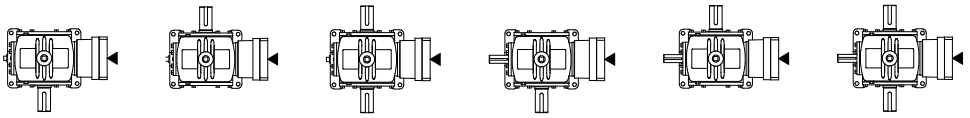
TOP VIEW, FLOOR MOUNTED

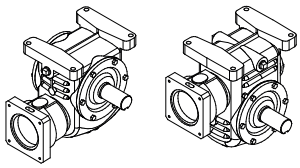




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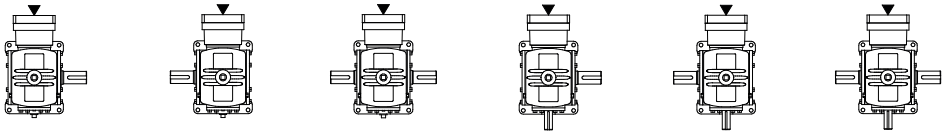
CEILING MOUNTED

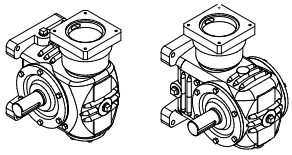




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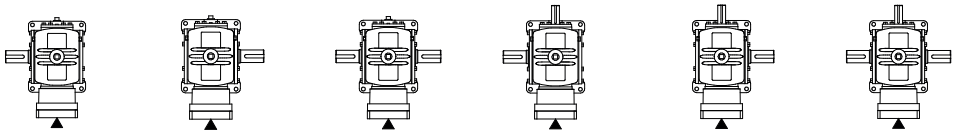
WALL MOUNTED, WORM VERTICAL UP

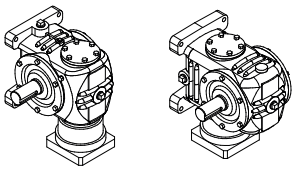




W2 SHOWN

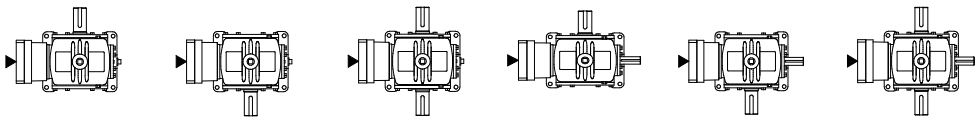
WALL MOUNTED, WORM VERTICAL DOWN

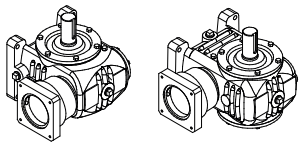




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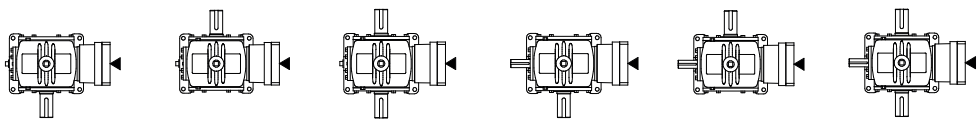
WALL MOUNTED, WORM HORIZONTAL TO THE LEFT

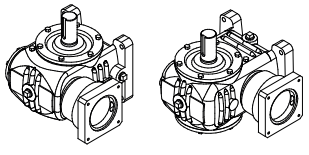




Y1 SHOWN

WALL MOUNTED, WORM HORIZONTAL TO THE RIGHT





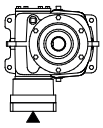
Z2 SHOWN

UNIT TYPE V

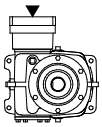
All diagrams show reducer with feet on far side.

A – Gearshaft Extended Opposite Feet
B – Gearshaft Extended Through Feet
C – Gearshaft Double Extended

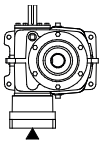
TOP VIEW, FLOOR MOUNTED



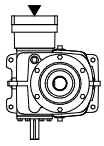
7A
7B
7C



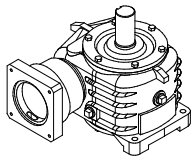
8A
8B
8C



9A
9B
9C

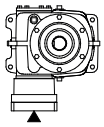


0A
0B
0C

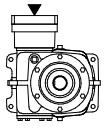


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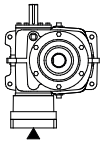
CEILING MOUNTED



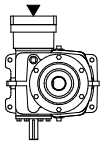
C7A
C7B
C7C



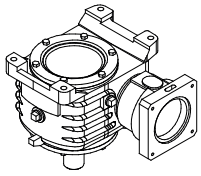
C8A
C8B
C8C



C9A
C9B
C9C

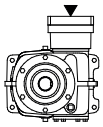


C0A
C0B
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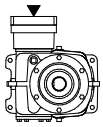


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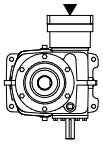
WALL MOUNTED, WORM VERTICAL UP



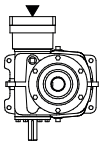
W7A
W7B
W7C



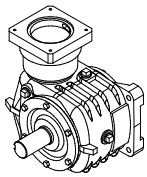
W8A
W8B
W8C



W9A
W9B
W9C

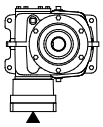


W0A
W0B
W0C

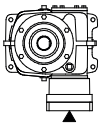


W8A SHOWN

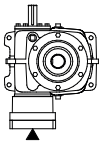
WALL MOUNTED, WORM VERTICAL DOWN



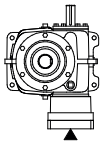
X7A
X7B
X7C



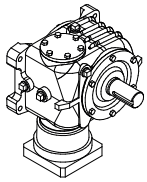
X8A
X8B
X8C



X9A
X9B
X9C

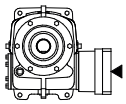


X0A
X0B
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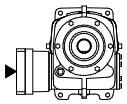


X7A SHOWN

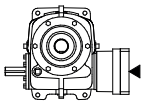
WALL MOUNTED, WORM HORIZONTAL UNDER GEAR



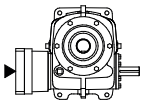
Y7A
Y7B
Y7C



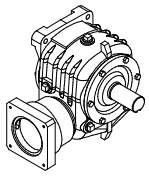
Y8A
Y8B
Y8C



Y9A
Y9B
Y9C

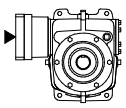


Y0A
Y0B
Y0C

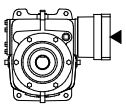


Y8A SHOWN

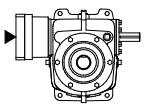
WALL MOUNTED, WORM HORIZONTAL OVER GEAR



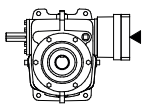
Z7A
Z7B
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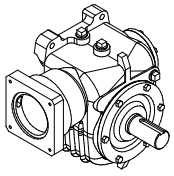
Z8A
Z8B
Z8C



Z9A
Z9B
Z9C

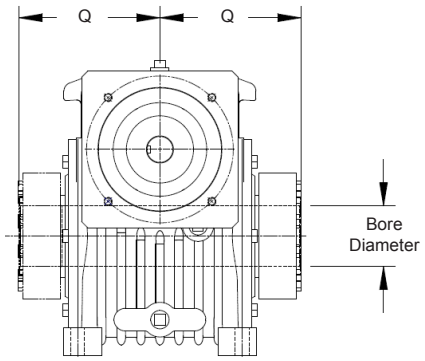


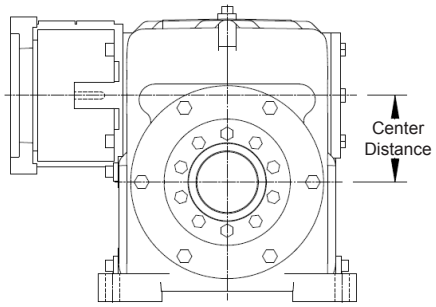
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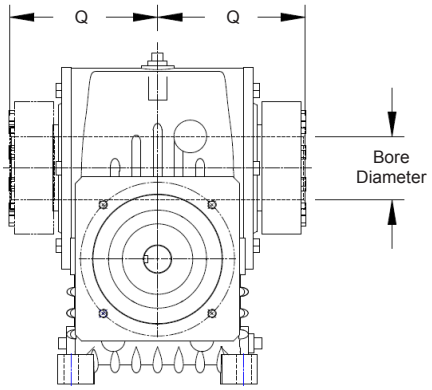


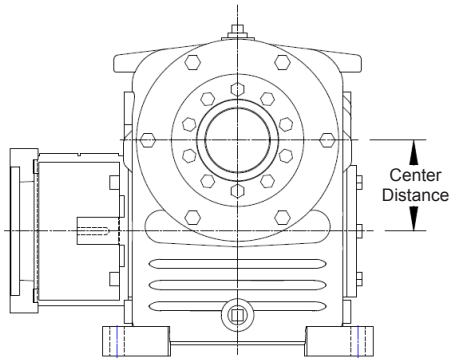
Z7A SHOWN

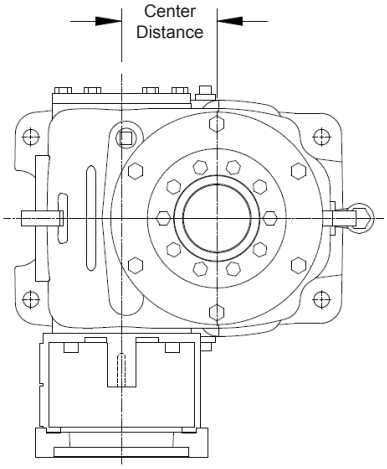
Servo Shrink Disc Options

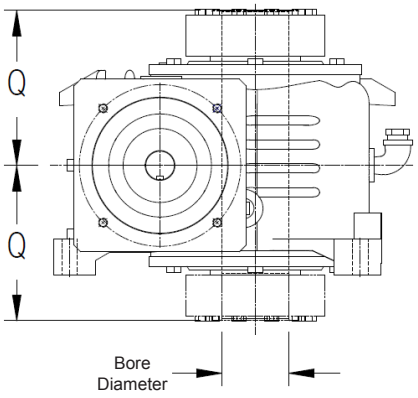












GEARBOX SIZE	CENTER DISTANCE	DIMENSION "Q"	REDUCER BORE		DRIVEN SHAFT	
	(in)					
30	3.0	5.10	2.1875	+0.0008/-0.0000	2.1875	+0.0000/-0.0011
35	3.5	6.00	2.4375	+0.0008/-0.0000	2.4375	+0.0000/-0.0011
40	4.0	7.13	2.6875	+0.0008/-0.0000	2.6875	+0.0000/-0.0011
50	5.0	8.13	3.1875	+0.0012/-0.0000	3.1875	+0.0000/-0.0015
60	6.0	9.10	3.4375	+0.0012/-0.0000	3.4375	+0.0000/-0.0015
70	7.0	10.88	4.4375	+0.0012/-0.0000	4.4375	+0.0000/-0.0015
80	8.0	10.88	4.4375	+0.0012/-0.0000	4.4375	+0.0000/-0.0015

(Shrink Disk can be mounted on either side or both)

RATIO	Units	MODEL HO BY SIZE							MODEL SHO BY SIZE						
		HO30	HO35	HO40	HO50	HO60	HO70	HO80	SHO30	SHO35	SHO40	SHO50	SHO60	SHO70	SHO80
5:1	lb·in·s²x10⁻⁴	77.76	133.71	252.12	745.39	1589.86	3068.69	5093.05	107.17	192.23	324.77	951.85	2138.20	4367.13	6412.24
	kg·cm²	8.78	15.09	28.46	84.13	179.44	346.35	574.84	12.10	21.70	36.66	107.43	241.33	492.90	723.73
7.5:1	lb·in·s²x10⁻⁴	66.14	106.11	197.43	602.75	1230.21	2392.88	3629.54	79.21	132.12	229.71	694.51	1473.92	2969.97	4215.85
	kg·cm²	7.46	11.98	22.28	68.03	138.85	270.08	409.65	8.94	14.91	25.93	78.39	166.36	335.21	475.83
10:1	lb·in·s²x10⁻⁴	62.07	96.45	178.28	552.82	1104.34	2156.35	3117.31	69.42	111.08	196.45	604.44	1241.42	2480.96	3447.11
	kg·cm²	7.01	10.89	20.12	62.40	124.64	243.38	351.84	7.84	12.54	22.17	68.22	140.12	280.02	389.06
15:1	lb·in·s²x10⁻⁴	59.16	89.55	164.61	517.16	1014.43	1987.39	2751.43	62.43	96.05	172.68	540.10	1075.35	2131.66	2898.01
	kg·cm²	6.68	10.11	18.58	58.37	114.50	224.31	310.55	7.05	10.84	19.49	60.96	121.37	240.59	327.09
20:1	lb·in·s²x10⁻⁴	58.15	87.13	159.83	504.68	982.96	1928.26	2623.38	59.99	90.79	164.37	517.58	1017.23	2009.41	2705.83
	kg·cm²	6.56	9.83	18.04	56.96	110.94	217.64	296.09	6.77	10.25	18.55	58.42	114.81	226.80	305.40
25:1	lb·in·s²x10⁻⁴	57.68	86.01	157.61	498.90	968.39	1900.89	2564.10	58.85	88.36	160.52	507.16	990.33	1952.83	2616.87
	kg·cm²	6.51	9.71	17.79	56.31	109.30	214.55	289.40	6.64	9.97	18.12	57.24	111.78	220.41	295.36
30:1	lb·in·s²x10⁻⁴	57.42	85.41	156.41	495.77	960.48	1886.02	2531.91	58.24	87.03	158.43	501.50	975.71	1922.09	2568.55
	kg·cm²	6.48	9.64	17.65	55.96	108.41	212.87	285.77	6.57	9.82	17.88	56.60	110.13	216.94	289.90
40:1	lb·in·s²x10⁻⁴	57.17	84.80	155.21	492.64	952.61	1871.24	2499.89	57.63	85.72	156.35	495.87	961.18	1891.53	2520.50
	kg·cm²	6.45	9.57	17.52	55.60	107.52	211.20	282.15	6.50	9.67	17.65	55.97	108.49	213.49	284.48
50:1	lb·in·s²x10⁻⁴	57.05	84.52	154.66	491.20	948.97	1864.39	2485.07	57.34	85.11	155.38	493.27	954.46	1877.38	2498.27
	kg·cm²	6.44	9.54	17.46	55.44	107.11	210.43	280.48	6.47	9.61	17.54	55.67	107.73	211.89	281.97
60:1	lb·in·s²x10⁻⁴	56.98	84.37	154.36	490.42	947.00	1860.68	2477.02	57.19	84.78	154.86	491.85	950.80	1869.69	2486.19
	kg·cm²	6.43	9.52	17.42	55.35	106.88	210.01	279.57	6.45	9.57	17.48	55.51	107.31	211.03	280.61
70:1	lb·in·s²x10⁻⁴	-	-	-	489.94	945.80	1858.44	2472.17	-	-	-	491.00	948.60	1865.06	2478.90
	kg·cm²				55.30	106.75	209.76	279.03				55.42	107.07	210.50	279.79

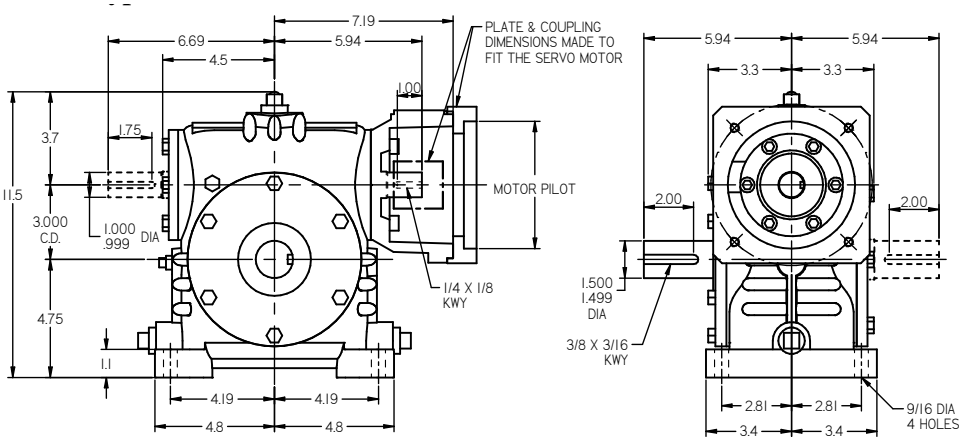
RATIO	Units	MODEL FHO BY SIZE							MODEL FSHO BY SIZE						
		FHO30	FHO35	FHO40	FHO50	FHO60	FHO70	FHO80	FSHO30	FSHO35	FSHO40	FSHO50	FSHO60	FSHO70	FSHO80
5:1	lb·in·s²x10⁻⁴	94.44	149.33	353.56	841.41	1746.98	3375.96	5970.99	123.85	207.85	426.21	1047.86	2295.31	4674.41	7290.18
	kg·cm²	10.66	16.85	39.91	94.97	197.18	381.03	673.93	13.98	23.46	48.10	118.27	259.06	527.59	822.82
7.5:1	lb·in·s²x10⁻⁴	82.81	121.73	298.87	698.77	1387.33	2700.15	4507.48	95.89	147.74	331.15	790.52	1631.04	3277.24	5093.79
	kg·cm²	9.35	13.74	33.73	78.87	156.58	304.76	508.74	10.82	16.67	37.38	89.22	184.09	369.89	574.92
10:1	lb·in·s²x10⁻⁴	78.75	112.07	279.72	648.84	1261.46	2463.62	3995.25	86.10	126.70	297.89	700.45	1398.54	2788.23	4325.05
	kg·cm²	8.89	12.65	31.57	73.23	142.38	278.06	450.93	9.72	14.30	33.62	79.06	157.85	314.70	488.15
15:1	lb·in·s²x10⁻⁴	75.84	105.17	266.05	613.18	1171.55	2294.67	3629.37	79.11	111.67	274.12	636.12	1232.47	2438.94	3775.95
	kg·cm²	8.56	11.87	30.03	69.21	132.23	258.99	409.64	8.93	12.60	30.94	71.80	139.11	275.28	426.18
20:1	lb·in·s²x10⁻⁴	74.82	102.75	261.27	600.70	1140.08	2235.53	3501.31	76.66	106.41	265.81	613.60	1174.35	2316.69	3583.76
	kg·cm²	8.44	11.60	29.49	67.80	128.68	252.32	395.18	8.65	12.01	30.00	69.26	132.55	261.48	404.49
25:1	lb·in·s²x10⁻⁴	74.35	101.64	259.05	594.92	1125.51	2208.16	3442.04	75.53	103.98	261.96	603.18	1147.45	2260.10	3494.81
	kg·cm²	8.39	11.47	29.24	67.15	127.03	249.23	388.49	8.52	11.74	29.57	68.08	129.51	255.09	394.45
30:1	lb·in·s²x10⁻⁴	74.10	101.03	257.85	591.78	1117.60	2193.30	3409.84	74.91	102.65	259.87	597.52	1132.83	2229.36	3446.49
	kg·cm²	8.36	11.40	29.10	66.79	126.14	247.55	384.86	8.46	11.59	29.33	67.44	127.86	251.62	388.99
40:1	lb·in·s²x10⁻⁴	73.84	100.43	256.65	588.66	1109.73	2178.51	3377.83	74.30	101.34	257.79	591.89	1118.30	2198.80	3398.44
	kg·cm²	8.33	11.33	28.97	66.44	125.25	245.88	381.24	8.39	11.44	29.10	66.80	126.22	248.17	383.57
50:1	lb·in·s²x10⁻⁴	73.72	100.15	256.10	587.22	1106.09	2171.67	3363.01	74.02	100.73	256.82	589.28	1111.58	2184.65	3376.20
	kg·cm²	8.32	11.30	28.90	66.28	124.84	245.11	379.57	8.35	11.37	28.99	66.51	125.46	246.57	381.06
60:1	lb·in·s²x10⁻⁴	73.66	99.99	255.80	586.43	1104.11	2167.95	3354.96	73.86	100.40	256.30	587.87	1107.92	2176.97	3364.12
	kg·cm²	8.31	11.29	28.87	66.19	124.62	244.69	378.66	8.34	11.33	28.93	66.35	125.05	245.71	379.70
70:1	lb·in·s²x10⁻⁴	-	-	-	585.96	1102.92	2165.71	3350.11	-	-	-	587.01	1105.72	2172.34	3356.84
	kg·cm²				66.14	124.48	244.44	378.12				66.25	124.80	245.18	378.88

Size 30 Servo Dimensions

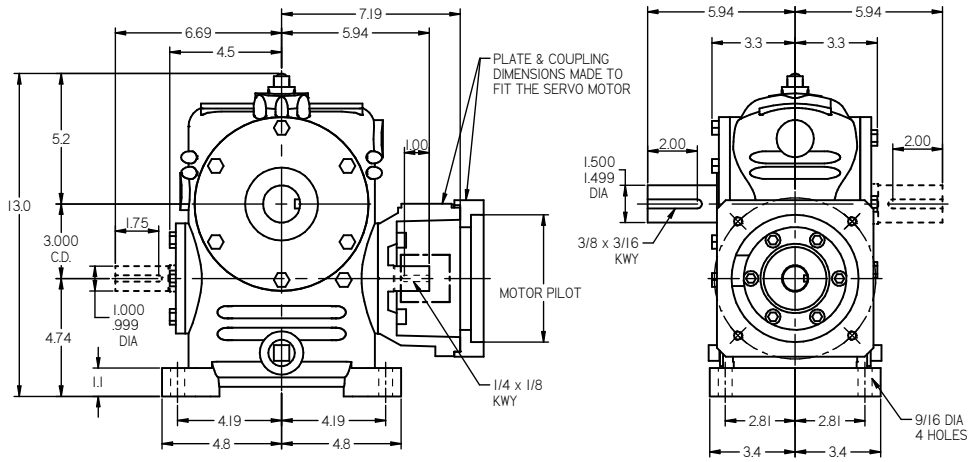
3.000" C.D. SOLID SHAFT, SIZE 30

(all dimensions in inches)

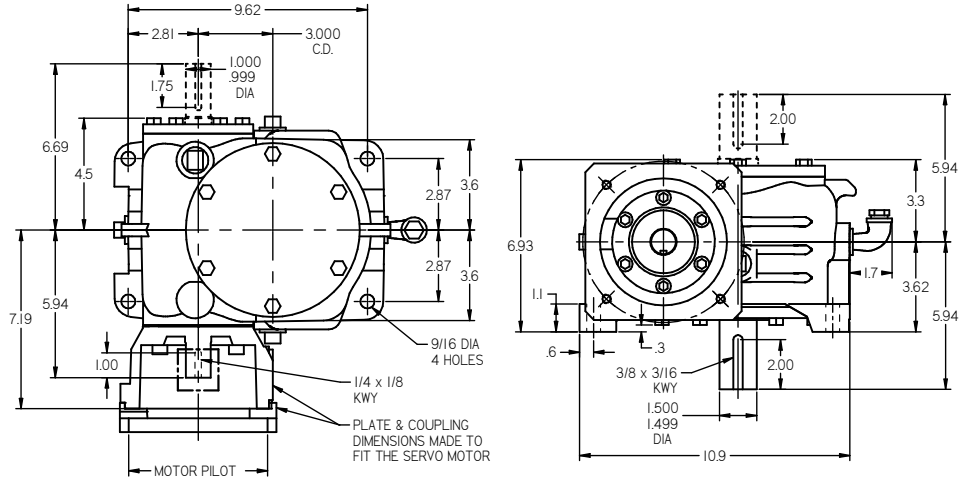
Model Type O Worm Over Gear, net weight 87 lbs.



Model Type U Worm Under Gear, net weight 97 lbs.



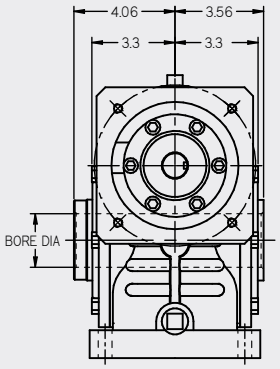
Model Type V Worm Horizontal Gear Vertical, net weight 88 lbs.



SERVO ADAPTER MAY BE MOUNTED ON EITHER SIDE OF UNIT
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

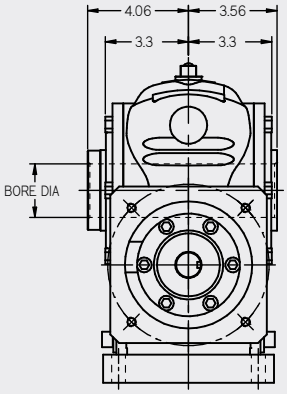
HOLLOW SHAFT

O net weight 106 lbs.



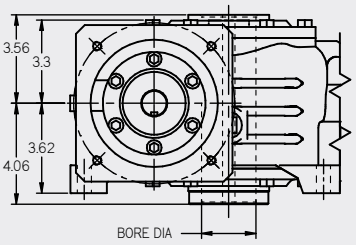
See gear shaft chart. Set screw end of shaft, may extend on either side

U net weight 104 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

V net weight 103 lbs.

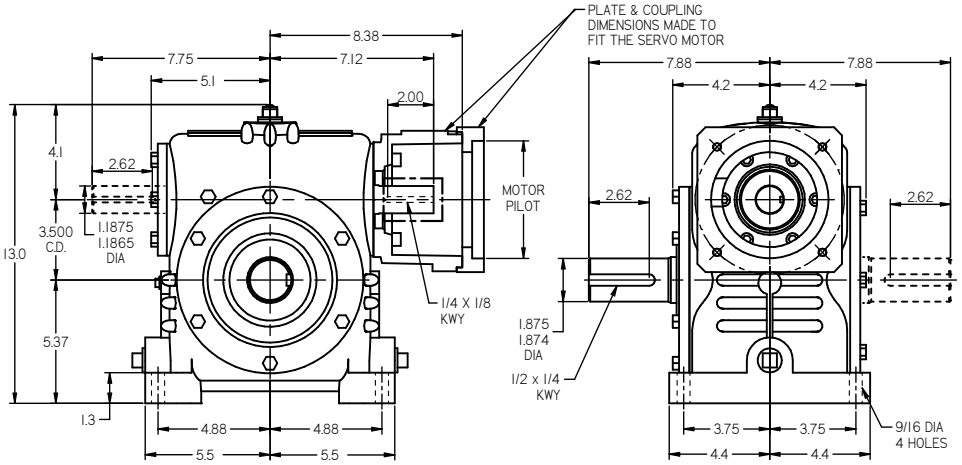


See gear shaft chart. Set screw end of shaft, may extend on either side

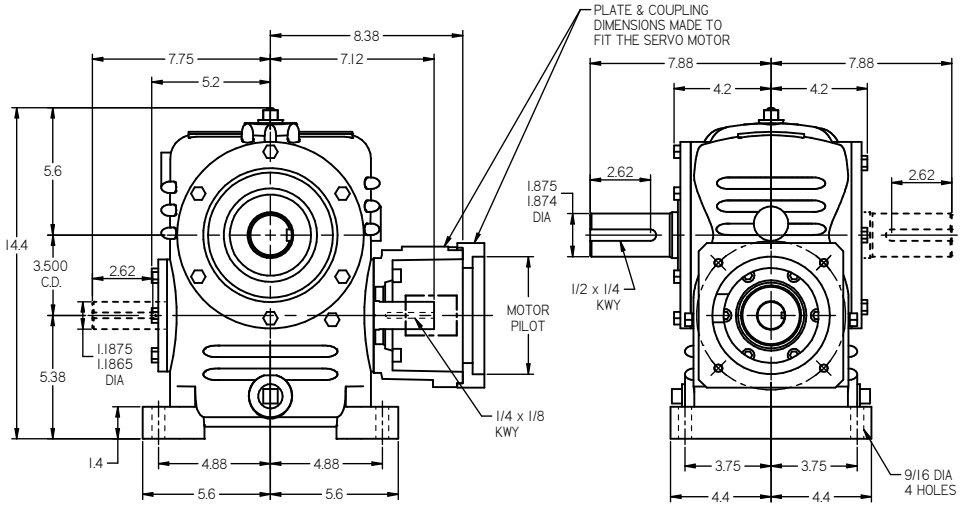
3.500" C.D. SOLID SHAFT, SIZE 35

(all dimensions in inches)

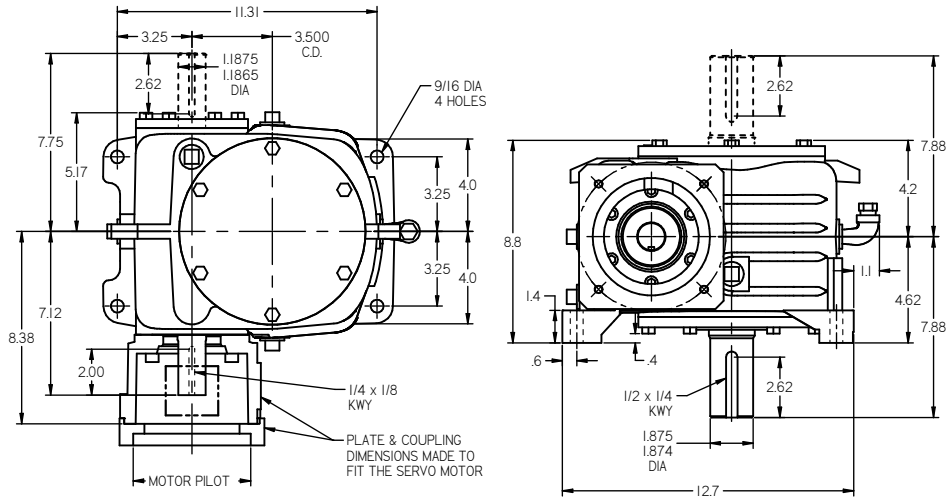
Model Type O Worm Over Gear, net weight 136 lbs.



Model Type U Worm Under Gear, net weight 158 lbs.



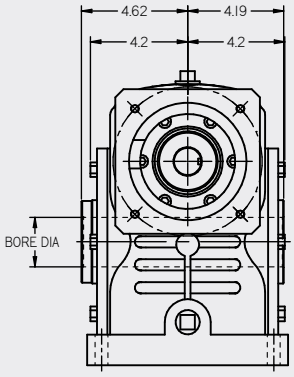
Model Type V Worm Horizontal Gear Vertical, net weight 138 lbs.



SERVO ADAPTER MAY BE MOUNTED ON EITHER SIDE OF UNIT
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

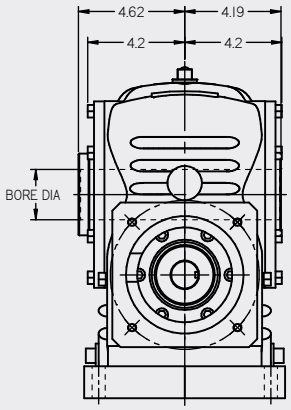
HOLLOW SHAFT

O net weight 140 lbs.



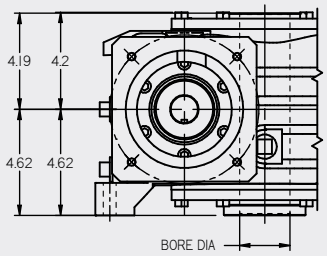
See gear shaft chart. Set screw end of shaft, may extend on either side

U net weight 154 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

V net weight 137 lbs.



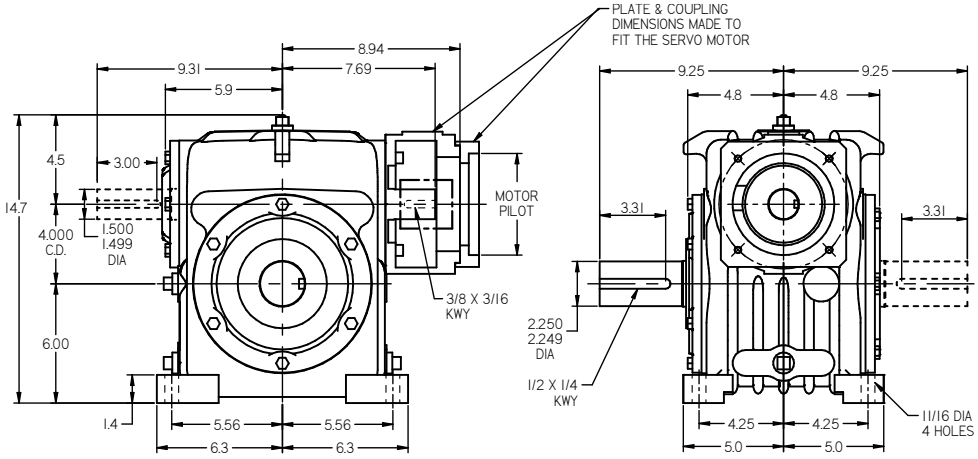
See gear shaft chart. Set screw end of shaft, may extend on either side

Size 40 Servo Dimensions

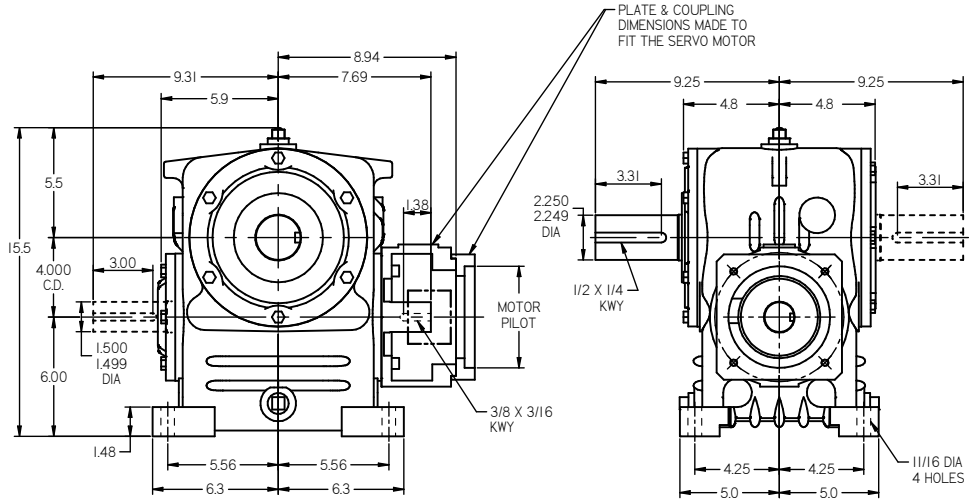
4.000" C.D. SOLID SHAFT, SIZE 40

(all dimensions in inches)

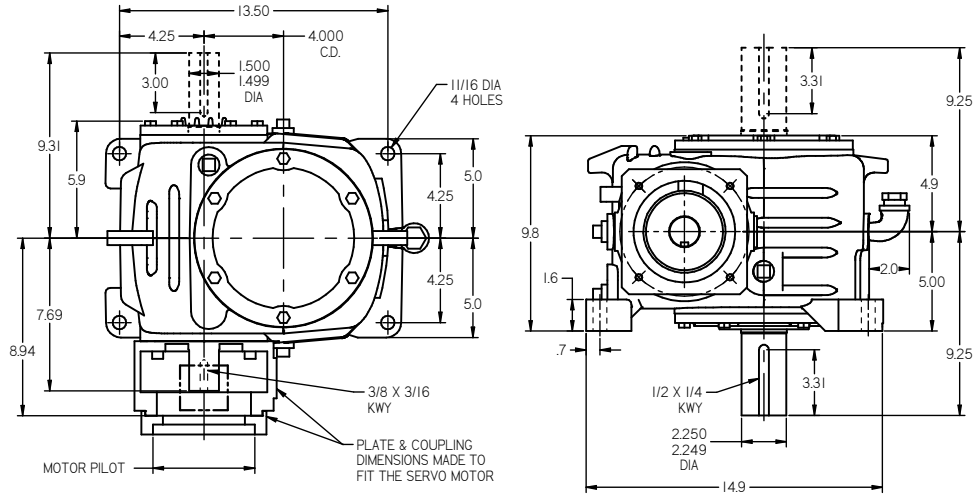
Model Type O Worm Over Gear, net weight 195 lbs.



Model Type U Worm Under Gear, net weight 207 lbs.



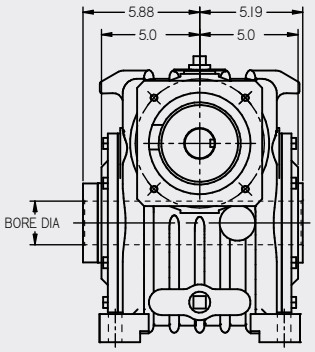
Model Type V Worm Horizontal Gear Vertical, net weight 190 lbs.



SERVO ADAPTER MAY BE MOUNTED ON EITHER SIDE OF UNIT
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

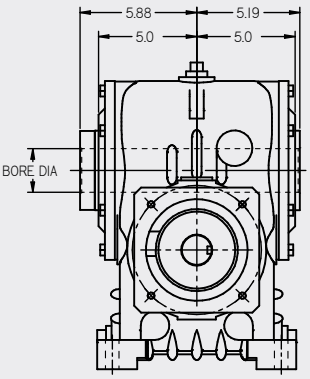
HOLLOW SHAFT

O net weight 205 lbs.



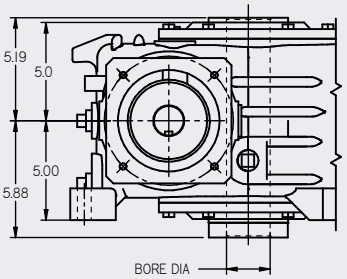
See gear shaft chart. Set screw end of shaft, may extend on either side

U net weight 217 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

V net weight 200 lbs.

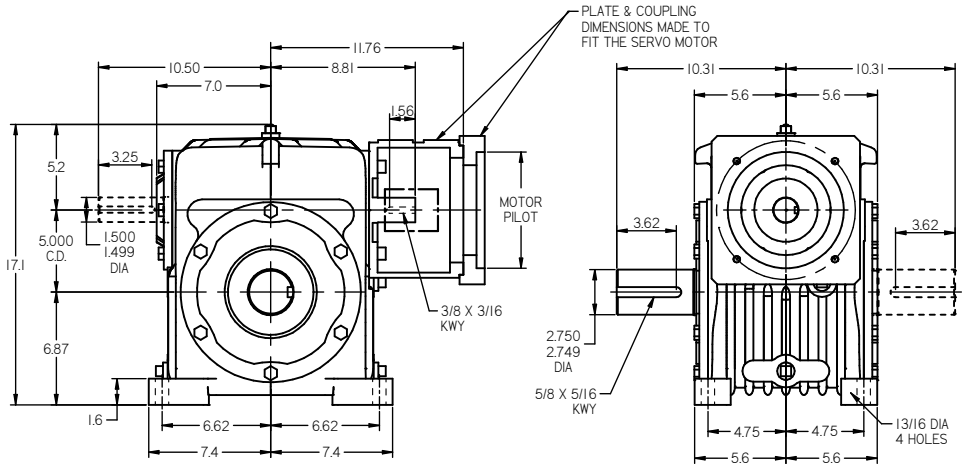


See gear shaft chart. Set screw end of shaft, may extend on either side

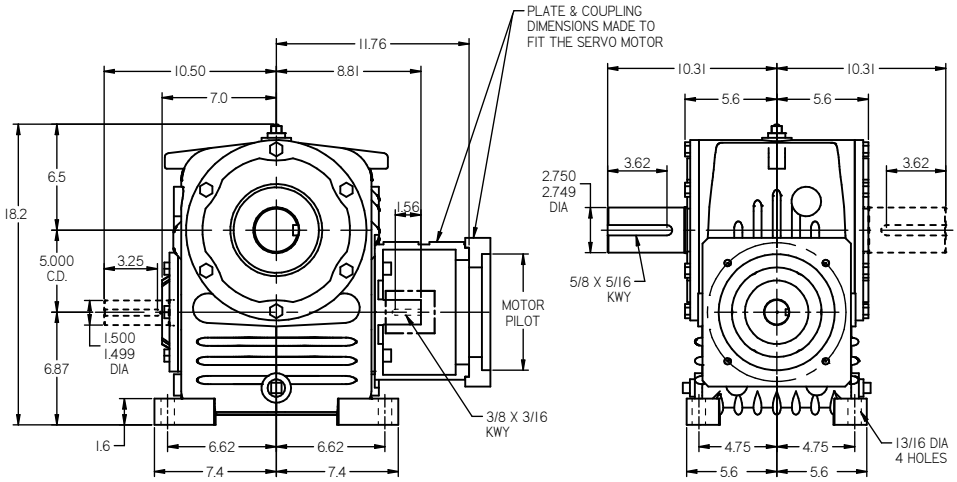
5.000" C.D. SOLID SHAFT, SIZE 50

(all dimensions in inches)

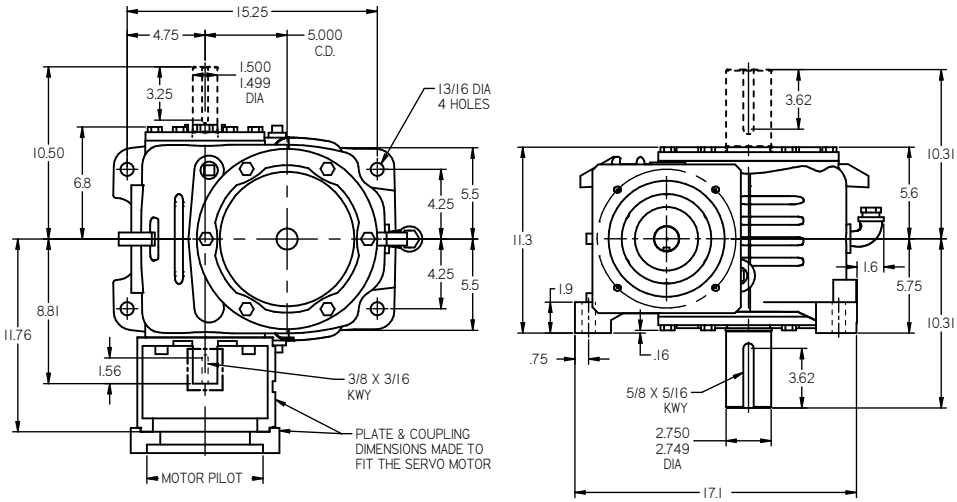
Model Type O Worm Over Gear, net weight 335 lbs.



Model Type U Worm Under Gear, net weight 350 lbs.



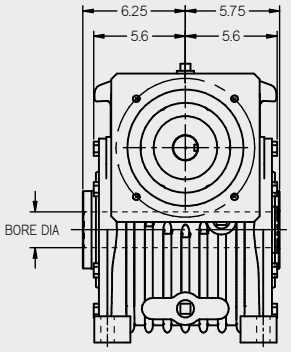
Model Type V Worm Horizontal Gear Vertical, net weight 340 lbs.



SERVO ADAPTER MAY BE MOUNTED ON EITHER SIDE OF UNIT
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

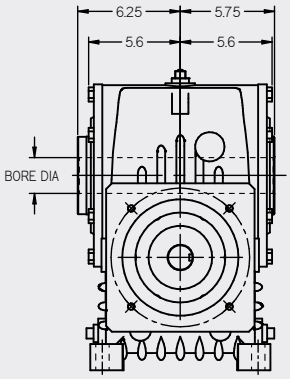
HOLLOW SHAFT

O net weight 347 lbs.



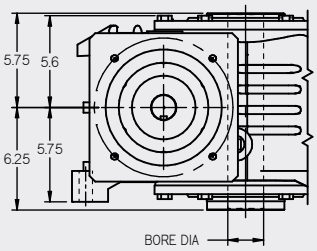
See gear shaft chart. Set screw end of shaft, may extend on either side

U net weight 362 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

V net weight 352 lbs.



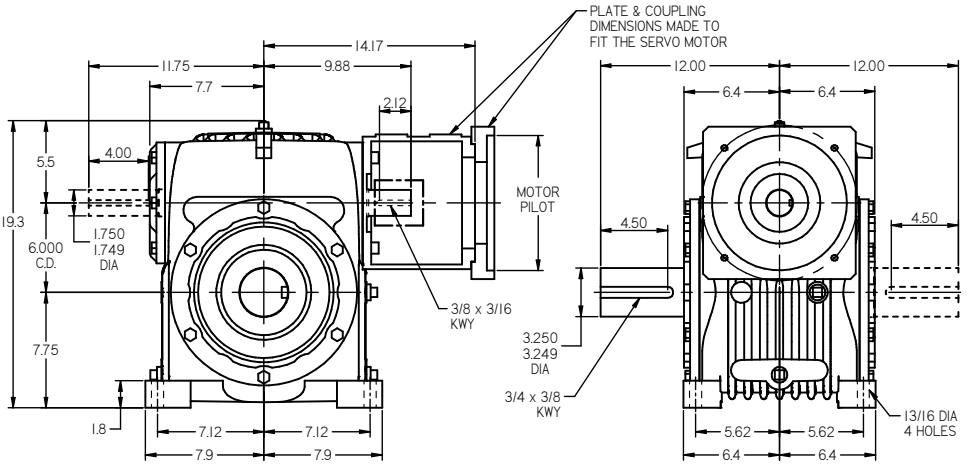
See gear shaft chart. Set screw end of shaft, may extend on either side

Size 60 Servo Dimensions

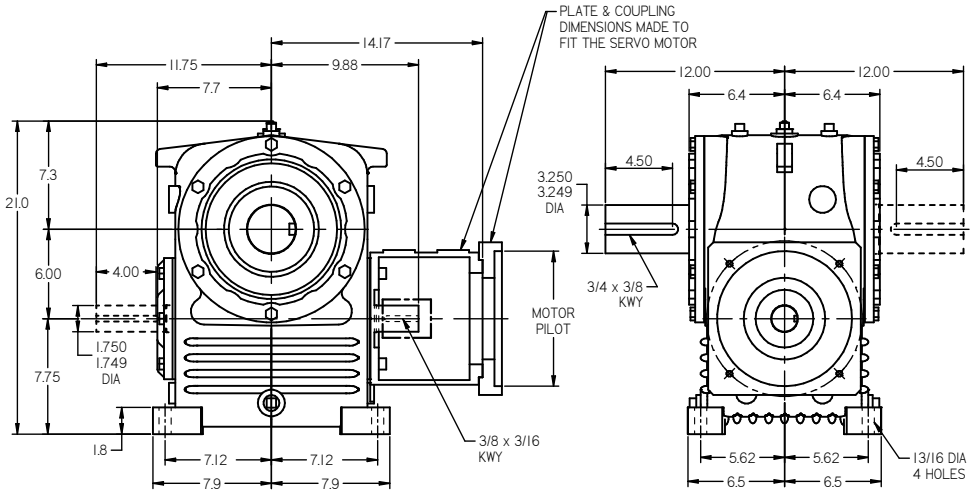
6.000" C.D. SOLID SHAFT, SIZE 60

(all dimensions in inches)

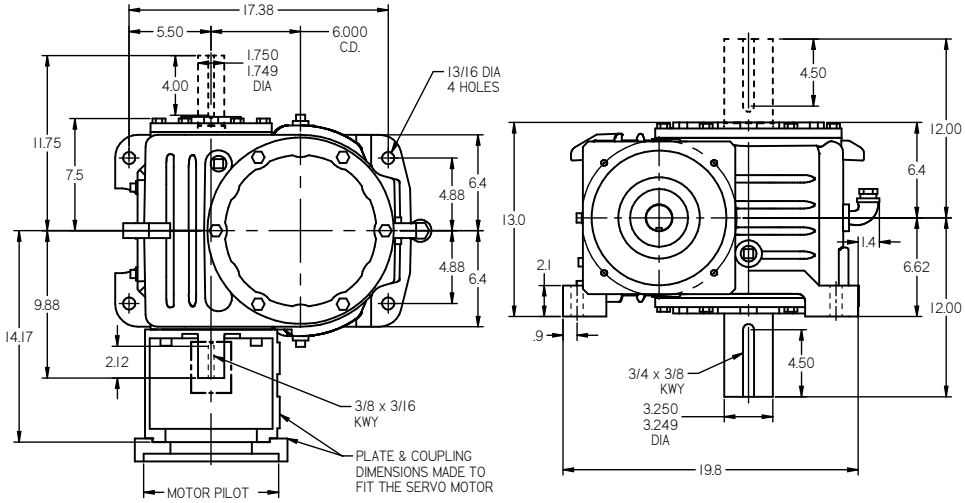
Model Type O Worm Over Gear, net weight 443 lbs.



Model Type U Worm Under Gear, net weight 451 lbs.



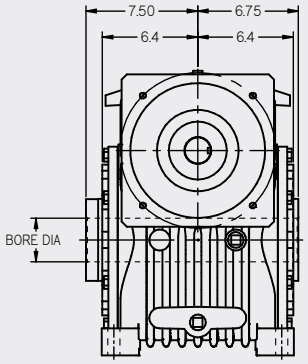
Model Type V Worm Horizontal Gear Vertical, net weight 473 lbs.



SERVO ADAPTER MAY BE MOUNTED ON EITHER SIDE OF UNIT
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

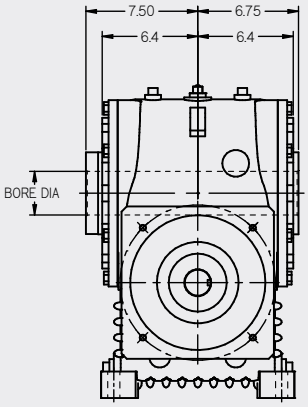
HOLLOW SHAFT

O net weight 458 lbs.



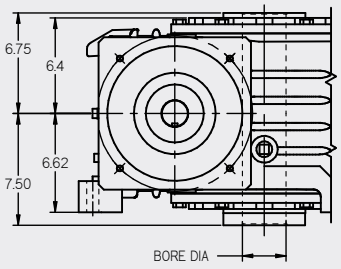
See gear shaft chart. Set screw end of shaft, may extend on either side

U net weight 466 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

V net weight 488 lbs.

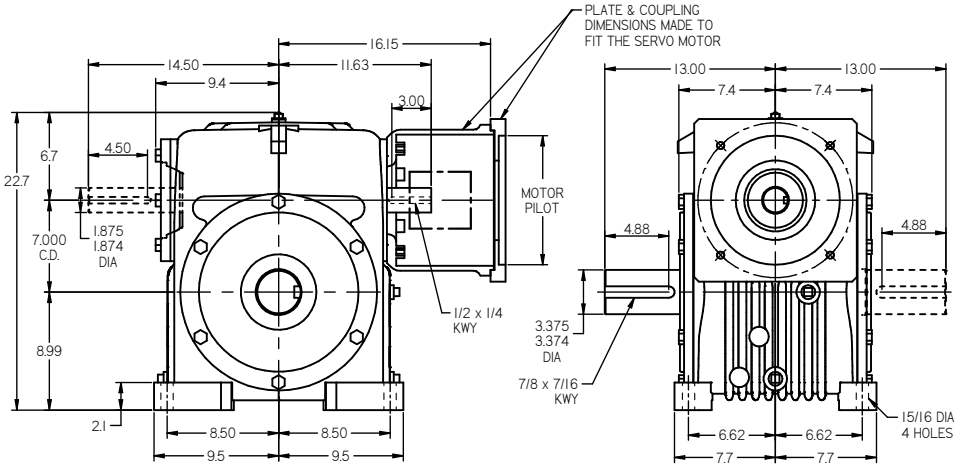


See gear shaft chart. Set screw end of shaft, may extend on either side

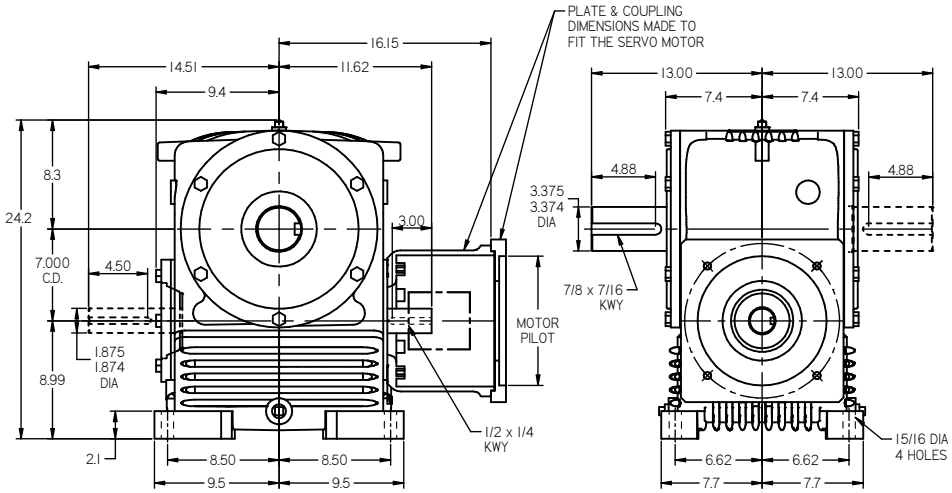
7.000" C.D. SOLID SHAFT, SIZE 70

(all dimensions in inches)

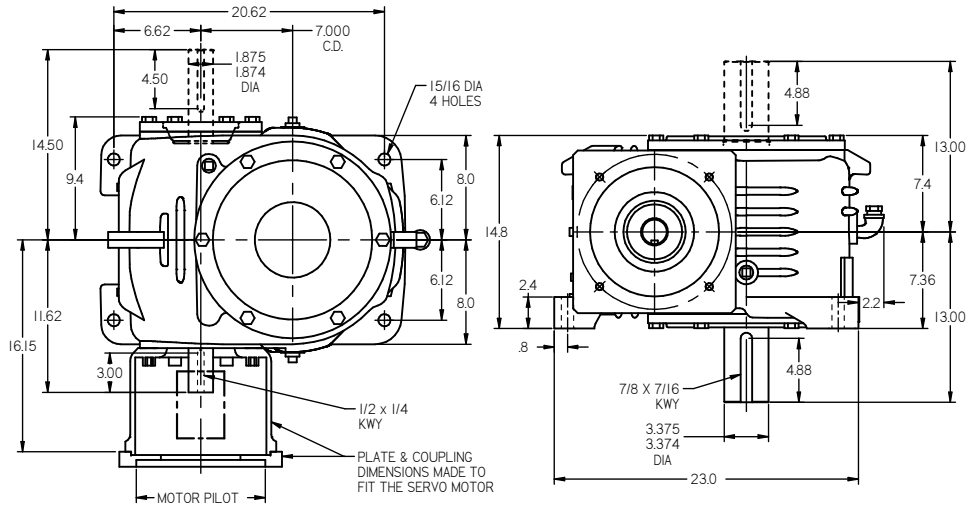
Model Type O Worm Over Gear, net weight 635 lbs.



Model Type U Worm Under Gear, net weight 705 lbs.



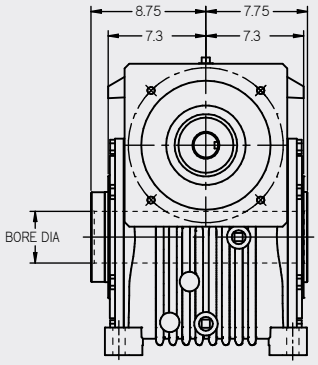
Model Type V Worm Horizontal Gear Vertical, net weight 700 lbs.



SERVO ADAPTER MAY BE MOUNTED ON EITHER SIDE OF UNIT
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

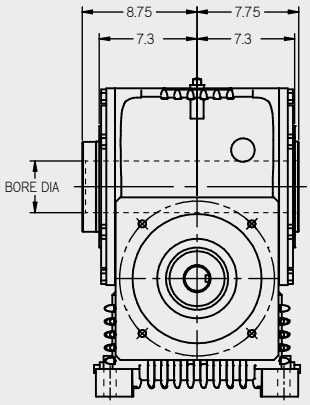
HOLLOW SHAFT

O net weight 660 lbs.



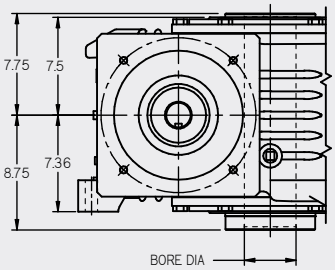
See gear shaft chart. Set screw end of shaft, may extend on either side

U net weight 730 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

V net weight 725 lbs.



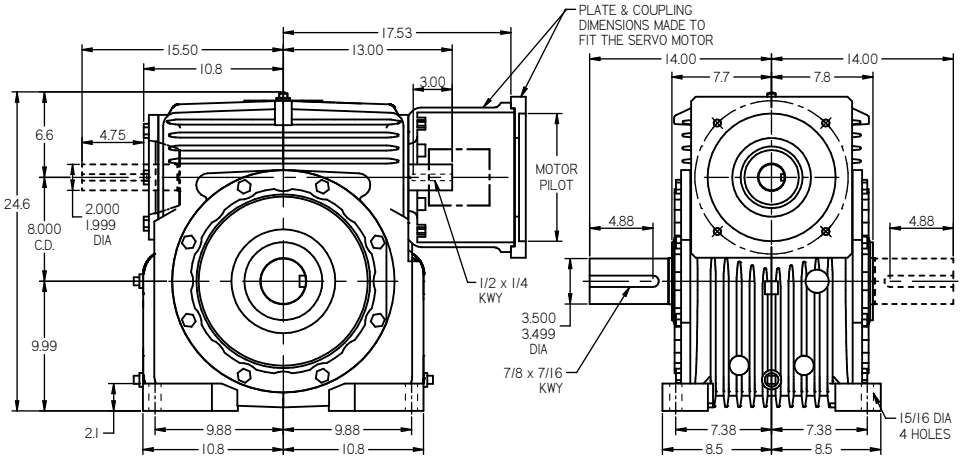
See gear shaft chart. Set screw end of shaft, may extend on either side

Size 80 Servo Dimensions

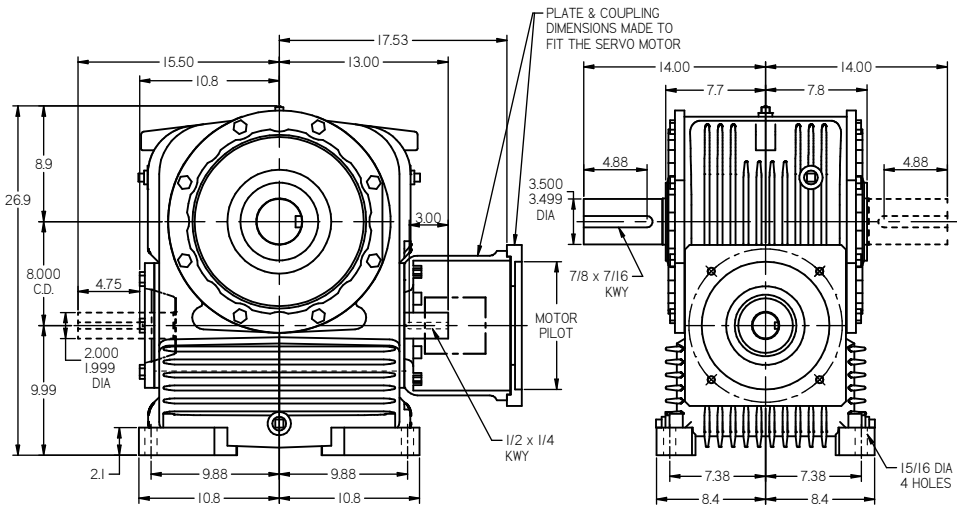
8.000" C.D. SOLID SHAFT, SIZE 80

(all dimensions in inches)

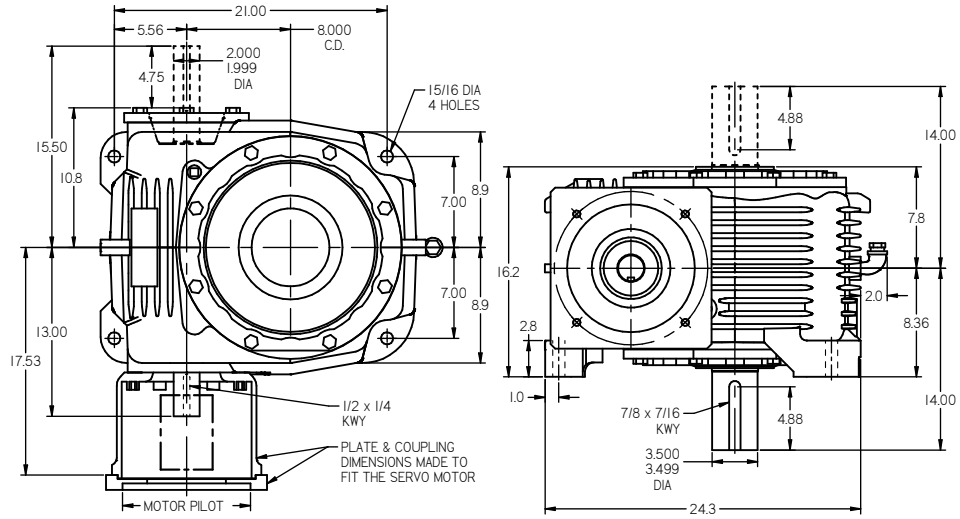
Model Type O Worm Over Gear, net weight 795 lbs.



Model Type U Worm Under Gear, net weight 985 lbs.



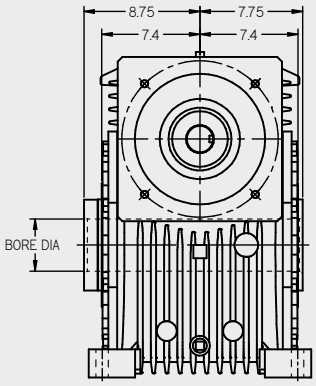
Model Type V Worm Horizontal Gear Vertical, net weight 830 lbs.



SERVO ADAPTER MAY BE MOUNTED ON EITHER SIDE OF UNIT
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

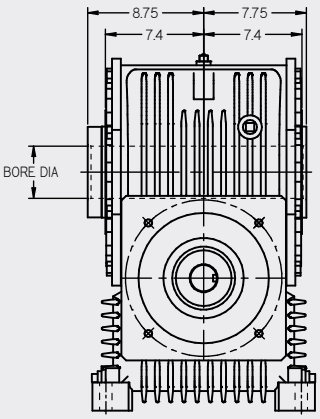
HOLLOW SHAFT

O net weight 825 lbs.



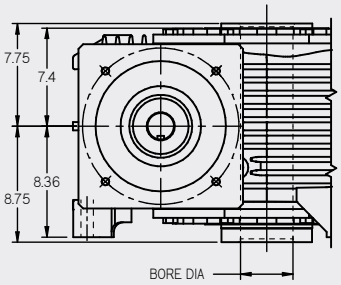
See gear shaft chart. Set screw end of shaft, may extend on either side

U net weight 1015 lbs.



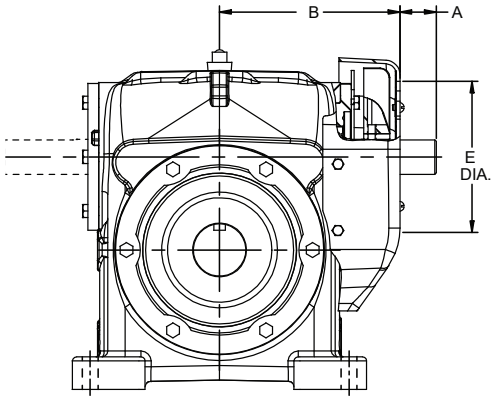
See gear shaft chart. Set screw end of shaft, may extend on either side

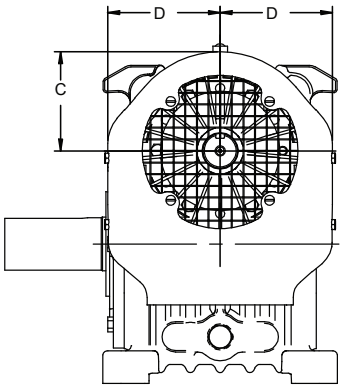
V net weight 860 lbs.



See gear shaft chart. Set screw end of shaft, may extend on either side

Motor Adapters not shown for simplicity



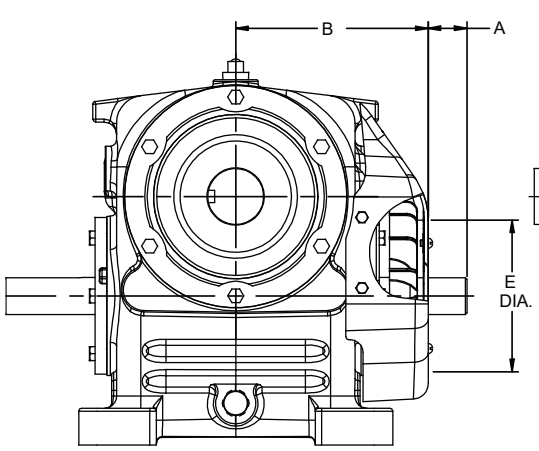


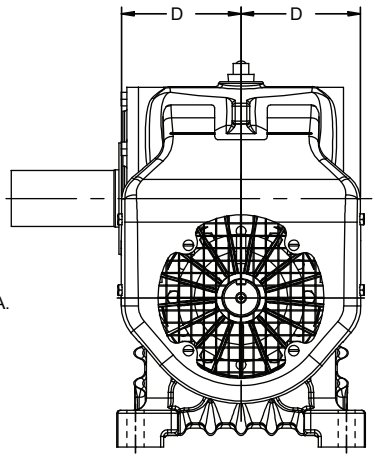
Unit Type O

GEARBOX SIZE	A	B	C	D	E
	(in)				
30	0.89	5.80	3.65	3.18	4.94
35	1.00	6.75	4.25	4.25	4.25
40	1.69	7.62	4.68	4.87	4.75
50	1.88	8.62	4.87	5.75	4.75
60	2.30	9.46	6.00	6.50	6.50
70	3.00	11.50	7.00	7.31	6.50
80	2.62	12.87	7.43	7.87	10.5

For dimensions not shown see dimension pages for individual reducer sizes.

Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.



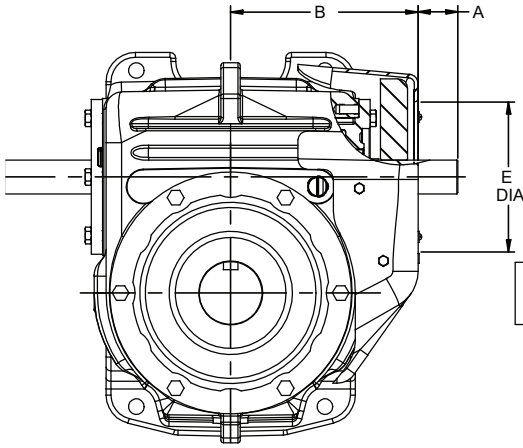


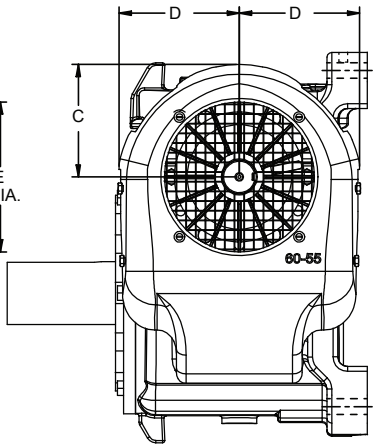
Unit Type U

GEARBOX SIZE	A	B	D	E
	(in)			
30	0.89	6.75	4.25	4.25
35	1.00	6.75	4.25	4.25
40	1.69	7.62	5.25	4.75
50	1.88	8.62	6.00	4.75
60	2.30	9.46	6.75	6.50
70	3.00	11.50	7.75	6.50
80	2.37	13.12	8.50	10.5

For dimensions not shown see dimension pages for individual reducer sizes.

Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.





Unit Type V

GEARBOX SIZE	A	B	C	D	E
	(in)				
30	0.89	5.80	3.65	3.18	4.95
35	1.00	6.75	4.25	4.25	4.25
40	1.69	7.62	4.68	4.87	4.75
50	1.88	8.62	4.87	5.75	4.75
60	2.30	9.46	6.00	6.50	6.50
70	3.00	11.50	7.00	7.31	6.50
80	2.62	13.2	7.43	7.87	10.5

For dimensions not shown see dimension pages for individual reducer sizes.

Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.

TY & MOTION CONTROL APPLICATIONS

Size 30 Servo Ratings

SIZE 30

i : 1	Ratings	Units	$N_{1\ NOM}$ rpm						$T_{2\ MAX}$	
			500	1,000	1,500	2,000	2,500	3,000	lb-in	Nm
5	$P_{1\ ME}$	hp	6.51	10.1	12.5	14.5	16.1	17.2	11,600	1,310
		kW	4.86	7.51	9.34	10.8	12.0	12.8		
	$P_{1\ TH}$	hp	3.70	5.05	5.76	6.08	6.08	6.08		
		kW	2.76	3.77	4.30	4.54	4.54	4.54		
	$P_{1\ TH\ Fan}$	hp	3.70	6.43	8.30	9.11	9.11	9.11		
		kW	2.76	4.80	6.20	6.80	6.80	6.80		
	$T_{2\ ME}$	lb-in	3,730	2,920	2,420	2,100	1,850	1,630		
		Nm	422	330	273	237	209	185		
	$T_{2\ ACC}$	lb-in	4,200	3,730	3,280	2,920	2,630	2,420		
		Nm	474	422	371	330	297	273		
	η	%	91	92	92	92	91	91		
10	$P_{1\ ME}$	hp	4.60	7.43	9.22	10.8	12.0	13.1	13,800	1,560
		kW	3.43	5.54	6.88	8.05	8.97	9.76		
	$P_{1\ TH}$	hp	3.28	4.23	4.67	4.87	4.87	4.87		
		kW	2.44	3.16	3.49	3.63	3.63	3.63		
	$P_{1\ TH\ Fan}$	hp	3.28	5.39	6.74	7.31	7.31	7.31		
		kW	2.44	4.02	5.03	5.46	5.46	5.46		
	$T_{2\ ME}$	lb-in	5,040	4,210	3,490	3,060	2,700	2,430		
		Nm	570	476	394	345	305	275		
	$T_{2\ ACC}$	lb-in	5,500	5,040	4,650	4,210	3,810	3,490		
		Nm	622	570	525	476	430	394		
	η	%	87	90	90	90	89	89		
15	$P_{1\ ME}$	hp	3.74	6.09	7.59	8.86	9.89	10.8	13,900	1,570
		kW	2.79	4.54	5.66	6.61	7.38	8.04		
	$P_{1\ TH}$	hp	2.67	3.50	3.84	4.00	4.00	4.00		
		kW	1.99	2.61	2.86	2.99	2.99	2.99		
	$P_{1\ TH\ Fan}$	hp	2.67	4.45	5.53	6.01	6.01	6.01		
		kW	1.99	3.32	4.13	4.49	4.49	4.49		
	$T_{2\ ME}$	lb-in	5,950	5,070	4,210	3,680	3,250	2,940		
		Nm	672	572	475	416	368	332		
	$T_{2\ ACC}$	lb-in	6,380	5,950	5,500	5,070	4,580	4,210		
		Nm	721	672	622	572	517	475		
	η	%	84	88	88	88	87	87		
20	$P_{1\ ME}$	hp	2.87	4.68	5.82	6.81	7.59	8.28	13,500	1,520
		kW	2.14	3.49	4.34	5.08	5.67	6.18		
	$P_{1\ TH}$	hp	2.11	3.17	3.39	3.49	3.49	3.49		
		kW	1.57	2.37	2.53	2.60	2.60	2.60		
	$P_{1\ TH\ Fan}$	hp	2.11	4.03	4.89	5.24	5.24	5.24		
		kW	1.57	3.01	3.65	3.91	3.91	3.91		
	$T_{2\ ME}$	lb-in	5,880	4,950	4,160	3,640	3,220	2,910		
		Nm	664	560	470	411	363	328		
	$T_{2\ ACC}$	lb-in	6,190	5,880	5,430	4,950	4,510	4,160		
		Nm	700	664	614	560	509	470		
	η	%	81	84	85	85	84	84		
25	$P_{1\ ME}$	hp	2.31	3.78	4.69	5.50	6.14	6.68	12,800	1,450
		kW	1.73	2.82	3.50	4.10	4.58	4.99		
	$P_{1\ TH}$	hp	1.70	2.66	2.83	2.92	2.92	2.92		
		kW	1.27	1.98	2.11	2.18	2.18	2.18		
	$P_{1\ TH\ Fan}$	hp	1.70	3.37	4.08	4.39	4.39	4.39		
		kW	1.27	2.52	3.05	3.28	3.28	3.28		
	$T_{2\ ME}$	lb-in	5,910	4,960	4,140	3,630	3,210	2,900		
		Nm	667	560	468	410	363	327		
	$T_{2\ ACC}$	lb-in	6,080	5,910	5,390	4,960	4,520	4,140		
		Nm	687	667	609	560	511	468		
	η	%	81	83	84	84	83	83		

See Page 8.7 for Rating Definitions

SIZE 30

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm						$T_{2\,MAX}$	
			500	1,000	1,500	2,000	2,500	3,000	lb-in	Nm
30	$P_{1\,ME}$	hp	1.94	3.16	3.93	4.60	5.14	5.59	12,300	1,390
		kW	1.44	2.36	2.93	3.44	3.84	4.17		
	$P_{1\,TH}$	hp	1.42	2.31	2.54	2.61	2.61	2.61		
		kW	1.06	1.72	1.89	1.95	1.95	1.95		
	$P_{1\,TH\,Fan}$	hp	1.42	2.94	3.66	3.92	3.92	3.92		
		kW	1.06	2.20	2.73	2.93	2.93	2.93		
	$T_{2\,ME}$	lb-in	5,430	4,740	3,960	3,480	3,070	2,770		
		Nm	613	536	448	393	347	313		
	$T_{2\,ACC}$	lb-in	5,780	5,430	5,170	4,740	4,330	3,960		
		Nm	653	613	584	536	489	448		
	η	%	74	79	80	80	79	79		
40	$P_{1\,ME}$	hp	1.46	2.39	2.97	3.47	3.88	4.22	11,100	1,260
		kW	1.09	1.78	2.22	2.59	2.90	3.15		
	$P_{1\,TH}$	hp	1.07	1.81	2.19	2.33	2.33	2.33		
		kW	0.80	1.35	1.63	1.74	1.74	1.74		
	$P_{1\,TH\,Fan}$	hp	1.07	2.26	2.96	3.23	3.23	3.23		
		kW	0.80	1.69	2.21	2.41	2.41	2.41		
	$T_{2\,ME}$	lb-in	5,170	4,530	3,790	3,320	2,940	2,640		
		Nm	584	511	429	375	332	299		
	$T_{2\,ACC}$	lb-in	5,260	5,170	5,000	4,530	4,130	3,790		
		Nm	595	584	565	511	467	429		
	η	%	70	75	76	76	75	75		
50	$P_{1\,ME}$	hp	1.17	1.92	2.38	2.79	3.12	3.39	9,860	1,110
		kW	0.87	1.43	1.78	2.08	2.32	2.53		
	$P_{1\,TH}$	hp	0.86	1.46	1.88	2.08	2.08	2.08		
		kW	0.64	1.09	1.40	1.55	1.55	1.55		
	$P_{1\,TH\,Fan}$	hp	0.86	1.82	2.37	2.59	2.59	2.59		
		kW	0.64	1.36	1.77	1.93	1.93	1.93		
	$T_{2\,ME}$	lb-in	5,040	4,360	3,650	3,200	2,830	2,550		
		Nm	569	493	413	362	319	288		
	$T_{2\,ACC}$	lb-in	5,090	5,040	4,810	4,360	3,980	3,650		
		Nm	575	569	544	493	450	413		
	η	%	68	72	73	73	72	72		
60	$P_{1\,ME}$	hp	0.98	1.60	1.99	2.33	2.60	2.83	9,700	1,100
		kW	0.73	1.19	1.48	1.74	1.94	2.11		
	$P_{1\,TH}$	hp	0.72	1.21	1.57	1.74	1.74	1.74		
		kW	0.53	0.90	1.17	1.30	1.30	1.30		
	$P_{1\,TH\,Fan}$	hp	0.72	1.52	1.98	2.16	2.16	2.16		
		kW	0.53	1.13	1.48	1.61	1.61	1.61		
	$T_{2\,ME}$	lb-in	4,750	4,190	3,510	3,080	2,720	2,440		
		Nm	537	473	396	347	307	276		
	$T_{2\,ACC}$	lb-in	4,850	4,750	4,550	4,190	3,830	3,510		
		Nm	548	537	515	473	432	396		
	η	%	64	69	70	70	69	69		

See Page 8.7 for Rating Definitions

Size 35 Servo Ratings

SIZE 35

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm						$T_{2\,MAX}$	
			500	1,000	1,500	2,000	2,500	3,000	lb-in	Nm
5	$P_{1\,ME}$	hp	11.7	17.5	21.8	24.9	27.4	28.9	21,400	2,420
		kW	8.73	13.1	16.3	18.6	20.4	21.6		
	$P_{1\,TH}$	hp	7.45	10.2	11.2	11.7	11.7	11.7		
		kW	5.56	7.59	8.39	8.73	8.73	8.73		
	$P_{1\,TH\,Fan}$	hp	7.45	12.9	16.2	17.5	17.5	17.5		
		kW	5.56	9.66	12.1	13.1	13.1	13.1		
	$P_{1\,TH\,WHO}$	hp	10.4	13.5	14.6	15.0	14.7	14.5		
		kW	7.77	10.1	10.9	11.2	10.9	10.8		
	$P_{1\,TH\,WHU}$	hp	10.4	13.5	14.6	15.0	14.7	14.5		
		kW	7.77	10.1	10.9	11.2	10.9	10.8		
	$P_{1\,TH\,WHV}$	hp	11.7	16.3	17.3	17.7	17.1	16.9		
		kW	8.73	12.1	12.9	13.2	12.8	12.6		
	$T_{2\,ME}$	lb-in	6,710	5,080	4,220	3,610	3,140	2,750		
		Nm	758	574	477	408	355	311		
	$T_{2\,ACC}$	lb-in	7,720	6,710	5,760	5,080	4,590	4,220		
		Nm	872	758	650	574	519	477		
	η	%	91	92	92	92	91	91		
10	$P_{1\,ME}$	hp	8.31	12.9	15.9	18.5	20.7	22.0	25,500	2,880
		kW	6.20	9.62	11.9	13.8	15.4	16.4		
	$P_{1\,TH}$	hp	5.94	8.00	8.68	8.94	8.94	8.94		
		kW	4.43	5.97	6.48	6.67	6.67	6.67		
	$P_{1\,TH\,Fan}$	hp	5.94	10.2	12.5	13.4	13.4	13.4		
		kW	4.43	7.60	9.33	10.0	10.0	10.0		
	$P_{1\,TH\,WHO}$	hp	7.99	10.7	11.3	11.6	11.4	11.3		
		kW	5.96	7.96	8.47	8.63	8.48	8.41		
	$P_{1\,TH\,WHU}$	hp	7.99	10.7	11.3	11.6	11.4	11.3		
		kW	5.96	7.96	8.47	8.63	8.48	8.41		
	$P_{1\,TH\,WHV}$	hp	8.31	12.9	13.6	13.8	13.4	13.2		
		kW	6.20	9.61	10.1	10.3	9.98	9.86		
	$T_{2\,ME}$	lb-in	9,110	7,320	6,030	5,250	4,630	4,100		
		Nm	1,030	827	681	593	524	463		
	$T_{2\,ACC}$	lb-in	10,100	9,110	8,220	7,320	6,590	6,030		
		Nm	1,140	1,030	928	827	745	681		
	η	%	87	90	90	90	89	89		
15	$P_{1\,ME}$	hp	6.77	10.6	13.1	15.3	16.9	18.2	25,600	2,890
		kW	5.05	7.90	9.81	11.4	12.6	13.6		
	$P_{1\,TH}$	hp	4.46	6.36	6.84	7.05	7.05	7.05		
		kW	3.33	4.74	5.10	5.26	5.26	5.26		
	$P_{1\,TH\,Fan}$	hp	4.46	8.09	9.85	10.6	10.6	10.6		
		kW	3.33	6.03	7.35	7.90	7.90	7.90		
	$P_{1\,TH\,WHO}$	hp	6.14	8.58	9.06	9.24	9.10	9.03		
		kW	4.58	6.40	6.76	6.90	6.79	6.74		
	$P_{1\,TH\,WHU}$	hp	6.14	8.58	9.06	9.24	9.10	9.03		
		kW	4.58	6.40	6.76	6.90	6.79	6.74		
	$P_{1\,TH\,WHV}$	hp	6.77	10.4	10.9	11.1	10.8	10.7		
		kW	5.05	7.78	8.14	8.26	8.06	7.97		
	$T_{2\,ME}$	lb-in	10,800	8,800	7,290	6,340	5,570	4,970		
		Nm	1,220	995	824	716	629	561		
	$T_{2\,ACC}$	lb-in	11,700	10,800	9,730	8,800	7,910	7,290		
		Nm	1,320	1,220	1,100	995	894	824		
	η	%	84	88	88	88	87	87		
20	$P_{1\,ME}$	hp	5.19	8.13	10.1	11.7	13.0	14.0	24,800	2,800
		kW	3.88	6.06	7.53	8.75	9.70	10.5		
	$P_{1\,TH}$	hp	3.42	5.29	5.75	5.85	5.85	5.85		
		kW	2.55	3.95	4.29	4.37	4.37	4.37		
	$P_{1\,TH\,Fan}$	hp	3.42	6.75	8.27	8.78	8.78	8.78		
		kW	2.55	5.03	6.17	6.55	6.55	6.55		
	$P_{1\,TH\,WHO}$	hp	4.84	6.96	7.52	7.61	7.51	7.47		
		kW	3.61	5.19	5.61	5.68	5.61	5.57		
	$P_{1\,TH\,WHU}$	hp	4.84	6.96	7.52	7.61	7.51	7.47		
		kW	3.61	5.19	5.61	5.68	5.61	5.57		
	$P_{1\,TH\,WHV}$	hp	5.19	8.13	9.00	9.07	8.90	8.82		
		kW	3.88	6.06	6.72	6.77	6.64	6.58		
	$T_{2\,ME}$	lb-in	10,700	8,600	7,210	6,270	5,510	4,930		
		Nm	1,200	972	814	709	622	556		
	$T_{2\,ACC}$	lb-in	11,400	10,700	9,630	8,600	7,800	7,210		
		Nm	1,280	1,200	1,090	972	881	814		
	η	%	81	84	85	85	84	84		

See Page 8.7 for Rating Definitions

SIZE 35

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm						$T_{2\,MAX}$	
			500	1,000	1,500	2,000	2,500	3,000	lb-in	Nm
25	$P_{1\,ME}$	hp	4.19	6.56	8.15	9.48	10.5	11.4	23,600	2,670
		kW	3.13	4.90	6.08	7.07	7.83	8.47		
	$P_{1\,TH}$	hp	2.76	4.37	4.84	4.92	4.92	4.92		
		kW	2.06	3.26	3.61	3.67	3.67	3.67		
	$P_{1\,TH\,Fan}$	hp	2.76	5.58	6.97	7.38	7.38	7.38		
		kW	2.06	4.16	5.20	5.51	5.51	5.51		
	$P_{1\,TH\,WHO}$	hp	4.16	5.96	6.50	6.57	6.49	6.45		
		kW	3.11	4.45	4.85	4.90	4.84	4.81		
	$P_{1\,TH\,WHU}$	hp	4.16	5.96	6.50	6.57	6.49	6.45		
		kW	3.11	4.45	4.85	4.90	4.84	4.81		
	$P_{1\,TH\,WHV}$	hp	4.19	6.56	7.89	7.94	7.79	7.72		
		kW	3.13	4.90	5.89	5.93	5.81	5.76		
	$T_{2\,ME}$	lb-in	10,700	8,610	7,190	6,260	5,490	4,920		
		Nm	1,210	973	812	708	620	556		
	$T_{2\,ACC}$	lb-in	11,200	10,700	9,540	8,610	7,810	7,190		
		Nm	1,260	1,210	1,080	973	882	812		
	η	%	81	83	84	84	83	83		
30	$P_{1\,ME}$	hp	3.51	5.49	6.81	7.93	8.78	9.51	22,700	2,570
		kW	2.62	4.09	5.09	5.92	6.55	7.10		
	$P_{1\,TH}$	hp	2.31	3.66	4.08	4.16	4.16	4.16		
		kW	1.72	2.73	3.04	3.10	3.10	3.10		
	$P_{1\,TH\,Fan}$	hp	2.31	4.67	5.87	6.24	6.24	6.24		
		kW	1.72	3.48	4.38	4.66	4.66	4.66		
	$P_{1\,TH\,WHO}$	hp	3.34	4.94	5.41	5.48	5.43	5.40		
		kW	2.49	3.69	4.04	4.09	4.05	4.03		
	$P_{1\,TH\,WHU}$	hp	3.34	4.94	5.41	5.48	5.43	5.40		
		kW	2.49	3.69	4.04	4.09	4.05	4.03		
	$P_{1\,TH\,WHV}$	hp	3.51	5.49	6.52	6.58	6.48	6.44		
		kW	2.62	4.09	4.86	4.91	4.84	4.80		
	$T_{2\,ME}$	lb-in	9,830	8,220	6,870	5,990	5,250	4,710		
		Nm	1,110	929	777	676	593	532		
	$T_{2\,ACC}$	lb-in	10,600	9,830	9,170	8,220	7,470	6,870		
		Nm	1,200	1,110	1,040	929	844	777		
	η	%	74	79	80	80	79	79		
40	$P_{1\,ME}$	hp	2.64	4.14	5.15	5.98	6.63	7.18	20,500	2,310
		kW	1.97	3.09	3.84	4.46	4.95	5.36		
	$P_{1\,TH}$	hp	1.74	2.76	3.39	3.67	3.67	3.67		
		kW	1.30	2.06	2.53	2.74	2.74	2.74		
	$P_{1\,TH\,Fan}$	hp	1.74	3.52	4.90	5.51	5.51	5.51		
		kW	1.30	2.63	3.65	4.11	4.11	4.11		
	$P_{1\,TH\,WHO}$	hp	2.64	3.84	4.50	4.77	4.73	4.72		
		kW	1.97	2.86	3.36	3.56	3.53	3.52		
	$P_{1\,TH\,WHU}$	hp	2.64	3.84	4.50	4.77	4.73	4.72		
		kW	1.97	2.86	3.36	3.56	3.53	3.52		
	$P_{1\,TH\,WHV}$	hp	2.64	4.14	5.15	5.69	5.62	5.59		
		kW	1.97	3.09	3.84	4.25	4.20	4.17		
	$T_{2\,ME}$	lb-in	9,370	7,860	6,580	5,720	5,010	4,500		
		Nm	1,060	888	743	646	566	508		
	$T_{2\,ACC}$	lb-in	9,670	9,370	8,850	7,860	7,140	6,580		
		Nm	1,090	1,060	1,000	888	807	743		
	η	%	70	75	76	76	75	75		
50	$P_{1\,ME}$	hp	2.12	3.32	4.13	4.80	5.32	5.76	18,200	2,050
		kW	1.58	2.48	3.08	3.58	3.97	4.30		
	$P_{1\,TH}$	hp	1.39	2.22	2.75	3.00	3.00	3.00		
		kW	1.04	1.66	2.05	2.24	2.24	2.24		
	$P_{1\,TH\,Fan}$	hp	1.39	2.83	3.97	4.50	4.50	4.50		
		kW	1.04	2.11	2.97	3.36	3.36	3.36		
	$P_{1\,TH\,WHO}$	hp	2.12	3.18	3.74	3.98	3.95	3.94		
		kW	1.58	2.37	2.79	2.97	2.95	2.94		
	$P_{1\,TH\,WHU}$	hp	2.12	3.18	3.74	3.98	3.95	3.94		
		kW	1.58	2.37	2.79	2.97	2.95	2.94		
	$P_{1\,TH\,WHV}$	hp	2.12	3.32	4.13	4.80	4.74	4.72		
		kW	1.58	2.48	3.08	3.58	3.54	3.52		
	$T_{2\,ME}$	lb-in	9,120	7,570	6,330	5,510	4,830	4,330		
		Nm	1,030	855	716	622	546	489		
	$T_{2\,ACC}$	lb-in	9,340	9,120	8,520	7,570	6,880	6,330		
		Nm	1,060	1,030	963	855	777	716		
	η	%	68	72	73	73	72	72		
60	$P_{1\,ME}$	hp	1.77	2.78	3.45	4.01	4.44	4.81	17,900	2,020
		kW	1.32	2.07	2.57	2.99	3.32	3.59		
	$P_{1\,TH}$	hp	1.17	1.85	2.30	2.51	2.51	2.51		
		kW	0.87	1.38	1.71	1.87	1.87	1.87		
	$P_{1\,TH\,Fan}$	hp	1.17	2.36	3.31	3.75	3.75	3.75		
		kW	0.87	1.76	2.47	2.80	2.80	2.80		
	$P_{1\,TH\,WHO}$	hp	1.77	2.72	3.18	3.39	3.37	3.36		
		kW	1.32	2.03	2.38	2.53	2.51	2.51		
	$P_{1\,TH\,WHU}$	hp	1.77	2.72	3.18	3.39	3.37	3.36		
		kW	1.32	2.03	2.38	2.53	2.51	2.51		
	$P_{1\,TH\,WHV}$	hp	1.77	2.78	3.45	4.01	4.08	4.06		
		kW	1.32	2.07	2.57	2.99	3.05	3.03		
	$T_{2\,ME}$	lb-in	8,610	7,280	6,080	5,290	4,640	4,160		
		Nm	972	822	688	598	524	470		
	$T_{2\,ACC}$	lb-in	8,910	8,610	8,080	7,280	6,610	6,080		
		Nm	1,010	972	913	822	746	688		
	η	%	64	69	70	70	69	69		

See Page 8.7 for Rating Definitions

Size 40 Servo Ratings

SIZE 40

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm						$T_{2\,MAX}$	
			500	1,000	1,500	2,000	2,500	3,000	lb-in	Nm
5	$P_{1\,ME}$	hp	16.4	24.3	29.8	34.0	36.2	38.8	31,800	3,590
		kW	12.2	18.1	22.3	25.3	27.0	29.0		
	$P_{1\,TH}$	hp	8.77	12.0	13.3	13.8	13.8	13.8		
		kW	6.55	8.93	9.89	10.3	10.3	10.3		
	$P_{1\,TH\,Fan}$	hp	8.77	16.3	19.8	21.1	21.1	21.1		
		kW	6.55	12.2	14.7	15.8	15.8	15.8		
	$P_{1\,TH\,WHO}$	hp	16.4	24.3	27.5	27.6	25.6	24.8		
		kW	12.2	18.1	20.5	20.6	19.1	18.5		
	$P_{1\,TH\,WHU}$	hp	16.4	24.3	28.6	28.7	26.6	25.8		
		kW	12.2	18.1	21.4	21.5	19.9	19.2		
	$P_{1\,TH\,WHV}$	hp	16.4	24.3	27.1	27.3	25.3	24.6		
		kW	12.2	18.1	20.2	20.3	18.9	18.3		
	$T_{2\,ME}$	lb-in	9,720	7,270	5,950	5,080	4,290	3,820		
		Nm	1,100	821	673	573	485	431		
	$T_{2\,ACC}$	lb-in	11,400	9,720	8,190	7,270	6,540	5,950		
		Nm	1,290	1,100	925	821	739	673		
	η	%	94	95	95	95	94	94		
10	$P_{1\,ME}$	hp	11.8	17.8	22.2	25.5	28.0	29.4	38,200	4,320
		kW	8.81	13.3	16.6	19.0	20.9	22.0		
	$P_{1\,TH}$	hp	7.17	9.43	10.2	10.5	10.5	10.5		
		kW	5.35	7.03	7.62	7.84	7.84	7.84		
	$P_{1\,TH\,Fan}$	hp	7.17	12.8	15.2	16.1	16.1	16.1		
		kW	5.35	9.58	11.4	12.0	12.0	12.0		
	$P_{1\,TH\,WHO}$	hp	11.8	17.8	20.3	20.4	19.4	18.9		
		kW	8.81	13.3	15.2	15.3	14.5	14.1		
	$P_{1\,TH\,WHU}$	hp	11.8	17.8	21.2	21.3	20.1	19.6		
		kW	8.81	13.3	15.8	15.9	15.0	14.6		
	$P_{1\,TH\,WHV}$	hp	11.8	17.8	20.1	20.2	19.2	18.7		
		kW	8.81	13.3	15.0	15.1	14.3	14.0		
	$T_{2\,ME}$	lb-in	13,400	10,500	8,670	7,460	6,500	5,660		
		Nm	1,510	1,180	980	843	735	640		
	$T_{2\,ACC}$	lb-in	15,100	13,400	11,800	10,500	9,420	8,670		
		Nm	1,710	1,510	1,340	1,180	1,060	980		
	η	%	90	93	93	93	92	92		
15	$P_{1\,ME}$	hp	9.63	14.6	18.2	21.0	23.2	24.5	38,500	4,350
		kW	7.19	10.9	13.6	15.6	17.3	18.3		
	$P_{1\,TH}$	hp	5.80	7.49	8.05	8.30	8.30	8.30		
		kW	4.33	5.59	6.01	6.19	6.19	6.19		
	$P_{1\,TH\,Fan}$	hp	5.80	10.2	12.0	12.7	12.7	12.7		
		kW	4.33	7.61	8.95	9.48	9.48	9.48		
	$P_{1\,TH\,WHO}$	hp	9.63	14.6	15.9	16.1	15.4	15.1		
		kW	7.19	10.9	11.9	12.0	11.5	11.3		
	$P_{1\,TH\,WHU}$	hp	9.63	14.6	16.6	16.7	16.0	15.7		
		kW	7.19	10.9	12.4	12.5	11.9	11.7		
	$P_{1\,TH\,WHV}$	hp	9.63	14.6	15.7	15.9	15.2	14.9		
		kW	7.19	10.9	11.7	11.8	11.4	11.1		
	$T_{2\,ME}$	lb-in	15,900	12,600	10,500	9,000	7,880	6,910		
		Nm	1,790	1,420	1,180	1,020	890	780		
	$T_{2\,ACC}$	lb-in	17,600	15,900	14,100	12,600	11,400	10,500		
		Nm	1,980	1,790	1,590	1,420	1,290	1,180		
	η	%	87	91	91	91	90	90		
20	$P_{1\,ME}$	hp	7.38	11.2	14.0	16.1	17.8	18.9	37,300	4,220
		kW	5.50	8.39	10.5	12.0	13.3	14.1		
	$P_{1\,TH}$	hp	4.83	6.44	6.78	6.90	6.90	6.90		
		kW	3.60	4.81	5.06	5.15	5.15	5.15		
	$P_{1\,TH\,Fan}$	hp	4.83	8.77	10.1	10.6	10.6	10.6		
		kW	3.60	6.55	7.53	7.88	7.88	7.88		
	$P_{1\,TH\,WHO}$	hp	7.38	11.2	12.7	12.7	12.4	12.2		
		kW	5.50	8.39	9.47	9.51	9.22	9.09		
	$P_{1\,TH\,WHU}$	hp	7.38	11.2	13.2	13.2	12.8	12.6		
		kW	5.50	8.39	9.84	9.87	9.56	9.42		
	$P_{1\,TH\,WHV}$	hp	7.38	11.2	12.5	12.6	12.2	12.1		
		kW	5.50	8.39	9.36	9.40	9.12	9.00		
	$T_{2\,ME}$	lb-in	15,700	12,300	10,400	8,940	7,810	6,860		
		Nm	1,770	1,390	1,170	1,010	882	775		
	$T_{2\,ACC}$	lb-in	17,100	15,700	13,900	12,300	11,200	10,400		
		Nm	1,930	1,770	1,570	1,390	1,270	1,170		
	η	%	84	87	88	88	87	87		

See Page 8.7 for Rating Definitions

SIZE 40

$i:1$	Ratings	Units	$N_{1\,NOM}$ rpm						$T_{2\,MAX}$	
			500	1,000	1,500	2,000	2,500	3,000	lb-in	Nm
25	$P_{1\,ME}$	hp	5.95	9.10	11.3	13.0	14.4	15.3	35,600	4,030
		kW	4.44	6.79	8.44	9.72	10.7	11.4		
	$P_{1\,TH}$	hp	3.90	5.39	5.68	5.80	5.80	5.80		
		kW	2.91	4.02	4.24	4.33	4.33	4.33		
	$P_{1\,TH\,Fan}$	hp	3.90	7.34	8.45	8.87	8.87	8.87		
		kW	2.91	5.48	6.31	6.62	6.62	6.62		
	$P_{1\,TH\,WHO}$	hp	5.95	9.10	11.1	11.2	10.9	10.7		
		kW	4.44	6.79	8.31	8.36	8.11	8.00		
	$P_{1\,TH\,WHU}$	hp	5.95	9.10	11.3	11.7	11.3	11.1		
		kW	4.44	6.79	8.44	8.69	8.43	8.31		
	$P_{1\,TH\,WHV}$	hp	5.95	9.10	11.0	11.1	10.7	10.6		
		kW	4.44	6.79	8.21	8.26	8.02	7.91		
	$T_{2\,ME}$	lb-in	15,800	12,400	10,300	8,920	7,790	6,850		
		Nm	1,780	1,400	1,170	1,010	881	775		
	$T_{2\,ACC}$	lb-in	16,800	15,800	13,800	12,400	11,300	10,300		
		Nm	1,890	1,780	1,560	1,400	1,270	1,170		
	η	%	84	86	87	87	86	86		
30	$P_{1\,ME}$	hp	4.98	7.61	9.47	10.9	12.0	12.8	34,300	3,880
		kW	3.72	5.68	7.06	8.14	8.98	9.53		
	$P_{1\,TH}$	hp	3.27	4.75	4.86	4.90	4.90	4.90		
		kW	2.44	3.55	3.63	3.66	3.66	3.66		
	$P_{1\,TH\,Fan}$	hp	3.27	6.46	7.23	7.50	7.50	7.50		
		kW	2.44	4.82	5.40	5.60	5.60	5.60		
	$P_{1\,TH\,WHO}$	hp	4.98	7.61	9.03	9.04	8.84	8.75		
		kW	3.72	5.68	6.74	6.75	6.60	6.53		
	$P_{1\,TH\,WHU}$	hp	4.98	7.61	9.38	9.39	9.17	9.07		
		kW	3.72	5.68	7.00	7.00	6.84	6.77		
	$P_{1\,TH\,WHV}$	hp	4.98	7.61	8.93	8.94	8.74	8.66		
		kW	3.72	5.68	6.66	6.67	6.53	6.46		
	$T_{2\,ME}$	lb-in	14,500	11,800	9,900	8,540	7,460	6,570		
		Nm	1,640	1,340	1,120	965	843	742		
	$T_{2\,ACC}$	lb-in	16,000	14,500	13,300	11,800	10,800	9,900		
		Nm	1,800	1,640	1,500	1,340	1,220	1,120		
	η	%	77	82	83	83	82	82		
40	$P_{1\,ME}$	hp	3.75	5.74	7.14	8.23	9.08	9.64	31,100	3,520
		kW	2.80	4.28	5.33	6.14	6.78	7.20		
	$P_{1\,TH}$	hp	2.46	3.81	4.24	4.32	4.32	4.32		
		kW	1.84	2.85	3.16	3.22	3.22	3.22		
	$P_{1\,TH\,Fan}$	hp	2.46	5.21	6.31	6.61	6.61	6.61		
		kW	1.84	3.89	4.71	4.93	4.93	4.93		
	$P_{1\,TH\,WHO}$	hp	3.75	5.74	7.14	7.68	7.55	7.48		
		kW	2.80	4.28	5.33	5.73	5.63	5.59		
	$P_{1\,TH\,WHU}$	hp	3.75	5.74	7.14	7.96	7.82	7.75		
		kW	2.80	4.28	5.33	5.94	5.83	5.78		
	$P_{1\,TH\,WHV}$	hp	3.75	5.74	7.14	7.59	7.47	7.41		
		kW	2.80	4.28	5.33	5.67	5.57	5.53		
	$T_{2\,ME}$	lb-in	13,900	11,300	9,480	8,180	7,140	6,290		
		Nm	1,570	1,280	1,070	925	807	710		
	$T_{2\,ACC}$	lb-in	14,600	13,900	12,900	11,300	10,300	9,480		
		Nm	1,650	1,570	1,450	1,280	1,170	1,070		
	η	%	73	78	79	79	78	78		
50	$P_{1\,ME}$	hp	3.01	4.60	5.73	6.61	7.29	7.74	27,800	3,140
		kW	2.25	3.43	4.28	4.93	5.44	5.78		
	$P_{1\,TH}$	hp	1.98	3.06	3.62	3.85	3.85	3.85		
		kW	1.47	2.29	2.71	2.87	2.87	2.87		
	$P_{1\,TH\,Fan}$	hp	1.98	4.18	5.41	5.89	5.89	5.89		
		kW	1.47	3.12	4.03	4.40	4.40	4.40		
	$P_{1\,TH\,WHO}$	hp	3.01	4.60	5.73	6.61	6.69	6.64		
		kW	2.25	3.43	4.28	4.93	4.99	4.96		
	$P_{1\,TH\,WHU}$	hp	3.01	4.60	5.73	6.61	6.93	6.87		
		kW	2.25	3.43	4.28	4.93	5.17	5.13		
	$P_{1\,TH\,WHV}$	hp	3.01	4.60	5.73	6.61	6.62	6.57		
		kW	2.25	3.43	4.28	4.93	4.94	4.90		
	$T_{2\,ME}$	lb-in	13,600	10,900	9,150	7,900	6,890	6,060		
		Nm	1,530	1,230	1,030	893	779	685		
	$T_{2\,ACC}$	lb-in	14,100	13,600	12,400	10,900	9,980	9,150		
		Nm	1,600	1,530	1,400	1,230	1,130	1,030		
	η	%	71	75	76	76	75	75		
60	$P_{1\,ME}$	hp	2.52	3.85	4.79	5.52	6.09	6.47	27,400	3,090
		kW	1.88	2.87	3.57	4.12	4.54	4.83		
	$P_{1\,TH}$	hp	1.65	2.56	3.16	3.44	3.44	3.44		
		kW	1.23	1.91	2.36	2.57	2.57	2.57		
	$P_{1\,TH\,Fan}$	hp	1.65	3.49	4.66	5.16	5.16	5.16		
		kW	1.23	2.60	3.47	3.85	3.85	3.85		
	$P_{1\,TH\,WHO}$	hp	2.52	3.85	4.79	5.52	5.97	5.94		
		kW	1.88	2.87	3.57	4.12	4.46	4.43		
	$P_{1\,TH\,WHU}$	hp	2.52	3.85	4.79	5.52	6.09	6.14		
		kW	1.88	2.87	3.57	4.12	4.54	4.59		
	$P_{1\,TH\,WHV}$	hp	2.52	3.85	4.79	5.52	5.91	5.87		
		kW	1.88	2.87	3.57	4.12	4.41	4.38		
	$T_{2\,ME}$	lb-in	12,800	10,500	8,810	7,610	6,630	5,830		
		Nm	1,450	1,190	995	859	749	659		
	$T_{2\,ACC}$	lb-in	13,500	12,800	11,800	10,500	9,600	8,810		
		Nm	1,530	1,450	1,330	1,190	1,080	995		
	η	%	67	72	73	73	72	72		

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Size 50 Servo Ratings

SIZE 50

$i:1$	Ratings	Units	$N_{1\ NOM}$ rpm				$T_{2\ MAX}$	
			500	1,000	1,500	2,000	lb-in	Nm
5	$P_{1\ ME}$	hp	30.4	44.1	53.5	58.6	62,300	7,040
		kW	22.7	32.9	39.9	43.7		
	$P_{1\ TH}$	hp	10.7	14.9	16.4	17.0		
		kW	7.95	11.1	12.2	12.7		
	$P_{1\ TH\ Fan}$	hp	11.1	21.5	25.1	26.4		
		kW	8.25	16.1	18.7	19.7		
	$P_{1\ TH\ WHO}$	hp	28.4	36.2	37.7	37.7		
		kW	21.2	27.0	28.1	28.1		
	$P_{1\ TH\ WHU}$	hp	28.4	36.2	37.7	37.7		
		kW	21.2	27.0	28.1	28.1		
	$P_{1\ TH\ WHV}$	hp	25.4	32.6	34.1	34.2		
		kW	19.0	24.3	25.5	25.6		
	$T_{2\ ME}$	lb-in	18,000	13,200	10,700	8,760		
		Nm	2,030	1,490	1,210	990		
	$T_{2\ ACC}$	lb-in	22,100	18,000	14,900	13,200		
		Nm	2,500	2,030	1,680	1,490		
	η	%	94	95	95	95		
10	$P_{1\ ME}$	hp	22.2	32.6	40.1	45.5	74,800	8,450
		kW	16.6	24.3	29.9	33.9		
	$P_{1\ TH}$	hp	8.88	11.6	12.6	12.9		
		kW	6.63	8.67	9.38	9.63		
	$P_{1\ TH\ Fan}$	hp	8.96	16.8	19.2	20.0		
		kW	6.69	12.6	14.4	14.9		
	$P_{1\ TH\ WHO}$	hp	19.5	26.8	27.8	27.8		
		kW	14.6	20.0	20.7	20.7		
	$P_{1\ TH\ WHU}$	hp	19.5	26.8	27.8	27.8		
		kW	14.6	20.0	20.7	20.7		
	$P_{1\ TH\ WHV}$	hp	17.8	24.3	25.2	25.3		
		kW	13.2	18.1	18.8	18.9		
	$T_{2\ ME}$	lb-in	25,200	19,100	15,700	13,300		
		Nm	2,850	2,160	1,770	1,500		
	$T_{2\ ACC}$	lb-in	29,400	25,200	21,600	19,100		
		Nm	3,330	2,850	2,440	2,160		
	η	%	90	93	93	93		
15	$P_{1\ ME}$	hp	18.1	26.8	33.0	37.6	75,200	8,490
		kW	13.5	20.0	24.6	28.0		
	$P_{1\ TH}$	hp	7.37	9.21	9.91	10.2		
		kW	5.50	6.87	7.39	7.61		
	$P_{1\ TH\ Fan}$	hp	7.39	13.3	15.2	15.8		
		kW	5.51	9.95	11.3	11.8		
	$P_{1\ TH\ WHO}$	hp	15.7	21.0	21.7	21.8		
		kW	11.7	15.7	16.2	16.3		
	$P_{1\ TH\ WHU}$	hp	15.7	21.0	21.7	21.8		
		kW	11.7	15.7	16.2	16.3		
	$P_{1\ TH\ WHV}$	hp	14.3	19.1	19.8	19.9		
		kW	10.7	14.2	14.8	14.9		
	$T_{2\ ME}$	lb-in	29,900	23,100	18,900	16,100		
		Nm	3,380	2,610	2,140	1,820		
	$T_{2\ ACC}$	lb-in	34,300	29,900	25,700	23,100		
		Nm	3,870	3,380	2,900	2,610		
	η	%	87	91	91	91		
20	$P_{1\ ME}$	hp	13.9	20.6	25.3	28.9	73,000	8,240
		kW	10.4	15.4	18.9	21.6		
	$P_{1\ TH}$	hp	6.49	7.97	8.35	8.50		
		kW	4.85	5.95	6.23	6.34		
	$P_{1\ TH\ Fan}$	hp	6.50	11.5	12.8	13.2		
		kW	4.85	8.62	9.54	9.84		
	$P_{1\ TH\ WHO}$	hp	13.3	16.2	17.2	17.3		
		kW	9.92	12.1	12.9	12.9		
	$P_{1\ TH\ WHU}$	hp	13.3	16.2	17.2	17.3		
		kW	9.92	12.1	12.9	12.9		
	$P_{1\ TH\ WHV}$	hp	12.2	14.8	15.7	15.8		
		kW	9.08	11.0	11.8	11.8		
	$T_{2\ ME}$	lb-in	29,600	22,600	18,700	16,000		
		Nm	3,340	2,560	2,120	1,810		
	$T_{2\ ACC}$	lb-in	33,300	29,600	25,500	22,600		
		Nm	3,770	3,340	2,880	2,560		
	η	%	84	87	88	88		
25	$P_{1\ ME}$	hp	11.2	16.7	20.5	23.3	69,700	7,880
		kW	8.38	12.4	15.3	17.4		
	$P_{1\ TH}$	hp	5.66	6.69	7.00	7.15		
		kW	4.22	4.99	5.23	5.34		
	$P_{1\ TH\ Fan}$	hp	5.69	9.69	10.7	11.1		
		kW	4.24	7.23	8.00	8.27		
	$P_{1\ TH\ WHO}$	hp	11.2	14.4	15.2	15.3		
		kW	8.38	10.8	11.3	11.4		
	$P_{1\ TH\ WHU}$	hp	11.2	14.4	15.2	15.3		
		kW	8.38	10.8	11.3	11.4		
	$P_{1\ TH\ WHV}$	hp	11.2	13.1	13.8	13.9		
		kW	8.36	9.81	10.3	10.4		
	$T_{2\ ME}$	lb-in	29,700	22,600	18,700	16,000		
		Nm	3,360	2,560	2,120	1,800		
	$T_{2\ ACC}$	lb-in	32,800	29,700	25,300	22,600		
		Nm	3,700	3,360	2,860	2,560		
	η	%	84	86	87	87		

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SIZE 50

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm				$T_{2\,MAX}$	
			500	1,000	1,500	2,000	lb-in	Nm
30	$P_{1\,ME}$	hp	9.41	13.9	17.2	19.6	67,100	7,580
		kW	7.02	10.4	12.8	14.6		
	$P_{1\,TH}$	hp	4.89	5.84	6.04	6.12		
		kW	3.65	4.36	4.50	4.57		
	$P_{1\,TH\,Fan}$	hp	4.92	8.45	9.24	9.49		
		kW	3.67	6.31	6.89	7.08		
	$P_{1\,TH\,WHO}$	hp	9.41	11.8	12.3	12.3		
		kW	7.02	8.84	9.18	9.20		
	$P_{1\,TH\,WHU}$	hp	9.41	11.8	12.3	12.3		
		kW	7.02	8.84	9.18	9.20		
	$P_{1\,TH\,WHV}$	hp	8.78	10.8	11.3	11.3		
		kW	6.55	8.09	8.40	8.43		
	$T_{2\,ME}$	lb-in	27,500	21,700	18,000	15,300		
		Nm	3,100	2,450	2,030	1,730		
	$T_{2\,ACC}$	lb-in	31,200	27,500	24,300	21,700		
		Nm	3,530	3,100	2,750	2,450		
	η	%	77	82	83	83		
40	$P_{1\,ME}$	hp	7.09	10.5	13.0	14.8	60,800	6,870
		kW	5.29	7.85	9.67	11.0		
	$P_{1\,TH}$	hp	4.13	5.05	5.28	5.37		
		kW	3.08	3.77	3.94	4.01		
	$P_{1\,TH\,Fan}$	hp	4.16	7.31	8.08	8.32		
		kW	3.10	5.45	6.03	6.21		
	$P_{1\,TH\,WHO}$	hp	7.09	9.94	10.4	10.4		
		kW	5.29	7.42	7.73	7.77		
	$P_{1\,TH\,WHU}$	hp	7.09	9.94	10.4	10.4		
		kW	5.29	7.42	7.73	7.77		
	$P_{1\,TH\,WHV}$	hp	7.09	9.13	9.51	9.57		
		kW	5.29	6.81	7.10	7.14		
	$T_{2\,ME}$	lb-in	26,200	20,800	17,200	14,700		
		Nm	2,960	2,350	1,940	1,660		
	$T_{2\,ACC}$	lb-in	28,500	26,200	23,600	20,800		
		Nm	3,220	2,960	2,660	2,350		
	η	%	73	78	79	79		
50	$P_{1\,ME}$	hp	5.69	8.44	10.4	11.9	54,300	6,130
		kW	4.24	6.30	7.76	8.86		
	$P_{1\,TH}$	hp	3.42	4.28	4.61	4.75		
		kW	2.55	3.19	3.44	3.54		
	$P_{1\,TH\,Fan}$	hp	3.47	6.19	7.06	7.36		
		kW	2.59	4.62	5.27	5.49		
	$P_{1\,TH\,WHO}$	hp	5.69	8.44	9.05	9.16		
		kW	4.24	6.30	6.75	6.84		
	$P_{1\,TH\,WHU}$	hp	5.69	8.44	9.05	9.16		
		kW	4.24	6.30	6.75	6.84		
	$P_{1\,TH\,WHV}$	hp	5.69	7.86	8.31	8.42		
		kW	4.24	5.87	6.20	6.29		
	$T_{2\,ME}$	lb-in	25,600	20,000	16,600	14,200		
		Nm	2,890	2,260	1,880	1,600		
	$T_{2\,ACC}$	lb-in	27,600	25,600	22,700	20,000		
		Nm	3,120	2,890	2,570	2,260		
	η	%	71	75	76	76		
60	$P_{1\,ME}$	hp	4.75	7.05	8.69	9.92	53,400	6,030
		kW	3.54	5.26	6.48	7.40		
	$P_{1\,TH}$	hp	2.95	3.83	4.17	4.28		
		kW	2.20	2.86	3.11	3.19		
	$P_{1\,TH\,Fan}$	hp	3.03	5.55	6.38	6.63		
		kW	2.26	4.14	4.76	4.95		
	$P_{1\,TH\,WHO}$	hp	4.75	7.05	8.11	8.20		
		kW	3.54	5.26	6.05	6.12		
	$P_{1\,TH\,WHU}$	hp	4.75	7.05	8.11	8.20		
		kW	3.54	5.26	6.05	6.12		
	$P_{1\,TH\,WHV}$	hp	4.75	7.03	7.45	7.55		
		kW	3.54	5.24	5.56	5.63		
	$T_{2\,ME}$	lb-in	24,200	19,300	16,000	13,700		
		Nm	2,730	2,180	1,810	1,540		
	$T_{2\,ACC}$	lb-in	26,400	24,200	21,600	19,300		
		Nm	2,980	2,730	2,440	2,180		
	η	%	67	72	73	73		
70	$P_{1\,ME}$	hp	4.08	6.05	7.46	8.51	52,700	5,950
		kW	3.05	4.51	5.57	6.35		
	$P_{1\,TH}$	hp	2.68	3.53	3.75	3.80		
		kW	2.00	2.63	2.80	2.84		
	$P_{1\,TH\,Fan}$	hp	2.79	5.11	5.73	5.89		
		kW	2.08	3.81	4.28	4.40		
	$P_{1\,TH\,WHO}$	hp	4.08	6.05	7.46	7.58		
		kW	3.05	4.51	5.57	5.66		
	$P_{1\,TH\,WHU}$	hp	4.08	6.05	7.46	7.58		
		kW	3.05	4.51	5.57	5.66		
	$P_{1\,TH\,WHV}$	hp	4.08	6.05	6.91	6.95		
		kW	3.05	4.51	5.16	5.19		
	$T_{2\,ME}$	lb-in	23,900	19,000	15,800	13,500		
		Nm	2,700	2,150	1,780	1,520		
	$T_{2\,ACC}$	lb-in	26,000	23,900	21,300	19,000		
		Nm	2,940	2,700	2,410	2,150		
	η	%	66	71	72	72		

See Page 8.7 for Rating Definitions

Size 60 Servo Ratings

SIZE 60

i:1	Ratings	Units	$N_{1\,NOM}$ rpm				$T_{2\,MAX}$	
			500	1,000	1,500	2,000	lb-in	Nm
5	$P_{1\,ME}$	hp	44.6	64.5	76.8	84.0	96,500	10,900
		kW	33.3	48.1	57.3	62.7		
	$P_{1\,TH}$	hp	16.0	21.8	24.1	25.0		
		kW	11.9	16.3	18.0	18.7		
	$P_{1\,TH\,Fan}$	hp	16.2	31.6	36.9	38.8		
		kW	12.1	23.6	27.5	28.9		
	$P_{1\,TH\,WHO}$	hp	36.7	46.7	48.9	49.1		
		kW	27.4	34.8	36.5	36.7		
	$P_{1\,TH\,WHU}$	hp	35.7	45.5	47.7	48.0		
		kW	26.6	34.0	35.6	35.8		
	$P_{1\,TH\,WHV}$	hp	33.7	43.1	45.4	45.7		
		kW	25.2	32.2	33.9	34.1		
	$T_{2\,ME}$	lb-in	26,400	19,300	15,300	12,500		
		Nm	2,990	2,180	1,730	1,420		
	$T_{2\,ACC}$	lb-in	33,800	26,400	21,900	19,300		
		Nm	3,820	2,990	2,480	2,180		
	η	%	94	95	95	95		
10	$P_{1\,ME}$	hp	32.5	47.3	57.3	62.8	115,000	13,000
		kW	24.3	35.3	42.8	46.9		
	$P_{1\,TH}$	hp	13.1	17.1	18.5	19.0		
		kW	9.74	12.8	13.8	14.2		
	$P_{1\,TH\,Fan}$	hp	13.2	24.8	28.3	29.5		
		kW	9.84	18.5	21.1	22.0		
	$P_{1\,TH\,WHO}$	hp	25.5	34.8	36.2	36.4		
		kW	19.0	26.0	27.0	27.2		
	$P_{1\,TH\,WHU}$	hp	24.9	34.0	35.4	35.6		
		kW	18.6	25.4	26.4	26.5		
	$P_{1\,TH\,WHV}$	hp	23.7	32.3	33.7	33.9		
		kW	17.7	24.1	25.2	25.3		
	$T_{2\,ME}$	lb-in	36,900	27,700	22,400	18,400		
		Nm	4,170	3,130	2,530	2,080		
	$T_{2\,ACC}$	lb-in	44,900	36,900	31,200	27,700		
		Nm	5,070	4,170	3,530	3,130		
	η	%	90	93	93	93		
15	$P_{1\,ME}$	hp	26.6	38.7	47.1	52.0	116,000	13,100
		kW	19.9	28.9	35.1	38.8		
	$P_{1\,TH}$	hp	10.8	13.6	14.6	15.0		
		kW	8.09	10.1	10.9	11.2		
	$P_{1\,TH\,Fan}$	hp	10.9	19.6	22.3	23.2		
		kW	8.11	14.7	16.7	17.4		
	$P_{1\,TH\,WHO}$	hp	20.5	27.4	28.4	28.6		
		kW	15.3	20.4	21.2	21.3		
	$P_{1\,TH\,WHU}$	hp	20.1	26.7	27.7	27.9		
		kW	15.0	19.9	20.7	20.8		
	$P_{1\,TH\,WHV}$	hp	19.1	25.4	26.4	26.6		
		kW	14.3	19.0	19.7	19.9		
	$T_{2\,ME}$	lb-in	43,900	33,300	27,000	22,300		
		Nm	4,960	3,760	3,050	2,520		
	$T_{2\,ACC}$	lb-in	52,200	43,900	37,200	33,300		
		Nm	5,900	4,960	4,200	3,760		
	η	%	87	91	91	91		
20	$P_{1\,ME}$	hp	20.5	29.8	36.2	40.1	113,000	12,700
		kW	15.3	22.2	27.0	29.9		
	$P_{1\,TH}$	hp	9.56	11.7	12.3	12.5		
		kW	7.13	8.76	9.17	9.33		
	$P_{1\,TH\,Fan}$	hp	9.56	17.0	18.8	19.4		
		kW	7.14	12.7	14.0	14.5		
	$P_{1\,TH\,WHO}$	hp	17.5	21.3	22.6	22.7		
		kW	13.1	15.9	16.9	17.0		
	$P_{1\,TH\,WHU}$	hp	17.1	20.8	22.1	22.2		
		kW	12.8	15.5	16.5	16.6		
	$P_{1\,TH\,WHV}$	hp	16.4	19.9	21.2	21.3		
		kW	12.2	14.9	15.8	15.9		
	$T_{2\,ME}$	lb-in	43,500	32,600	26,700	22,200		
		Nm	4,920	3,690	3,020	2,510		
	$T_{2\,ACC}$	lb-in	50,700	43,500	36,700	32,600		
		Nm	5,730	4,920	4,150	3,690		
	η	%	84	87	88	88		
25	$P_{1\,ME}$	hp	16.5	24.0	29.2	32.4	108,000	12,200
		kW	12.3	17.9	21.8	24.2		
	$P_{1\,TH}$	hp	8.31	9.84	10.3	10.5		
		kW	6.20	7.34	7.68	7.84		
	$P_{1\,TH\,Fan}$	hp	8.36	14.2	15.7	16.3		
		kW	6.24	10.6	11.8	12.1		
	$P_{1\,TH\,WHO}$	hp	16.1	18.9	19.8	20.0		
		kW	12.0	14.1	14.8	14.9		
	$P_{1\,TH\,WHU}$	hp	15.7	18.4	19.4	19.5		
		kW	11.7	13.8	14.5	14.6		
	$P_{1\,TH\,WHV}$	hp	15.0	17.6	18.5	18.6		
		kW	11.2	13.1	13.8	13.9		
	$T_{2\,ME}$	lb-in	43,700	32,700	26,700	22,200		
		Nm	4,940	3,690	3,020	2,510		
	$T_{2\,ACC}$	lb-in	49,900	43,700	36,500	32,700		
		Nm	5,640	4,940	4,120	3,690		
	η	%	84	86	87	87		

See Page 8.7 for Rating Definitions

SIZE 60

i : 1	Ratings	Units	$N_{1\ NOM}$ rpm				$T_{2\ MAX}$	
			500	1,000	1,500	2,000	lb-in	Nm
30	$P_{1\ ME}$	hp	13.8	20.1	24.4	27.2	104,000	11,700
		kW	10.3	15.0	18.2	20.3		
	$P_{1\ TH}$	hp	7.20	8.59	8.88	9.00		
		kW	5.37	6.41	6.62	6.72		
	$P_{1\ TH\ Fan}$	hp	7.24	12.4	13.6	13.9		
		kW	5.41	9.28	10.1	10.4		
	$P_{1\ TH\ WHO}$	hp	12.6	15.6	16.2	16.2		
		kW	9.43	11.6	12.1	12.1		
	$P_{1\ TH\ WHU}$	hp	12.4	15.3	15.8	15.9		
		kW	9.24	11.4	11.8	11.9		
	$P_{1\ TH\ WHV}$	hp	11.9	14.6	15.1	15.2		
		kW	8.85	10.9	11.3	11.4		
	$T_{2\ ME}$	lb-in	40,300	31,300	25,600	21,300		
		Nm	4,560	3,540	2,890	2,400		
	$T_{2\ ACC}$	lb-in	47,600	40,300	35,000	31,300		
		Nm	5,380	4,560	3,960	3,540		
	η	%	77	82	83	83		
40	$P_{1\ ME}$	hp	10.4	15.2	18.4	20.5	94,000	10,600
		kW	7.78	11.3	13.8	15.3		
	$P_{1\ TH}$	hp	6.11	7.44	7.78	7.90		
		kW	4.56	5.55	5.80	5.90		
	$P_{1\ TH\ Fan}$	hp	6.13	10.8	11.9	12.2		
		kW	4.57	8.04	8.88	9.14		
	$P_{1\ TH\ WHO}$	hp	10.4	13.2	13.7	13.8		
		kW	7.78	9.82	10.2	10.3		
	$P_{1\ TH\ WHU}$	hp	10.4	12.9	13.4	13.5		
		kW	7.78	9.61	10.0	10.1		
	$P_{1\ TH\ WHV}$	hp	10.1	12.3	12.8	12.9		
		kW	7.54	9.21	9.59	9.65		
	$T_{2\ ME}$	lb-in	38,600	29,900	24,500	20,400		
		Nm	4,360	3,380	2,770	2,300		
	$T_{2\ ACC}$	lb-in	43,500	38,600	34,000	29,900		
		Nm	4,920	4,360	3,840	3,380		
	η	%	73	78	79	79		
50	$P_{1\ ME}$	hp	8.37	12.2	14.8	16.5	83,900	9,480
		kW	6.24	9.09	11.0	12.3		
	$P_{1\ TH}$	hp	5.05	6.29	6.79	7.00		
		kW	3.77	4.69	5.07	5.22		
	$P_{1\ TH\ Fan}$	hp	5.11	9.10	10.4	10.9		
		kW	3.81	6.79	7.75	8.10		
	$P_{1\ TH\ WHO}$	hp	8.37	11.3	12.0	12.1		
		kW	6.24	8.44	8.93	9.06		
	$P_{1\ TH\ WHU}$	hp	8.37	11.1	11.7	11.9		
		kW	6.24	8.26	8.75	8.88		
	$P_{1\ TH\ WHV}$	hp	8.37	10.6	11.2	11.4		
		kW	6.24	7.90	8.38	8.51		
	$T_{2\ ME}$	lb-in	37,600	28,900	23,600	19,700		
		Nm	4,250	3,260	2,670	2,220		
	$T_{2\ ACC}$	lb-in	42,100	37,600	32,800	28,900		
		Nm	4,760	4,250	3,710	3,260		
	η	%	71	75	76	76		
60	$P_{1\ ME}$	hp	6.99	10.2	12.4	13.7	82,600	9,330
		kW	5.22	7.59	9.23	10.3		
	$P_{1\ TH}$	hp	4.37	5.63	6.13	6.30		
		kW	3.26	4.20	4.58	4.70		
	$P_{1\ TH\ Fan}$	hp	4.46	8.16	9.39	9.77		
		kW	3.33	6.09	7.00	7.29		
	$P_{1\ TH\ WHO}$	hp	6.99	10.1	10.7	10.9		
		kW	5.22	7.54	8.01	8.12		
	$P_{1\ TH\ WHU}$	hp	6.99	9.90	10.5	10.7		
		kW	5.22	7.39	7.85	7.95		
	$P_{1\ TH\ WHV}$	hp	6.99	9.47	10.1	10.2		
		kW	5.22	7.07	7.52	7.63		
	$T_{2\ ME}$	lb-in	35,600	27,800	22,700	18,900		
		Nm	4,020	3,140	2,570	2,140		
	$T_{2\ ACC}$	lb-in	40,300	35,600	31,100	27,800		
		Nm	4,550	4,020	3,520	3,140		
	η	%	67	72	73	73		
70	$P_{1\ ME}$	hp	6.00	8.73	10.6	11.8	81,200	9,180
		kW	4.48	6.51	7.92	8.81		
	$P_{1\ TH}$	hp	3.91	5.19	5.52	5.60		
		kW	2.91	3.87	4.12	4.18		
	$P_{1\ TH\ Fan}$	hp	4.03	7.51	8.44	8.68		
		kW	3.01	5.61	6.30	6.48		
	$P_{1\ TH\ WHO}$	hp	6.00	8.73	9.95	10.0		
		kW	4.48	6.51	7.43	7.47		
	$P_{1\ TH\ WHU}$	hp	6.00	8.73	9.74	9.80		
		kW	4.48	6.51	7.27	7.32		
	$P_{1\ TH\ WHV}$	hp	6.00	8.73	9.32	9.38		
		kW	4.48	6.51	6.95	7.00		
	$T_{2\ ME}$	lb-in	35,100	27,400	22,500	18,700		
		Nm	3,970	3,100	2,540	2,110		
	$T_{2\ ACC}$	lb-in	39,700	35,100	30,700	27,400		
		Nm	4,480	3,970	3,470	3,100		
	η	%	66	71	72	72		

See Page 8.7 for Rating Definitions

Size 70 Servo Ratings

SIZE 70

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm				$T_{2\,MAX}$	
			500	1,000	1,500	2,000	lb-in	Nm
5	$P_{1\,ME}$	hp	66.0	94.2	109	121	151,000	17,100
		kW	49.3	70.3	81.1	90.4		
	$P_{1\,TH}$	hp	21.6	29.5	32.5	33.8		
		kW	16.1	22.0	24.3	25.2		
	$P_{1\,TH\,Fan}$	hp	23.1	45.0	52.4	55.1		
		kW	17.2	33.6	39.1	41.1		
	$P_{1\,TH\,WHO}$	hp	41.3	53.2	56.2	56.8		
		kW	30.8	39.7	41.9	42.4		
	$P_{1\,TH\,WHU}$	hp	43.3	55.5	58.6	59.1		
		kW	32.3	41.4	43.7	44.1		
	$P_{1\,TH\,WHV}$	hp	59.0	74.5	77.5	77.5		
		kW	44.1	55.6	57.8	57.8		
	$T_{2\,ME}$	lb-in	39,100	28,200	21,700	18,100		
		Nm	4,420	3,190	2,450	2,050		
	$T_{2\,ACC}$	lb-in	51,800	39,100	32,500	28,200		
		Nm	5,850	4,420	3,670	3,190		
	η	%	94	95	95	95		
10	$P_{1\,ME}$	hp	49.4	71.4	85.6	93.3	182,000	20,600
		kW	36.9	53.3	63.9	69.6		
	$P_{1\,TH}$	hp	17.6	23.1	25.0	25.7		
		kW	13.1	17.3	18.7	19.2		
	$P_{1\,TH\,Fan}$	hp	18.7	35.2	40.2	41.9		
		kW	13.9	26.3	30.0	31.3		
	$P_{1\,TH\,WHO}$	hp	29.4	40.0	41.9	42.3		
		kW	22.0	29.9	31.3	31.5		
	$P_{1\,TH\,WHU}$	hp	30.6	41.7	43.6	43.9		
		kW	22.8	31.1	32.5	32.8		
	$P_{1\,TH\,WHV}$	hp	40.1	55.3	57.1	57.2		
		kW	29.9	41.2	42.6	42.7		
	$T_{2\,ME}$	lb-in	56,100	41,800	33,500	27,300		
		Nm	6,330	4,730	3,780	3,080		
	$T_{2\,ACC}$	lb-in	70,300	56,100	47,400	41,800		
		Nm	7,940	6,330	5,360	4,730		
	η	%	90	93	93	93		
15	$P_{1\,ME}$	hp	40.7	58.6	70.9	77.6	184,000	20,700
		kW	30.4	43.7	52.9	57.9		
	$P_{1\,TH}$	hp	14.6	18.3	19.7	20.2		
		kW	10.9	13.7	14.7	15.1		
	$P_{1\,TH\,Fan}$	hp	15.5	27.9	31.7	32.9		
		kW	11.5	20.8	23.6	24.6		
	$P_{1\,TH\,WHO}$	hp	23.9	31.5	32.8	33.1		
		kW	17.8	23.5	24.5	24.7		
	$P_{1\,TH\,WHU}$	hp	24.8	32.8	34.1	34.4		
		kW	18.5	24.5	25.5	25.7		
	$P_{1\,TH\,WHV}$	hp	32.2	43.3	44.6	44.8		
		kW	24.0	32.3	33.3	33.4		
	$T_{2\,ME}$	lb-in	67,100	50,400	40,700	33,300		
		Nm	7,590	5,700	4,590	3,760		
	$T_{2\,ACC}$	lb-in	82,000	67,100	56,800	50,400		
		Nm	9,260	7,590	6,420	5,700		
	η	%	87	91	91	91		
20	$P_{1\,ME}$	hp	31.2	45.1	54.5	59.5	178,000	20,100
		kW	23.3	33.6	40.7	44.4		
	$P_{1\,TH}$	hp	12.9	15.8	16.6	16.9		
		kW	9.63	11.8	12.4	12.6		
	$P_{1\,TH\,Fan}$	hp	13.6	24.1	26.7	27.5		
		kW	10.1	18.0	20.0	20.6		
	$P_{1\,TH\,WHO}$	hp	20.5	24.9	26.5	26.6		
		kW	15.3	18.6	19.8	19.9		
	$P_{1\,TH\,WHU}$	hp	21.2	25.8	27.5	27.6		
		kW	15.8	19.3	20.5	20.6		
	$P_{1\,TH\,WHV}$	hp	27.3	33.1	35.3	35.4		
		kW	20.3	24.7	26.4	26.4		
	$T_{2\,ME}$	lb-in	66,400	49,400	40,300	33,000		
		Nm	7,500	5,580	4,550	3,720		
	$T_{2\,ACC}$	lb-in	79,900	66,400	56,300	49,400		
		Nm	9,020	7,500	6,370	5,580		
	η	%	84	87	88	88		
25	$P_{1\,ME}$	hp	25.2	36.4	44.1	48.2	170,000	19,200
		kW	18.8	27.2	32.9	36.0		
	$P_{1\,TH}$	hp	11.3	13.3	13.9	14.2		
		kW	8.40	9.91	10.4	10.6		
	$P_{1\,TH\,Fan}$	hp	11.9	20.2	22.4	23.1		
		kW	8.91	15.1	16.7	17.3		
	$P_{1\,TH\,WHO}$	hp	18.7	21.9	23.0	23.2		
		kW	13.9	16.3	17.2	17.3		
	$P_{1\,TH\,WHU}$	hp	19.4	22.8	23.9	24.1		
		kW	14.5	17.0	17.8	18.0		
	$P_{1\,TH\,WHV}$	hp	25.2	29.6	31.2	31.3		
		kW	18.8	22.1	23.3	23.4		
	$T_{2\,ME}$	lb-in	66,800	49,500	40,300	33,000		
		Nm	7,550	5,600	4,550	3,730		
	$T_{2\,ACC}$	lb-in	78,400	66,800	56,000	49,500		
		Nm	8,860	7,550	6,330	5,600		
	η	%	84	86	87	87		

See Page 8.7 for Rating Definitions

SIZE 70

i : 1	Ratings	Units	$N_{1\ NOM}$ rpm				$T_{2\ MAX}$	
			500	1,000	1,500	2,000	lb-in	Nm
30	$P_{1\ ME}$	hp	21.1	30.5	36.9	40.4	164,000	18,500
		kW	15.8	22.8	27.5	30.2		
	$P_{1\ TH}$	hp	9.34	11.1	12.0	12.2		
		kW	6.97	8.25	8.95	9.10		
	$P_{1\ TH\ Fan}$	hp	9.79	16.9	19.3	19.9		
		kW	7.30	12.6	14.4	14.8		
	$P_{1\ TH\ WHO}$	hp	14.5	17.7	19.0	19.1		
		kW	10.8	13.2	14.1	14.3		
	$P_{1\ TH\ WHU}$	hp	15.0	18.4	19.6	19.8		
		kW	11.2	13.7	14.7	14.8		
	$P_{1\ TH\ WHV}$	hp	19.2	23.7	25.2	25.3		
		kW	14.3	17.7	18.8	18.9		
	$T_{2\ ME}$	lb-in	61,700	47,500	38,600	31,700		
		Nm	6,970	5,370	4,360	3,580		
	$T_{2\ ACC}$	lb-in	74,800	61,700	53,800	47,500		
		Nm	8,450	6,970	6,080	5,370		
	η	%	77	82	83	83		
40	$P_{1\ ME}$	hp	15.9	23.1	27.8	30.5	148,000	16,800
		kW	11.9	17.2	20.8	22.8		
	$P_{1\ TH}$	hp	8.21	10.1	10.5	10.7		
		kW	6.13	7.51	7.86	7.99		
	$P_{1\ TH\ Fan}$	hp	8.71	15.3	17.0	17.4		
		kW	6.50	11.4	12.7	13.0		
	$P_{1\ TH\ WHO}$	hp	12.6	15.5	16.2	16.3		
		kW	9.44	11.6	12.1	12.2		
	$P_{1\ TH\ WHU}$	hp	13.1	16.0	16.7	16.9		
		kW	9.77	12.0	12.5	12.6		
	$P_{1\ TH\ WHV}$	hp	15.9	20.4	21.2	21.3		
		kW	11.9	15.2	15.8	15.9		
	$T_{2\ ME}$	lb-in	59,000	45,500	37,000	30,300		
		Nm	6,660	5,140	4,180	3,430		
	$T_{2\ ACC}$	lb-in	68,400	59,000	52,200	45,500		
		Nm	7,730	6,660	5,890	5,140		
	η	%	73	78	79	79		
50	$P_{1\ ME}$	hp	12.8	18.5	22.4	24.5	132,000	15,000
		kW	9.55	13.8	16.7	18.3		
	$P_{1\ TH}$	hp	6.89	8.49	9.17	9.45		
		kW	5.14	6.34	6.84	7.05		
	$P_{1\ TH\ Fan}$	hp	7.27	12.9	14.8	15.4		
		kW	5.43	9.65	11.0	11.5		
	$P_{1\ TH\ WHO}$	hp	11.0	13.3	14.1	14.3		
		kW	8.23	9.91	10.5	10.7		
	$P_{1\ TH\ WHU}$	hp	11.4	13.8	14.6	14.8		
		kW	8.53	10.3	10.9	11.1		
	$P_{1\ TH\ WHV}$	hp	12.8	17.6	18.5	18.8		
		kW	9.55	13.1	13.8	14.0		
	$T_{2\ ME}$	lb-in	57,600	43,900	35,700	29,300		
		Nm	6,510	4,960	4,030	3,310		
	$T_{2\ ACC}$	lb-in	66,200	57,600	50,300	43,900		
		Nm	7,480	6,510	5,690	4,960		
	η	%	71	75	76	76		
60	$P_{1\ ME}$	hp	10.7	15.5	18.7	20.5	130,000	14,700
		kW	7.98	11.5	13.9	15.3		
	$P_{1\ TH}$	hp	5.98	7.60	8.27	8.50		
		kW	4.46	5.67	6.17	6.34		
	$P_{1\ TH\ Fan}$	hp	6.34	11.6	13.3	13.9		
		kW	4.73	8.64	9.94	10.3		
	$P_{1\ TH\ WHO}$	hp	9.60	11.9	12.7	12.9		
		kW	7.17	8.86	9.44	9.60		
	$P_{1\ TH\ WHU}$	hp	9.97	12.3	13.1	13.3		
		kW	7.44	9.17	9.77	9.92		
	$P_{1\ TH\ WHV}$	hp	10.7	15.5	16.6	16.8		
		kW	7.98	11.5	12.4	12.5		
	$T_{2\ ME}$	lb-in	54,400	42,300	34,400	28,200		
		Nm	6,150	4,780	3,880	3,190		
	$T_{2\ ACC}$	lb-in	63,300	54,400	47,700	42,300		
		Nm	7,150	6,150	5,400	4,780		
	η	%	67	72	73	73		
70	$P_{1\ ME}$	hp	9.18	13.3	16.0	17.6	128,000	14,500
		kW	6.85	9.91	12.0	13.1		
	$P_{1\ TH}$	hp	5.60	7.01	7.53	7.70		
		kW	4.18	5.23	5.62	5.75		
	$P_{1\ TH\ Fan}$	hp	5.95	10.7	12.1	12.6		
		kW	4.44	7.96	9.05	9.37		
	$P_{1\ TH\ WHO}$	hp	9.12	11.1	11.8	11.9		
		kW	6.80	8.30	8.77	8.88		
	$P_{1\ TH\ WHU}$	hp	9.18	11.5	12.2	12.3		
		kW	6.85	8.61	9.09	9.20		
	$P_{1\ TH\ WHV}$	hp	9.18	13.3	15.6	15.7		
		kW	6.85	9.91	11.6	11.7		
	$T_{2\ ME}$	lb-in	53,800	41,700	33,900	27,900		
		Nm	6,080	4,720	3,830	3,150		
	$T_{2\ ACC}$	lb-in	62,400	53,800	47,100	41,700		
		Nm	7,050	6,080	5,330	4,720		
	η	%	66	71	72	72		

See Page 8.7 for Rating Definitions

Size 80 Servo Ratings

SIZE 80

i : 1	Ratings	Units	$N_{1\,NOM}$ rpm				$T_{2\,MAX}$	
			500	1,000	1,500	2,000	lb-in	Nm
5	$P_{1\,ME}$	hp	93.8	132	151	168	223,000	25,200
		kW	70.0	98.5	113	125		
	$P_{1\,TH}$	hp	32.8	44.2	49.4	51.3		
		kW	24.5	33.0	36.9	38.3		
	$P_{1\,TH\,Fan}$	hp	36.7	70.5	83.3	87.7		
		kW	27.4	52.6	62.1	65.5		
	$P_{1\,TH\,WHO}$	hp	60.4	77.4	82.5	83.5		
		kW	45.1	57.7	61.6	62.3		
	$P_{1\,TH\,WHU}$	hp	72.2	91.6	96.7	97.3		
		kW	53.9	68.3	72.2	72.6		
	$P_{1\,TH\,WHV}$	hp	76.2	96.3	101	102		
		kW	56.8	71.9	75.7	76.0		
	$T_{2\,ME}$	lb-in	55,600	39,500	30,100	25,100		
		Nm	6,280	4,470	3,400	2,840		
	$T_{2\,ACC}$	lb-in	74,300	55,600	45,700	39,500		
		Nm	8,390	6,280	5,170	4,470		
	η	%	94	95	95	95		
10	$P_{1\,ME}$	hp	71.4	103	122	134	269,000	30,400
		kW	53.3	76.7	90.7	99.9		
	$P_{1\,TH}$	hp	26.8	34.7	37.9	39.0		
		kW	20.0	25.9	28.3	29.1		
	$P_{1\,TH\,Fan}$	hp	29.7	55.4	63.9	66.7		
		kW	22.2	41.3	47.7	49.8		
	$P_{1\,TH\,WHO}$	hp	43.3	58.4	61.6	62.2		
		kW	32.3	43.6	46.0	46.4		
	$P_{1\,TH\,WHU}$	hp	50.4	68.5	71.7	72.1		
		kW	37.6	51.1	53.5	53.8		
	$P_{1\,TH\,WHV}$	hp	52.8	71.9	75.1	75.4		
		kW	39.4	53.7	56.0	56.3		
	$T_{2\,ME}$	lb-in	81,000	60,200	47,500	39,200		
		Nm	9,160	6,810	5,370	4,430		
	$T_{2\,ACC}$	lb-in	103,000	81,000	68,500	60,200		
		Nm	11,600	9,160	7,740	6,810		
	η	%	90	93	93	93		
15	$P_{1\,ME}$	hp	58.9	85.1	101	111	272,000	30,700
		kW	44.0	63.5	75.6	82.9		
	$P_{1\,TH}$	hp	22.2	27.4	30.3	31.6		
		kW	16.6	20.5	22.6	23.6		
	$P_{1\,TH\,Fan}$	hp	24.5	43.7	51.1	54.0		
		kW	18.3	32.6	38.1	40.3		
	$P_{1\,TH\,WHO}$	hp	35.1	45.8	48.7	49.7		
		kW	26.2	34.2	36.4	37.1		
	$P_{1\,TH\,WHU}$	hp	40.7	53.7	56.6	57.5		
		kW	30.4	40.1	42.2	42.9		
	$P_{1\,TH\,WHV}$	hp	42.5	56.3	59.2	60.1		
		kW	31.7	42.0	44.2	44.8		
	$T_{2\,ME}$	lb-in	97,100	73,200	58,100	47,700		
		Nm	11,000	8,270	6,570	5,390		
	$T_{2\,ACC}$	lb-in	121,000	97,100	82,200	73,200		
		Nm	13,600	11,000	9,280	8,270		
	η	%	87	91	91	91		
20	$P_{1\,ME}$	hp	45.2	65.2	77.9	85.3	263,000	29,700
		kW	33.7	48.7	58.1	63.7		
	$P_{1\,TH}$	hp	19.6	23.9	26.9	28.4		
		kW	14.6	17.8	20.1	21.2		
	$P_{1\,TH\,Fan}$	hp	21.5	38.1	45.4	48.6		
		kW	16.1	28.4	33.9	36.2		
	$P_{1\,TH\,WHO}$	hp	30.2	36.6	40.7	42.0		
		kW	22.5	27.3	30.4	31.4		
	$P_{1\,TH\,WHU}$	hp	34.7	42.1	46.6	47.9		
		kW	25.9	31.4	34.8	35.7		
	$P_{1\,TH\,WHV}$	hp	36.2	43.9	48.6	49.8		
		kW	27.0	32.8	36.3	37.2		
	$T_{2\,ME}$	lb-in	96,100	71,500	57,600	47,200		
		Nm	10,900	8,080	6,510	5,340		
	$T_{2\,ACC}$	lb-in	117,000	96,100	81,300	71,500		
		Nm	13,200	10,900	9,180	8,080		
	η	%	84	87	88	88		
25	$P_{1\,ME}$	hp	36.5	52.8	63.2	69.1	252,000	28,400
		kW	27.3	39.4	47.1	51.6		
	$P_{1\,TH}$	hp	17.0	20.1	21.3	21.5		
		kW	12.7	15.0	15.9	16.0		
	$P_{1\,TH\,Fan}$	hp	18.8	32.1	35.9	36.8		
		kW	14.0	24.0	26.8	27.4		
	$P_{1\,TH\,WHO}$	hp	27.4	32.2	34.0	34.1		
		kW	20.4	24.0	25.4	25.4		
	$P_{1\,TH\,WHU}$	hp	31.8	37.4	39.5	39.5		
		kW	23.7	27.9	29.5	29.5		
	$P_{1\,TH\,WHV}$	hp	33.3	39.1	41.3	41.3		
		kW	24.8	29.2	30.8	30.8		
	$T_{2\,ME}$	lb-in	96,700	71,700	57,700	47,300		
		Nm	10,900	8,100	6,520	5,340		
	$T_{2\,ACC}$	lb-in	115,000	96,700	80,600	71,700		
		Nm	13,000	10,900	9,110	8,100		
	η	%	84	86	87	87		

See Page 8.7 for Rating Definitions

SIZE 80

i : 1	Ratings	Units	$N_{1\ NOM}$ rpm				$T_{2\ MAX}$	
			500	1,000	1,500	2,000	lb-in	Nm
30	$P_{1\ ME}$	hp	30.6	44.2	53.0	57.8	242,000	27,400
		kW	22.9	33.0	39.6	43.1		
	$P_{1\ TH}$	hp	14.8	17.4	18.2	18.5		
		kW	11.0	13.0	13.6	13.8		
	$P_{1\ TH\ Fan}$	hp	16.3	27.7	30.7	31.6		
		kW	12.2	20.7	22.9	23.6		
	$P_{1\ TH\ WHO}$	hp	22.0	26.8	28.0	28.2		
		kW	16.4	20.0	20.9	21.0		
	$P_{1\ TH\ WHU}$	hp	25.1	30.8	32.1	32.3		
		kW	18.8	23.0	24.0	24.1		
	$P_{1\ TH\ WHV}$	hp	26.2	32.1	33.5	33.7		
		kW	19.5	24.0	25.0	25.1		
	$T_{2\ ME}$	lb-in	89,400	68,800	55,500	45,300		
		Nm	10,100	7,780	6,270	5,110		
	$T_{2\ ACC}$	lb-in	110,000	89,400	77,700	68,800		
		Nm	12,400	10,100	8,780	7,780		
	η	%	77	82	83	83		
40	$P_{1\ ME}$	hp	23.1	33.4	40.0	43.6	219,000	24,800
		kW	17.2	24.9	29.9	32.6		
	$P_{1\ TH}$	hp	12.4	15.2	16.0	16.2		
		kW	9.29	11.3	11.9	12.1		
	$P_{1\ TH\ Fan}$	hp	13.8	24.2	27.0	27.7		
		kW	10.3	18.0	20.1	20.7		
	$P_{1\ TH\ WHO}$	hp	18.7	22.8	23.9	24.0		
		kW	13.9	17.0	17.8	17.9		
	$P_{1\ TH\ WHU}$	hp	21.3	26.0	27.3	27.4		
		kW	15.9	19.4	20.3	20.4		
	$P_{1\ TH\ WHV}$	hp	22.2	27.1	28.4	28.5		
		kW	16.6	20.3	21.2	21.3		
	$T_{2\ ME}$	lb-in	85,400	65,800	53,100	43,400		
		Nm	9,650	7,440	6,000	4,900		
	$T_{2\ ACC}$	lb-in	101,000	85,400	75,200	65,800		
		Nm	11,400	9,650	8,500	7,440		
	η	%	73	78	79	79		
50	$P_{1\ ME}$	hp	18.6	26.8	32.1	35.1	196,000	22,100
		kW	13.8	20.0	24.0	26.2		
	$P_{1\ TH}$	hp	10.5	12.7	13.9	14.4		
		kW	7.81	9.49	10.4	10.7		
	$P_{1\ TH\ Fan}$	hp	11.5	20.3	23.5	24.6		
		kW	8.61	15.1	17.5	18.4		
	$P_{1\ TH\ WHO}$	hp	16.3	19.4	20.8	21.3		
		kW	12.1	14.5	15.6	15.9		
	$P_{1\ TH\ WHU}$	hp	18.6	22.3	23.8	24.2		
		kW	13.8	16.6	17.8	18.1		
	$P_{1\ TH\ WHV}$	hp	18.6	23.2	24.8	25.2		
		kW	13.8	17.3	18.5	18.8		
	$T_{2\ ME}$	lb-in	83,400	63,500	51,300	41,900		
		Nm	9,430	7,170	5,800	4,740		
	$T_{2\ ACC}$	lb-in	97,300	83,400	72,600	63,500		
		Nm	11,000	9,430	8,210	7,170		
	η	%	71	75	76	76		
60	$P_{1\ ME}$	hp	15.5	22.4	26.8	29.3	193,000	21,800
		kW	11.6	16.7	20.0	21.9		
	$P_{1\ TH}$	hp	9.09	11.5	12.6	12.9		
		kW	6.79	8.58	9.41	9.63		
	$P_{1\ TH\ Fan}$	hp	10.1	18.3	21.3	22.1		
		kW	7.51	13.7	15.9	16.5		
	$P_{1\ TH\ WHO}$	hp	14.2	17.5	18.7	19.0		
		kW	10.6	13.0	14.0	14.2		
	$P_{1\ TH\ WHU}$	hp	15.5	20.0	21.4	21.6		
		kW	11.6	14.9	15.9	16.1		
	$P_{1\ TH\ WHV}$	hp	15.5	20.9	22.2	22.5		
		kW	11.6	15.6	16.6	16.8		
	$T_{2\ ME}$	lb-in	78,900	61,100	49,400	40,400		
		Nm	8,910	6,900	5,580	4,560		
	$T_{2\ ACC}$	lb-in	93,000	78,900	68,900	61,100		
		Nm	10,500	8,910	7,780	6,900		
	η	%	67	72	73	73		
70	$P_{1\ ME}$	hp	13.3	19.2	23.0	25.2	190,000	21,500
		kW	9.93	14.3	17.2	18.8		
	$P_{1\ TH}$	hp	8.78	10.6	11.3	11.5		
		kW	6.56	7.88	8.46	8.58		
	$P_{1\ TH\ Fan}$	hp	9.90	16.8	19.1	19.7		
		kW	7.39	12.6	14.3	14.7		
	$P_{1\ TH\ WHO}$	hp	13.3	16.3	17.2	17.4		
		kW	9.93	12.2	12.9	13.0		
	$P_{1\ TH\ WHU}$	hp	13.3	18.8	19.8	19.9		
		kW	9.93	14.0	14.8	14.9		
	$P_{1\ TH\ WHV}$	hp	13.3	19.2	20.6	20.7		
		kW	9.93	14.3	15.4	15.5		
	$T_{2\ ME}$	lb-in	77,900	60,300	48,800	39,900		
		Nm	8,800	6,820	5,510	4,510		
	$T_{2\ ACC}$	lb-in	91,700	77,900	68,000	60,300		
		Nm	10,400	8,800	7,680	6,820		
	η	%	66	71	72	72		

See Page 8.7 for Rating Definitions

Servo Motor Adapter & Coupling Selection

The following tables can be used to determine the positions 9 / 10 / 11 of the 15-digit model number and allowable motor shaft length from motors not listed on pages 41 - 44 for each unit size. The flange square is a nominal value and may not be the exact size of the motor flange square intended. Contact cone Drive for acceptable motor shaft length and model coupling for all spider type couplings.

UNIT SIZE 30

Adapter Plate P/N	Servo Motor Dimensions			Motor Hole Size Range	Code Postions 9–11			Adapter Thickness	Motor Shaft Length Range	
	Flange Sq.	Pilot	Bolt Circle Dia.		9	10	11		KLC-125	KLC-50
MP3B-11	160	80	100	5.3 - 6.3	B	1	1	24	25 - 51	37 - 51
MP3B-12	160	80	100	6.4 - 8.3	B	1	2	24	25 - 51	37 - 51
MP3B-13	160	95	115	8.4 - 10.3	B	1	3	24	25 - 51	37 - 51
MP3B-14	160	95	115	6.4 - 8.3	B	1	4	24	25 - 51	37 - 51
MP3B-15	160	95	130	6.4 - 8.3	B	1	5	24	25 - 51	37 - 51
MP3B-16	160	95	130	8.4 - 10.3	B	1	6	24	25 - 51	37 - 51
MP3C-01	160	110	130	8.4 - 10.3	C	0	1	24	25 - 51	37 - 51
MP3C-02	160	110	130	6.4 - 8.3	C	0	2	24	25 - 51	37 - 51
MP3C-03	160	110	145	8.4 - 10.3	C	0	3	24	25 - 51	37 - 51
MP3C-04	160	110	145	6.4 - 8.3	C	0	4	24	25 - 51	37 - 51
MP3C-05	160	110	165	10.4 - 12.4	C	0	5	24	25 - 51	37 - 51
MP3C-06	160	110	165	6.4 - 8.3	C	0	6	24	25 - 51	37 - 51
MP3C-07	160	120	185	8.4 - 10.3	C	0	7	24	25 - 51	37 - 51
MP3C-08	160	115	149	8.4 - 10.3	C	0	8	24	25 - 51	37 - 51
MP3C-09	160	130	165	8.4 - 10.3	C	0	9	24	25 - 51	37 - 51
MP3C-10	160	130	165	10.4 - 12.4	C	1	0	24	25 - 51	37 - 51
MP3H-17	160	110	145	6.4 - 8.3	H	1	7	63	64 - 90	76 - 90
MP3H-18	160	110	145	8.4 - 10.3	H	1	8	63	64 - 90	76 - 90
MP3H-19	160	110	165	6.4 - 8.3	H	1	9	63	64 - 90	76 - 90
MP3H-20	160	110	165	8.4 - 10.3	H	2	0	63	64 - 90	76 - 90
MP3H-23	160	130	165	8.4 - 10.3	H	2	3	63	64 - 90	76 - 90
MP3H-24	160	130	165	10.4 - 12.4	H	2	4	63	64 - 90	76 - 90
MP3K-27	190	130	215	10.4 - 12.4	K	2	7	43	44 - 70	56 - 70
MP3K-28	190	130	215	12.5 - 15	K	2	8	43	44 - 70	56 - 70
MP3K-29	190	180	215	10.4 - 12.4	K	2	9	43	44 - 70	56 - 70
MP3K-30	190	180	215	12.5 - 15	K	3	0	43	44 - 70	56 - 70
MP3M-31	240	230	265	12.5 - 15	M	3	1	57	58 - 84	70 - 84
MP3N-32	240	230	265	12.5 - 15	N	3	2	83	85 - 111	97 - 111
MP3P-33	260	180	215	12.5 - 15	P	3	3	79	80 - 106	92 - 106
MP3P-34	260	230	265	10.4 - 12.4	P	3	4	79	80 - 106	92 - 106
MP3P-35	260	230	265	12.5 - 15	P	3	5	79	80 - 106	92 - 106
MP3P-36	260	250	300	17 - 18.9	P	3	6	79	80 - 106	92 - 106
MP3P-37	260	250	300	19 - 20	P	3	7	79	80 - 106	92 - 106
MP3T-22	190	114.3	200	10.4 - 12.4	T	2	2	73	74 - 100	86 - 100
MP3T-25	190	130	200	12.5 - 15	T	2	5	73	74 - 100	86 - 100
MP3T-26	190	180	215	12.5 - 15	T	2	6	73	74 - 100	86 - 100
MP3T-40	190	114.3	200	12.5 - 15	T	4	0	73	74 - 100	86 - 100
MP3T-41	190	114.3	228.6	8.4 - 10.3	T	4	1	73	74 - 100	86 - 100
MP3T-42	190	180	215	10.4 - 12.4	T	4	2	73	74 - 100	86 - 100

UNIT SIZE 35

Adapter Plate P/N	Servo Motor Dimensions			Motor Hole Size Range	Code Postions 9–11			Adapter Thickness	Motor Shaft Length Range		
	Flange Sq.	Pilot	Bolt Circle Dia.		9	10	11		KM-270	KLC-125	KLC-50
MP3B-11	160	80	100	5.3 - 6.3	B	1	1	26	30 - 51	30 - 51	42 - 51
MP3B-12	160	80	100	6.4 - 8.3	B	1	2	26	30 - 51	30 - 51	42 - 51
MP3B-13	160	95	115	8.4 - 10.3	B	1	3	26	30 - 51	30 - 51	42 - 51
MP3B-14	160	95	115	6.4 - 8.3	B	1	4	26	30 - 51	30 - 51	42 - 51
MP3B-15	160	95	130	6.4 - 8.3	B	1	5	26	30 - 51	30 - 51	42 - 51
MP3B-16	160	95	130	8.4 - 10.3	B	1	6	26	30 - 51	30 - 51	42 - 51
MP3C-01	160	110	130	8.4 - 10.3	C	0	1	26	30 - 51	30 - 51	42 - 51
MP3C-02	160	110	130	6.4 - 8.3	C	0	2	26	30 - 51	30 - 51	42 - 51
MP3C-03	160	110	145	8.4 - 10.3	C	0	3	26	30 - 51	30 - 51	42 - 51
MP3C-04	160	110	145	6.4 - 8.3	C	0	4	26	30 - 51	30 - 51	42 - 51
MP3C-05	160	110	165	10.4 - 12.4	C	0	5	26	30 - 51	30 - 51	42 - 51
MP3C-06	160	110	165	6.4 - 8.3	C	0	6	26	30 - 51	30 - 51	42 - 51
MP3C-07	160	120	185	8.4 - 10.3	C	0	7	26	30 - 51	30 - 51	42 - 51
MP3C-08	160	115	149	8.4 - 10.3	C	0	8	26	30 - 51	30 - 51	42 - 51
MP3C-09	160	130	165	8.4 - 10.3	C	0	9	26	30 - 51	30 - 51	42 - 51
MP3C-10	160	130	165	10.4 - 12.4	C	1	0	26	30 - 51	30 - 51	42 - 51

UNIT SIZE 35 – CONTINUED

Adapter Plate P/N	Servo Motor Dimensions			Motor Hole Size Range	Code Postions 9-11			Adapter Thickness	Motor Shaft Length Range		
	Flange Sq.	Pilot	Bolt Circle Dia.		9	10	11		KM-270	KLC-125	KLC-50
MP3H-17	160	110	145	6.4 - 8.3	H	1	7	63	61 - 90	69 - 90	81 - 90
MP3H-18	160	110	145	8.4 - 10.3	H	1	8	63	61 - 90	69 - 90	81 - 90
MP3H-19	160	110	165	6.4 - 8.3	H	1	9	63	61 - 90	69 - 90	81 - 90
MP3H-20	160	110	165	8.4 - 10.3	H	2	0	63	61 - 90	69 - 90	81 - 90
MP3H-23	160	130	165	8.4 - 10.3	H	2	3	63	61 - 90	69 - 90	81 - 90
MP3H-24	160	130	165	10.4 - 12.4	H	2	4	63	61 - 90	69 - 90	81 - 90
MP3K-27	190	130	215	10.4 - 12.4	K	2	7	43	41 - 70	49 - 70	61 - 70
MP3K-28	190	130	215	12.5 - 15	K	2	8	43	41 - 70	49 - 70	61 - 70
MP3K-29	190	180	215	10.4 - 12.4	K	2	9	43	41 - 70	49 - 70	61 - 70
MP3K-30	190	180	215	12.5 - 15	K	3	0	43	41 - 70	49 - 70	61 - 70
MP3M-31	240	230	265	12.5 - 15	M	3	1	57	55 - 84	63 - 84	75 - 84
MP3N-32	240	230	265	12.5 - 15	N	3	2	83	82 - 111	90 - 111	102 - 111
MP3P-33	260	180	215	12.5 - 15	P	3	3	79	77 - 106	85 - 106	97 - 106
MP3P-34	260	230	265	10.4 - 12.4	P	3	4	79	77 - 106	85 - 106	97 - 106
MP3P-35	260	230	265	12.5 - 15	P	3	5	79	77 - 106	85 - 106	97 - 106
MP3P-36	260	250	300	17 - 18.9	P	3	6	79	77 - 106	85 - 106	97 - 106
MP3P-37	260	250	300	19 - 20	P	3	7	79	77 - 106	85 - 106	97 - 106
MP3T-22	190	114.3	200	10.4 - 12.4	T	2	2	73	71 - 100	79 - 100	91 - 100
MP3T-25	190	130	200	12.5 - 15	T	2	5	73	71 - 100	79 - 100	91 - 100
MP3T-26	190	180	215	12.5 - 15	T	2	6	73	71 - 100	79 - 100	91 - 100
MP3T-40	190	114.3	200	12.5 - 15	T	4	0	73	71 - 100	79 - 100	91 - 100
MP3T-41	190	114.3	228.6	8.4 - 10.3	T	4	1	73	71 - 100	79 - 100	91 - 100
MP3T-42	190	180	215	10.4 - 12.4	T	4	2	73	71 - 100	79 - 100	91 - 100

UNIT SIZE 40

Adapter Plate P/N	Servo Motor Dimensions			Motor Hole Size Range	Code Postions 9-11			Adapter Thickness	Motor Shaft Length Range	
	Flange Sq.	Pilot	Bolt Circle Dia.		9	10	11		KM-270	KLC-125
MP3B-11	160	80	100	5.3 - 6.3	B	1	1	24	30 - 51	35 - 51
MP3B-12	160	80	100	6.4 - 8.3	B	1	2	24	30 - 51	35 - 51
MP3B-13	160	95	115	8.4 - 10.3	B	1	3	24	30 - 51	35 - 51
MP3B-14	160	95	115	6.4 - 8.3	B	1	4	24	30 - 51	35 - 51
MP3B-15	160	95	130	6.4 - 8.3	B	1	5	24	30 - 51	35 - 51
MP3B-16	160	95	130	8.4 - 10.3	B	1	6	24	30 - 51	35 - 51
MP3C-01	160	110	130	8.4 - 10.3	C	0	1	24	30 - 51	35 - 51
MP3C-02	160	110	130	6.4 - 8.3	C	0	2	24	30 - 51	35 - 51
MP3C-03	160	110	145	8.4 - 10.3	C	0	3	24	30 - 51	35 - 51
MP3C-04	160	110	145	6.4 - 8.3	C	0	4	24	30 - 51	35 - 51
MP3C-05	160	110	165	10.4 - 12.4	C	0	5	24	30 - 51	35 - 51
MP3C-06	160	110	165	6.4 - 8.3	C	0	6	24	30 - 51	35 - 51
MP3C-07	160	120	185	8.4 - 10.3	C	0	7	24	30 - 51	35 - 51
MP3C-08	160	115	149	8.4 - 10.3	C	0	8	24	30 - 51	35 - 51
MP3C-09	160	130	165	8.4 - 10.3	C	0	9	24	30 - 51	35 - 51
MP3C-10	160	130	165	10.4 - 12.4	C	1	0	24	30 - 51	35 - 51
MP3H-17	160	110	145	6.4 - 8.3	H	1	7	63	65 - 90	74 - 90
MP3H-18	160	110	145	8.4 - 10.3	H	1	8	63	65 - 90	74 - 90
MP3H-19	160	110	165	6.4 - 8.3	H	1	9	63	65 - 90	74 - 90
MP3H-20	160	110	165	8.4 - 10.3	H	2	0	63	65 - 90	74 - 90
MP3H-23	160	130	165	8.4 - 10.3	H	2	3	63	65 - 90	74 - 90
MP3H-24	160	130	165	10.4 - 12.4	H	2	4	63	65 - 90	74 - 90
MP3K-27	190	130	215	10.4 - 12.4	K	2	7	43	45 - 70	54 - 70
MP3K-28	190	130	215	12.5 - 15	K	2	8	43	45 - 70	54 - 70
MP3K-29	190	180	215	10.4 - 12.4	K	2	9	43	45 - 70	54 - 70
MP3K-30	190	180	215	12.5 - 15	K	3	0	43	45 - 70	54 - 70
MP3M-31	240	230	265	12.5 - 15	M	3	1	57	59 - 84	68 - 84
MP3N-32	240	230	265	12.5 - 15	N	3	2	83	81 - 111	95 - 111
MP3P-33	260	180	215	12.5 - 15	P	3	3	79	81 - 106	95 - 106
MP3P-34	260	230	265	10.4 - 12.4	P	3	4	79	81 - 106	95 - 106
MP3P-35	260	230	265	12.5 - 15	P	3	5	79	81 - 106	95 - 106
MP3P-36	260	250	300	17 - 18.9	P	3	6	79	81 - 106	95 - 106
MP3P-37	260	250	300	19 - 20	P	3	7	79	81 - 106	95 - 106
MP3T-22	190	114.3	200	10.4 - 12.4	T	2	2	73	76 - 100	84 - 100
MP3T-25	190	130	200	12.5 - 15	T	2	5	73	76 - 100	84 - 100
MP3T-26	190	180	215	12.5 - 15	T	2	6	73	76 - 100	84 - 100
MP3T-40	190	114.3	200	12.5 - 15	T	4	0	73	76 - 100	84 - 100
MP3T-41	190	114.3	228.6	8.4 - 10.3	T	4	1	73	76 - 100	84 - 100
MP3T-42	190	180	215	10.4 - 12.4	T	4	2	73	76 - 100	84 - 100

Servo Motor Adapter & Coupling Selection

UNIT SIZE 50

Adapter Plate P/N	Servo Motor Dimensions			Motor Hole Size Range	Code Postions 9–11			Adapter Thickness	Motor Shaft Length Range		
	Flange Sq.	Pilot	Bolt Circle Dia.		9	10	11		KM-400	EK2-300	EK2-450
MP4Q-01	240	130	165	10.4 - 12.4	Q	0	1	33	63 - 103	Contact Cone Drive for Allowable Shaft Length	Contact Cone Drive for Allowable Shaft Length
MP4Q-02	240	130	215	12.5 - 15	Q	0	2	33	63 - 103		
MP4Q-03	240	114.3	200	12.5 - 15	Q	0	3	33	63 - 103		
MP4Q-04	240	180	215	12.5 - 15	Q	0	4	33	63 - 103		
MP4R-11	260	250	300	17 - 18.9	R	1	1	33	63 - 103		
MP4R-12	260	230	265	12.5 - 15	R	1	2	33	63 - 103		
MP4R-13	260	200	235	12.5 - 15	R	1	3	33	63 - 103		
MP4S-21	260	230	265	12.5 - 15	S	2	1	42	72 - 112		
MP4S-22	260	250	300	17 - 18.9	S	2	2	42	72 - 112		
MP4S-23	260	114.3	200	12.5 - 15	S	2	3	42	72 - 112		
MP4S-24	260	200	235	12.5 - 15	S	2	4	42	72 - 112		
MP4V-41	260	230	265	12.5 - 15	V	4	1	66	95 - 136		
MP4V-42	260	250	300	17 - 18.9	V	4	2	66	95 - 136		
MP4V-43	260	114.3	200	12.5 - 15	V	4	3	66	95 - 136		
MP4V-44	260	200	235	12.5 - 15	V	4	4	66	95 - 136		
MP4U-31	315	300	350	17 - 18.9	U	3	1	33	63 - 103		

UNIT SIZE 60

Adapter Plate P/N	Servo Motor Dimensions			Motor Hole Size Range	Code Postions 9–11			Adapter Thickness	Motor Shaft Length Range	
	Flange Sq.	Pilot	Bolt Circle Dia.		9	10	11		KM-600	EK2-450
MP4Q-01	240	130	165	10.4 - 12.4	Q	0	1	33	91 - 137	Contact Cone Drive for Allowable Shaft Length
MP4Q-02	240	130	215	12.5 - 15	Q	0	2	33	91 - 137	
MP4Q-03	240	114.3	200	12.5 - 15	Q	0	3	33	91 - 137	
MP4Q-04	240	180	215	12.5 - 15	Q	0	4	33	91 - 137	
MP4R-11	260	250	300	18 - 19	R	1	1	33	91 - 137	
MP4R-12	260	230	265	12.5 - 15	R	1	2	33	91 - 137	
MP4R-13	260	200	235	12.5 - 15	R	1	3	33	91 - 137	
MP4S-21	260	230	265	12.5 - 15	S	2	1	42	100 - 146	
MP4S-22	260	250	300	18 - 19	S	2	2	42	100 - 146	
MP4S-23	260	114.3	200	12.5 - 15	S	2	3	42	100 - 146	
MP4S-24	260	200	235	12.5 - 15	S	2	4	42	100 - 146	
MP4V-41	260	230	265	12.5 - 15	V	4	1	66	123 - 170	
MP4V-42	260	250	300	17 - 18.9	V	4	2	66	123 - 170	
MP4V-43	260	114.3	200	12.5 - 15	V	4	3	66	123 - 170	
MP4V-44	260	200	235	12.5 - 15	V	4	4	66	123 - 170	
MP4U-31	315	300	350	17 - 18.9	U	3	1	33	91 - 137	

UNIT SIZE 70

Adapter Plate P/N	Servo Motor Dimensions			Motor Hole Size Range	Code Postions 9–11			Adapter Thickness	Motor Shaft Length Range		
	Flange Sq.	Pilot	Bolt Circle Dia.		9	10	11		KM-600	EK2-800	EK2-450
MP5D-01	315	250	300	17 - 18.9	D	0	1	29	91 - 139	Contact Cone Drive for Allowable Shaft Length	Contact Cone Drive for Allowable Shaft Length
MP5D-02	315	300	350	17 - 18.9	D	0	2	29	91 - 139		
MP5D-03	315	215.9	184.15	M12	D	0	3	29	91 - 139		
MP5D-04	315	266.7	228.6	M12	D	0	4	29	91 - 139		
MP5E-11	315	250	300	17 - 18.9	E	1	1	59	121 -169		
MP5E-12	315	300	350	17 - 18.9	E	1	2	59	121 -169		
MP5E-13*	315	300	350	17 - 18.9	E	1	2	59	121 -169		

* The worm shaft length changes from 11.625 inch to 12.250 inch when using the MP5E-13 plates.

UNIT SIZE 80

Adapter Plate P/N	Servo Motor Dimensions			Motor Hole Size Range	Code Postions 9–11			Adapter Thickness	Motor Shaft Length Range	
	Flange Sq.	Pilot	Bolt Circle Dia.		9	10	11		KM-900	EK2-800
MP5D-01	315	250	300	17 - 18.9	D	0	1	29	78 - 139	Contact Cone Drive for Allowable Shaft Length
MP5D-02	315	300	350	17 - 18.9	D	0	2	29	78 - 139	
MP5D-03	315	215.9	184.15	M12	D	0	3	29	78 - 139	
MP5D-04	315	266.7	228.6	M12	D	0	4	29	78 - 139	
MP5E-11	315	250	300	17 - 18.9	E	1	1	59	107 - 168	
MP5E-12	315	300	350	17 - 18.9	E	1	2	59	107 - 168	

APPROXIMATE LENGTH FROM CENTERLINE OF OUTPUT TO SERVO MOTOR INTERFACE

Gearbox Size	Length to Motor Adapter, mm	Adapter Pilot Length, mm	Adapter Plate Thickness
30	182.6	6	See Motor Adapter & Plate Selection Tables
35	212.9	6	
40	227.0	6	
50	298.7	6	
60	359.9	6	
70	410.2	0	
80	445.3	0	

Position 12 of the Unit Designation identifies the motor diameter

EXAMPLE CALCULATION FOR DISTANCE TO MOTOR INTERFACE

Approx Length (OAL) to Motor Shaft Interface assuming an MP3B-11 for a unit size 30:

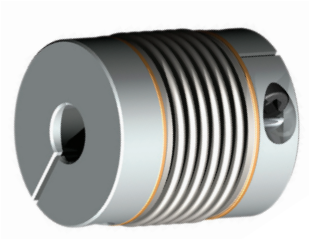
$$OAL = \left(\text{Length to Motor Adapter}\right) + \left(\text{Adapter Plate Thickness} - \text{Adapter Pilot}\right)$$

$$= 190.5 + (30 - 6)$$

$$= 214.5 \text{ mm}$$

BELLOWS COUPLING INFORMATION

Coupling Size	Nominal Torque, Nm	Moment of Inertia, 10^{-3} kgm^2	Torsion Resistance, Nm/arcmin	Mass, kg	Screw Size	Torque to Tighten Screws, Nm	Length, mm
KLC - 50	50	0.22	6.5	0.43	M6	18	67
KLC - 125	125	0.75	12	0.9	M8	40	81
KM - 270	270	2.2	32	1.4	M12	115	100
KM - 400	400	2.4	47	1.5	M12	115	106
KM - 600	600	4.7	67	2.2	M14	200	116
KM-900	900	9	99	3.3	M14	200	143



JAW COUPLING INFORMATION

Coupling Size	Nominal Torque, Nm	Moment of Inertia, 10^{-3} kgm^2	Torsion Resistance, Nm/arcmin	Mass, kg	Screw Size	Torque to Tighten Screws, Nm	Length, mm
EK2 - 300	405	0.6	5.2	1.1	M10	70	114
EK2 - 450	660	1.5	7.9	1.7	M12	120	126
EK2 - 800	1100	9.5	19	10	M16	290	162



Servo Motors with Code (Reducers 30-40)

Use the following table to select motor code positions 9 through 10 as well as position 12 for the motor shaft diameter for a known motor brand and motor model number.

MOTOR BRAND	MOTOR MODEL NUMBER	REDUCER SIZE	30			35			40			MOTOR SHAFT DIA. CODE	30 & 35	40
		COUPLING TYPE	BELLOWS			BELLOWS			BELLOWS					
		MODEL CODE POSITION	9	10	11	9	10	11	9	10	11	12	BELLOWS	BELLOWS
Allen Bradley	1326AB-B410G-21	→	B	1	4	B	1	4	B	1	4	D	KLC50	KLC125
Allen Bradley	1326AB-B420	→	B	1	3	B	1	3	B	1	3	D	KLC50	KLC125
Allen Bradley	1326AB-B520E-21	→	C	0	9	C	0	9	C	0	9	H	KLC50	KLC125
Allen Bradley	1326AB-B530	→	C	1	0	C	1	0	C	1	0	H	KLC50	KLC125
Allen Bradley	1326AB-B740	→	K	3	0	K	3	0	K	3	0	N	KLC125	KLC125
Allen Bradley	1326AS-B860C	→	M	3	1	M	3	1	M	3	1	R	KM270	KM270
Allen Bradley	F4030	→	C	0	3	C	0	3	C	0	3	D	KLC50	KLC125
Allen Bradley	F-4050	→	C	0	3	C	0	3	C	0	3	D	KLC50	KLC125
Allen Bradley	F-4075	→	C	0	3	C	0	3	C	0	3	D	KLC50	KLC125
Allen Bradley	F-6100	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
Allen Bradley	F-6200	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
Allen Bradley	F-6300	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
Allen Bradley	H-4075	→	C	0	3	C	0	3	C	0	3	D	KLC50	KLC125
Allen Bradley	H-6100	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
Allen Bradley	H-6200	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
Allen Bradley	H-6300	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
Allen Bradley	H-8500	→	M	3	1	M	3	1	M	3	1	R	KM270	KM270
Allen Bradley	MPL-A4540	→	C	0	1	C	0	1	C	0	1	H	KLC50	KLC125
Allen Bradley	MPL-B330	→	B	1	2	B	1	2	B	1	2	C	KLC50	KLC125
Allen Bradley	MPL-B420	→	B	1	3	B	1	3	B	1	3	D	KLC50	KLC125
Allen Bradley	MPL-B430	→	B	1	3	B	1	3	B	1	3	D	KLC50	KLC125
Allen Bradley	MPL-B4520	→	C	0	1	C	0	1	C	0	1	H	KLC50	KLC125
Allen Bradley	MPL-B4530	→	C	0	1	C	0	1	C	0	1	H	KLC50	KLC125
Allen Bradley	MPL-B540	→	H	2	4	H	2	4	H	2	4	K	KLC125	KLC125
Allen Bradley	MPL-B640	→	T	2	6	T	2	6	T	2	6	Q	KLC125	KLC125
Allen Bradley	MPL-B660	→	T	2	6	T	2	6	T	2	6	Q	KLC125	KLC125
Allen Bradley	MPL-B680	→	T	2	6	T	2	6	T	2	6	Q	KLC125	KLC125
Allen Bradley	MPL-B860	→	N	3	2	N	3	2	N	3	2	R	KM270	KM270
Allen Bradley	MPL-B880	→	N	3	2	N	3	2	N	3	2	R	KM270	KM270
Allen Bradley	MPL-B960	→	P	3	6	P	3	6	P	3	6	S	KM270	KM270
Allen Bradley	MPL-B980	→	P	3	6	P	3	6	P	3	6	S	KM270	KM270
BALDOR	BSM-100	→	H	2	4	H	2	4	H	2	4	K	KLC125	KLC125
EMERSON	142UM	→	C	1	0	C	1	0	C	1	0	H	KLC50	KLC125
EMERSON	142UMD	→	C	1	0	C	1	0	C	1	0	H	KLC50	KLC125
EMERSON	BLM-6300	→	C	0	9	C	0	9	C	0	9	N	KLC125	KLC125
EMERSON	BLM6310	→	H	2	3	H	2	3	H	2	3	N	KLC125	KLC125
EMERSON	BLM-81000	→	T	2	6	T	2	6	T	2	6	S	KM270	KM270
EMERSON	BLM-8500	→	K	3	0	K	3	0	K	3	0	N	KLC125	KLC125
EMERSON	DXM-6120	→	C	0	9	C	0	9	C	0	9	H	KLC50	KLC125
EMERSON	MGM-340	→	B	1	2	B	1	2	B	1	2	A	KLC50	KLC125
EMERSON	MGM-4120	→	C	0	3	C	0	3	C	0	3	H	KLC50	KLC125
EMERSON	MGM-490	→	C	0	3	C	0	3	C	0	3	H	KLC50	KLC125
EMERSON	MHE-4120	→	C	0	3	C	0	3	C	0	3	H	KLC50	KLC125
EMERSON	MHM-490	→	C	0	3	C	0	3	C	0	3	H	KLC50	KLC125
EMERSON	MHM6200	→	C	1	0	C	1	0	C	1	0	H	KLC50	KLC125
EMERSON	MHM-6300	→	C	1	0	C	1	0	C	1	0	N	KLC125	KLC125
EMERSON	UM95	→	B	1	2	B	1	2	B	1	2	D	KLC50	KLC125
FANUC	ALPHA 12 hvis	→	H	1	8	H	1	8	H	1	8	H	KLC50	KLC125
FANUC	ALPHA 13	→	T	2	2	T	2	2	T	2	2	P	KLC125	KLC125
FANUC	ALPHA 22	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
FANUC	ALPHA 22/3000	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
FANUC	ALPHA 30	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
FANUC	ALPHA 40	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
FANUC	ALPHA 6	→	C	0	3	C	0	3	C	0	3	D	KLC50	KLC125
FANUC	ALPHA 8	→	C	0	3	C	0	3	C	0	3	D	KLC50	KLC125
FANUC	ALPHA C 12	→	T	4	0	T	4	0	T	4	0	P	KLC125	KLC125
GIDDINGS & LEWIS	FSM630	→	T	3	5	T	2	5	T	2	5	P	KLC125	KLC125

MOTOR BRAND	MOTOR MODEL NUMBER	REDUCER SIZE	30			35			40			MOTOR SHAFT DIA. CODE	30 & 35	40
		COUPLING TYPE	BELLOWS			BELLOWS			BELLOWS					
		MODEL CODE POSITION	9	10	11	9	10	11	9	10	11	12	BELLOWS	BELLOWS
INDRAMAT	2AD-104	→	K	2	8	K	2	8	K	2	8	N	KLC125	KLC125
INDRAMAT	2AD-134C	→	P	4	6	P	3	6	P	3	6	R	KM270	KM270
INDRAMAT	MAC-112	→	K	2	8	K	2	8	K	2	8	N	KLC125	KLC125
INDRAMAT	MAC-90	→	C	0	5	C	0	5	C	0	5	H	KLC50	KLC125
INDRAMAT	MAD100	→	K	2	8	K	2	8	K	2	8	N	KLC125	KLC125
INDRAMAT	MAD130	→	P	3	6	P	3	6	P	3	6	R	KM270	KM270
INDRAMAT	MDD-112	→	K	2	8	K	2	8	K	2	8	N	KLC125	KLC125
INDRAMAT	MHD-090	→	C	0	5	C	0	5	C	0	5	H	KLC50	KLC125
INDRAMAT	MHD-093	→	H	2	4	H	2	4	H	2	4	N	KLC125	KLC125
INDRAMAT	MHD-112	→	K	2	8	K	2	8	K	2	8	N	KLC125	KLC125
INDRAMAT	MHD-115	→	T	4	2	T	4	2	T	4	2	Q	KLC125	KLC125
INDRAMAT	MKD-071	→	B	1	5	B	1	5	B	1	5	D	KLC50	KLC125
INDRAMAT	MKD090	→	C	0	5	C	0	5	C	0	5	H	KLC50	KLC125
INDRAMAT	MKD112	→	K	2	8	K	2	8	K	2	8	N	KLC125	KLC125
INDRAMAT	MSK060	→	B	1	6	B	1	6	B	1	6	H	KLC50	KLC125
INDRAMAT	MSK061	→	B	1	6	B	1	6	B	1	6	H	KLC50	KLC125
INDRAMAT	MSK070	→	H	2	4	H	2	4	H	2	4	N	KLC125	KLC125
INDRAMAT	MSK071	→	H	2	4	H	2	4	H	2	4	N	KLC125	KLC125
INDRAMAT	MSK071E	→	H	2	4	H	2	4	H	2	4	N	KLC125	KLC125
INDRAMAT	MSK076	→	C	0	5	C	0	5	C	0	5	H	KLC50	KLC125
INDRAMAT	MSK100	→	K	2	7	K	2	7	K	2	7	N	KLC125	KLC125
INDRAMAT	MSK101	→	T	2	6	T	2	6	T	2	6	Q	KLC125	KLC125
KOLLMORGAN	AKM44AC	→	B	1	2	B	1	2	B	1	2	D	KLC50	KLC125
KOLLMORGAN	AKM73AC	→	T	2	6	T	2	6	T	2	6	Q	KLC125	KLC125
KOLLMORGAN	B-602	→	C	1	0	C	1	0	C	1	0	H	KLC50	KLC125
PACIFIC SCIENTIFIC	PMA54Q	→	K	3	0	K	3	0	K	3	0	N	KLC125	KLC125
SIEMENS	1FK7101.5	→	T	2	6	T	2	6	T	2	6	Q	KLC125	KLC125
SIEMENS	1FT5072	→	C	0	9	C	0	9	C	0	9	H	KLC50	KLC125
SIEMENS	1FT5102	→	K	3	0	K	3	0	K	3	0	N	KLC125	KLC125
SIEMENS	1FT6084	→	H	2	4	H	2	4	H	2	4	N	KLC125	KLC125
SIEMENS	1FT6086	→	H	2	3	H	2	3	H	2	3	N	KLC125	KLC125
SIEMENS	1FT6105	→	T	2	6	T	2	6	T	2	6	Q	KLC125	KLC125
SIEMENS	1FT6108-8AC71	→	T	2	6	T	2	6	T	2	6	Q	KLC125	KLC125
SIEMENS	1FT7103	→	T	2	6	T	2	6	T	2	6	Q	KLC125	KLC125
YASKAWA	SGMG-44	→	T	2	2	T	2	2	T	2	2	P	KLC125	KLC125
YASKAWA	SGMPH-15	→	C	0	4	C	0	4	C	0	4	D	KLC50	KLC125

Servo Motors with Code (Reducers 50-60)

Use the following table to select motor code positions 9 through 10 as well as position 12 for the motor shaft diameter for a known motor brand and motor model number.

MOTOR BRAND	MOTOR MODEL NUMBER	REDUCER SIZE	50						60						MOTOR SHAFT DIA. CODE	50		60	
		COUPLING TYPE	BELLOWS			JAW			BELLOWS			JAW							
		MODEL CODE POSITION	9	10	11	9	10	11	9	10	11	9	10	11	12	JAW	BELLOWS	JAW	BELLOWS
Allen Bradley	HPK1307	→	S	2	2	V	4	2	R	1	1	R	1	1	S	EK2-450	KM400	EK2-450	KM600
Allen Bradley	HPK1308	→	S	2	2	V	4	2	R	1	1	R	1	1	S	EK2-450	KM400	EK2-450	KM600
Allen Bradley	HPK1310	→	S	2	2	V	4	2	R	1	1	R	1	1	S	EK2-450	KM400	EK2-450	KM600
Allen Bradley	MPL-B640	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
Allen Bradley	MPL-B660	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
Allen Bradley	MPL-B680	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
Allen Bradley	MPL-B860	→	S	2	1	V	4	1	R	1	2	R	1	2	R	EK2-300	KM400	EK2-450	KM600
Allen Bradley	MPL-B880	→	S	2	1	V	4	1	R	1	2	R	1	2	R	EK2-300	KM400	EK2-450	KM600
Allen Bradley	MPL-B960	→	S	2	2	V	4	2	R	1	1	R	1	1	S	EK2-450	KM400	EK2-450	KM600
Allen Bradley	MPL-B980	→	S	2	2	V	4	2	R	1	1	R	1	1	S	EK2-450	KM400	EK2-450	KM600
Allen Bradley	MPM2154	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
INDRAMAT	MAD100	→	Q	0	2	Q	0	2	Not Available						N	EK2-300	KM400	–	–
INDRAMAT	MAD130	→	S	2	2	V	4	2	R	1	1	R	1	1	R	EK2-300	KM400	EK2-450	KM600
INDRAMAT	MAD160	→	Not Available						U	3	1	U	3	1	T	–	–	EK2-450	KM600
INDRAMAT	MSK100	→	Q	0	2	Q	0	2	Not Available						N	EK2-300	KM400	–	–
INDRAMAT	MSK101	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
INDRAMAT	MSK103	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
INDRAMAT	MSK131	→	S	2	2	V	4	2	R	1	1	R	1	1	S	EK2-450	KM400	EK2-450	KM600
KOLLMORGEN	AKM6xx-AC	→	Q	0	1	Q	0	1	Not Available						N	EK2-300	KM400	–	–
KOLLMORGEN	AKM6xx-AN	→	Q	0	1	Q	0	1	Not Available						N	EK2-300	KM400	–	–
KOLLMORGEN	AKM7xx-AC	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
KOLLMORGEN	AKM7xx-AN	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
KOLLMORGEN	AKM8xx-AC	→	S	2	2	V	4	2	R	1	1	R	1	1	S	EK2-450	KM400	EK2-450	KM600
KOLLMORGEN	AKM8xx-AN	→	S	2	2	V	4	2	R	1	1	R	1	1	S	EK2-450	KM400	EK2-450	KM600
SIEMENS	1FK7082	→	Q	0	1	Q	0	1	Not Available						N	EK2-300	KM400	–	–
SIEMENS	1FK7085	→	Q	0	1	Q	0	1	Not Available						N	EK2-300	KM400	–	–
SIEMENS	1FK7086	→	Q	0	1	Q	0	1	Not Available						N	EK2-300	KM400	–	–
SIEMENS	1FK7101	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
SIEMENS	1FK7103	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
SIEMENS	1FK7105	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
SIEMENS	1FT7082	→	Q	0	1	Q	0	1	Not Available						N	EK2-300	KM400	–	–
SIEMENS	1FT7084	→	Q	0	1	Q	0	1	Not Available						N	EK2-300	KM400	–	–
SIEMENS	1FT7086	→	Q	0	1	Q	0	1	Not Available						N	EK2-300	KM400	–	–
SIEMENS	1FT7102	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
SIEMENS	1FT7103	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
SIEMENS	1FT7105	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
SIEMENS	1FT7108	→	Q	0	4	Q	0	4	Not Available						Q	EK2-300	KM400	–	–
YASKAWA	SGMBH-2BD	→	Not Available						R	1	2	V	4	1	U	–	–	EK2-450	KM600
YASKAWA	SGMBH-3GD	→	Not Available						R	1	1	V	4	2	V	–	–	–	KM600
YASKAWA	SGMBH-3ZD	→	Not Available						R	1	2	V	4	1	U	–	–	EK2-450	KM600
YASKAWA	SGMBH-4ED	→	Not Available						R	1	1	V	4	2	V	–	–	–	KM600
YASKAWA	SGMGV-1AD	→	S	2	4	V	4	4	R	1	3	R	1	3	R	EK2-300	KM400	EK2-450	KM600
YASKAWA	SGMGV-1ED	→	S	2	4	V	4	4	R	1	3	R	1	3	T	EK2-450	KM400	EK2-450	KM600
YASKAWA	SGMGV-30	→	Q	0	3	Q	0	3	Not Available						P	EK2-300	KM400	–	–
YASKAWA	SGMGV-44	→	Q	0	3	Q	0	3	Not Available						P	EK2-300	KM400	–	–
YASKAWA	SGMGV-55	→	S	2	3	V	4	3	Not Available						R	EK2-300	KM400	–	–
YASKAWA	SGMGV-75	→	S	2	3	V	4	3	Not Available						R	EK2-300	KM400	–	–

Use the following table to select motor code positions 9 through 10 as well as position 12 for the motor shaft diameter for a known motor brand and motor model number.

MOTOR BRAND	MOTOR MODEL NUMBER	REDUCER SIZE	70						80						MOTOR SHAFT DIA. CODE	70		80	
		COUPLING TYPE	BELLOWS			JAW			BELLOWS			JAW							
		MODEL CODE POSITION	9	10	11	9	10	11	9	10	11	9	10	11	12	JAW	BELLOWS	JAW	BELLOWS
Allen Bradley	HPK1307	→	D	0	1	D	0	1	D	0	1	D	0	1	S	EK2-450	KM600	EK2-800	KM900
Allen Bradley	HPK1308	→	D	0	1	D	0	1	D	0	1	D	0	1	S	EK2-450	KM600	EK2-800	KM900
Allen Bradley	HPK1310	→	D	0	1	D	0	1	D	0	1	D	0	1	S	EK2-450	KM600	EK2-800	KM900
Allen Bradley	HPK1609	→	D	0	2	D	0	2	D	0	2	D	0	2	T	EK2-450	KM600	EK2-800	KM900
Allen Bradley	HPK1611	→	D	0	2	D	0	2	D	0	2	D	0	2	T	EK2-450	KM600	EK2-800	KM900
Allen Bradley	HPK1613	→	D	0	2	D	0	2	D	0	2	D	0	2	T	EK2-450	KM600	EK2-800	KM900
Allen Bradley	MPL-B960	→	D	0	1	D	0	1	D	0	1	D	0	1	S	EK2-450	KM600	EK2-800	KM900
Allen Bradley	MPL-B980	→	D	0	1	D	0	1	D	0	1	D	0	1	S	EK2-450	KM600	EK2-800	KM900
Indramat	MAD130	→	D	0	1	D	0	1	Not Available						R	EK2-450	KM600	–	–
Indramat	MAD160	→	D	0	2	D	0	2	D	0	2	D	0	2	T	EK2-450	KM600	EK2-800	KM900
Indramat	MSK131	→	D	0	1	D	0	1	D	0	1	D	0	1	S	EK2-450	KM600	EK2-800	KM900
Indramat	MAD180	→	D	0	1	E	1	1	D	0	1	E	1	1	U	EK2-450	KM600	EK2-800	KM900
Kollmorgen	AKM8xx-AC	→	D	0	1	D	0	1	D	0	1	D	0	1	S	EK2-450	KM600	EK2-800	KM900
Kollmorgen	AKM8xx-AN	→	D	0	1	D	0	1	D	0	1	D	0	1	S	EK2-450	KM600	EK2-800	KM900
Yaskawa	SGMBH-3GD	→	D	0	1	E	1	1	D	0	1	E	1	1	V	EK2-800	KM600	EK2-800	KM900
Yaskawa	SGMBH-4ED	→	D	0	1	E	1	1	D	0	1	E	1	1	V	EK2-800	KM600	EK2-800	KM900

7

Cone Drive
BY TIMKEN

SERIES HP

Overhung Load Ratings

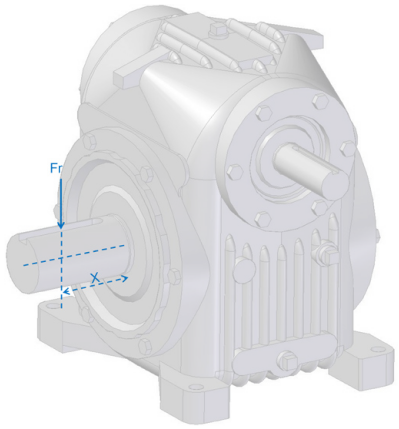
7.2 Overhung Loads
7.3 Ratings

MAXIMUM PERMISSIBLE RADIAL/OVERHUNG LOADS

(Standard Output Shaft)

When a sprocket, gear, etc., is mounted on the shaft, you must calculate the application's radial/overhung load (Fr) to verify the maximum permissible load rating is not exceeded.

The gearbox radial/overhung load ratings apply to both solid and hollow shafts.



$$Fr = \frac{P \times 126{,}000 \times K}{n \times PD} \quad \text{OR} \quad Fr = T \frac{2}{PD} \times K$$

Fr : Radial/Overhung load (lb)

X : Housing face to center of solid shaft keyway (in)

P : Power transmitted by shaft (hp)

n : Shaft speed (rpm)

PD : Pitch Diameter of sprocket, pinion or pulley (in)

K : Overhung load factor (Table 1 below)

T : Torque transmitted by shaft (lb-in)

Table 1. Overhung Load Factor by Load Type

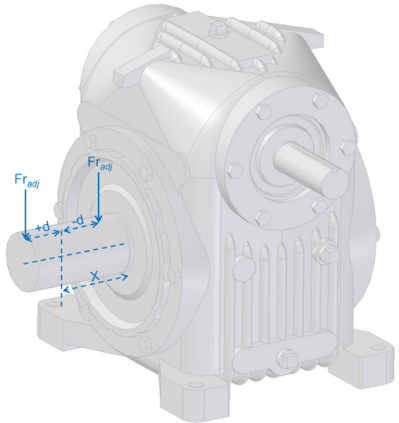
Overhung Load Type	Chain Sprocket	Spur or helical pinion	Timing belt pulley	V-belt sheave	Flat belt pulley
K	1	1.25	1.5	1.5	2.5

Table 2. Overhung Load Rating by Gearbox Size

Radial/OHL Specifications		CENTER DISTANCE													
		1.5	2	2.5	3	3.5	4	5	6	7	8	10	12	15	18
Fr		Load information by size and ratio provided in following pages													
OHL Distance to Housing Center	(in)	2.70	3.47	3.81	4.94	6.57	7.60	8.50	9.75	10.56	11.56	13.16	20.19	20.25	23.38
X		0.70	1.07	1.21	1.79	2.51	2.80	3.20	3.35	3.16	3.86	3.96	7.79	4.75	5.48

Overhung loads can be reduced by increasing the diameter of the sprockets, gear, etc., or by moving the part closer to the gearbox. If the maximum permissible overhung load is exceeded, the sprocket, gear, etc., should be extended to run in an outboard bearing.

To adjust for load locations that differ from the reference location, X, use the method given below:



$$Fr_{adj} = Fr \times \frac{X}{x \pm d}$$

Fr_{adj} : Adjusted radial/overhung load (lb)*

d : Distance of load from center (in)

*Fr_{adj} must not exceed Fr value listed in Table 2

Series HP Overhung Load Ratings

Size	*i* : 1	$N_{1\,NOM}$ rpm												
		100	500	580	720	870	1,000	1,150	1,450	1,500	1,750	2,000	2,500	3,000
1.5	5	589	n/a	589	589	589	n/a	589	589	n/a	589	n/a	n/a	n/a
	10	589	n/a	589	589	589	n/a	589	589	n/a	589	n/a	n/a	n/a
	15	589	n/a	589	589	589	n/a	589	589	n/a	589	n/a	n/a	n/a
	20	589	n/a	589	589	589	n/a	589	589	n/a	589	n/a	n/a	n/a
	25	589	n/a	589	589	589	n/a	589	589	n/a	589	n/a	n/a	n/a
	30	589	n/a	589	589	589	n/a	589	589	n/a	589	n/a	n/a	n/a
	40	589	n/a	589	589	589	n/a	589	589	n/a	589	n/a	n/a	n/a
	50	589	n/a	589	589	589	n/a	589	589	n/a	589	n/a	n/a	n/a
	60	589	n/a	589	589	589	n/a	589	589	n/a	589	n/a	n/a	n/a
2	5	1133	n/a	1133	1094	1030	n/a	950	893	n/a	852	n/a	n/a	n/a
	10	1133	n/a	1133	1133	1133	n/a	1133	1133	n/a	1086	n/a	n/a	n/a
	15	1133	n/a	1133	1133	1133	n/a	1133	1133	n/a	1133	n/a	n/a	n/a
	20	1133	n/a	1133	1133	1133	n/a	1133	1133	n/a	1133	n/a	n/a	n/a
	25	1133	n/a	1133	1133	1133	n/a	1133	1133	n/a	1133	n/a	n/a	n/a
	30	1133	n/a	1133	1133	1133	n/a	1133	1133	n/a	1133	n/a	n/a	n/a
	35	1133	n/a	1133	1133	1133	n/a	1133	1133	n/a	1133	n/a	n/a	n/a
	40	1133	n/a	1133	1133	1133	n/a	1133	1133	n/a	1133	n/a	n/a	n/a
	45	1133	n/a	1133	1133	1133	n/a	1133	1133	n/a	1133	n/a	n/a	n/a
	50	1133	n/a	1133	1133	1133	n/a	1133	1133	n/a	1133	n/a	n/a	n/a
	60	1133	n/a	1133	1133	1133	n/a	1133	1133	n/a	1133	n/a	n/a	n/a
2.5	5	1343	n/a	1097	1020	969	n/a	930	906	n/a	881	n/a	n/a	n/a
	10	1343	n/a	1343	1343	1343	n/a	1287	1214	n/a	1157	n/a	n/a	n/a
	15	1343	n/a	1343	1343	1343	n/a	1343	1343	n/a	1328	n/a	n/a	n/a
	20	1343	n/a	1343	1343	1343	n/a	1343	1343	n/a	1343	n/a	n/a	n/a
	25	1343	n/a	1343	1343	1343	n/a	1343	1343	n/a	1343	n/a	n/a	n/a
	30	1343	n/a	1343	1343	1343	n/a	1343	1343	n/a	1343	n/a	n/a	n/a
	40	1343	n/a	1343	1343	1343	n/a	1343	1343	n/a	1343	n/a	n/a	n/a
	50	1343	n/a	1343	1343	1343	n/a	1343	1343	n/a	1343	n/a	n/a	n/a
	60	1343	n/a	1343	1343	1343	n/a	1343	1343	n/a	1343	n/a	n/a	n/a
3	5	1828	1235	1172	1116	1092	1089	1089	1068	1068	1054	1054	1045	1033
	10	1828	1828	1828	1828	1828	1764	1705	1611	1598	1538	1490	1414	1325
	15	1828	1828	1828	1828	1828	1828	1828	1828	1828	1766	1711	1621	1518
	20	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1719
	25	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828
	30	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828
	40	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828
	50	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828
	60	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828	1828
3.5	5	3233	1802	1736	1694	1686	1688	1663	1645	1646	1641	1648	1653	1630
	10	3233	3233	3128	2921	2781	2681	2593	2446	2430	2335	2268	2151	2025
	15	3233	3233	3233	3233	3180	3062	2959	2792	2769	2663	2585	2453	2302
	20	3233	3233	3233	3233	3233	3233	3233	3156	3130	3005	2914	2759	2593
	25	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3179	3007	2828
	30	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3062
	40	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233
	50	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233
	60	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233	3233
4	5	4337	1953	1910	1901	1897	1871	1866	1852	1855	1861	1862	1836	1731
	10	4554	3328	3204	3002	2874	2774	2682	2541	2521	2437	2373	2266	2142
	15	4554	3830	3686	3460	3295	3179	3076	2908	2884	2785	2712	2584	2435
	20	4554	4409	4216	3971	3786	3647	3525	3314	3286	3167	3076	2924	2758
	25	4554	4554	4554	4387	4151	3995	3858	3637	3605	3472	3368	3195	3018
	30	4554	4554	4554	4554	4529	4358	4202	3956	3921	3772	3655	3461	3276
	40	4554	4554	4554	4554	4554	4554	4554	4451	4410	4238	4101	3876	3679
	50	4554	4554	4554	4554	4554	4554	4554	4554	4554	4554	4465	4215	4011
	60	4554	4554	4554	4554	4554	4554	4554	4554	4554	4554	4554	4512	4304
5	5	4523	1946	2006	2091	2115	2129	2170	2239	2249	2323	2434	n/a	n/a
	10	7266	4272	4194	4071	3948	3809	3690	3513	3487	3378	3304	n/a	n/a
	15	7266	5188	5017	4751	4539	4369	4235	4021	3994	3870	3774	n/a	n/a
	20	7266	6021	5780	5485	5247	5043	4881	4602	4569	4412	4297	n/a	n/a
	25	7266	6687	6417	6078	5765	5541	5360	5062	5021	4845	4710	n/a	n/a
	30	7266	7266	7088	6639	6311	6065	5857	5523	5476	5277	5121	n/a	n/a
	40	7266	7266	7266	7266	7137	6853	6613	6223	6168	5936	5751	n/a	n/a
	50	7266	7266	7266	7266	7266	7266	7225	6792	6731	6472	6264	n/a	n/a
	60	7266	7266	7266	7266	7266	7266	7266	7266	7233	6949	6720	n/a	n/a
	70	7266	7266	7266	7266	7266	7266	7266	7266	7266	7266	7117	n/a	n/a

Size	i : 1	$N_{1\,NOM}$ rpm												
		100	500	580	720	870	1,000	1,150	1,450	1,500	1,750	2,000	2,500	3,000
6	5	4771	2338	2415	2472	2489	2537	2590	2695	2722	2861	2882	n/a	n/a
	10	8521	4785	4671	4432	4255	4108	3997	3825	3802	3709	3663	n/a	n/a
	15	9985	5569	5430	5165	4931	4754	4624	4417	4380	4265	4196	n/a	n/a
	20	10594	6461	6242	5955	5685	5480	5322	5037	4999	4847	4755	n/a	n/a
	25	10594	7229	6972	6632	6278	6048	5865	5561	5518	5339	5224	n/a	n/a
	30	10594	7956	7741	7268	6902	6642	6430	6083	6034	5827	5688	n/a	n/a
	40	10594	9092	8824	8274	7874	7571	7316	6904	6846	6597	6422	n/a	n/a
	50	10594	9972	9626	9050	8604	8271	7985	7527	7462	7183	6984	n/a	n/a
	60	10594	10594	10420	9790	9275	8912	8598	8095	8024	7718	7494	n/a	n/a
	70	10594	10594	10594	10404	9854	9466	9127	8587	8511	8181	7937	n/a	n/a
7	5	6604	3775	3799	3928	4046	4158	4263	4598	4619	4692	4750	n/a	n/a
	10	13805	7762	7720	7429	7116	6885	6686	6385	6342	6200	6060	n/a	n/a
	15	13805	9234	8983	8507	8117	7855	7610	7257	7203	7022	6872	n/a	n/a
	20	13805	10728	10352	9818	9377	9052	8751	8282	8224	7986	7798	n/a	n/a
	25	13805	11898	11466	10860	10295	9928	9593	9087	9020	8740	8518	n/a	n/a
	30	13805	13038	12656	11862	11265	10851	10476	9900	9822	9496	9237	n/a	n/a
	40	13805	13805	13805	13337	12684	12205	11772	11103	11012	10625	10317	n/a	n/a
	50	13805	13805	13805	13805	13805	13331	12850	12104	12002	11565	11216	n/a	n/a
	60	13805	13805	13805	13805	13805	13805	13805	13015	12902	12418	12031	n/a	n/a
	70	13805	13805	13805	13805	13805	13805	13805	13750	13629	13110	12695	n/a	n/a
8	5	4112	2641	2926	3231	3502	3718	4050	4544	4581	4733	4857	n/a	n/a
	10	12205	6203	6397	6337	6359	6388	6478	6585	6563	6445	6326	n/a	n/a
	15	14374	9360	9158	8711	8327	8067	7872	7567	7535	7408	7258	n/a	n/a
	20	14374	11097	10738	10225	9790	9469	9191	8758	8710	8512	8322	n/a	n/a
	25	14374	12461	12033	11429	10846	10476	10159	9685	9619	9378	9151	n/a	n/a
	30	14374	13706	13363	12523	11912	11490	11128	10573	10493	10206	9948	n/a	n/a
	40	14374	14374	14374	14278	13611	13114	12674	11999	11907	11542	11223	n/a	n/a
	50	14374	14374	14374	14374	14374	14374	13916	13148	13045	12619	12254	n/a	n/a
	60	14374	14374	14374	14374	14374	14374	14374	14157	14044	13563	13158	n/a	n/a
	70	14374	14374	14374	14374	14374	14374	14374	14374	14374	14374	13941	n/a	n/a
10	5	3761	n/a	3761	7150	6901	n/a	6652	6373	n/a	4028	n/a	n/a	n/a
	10	5794	n/a	3910	3989	4356	n/a	5030	5746	n/a	6075	n/a	n/a	n/a
	15	12916	n/a	7277	7334	7384	n/a	7177	7164	n/a	7034	n/a	n/a	n/a
	20	17307	n/a	9698	9337	9072	n/a	8691	8502	n/a	8288	n/a	n/a	n/a
	25	18138	n/a	11196	10731	10262	n/a	9760	9537	n/a	9267	n/a	n/a	n/a
	30	18751	n/a	12784	12006	11517	n/a	10889	10575	n/a	10223	n/a	n/a	n/a
	40	18805	n/a	14908	13979	13430	n/a	12624	12170	n/a	11709	n/a	n/a	n/a
	50	18805	n/a	16623	15647	14993	n/a	14047	13475	n/a	12937	n/a	n/a	n/a
	60	18805	n/a	18222	17135	16326	n/a	15260	14591	n/a	13985	n/a	n/a	n/a
	70	18805	n/a	18805	18365	17481	n/a	16313	15562	n/a	14898	n/a	n/a	n/a
12	5	16268	n/a	13990	14381	15077	n/a	14581	n/a	n/a	n/a	n/a	n/a	n/a
	10	32682	n/a	20311	19282	18581	n/a	17731	n/a	n/a	n/a	n/a	n/a	n/a
	15	32682	n/a	23204	22074	21156	n/a	20150	n/a	n/a	n/a	n/a	n/a	n/a
	20	32682	n/a	26613	25341	24267	n/a	22935	n/a	n/a	n/a	n/a	n/a	n/a
	25	32682	n/a	29443	27969	26596	n/a	25052	n/a	n/a	n/a	n/a	n/a	n/a
	30	32682	n/a	32278	30336	28900	n/a	27130	n/a	n/a	n/a	n/a	n/a	n/a
	40	32682	n/a	32682	32682	32606	n/a	30495	n/a	n/a	n/a	n/a	n/a	n/a
	50	32682	n/a	32682	32682	32682	n/a	32682	n/a	n/a	n/a	n/a	n/a	n/a
	60	32682	n/a	32682	32682	32682	n/a	32682	n/a	n/a	n/a	n/a	n/a	n/a
	70	32682	n/a	32682	32682	32682	n/a	32682	n/a	n/a	n/a	n/a	n/a	n/a
15	5	37274	n/a	25932	27322	27559	n/a	27761	n/a	n/a	n/a	n/a	n/a	n/a
	10	53354	n/a	39249	38488	38590	n/a	38084	n/a	n/a	n/a	n/a	n/a	n/a
	15	53354	n/a	53354	52367	51221	n/a	49514	n/a	n/a	n/a	n/a	n/a	n/a
	20	53354	n/a	53354	53354	53354	n/a	53354	n/a	n/a	n/a	n/a	n/a	n/a
	25	53354	n/a	53354	53354	53354	n/a	53354	n/a	n/a	n/a	n/a	n/a	n/a
	30	53354	n/a	53354	53354	53354	n/a	53354	n/a	n/a	n/a	n/a	n/a	n/a
	40	53354	n/a	53354	53354	53354	n/a	53354	n/a	n/a	n/a	n/a	n/a	n/a
	50	53354	n/a	53354	53354	53354	n/a	53354	n/a	n/a	n/a	n/a	n/a	n/a
	60	53354	n/a	53354	53354	53354	n/a	53354	n/a	n/a	n/a	n/a	n/a	n/a
18	5	18517	n/a	16649	17680	18295	n/a	19085	n/a	n/a	n/a	n/a	n/a	n/a
	10	25271	n/a	22559	23164	24234	n/a	24549	n/a	n/a	n/a	n/a	n/a	n/a
	15	51323	n/a	35628	35001	35117	n/a	34199	n/a	n/a	n/a	n/a	n/a	n/a
	20	71840	n/a	46273	44872	44164	n/a	42286	n/a	n/a	n/a	n/a	n/a	n/a
	25	76318	n/a	54116	52063	50575	n/a	47785	n/a	n/a	n/a	n/a	n/a	n/a
	30	76318	n/a	61121	57479	54947	n/a	51228	n/a	n/a	n/a	n/a	n/a	n/a
	40	76318	n/a	68072	63966	61135	n/a	56898	n/a	n/a	n/a	n/a	n/a	n/a
	50	76318	n/a	73595	69262	66125	n/a	61485	n/a	n/a	n/a	n/a	n/a	n/a
	60	76318	n/a	76318	74210	70644	n/a	65623	n/a	n/a	n/a	n/a	n/a	n/a

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Cone Drive
BY TIMKEN

SERIES HP

Gearbox Sizing & Selection

8.2 Approximate Size Based on Speed/Horsepower

8.5 Horsepower, Speed, & Torque Relationship

8.6 Product Selection Procedure

*Sizing and selection is based on mechanical horsepower ratings and a minimum 1.0 service factor. Thermal capacity must be considered.

When input and output shaft speeds are calculated and motor horsepower is known, the selection charts presented on the following pages may be used as a guide to rapidly approximate the size and type of reducer required.

To use these charts, read across the output speed line to the motor horsepower column, on the appropriate input rpm chart. The number presented is the approximate size Cone Drive speed reducer recommended.

*This selection guide is based on Class 1 mechnical horsepower ratings only. Thermal capacity must be considered.

SINGLE REDUCTION REDUCER 1750 RPM

OUTPUT SPEED	RATIO	MOTOR HORSEPOWER												
		1	1.5	2	3	5	7.5	10	15	20	25	30	50	75
350.0	5	15	15	15	20	25	25	30	35	35	40	40	50	60
175.0	10	15	15	20	20	25	30	30	35	40	50	50	60	70
116.7	15	15	15	20	25	30	30	35	40	50	50	50	70	80
87.5	20	15	20	25	25	30	35	35	40	50	50	60	70	80
70.0	25	20	20	25	25	30	35	40	50	50	60	60	80	100
58.3	30	20	25	25	30	35	40	40	50	60	60	70	80	100
43.7	40	20	25	30	30	35	40	50	60	70	70	80	100	120
35.0	50	25	25	30	35	40	50	50	60	70	80	80	100	120
29.2	60	25	30	30	35	40	50	60	70	80	80	100	120	-
25.0	70	-	-	50	50	50	50	60	70	80	100	100	120	-

SINGLE REDUCTION REDUCER 1150 RPM

OUTPUT SPEED	RATIO	MOTOR HORSEPOWER												
		1	1.5	2	3	5	7.5	10	15	20	25	30	50	75
230.0	5	15	15	20	20	25	30	30	35	40	40	50	60	70
115.0	10	15	15	20	25	30	30	35	40	50	50	50	60	70
76.7	15	15	15	20	25	30	35	35	40	50	50	60	70	80
57.5	20	15	20	25	25	30	35	40	50	50	60	60	80	100
46.0	25	20	25	25	30	35	40	50	50	60	60	70	80	100
38.3	30	20	25	25	30	35	40	50	50	60	70	70	100	100
28.8	40	25	25	30	35	40	50	50	60	70	80	80	100	120
23.0	50	25	30	30	35	40	50	60	70	80	80	100	100	120
19.2	60	25	30	35	35	50	50	60	70	80	100	100	120	150
16.4	70	-	-	50	50	50	60	70	80	80	100	100	120	-

Series HP Approximate Size Based on Speed/Horsepower

HELICAL WORM REDUCER, 1750 RPM GEARMOTOR & DOUBLE REDUCTION REDUCER

OUTPUT SPEED	RATIO		MOTOR HORSEPOWER											
			1	2	3	5	7.5	10	15	20	25	30	50	70
350	5	1x5	25	25	25	25	30	30	35	35	50	50	50	70
233.3	7.5	1.5 x 5	25	25	25	25	30	35	35	40	50	50	70	70
194.4	9	1.8 x 5	25	5	25	25	30	35	35	50	50	50	70	70
175	10	1 x 10	25	25	25	30	35	35	50	50	50	50	70	80
140	12.5	2.5 x 5	25	25	25	30	35	35	50	50	50	50	70	80
116.7	15	1.5 x 10	25	25	25	30	35	35	40	50	50	60	70	80
97.2	18	1.8 x 10	25	25	25	30	35	35	50	50	50	60	70	80
87.5	20	4 x 5	25	25	30	30	35	40	50	60	60	70	80	-
77.8	22.5	1.5 x 15	25	25	30	35	35	40	50	50	60	70	80	-
70	25	2.5 x 10	25	25	30	35	35	40	50	50	60	60	-	-
58.3	30	1.5 x 20	25	25	30	35	40	50	50	60	70	70	-	-
48.6	36	1.8 x 20	25	30	30	35	40	50	60	60	70	70	-	-
43.8	40	4 x 10	25	30	30	35	40	50	50	60	70	70	-	-
38.9	45	1.8 x 25	25	30	35	40	50	50	60	70	70	80	-	-
35	50	2.5 x 20	25	30	35	40	50	50	60	70	70	80	-	-
29.2	60	4 x 15	25	30	35	40	50	50	60	70	70	80	-	-
24.3	72	1.8 x 40	30	35	40	50	60	60	70	80	-	-	-	-
23.3	75	2.5 x 30	25	35	35	50	50	60	70	80	80	-	-	-
		5 x 15	20-30	20-30	20-35	25-40	30-60	30-60	35-70	35-70	40-80	50-100	60-120	70-150
21.9	80	4 x 20	25	35	35	50	50	60	70	70	80	-	-	-
19.4	90	1.8 x 50	30	35	40	50	60	70	80	-	-	-	-	-
17.5	100	4 x 25	30	35	40	50	60	60	70	80	-	-	-	-
		5 x 20	20-30	20-35	25-70	25-50	30-60	30-60	35-70	40-80	40-80	50-100	60-120	70-150
14.6	120	4 x 30	30	35	40	50	60	70	80					
14	125	5 x 25	20-30	20-35	25-40	25-50	30-60	30-70	40-80	40-80	50-100	50-100	60-120	70-150
11.7	150	10 x 15	20-30	20-35	25-40	30-60	30-60	35-70	40-80	50-100	50-100	50-100	70-150	70-150
10.9	160	4 x 40	35	40	50	60	70	70	80	-	-	-	-	-
10	175	2.5 x 70	50	50	50	60	70	80	-	-	-	-	-	-
8.8	200	4 x 50	35	50	50	60	70	80	-	-	-	-	-	-
		10 x 20	20-35	25-40	25-50	30-60	35-70	35-70	40-80	50-100	50-100	60-120	70-150	80-180
7.8	225	15 x 15	20-35	25-40	25-50	30-60	35-70	40-70	50-100	50-100	60-120	60-120	70-150	-
7.3	240	4 x 60	35	50	50	70	80	80	-	-	-	-	-	-
7	250	10 x 25	20-35	25-50	30-60	30-70	30-70	40-80	50-100	50-100	60-120	60-120	70-150	80-180
6.3	280	4 x 70	50	50	60	70	80	-	-	-	-	-	-	-

Note: Sizes shown not shaded are for helical/worm reducers and gear motors. Sizes shaded are for double reduction worm gear speed reducers.

DOUBLE REDUCTION REDUCER 1750 RPM

OUTPUT SPEED	RATIO		MOTOR HORSEPOWER											
			1	2	3	5	7.5	10	15	20	25	30	50	75
5.8	300	15X20	20-35	25-50	25-50	30-60	35-70	40-80	50-100	50-100	60-120	60-120	70-150	-
5	350	5X70	25-50	25-50	30-60	30-70	40-80	50-100	60-120	60-120	-	-	-	-
4.7	375	15X25	25-40	25-50	30-60	30-70	50-100	50-100	50-100	60-120	60-120	60-120	70-150	-
4.4	400	20X20	25-40	25-50	30-60	35-70	40-80	50-100	50-100	60-120	60-120	70-150	80-180	-
3.9	450	15X30	25-40	25-50	30-60	30-70	50-100	50-100	60-120	60-120	60-120	70-150	80-180	-
3.5	500	20X25	25-40	25-50	30-60	35-70	40-80	50-100	50-100	60-120	70-150	70-150	80-180	-
2.9	600	20X30	25-40	30-60	30-60	40-80	50-100	50-100	60-120	70-150	70-150	70-150	80-180	-
2.8	625	25X25	25-50	30-60	30-70	40-80	50-100	50-100	60-120	60-120	70-150	70-150	-	-
2.5	700	10X70	25-50	30-60	30-70	50-100	50-100	60-120	-	-	-	-	-	-
2.3	750	25X30	25-50	30-60	30-70	40-80	50-100	50-100	60-120	70-150	80-180	80-180	-	-
2.2	800	20X40	25-50	30-60	35-70	40-80	50-100	60-120	70-150	70-150	70-150	80-180	-	-
1.9	900	30X30	25-50	30-70	35-70	50-100	50-100	50-100	70-150	70-150	70-150	80-180	-	-
1.8	1000	40X25	25-50	30-70	35-70	50-100	50-100	60-120	70-150	70-150	80-180	-	-	-
1.7	1050	15X70	30-60	30-70	40-80	50-100	60-120	60-120	80-180	-	-	-	-	-
1.5	1200	40X30	25-50	30-70	40-80	50-100	60-120	60-120	70-150	70-150	80-180	-	-	-
1.4	1250	50X25	25-50	35-70	40-80	50-100	60-120	60-120	70-150	80-180	-	-	-	-
1.3	1400	20X70	30-60	40-80	50-100	50-100	60-120	70-150	80-180	-	-	-	-	-
1.2	1500	50X30	30-60	35-70	50-100	50-100	60-120	70-150	70-150	80-180	-	-	-	-
1.1	1600	40X40	30-60	40-80	50-100	50-100	60-120	70-150	70-150	80-180	80-180	-	-	-
1	1750	30-70	30-70	40-80	50-100	50-100	60-120	70-150	80-180	-	-	-	-	-
0.97	1800	30-60	30-70	40-80	50-100	60-120	60-120	70-150	80-180	-	-	-	-	-
0.88	2000	50X40	30-60	40-80	50-100	60-120	70-150	70-150	80-180	80-180	-	-	-	-
0.83	2100	30X70	30-70	50-100	50-100	60-120	60-120	70-150	80-180	-	-	-	-	-
0.73	2400	40X60	30-70	50-100	50-100	60-120	70-150	70-150	80-180	-	-	-	-	-
0.7	2500	50X50	30-70	50-100	50-100	60-120	70-150	70-150	80-180	-	-	-	-	-
0.63	2800	40X70	30-70	50-100	50-100	60-120	70-150	70-150	80-180	-	-	-	-	-
0.58	3000	30-70	30-70	60-120	60-120	60-120	70-150	80-180	80-180	-	-	-	-	-
0.5	3500	50X70	40-80	50-100	60-120	70-150	70-150	80-180	-	-	-	-	-	-
0.49	3600	60X60	40-80	50-100	60-120	70-150	70-150	80-180	-	-	-	-	-	-
0.42	4200	60X70	40-80	50-100	60-120	70-150	-	-	-	-	-	-	-	-
0.36	4900	70X70	50-100	60-120	60-120	-	-	-	-	-	-	-	-	-

Horsepower, Speed and Torque Relationship

Formula 1: $P = \frac{Twn}{63{,}000}$

Formula 2: $Tw = \frac{P \cdot 63{,}000}{n}$

Formula 3: $TG = Tw \cdot mG \cdot n$

Definitions

mG = gear ratio $\frac{NG}{Nw}$

n = rotational speed of worm (rpm)

P = power input to worm (horsepower)

Tw = input torque (inch pounds)

TG = output torque (inch pounds)

n = efficiency (percent)

Example 1

Select a reducer for a conveyor.

Service 8-10 hours per day
5 hp motor at 1750 rpm
43.75 rpm output speed
6.74 inch diameter chain sprocket on output shaft.

Unit to be a vertical reducer with output shaft through a feet side. wall mounted. right hand assembly, worm over gear and extended to the right.

Application is a uniformly loaded conveyor to be operated 10 hours a day. From the Service Factor Chart we find that this qualifies for a 1 service factor.

The driver is a 5 hp motor, operating at 1750 rpm. Since the service factor in this case is 1, we need not determine the adjusted horsepower requirement. since the worm speed is over 100 rpm, we use the input horsepower rating rather than the output torque.
Our conveyor shaft must have a speed of 43.75 rpm. We divide 1750 (rpm of input shaft) by 43.75 (rpm of output shaft) to get a reduction of 40 to 1.
From the Rating Tables we find that a standard size 35, 40:1 ratio speed reducer will transmit 5.6 hp, at 1750 rpm.

Also we find that the size 35, 40:1 ratio unit will have a fan thermal hp rating of 5.6 hp at 1750 rpm. Since the actual power to be transmitted is 5 hp at 1750 rpm, the unit will be adequate to handle the applied load.

However, the output shaft is connected with a chain drive sprocket having a pitch diameter of 6.74 inches or a radius of 3.37 inches. The efficiency of 79% is found on page 10. The torque load on the output shaft is found, from formulae 2 and 3 to be

$$\frac{63000 \times 5 \text{ hp} \times .79 \times 40}{1750}$$

which gives us a torque load on the sprocket of 5688 in. -lbs.

Overhung load = $\frac{\text{torque}}{\text{sprocket radius}}$ or $\frac{5688}{3.37}$

for a required chain pull capacity of 1688 lbs. In the rating tables the size 35, 40:1 speed reducer we have chosen has a chain pull rating of 3500 lbs. , more than sufficient for the job.

To order this reducer proceed as follows:
Specify quantity required. model designation, size, mounting position designation as selected from the hand of assembly and mounting position pages, then the ratio and loading requirements of horsepower speed and service factor. Example: FHV 35-Z8B, 40:1 ratio, 5 hp at 1750 rpm service factor 1, conveyor drive.

Example 2
Application is an intermittent positioner drive, operating one hour per day at service factor of 0.8. The unit must deliver 72500 in. lbs. at 23 rpm. The adjusted output torque is 72,500 x 0.8 = 58,000 in lbs. With a motor speed of 1150, the ratio required is 1150/23 = 50:1.

Referring to the rating tables we find that a size 80, 50:1 ratio unit at 1150 rpm has an output torque rating of 59,905 in.-lbs. This is the smallest size unit meeting the adjusted output torque requirement.

The required input hp to produce the 72,500 in.-lbs. output torque is found using formulae 1,2 and 3. The estimated operating efficiency of 76% is taken from the table on page 10. Thus the motor size nearest our requirement is 25 hp at 1150 rpm, which will be adequate due to the intermittent cycle of the application. the thermal capacity of this unit is 13.3 hp, which we have been able to disregard due to the intermittent service.

In selecting the reducer, refer to size 80, section 2 which shows three styles of standard reducers. We have determined that a worm-under unit is the most suitable. The unit description would therefore, be HU 80, then shaft arrangement from the hand of assembly and mounting position pages, followed by the ratio 50:1, 25 hp at 1150 rpm, service factor slope mounted, send sketch or detailed description.

Should the application be continous the thermal HP rating would dictate either a larger unit or additional cooling.

Horsepower, Speed & Torque Relationship

Example 3
Select a speed reducer to drive a vertical bucket hoist, operating 8 hours per day at multiple cycles. This requires a 1 Service Factor.

The following are the load and operating conditions:

3000# Line load on hoist
800# Weight of bucket
300# Weight of chain or cable
400# Add 10% for friction
4500# Total load to be raised
12.44" Drum diameter = 39.07" Circumference
19 FPM lifting speed
Service-8 hours per day...uniform load
Output or drum RPM=$\frac{19x12}{39.07}$ =5.8 rpm
Output torque required =
$\frac{4500\# \times 12.44}{2}$ = 28,000 in.-lbs.
Total reduction, using a 1750 rpm motor, would be $\frac{1750}{5.8}$ = 302:1 ratio
The high ratio indicates a double reduction reducer would be necessary with a 1750 rpm motor. Referring to the double-reduction reducer ratings, we would select a 300 to 1 ratio, providing a 5.83 rpm output speed.

Checking the output torque rating. we find that unit size 25-50 has a catalog rating of 35,830 in.-lbs., which would handle the load requirement of 28,000 in.-lbs., using a 5 hp, 1750 rpm motor. This is determined by knowing that an input horsepower of 4.8 will deliver 35,830 in.-lbs. O.T. Thus we require (4.8 x 28,000) / 35,830 or 3.75 hp.

The 4500 lbs. load is going to be hung on the output shaft, such that the load is at the center of the keyway. We can check the ability of the unit to handle this "chain pull" by referring to the ratings in single-reduction reducer section under size 50 and 20:1 ratio.

The input rpm to the secondary unit would be 1750 divided by the primary ratio or approximately 100 rpm. A quick check of the chain pull rating tells us that we have a capacity of 7,180 lbs. at 100 rpm.
Our requirement is
Chain Pull = (28,000 / 6.22) or 4,500 lbs.

Chain pull is satisfactory. If the chain pull had exceeded the allowable of 7,180 lbs., an outboard bearing on an extended output shaft would have solved the problem.

If the drum is to be mounted on the output shaft. such that that load of chain pull concentration is further away from the reducer than half the length of the standard gearshaft keyway, the problem should be referred to our Engineering Department for further investigation.

If the drum is to be connected to the reducer by means of a flexible coupling. no consideration need be given to the question of "chain pull" because the load is applied as torque only.

If other than 8-hour-per-day uniform service is to be applied, the correct service factor should be selected from the service factor char, and the size required refigured.

You will find the double reduction unit available in several configurations and shaft extensions. This application requires a primary having worm (input) over gear, and a secondary unit with worm under gear (model OU). This unit s to be supplied with a single extended input and output shaft. It is therefore necessary to specify these requirements. See the notes on dimension sheets, and the hand of assembly and mounting position pages.

To order the reducer proceed as follows:
Specify quantity required model designation, size, hand of assembly and mounting position, plus overall ratio and loading requirements.

Example:
1 OU 25-50 A1, 300: 1 ratio, 5 hp at 1750 rpm, service factor 1, bucket hoist.

APPLICATION TYPE

CYCLIC DUTY or MOTION CONTROL

Determine Torque and Speed of Application

Identify maximum input speed (N_{1PK})
and
torque (T_{1ACC} or T_{2ACC}) applied per cycle

Determine Cycle Factor (CF)

($^{Cycles}/_{hour}$) x ($^{hours\ of\ runtime}/_{day}$) = "Cycles per Day"

Use Figure 1 and calculated Cycles per Day to determine corresponding CF

Calculate Adjusted Load

T_{1ACC} x CF = "Adjusted Input Load"
or
T_{2ACC} x CF = "Adjusted Output Load"

Select Gearbox Rated for Adjusted Load

Gearbox rated T_{1ACC} > Adjusted Input Load
or
Gearbox rated T_{2ACC} > Adjusted Output Load

(@ speed N_{1PK})

Verify Thermal Rating

Average input power of application (P_{NOM})
Gearbox rated $P_{1TH} > P_{NOM}$

Verify E-Stop and Overload Torque Ratings

Gearbox rated T_{2MAX} > E-Stop
and
Gearbox rated T_{2MAX} > Overload Torque

CONTINUOUS DUTY or STEADY SPEED

Determine Power and Speed

Identify input power (P_{1ME}) and speed (N_{1NOM})
or
required ouput torque (T_{2ME})

Determine Service Factor (SF)

Use Table 1 to determine Service Factor (SF) based on "Type of Load" and "Hours of Service per Day"

Calculate Adjusted Load

P_{1ME} x SF = "Adjusted Input Load"
or
T_{2ME} x SF = "Adjusted Output Load"

Select Gearbox Rated for Adjusted Load

Gearbox rated P_{1ME} > Adjusted Input Load
or
Gearbox rated T_{2ME} > Adjusted Output Load

(@ speed N_{1NOM})

Verify Thermal Rating

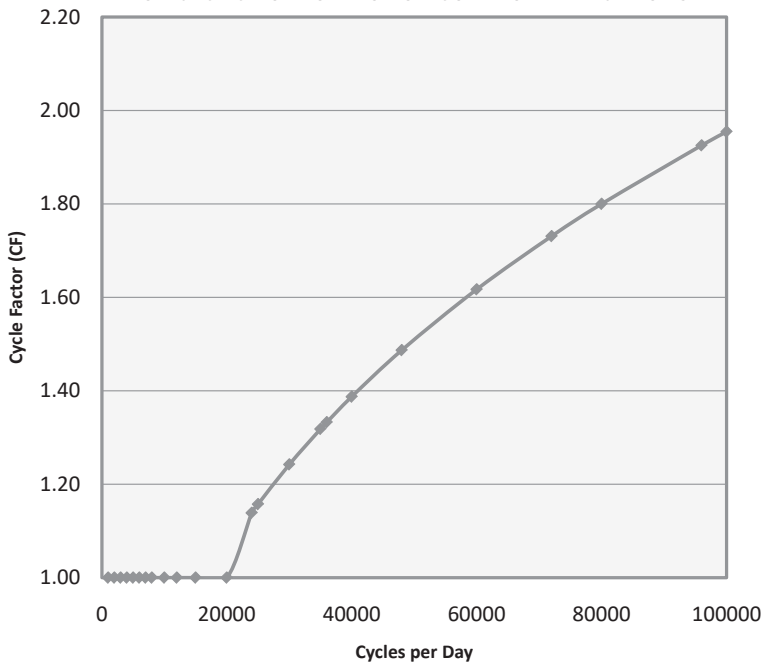
Average input power of application (P_{NOM})
Gearbox rated $P_{1TH} > P_{NOM}$

Verify E-Stop and Overload Torque Ratings

Gearbox rated T_{2MAX} > E-Stop
and
Gearbox rated T_{2MAX} > Overload Torque

CYCLE FACTOR

FOR CYCLIC DUTY OR MOTION CONTROL APPLICATIONS



SERVICE FACTOR

FOR CONTINUOUS DUTY OR STEADY SPEED APPLICATIONS

Hours of Service per Day	TYPE OF LOAD			
	Uniform	Moderate	Heavy	Extreme
0.5	0.8	0.9	1.0	1.2
2	0.9	1.0	1.2	1.3
10	1.0	1.3	1.5	1.7
24	1.3	1.5	1.7	2.0

Appendix

REFERENCED NOMENCLATURE

SYMBOL	UNITS	PRODUCT RATING DEFINITIONS
i	—	Ratio
$N_{1\ NOM}$	RPM	Nominal input speed
$P_{1\ ME}$	HP	Mechanical input power rating (SF = 1.0)
$P_{1\ TH}$	HP	Continuous average thermal input power rating
$P_{1\ TH\ Fan}$	HP	Continuous average thermal input power rating, Fan Cooled
$P_{1\ TH\ WHV}$	HP	Continuous average thermal input power rating, Water Cooled, Output Vertical
$P_{1\ TH\ WHU}$	HP	Continuous average thermal input power rating, Water Cooled, Worm Under Gear
$P_{1\ TH\ WHO}$	HP	Continuous average thermal input power rating, Water Cooled, Worm Over Gear
$T_{1\ ME}$	lb-in	Mechanical input torque rating (SF = 1.0)
$T_{1\ ACC}$	lb-in	Cyclic operation input torque rating
$T_{2\ ME}$	lb-in	Mechanical output torque rating (SF = 1.0)
$T_{2\ ACC}$	lb-in	Cyclic operation output torque rating
$T_{2\ MAX}$	lb-in	Maximum E-stop output torque
η	%	Efficiency

CONVERSION EQUATIONS

1. $T_2 = T_1 \times i \times \eta$

2. $P_1 = \dfrac{(T_2 \times N_1)}{(63{,}000 \times i \times \eta)}$

9

Cone Drive
BY TIMKEN

SERIES HP

Maintenance Information

9.2 Oil Capacities

9.3 Installation, Operation, & Maintenance Instructions

9.10 Product Safety Page

Series HP Oil Capacities

SINGLE REDUCTION REDUCERS - Floor Mounted Position

UNIT SIZE	20	25	30	35	40	50	60	70	80	100	120	150	180
HO and SHO (Normal)	1 Qt	1 ½ Qt.	2 ½ Qt.	1 Gal.	1 ½ Gal.	2 ½ Gal.	3 ¾ Gal.	6 ½ Gal.	10 ½ Gal.	19 Gal.	45 Gal.	-	-
HO and SHO (Low)	½ Qt.	1 Qt.	1 ½ Qt.	2 ½ Qt.	1 Gal.	1 ¾ Gal.	2 ½ Gal.	4 Gal.	6 ½ Gal.	12 ½ Gal.	26 Gal.	-	-
HU and SHU	½ Qt.	1 Qt.	1 ½ Qt.	3 ½ Qt.	1 ½ Gal.	2 ¼ Gal.	3 ¼ Gal.	5 ¼ Gal.	7 ¾ Gal.	15 Gal.	30 Gal.	45 Gal.	70 Gal.
HV and SHV	1 Qt.	1 Qt.	1 ½ Qt.	2 ½ Qt.	1 Gal.	1 ¾ Gal.	2 ¾ Gal.	5 Gal.	6 ½ Gal.	14 Gal.	26 Gal.	50 Gal.	80 Gal.

DOUBLE REDUCTION REDUCERS - Floor Mounted Position

UNIT SIZE	20/30	20/35	25/40	25/50	30/60	30/70	35/70	40/70	40/80	50/100	60/120	70/150	80/180
OO-UO-VO and OOS-UOS-VOS	3 Qt.	1 ½ Qt.	1 ¾ Gal.	2 ¾ Gal.	4 ¼ Gal.	7 Gal.	7 ¼ Gal.	7 ½ Gal.	11 ½ Gal.	20 ¾ Gal.	47 ½ Gal.	-	-
OU-UU-VU	2 ½ Qt.	1 Gal.	1 ¾ Gal.	2 ½ Gal.	4 Gal.	5 ¼ Gal.	5 ½ Gal.	6 Gal.	8 ½ Gal.	16 Gal.	30 Gal.	50 Gal.	76 Gal.
OUS-UUS-VUS	2 ½ Qt.	1 Gal.	1 ¼ Gal.	2 Gal.	3 ¼ Gal.	6 ¼ Gal.	6 ½ Gal.	7 Gal.	9 ¾ Gal.	18 ½ Gal.	34 Gal.	50 Gal.	76 Gal.
OV-UV-VV and OVS-UVS-VVS	2 Qt.	2 Qt.	1 ¼ Gal.	2 Gal.	3 ¼ Gal.	6 ¼ Gal.	6 ½ Gal.	7 Gal.	9 ¾ Gal.	18 ½ Gal.	34 Gal.	-	-

GEARMOTORS & HELICAL/WORM REDUCERS - All Positions

UNIT SIZE	25	30	35	40	50	60	70	80
WORM UNDER GEAR (Standard and Hollow Shaft)	2 Qt.	2 ½ Qt.	1 ¼ Gal.	2 ¼ Gal.	3 Gal.	4 ¼ Gal.	7 Gal.	8 ½ Gal.
WORM OVER GEAR	1 ½ Qt.	1 ¼ Gal.	2 Gal.	2 ¼ Gal.	4 Gal.	5 Gal.	9 Gal.	11 Gal.
VERTICAL OUTPUT SHAFT	2 ½ Qt.	3 ½ Qt.	1 ½ Gal.	2 ¼ Gal.	3 Gal.	3 ¾ Gal.	8 Gal.	10 ¼ Gal.
INPUT END UP	4 Qt.	1 ¼ Gal.	2 ¼ Gal.	3 Gal.	5 ¼ Gal.	6 3/2 Gal.	13 ½ Gal.	16 Gal.
INPUT END DOWN	3 ½ Qt.	1 Gal.	1 ¾ Gal.	2 ½ Gal.	3 ½ Gal.	4 ¾ Gal.	8 ¾ Gal.	10 ½ Gal.

LUBRICATION, INSTALLATION, OPERATION, & MAINTENANCE INSTRUCTIONS FOR MODEL HP/HP SERVO CONE DRIVE SPEED REDUCERS

Cone Drive double-enveloping worm gear speed reducers are used throughout industry to provide smooth and quiet speed reduction. When properly selected, applied and maintained, they will provide optimum performance.

IMPORTANT: In any applications of Cone Drive Products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a failsafe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

THE FOLLOWING INFORMATION IS FOR YOUR PROTECTION. PLEASE READ CAREFULLY.

1. Do not attempt to install or operate this reducer until these instructions are read and thoroughly understood. If you have any questions, please contact Cone Drive.

2. The horsepower or output torque capacity of this reducer and the service factor (maximum allowable operating cycle) are stamped on the reducer nameplate. These values are not to be exceeded as overloading can result in reducer failure. Exceeding the rating and duty cycle will void the warranty. Please contact Cone Drive with any questions regarding rating and service factors.

3. Each reducer is specifically arranged to operate at the input speed specified on the nameplate. If the input speed is not specified by the customer, it is set up for 1750 RPM and service factor 1.0. Do not operate the reducer at speeds or under service other than specified on the nameplate without contacting Cone Drive for specific instructions on oil level location and bearing settings

4. Do not alter the reducer without approval from Cone Drive.

5. This reducer has moving mechanical components and connected electrical devices, operating under high voltage to achieve its intended purpose. Operation and repair should only be done by qualified personnel.

6. Before servicing a speed reducer, the main electrical disconnect must be moved to and locked in the off position. The person performing the work should post on that disconnect a warning to others not to turn on the power.

7. It is normal for the reducer to operate at a housing temperature of up to 200°F. To prevent burns, proper guards or shields should be provided by the purchaser or user to prevent personnel from touching the reducer.

8. Cone Drive products are furnished without guard covers. It is the responsibility of the purchases or user to provide guards for all exposed shafting, couplings, sprockets, sheaves, belts, chains, clutches, and any other moving parts in accordance with current local, state, and federal requirements.

9. Failure to follow the instructions contained in this bulletin may result in unit failure, property damage or personal injury.

FINISH COAT PAINTING

Cone Drive speed reducers are furnished with a prime coat of paint on exterior housing surfaces. The reducer should be painted with a finish coat to protect the housing exterior, particularly if subjected to outdoor service, periodic wash down or harsh environments. Mask all shafts, oil seals, tags, name plates, oil level stickers, breathers, gauges etc. before painting. (Painting seal lips can result in oil leakage.)

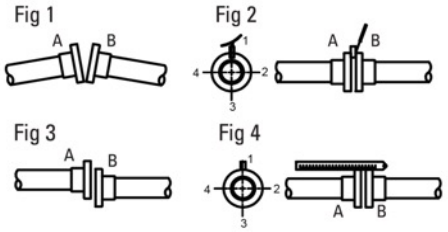
INSTALLATION

IMPORTANT: Unless otherwise specified on the reducer or in accompanying documentation, all Cone Drive speed reducers are shipped without oil and must be filled to the oil level gage or plug with the proper oil before start-up. See the following section on lubrication.

1. The speed reducer must be securely mounted to a rigid foundation or base plate. If necessary, shim under the reducer feet to provide a flat mounting surface.

2. Bolt the reducer to the foundation or mounting base using the largest diameter bolt that will fit through the foot holes of the reducer. Be sure to use a bolt in all available threaded mounting holes. Mount the reducer using bolts to SAE Grade 8 or ISO Grade 8.8 minimum.

3. Angular and parallel alignment of the output shaft to the rotating machine interface is critical to prevent premature output seal leaks. Recommended angular alignment to be within ½ degree and parallel alignment to be within +/-.005" unless otherwise specified by coupling manufacturer.



Angular Errors

1. Take up end float pushing in shaft ends
2. Using thickness and feeler gauges take readings in positions 1, 2, 3, and 4 (Fig 2).
3. Adjust unit by shimming under feet

Parallel Errors

1. Place straight edge across coupling halves at points 1, 2, 3, and 4 (Fig 4). If coupling diameters are not equal, use feeler gauge equal to half the difference in diameters.
2. If error is in the vertical plane, adjust the height of the unit. If error is in the horizontal plane, move unit transversely.

4. Couplings, sheaves and sprockets should be mounted on the reducer shafts carefully. Do not pound or hammer them onto the shafts as this will damage bearings and oil seals.

5. Sprockets and sheaves should be mounted as close to the reducer as possible and "V" belts and chains adjusted to the proper tension to keep bearing loading and shaft deflection to a minimum. Too much tension in belts and improper location of sheaves and sprockets will lead to excessive chain pull, bearing wear and shaft deflection. For specific information on chain pull capacity, shaft stress and bearing life please contact Cone Drive.

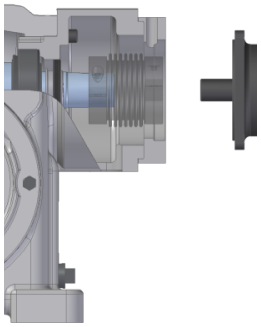
6. **Note:** Exposed metal parts are coated with commercial rust inhibitor. This rust inhibitor must be removed prior to installation. Failure to do so may result in difficulty in assembling close tolerance mating components.

7. Before starting motor review motor rotation, reducer rotation and required direction of driven machine to ensure that the motor is wired for proper direction of rotation. In many instances a machine must run in one direction and failure to wire the motor properly can result in damage to the driven machine.

8. **IMPORTANT:** Fill unit to proper level with recommended oil. Grease all fittings with recommended grease (see section on lubrication). In the case of double or triple reduction reducers, be sure to fill each reduction stage to the proper oil level. **Note: Some reducers may have been factory filled. Read all tags**

Note: All reducers are built for one mounting position, i.e.; floor mounted or wall mounted with worm vertical up or ceiling mounted, etc. If the reducer is to be mounted in any position other than the position for which it was furnished, contact Cone Drive for information on relocating oil level, grease packing bearings, etc., before start-up. If a reducer is operated in a mounting position other than the position for which it was assembled, reducer failure may occur from improper oil level or grease fitting location resulting in lack of lubrication to the gearset and bearings.

SERVO MOTOR INSTALLATION



1. Clean the worm shaft, motor shaft, and mating surfaces of the motor and gearhead to ensure they are dust free.
2. Slide the coupling onto the worm shaft.
3. Slide the motor shaft into the coupling clamp ring until the gearhead and motor flanges come together.
4. Use the bolts and nuts provided to fix the gearhead and motor flanges together.
5. Ensure the minimum coupling engagement (See Table 1) is met on both the worm and motor shafts.
6. Tighten the clamp ring screws through the access slot in the motor adapter (and motor adapter plate on some configurations) according to Table 1.
7. For some motors (particularly face-mount motors), it will be necessary to remove the motor plate from the motor adapter. Fasten the plate to the motor, and then mount the motor and plate back to the reducer.

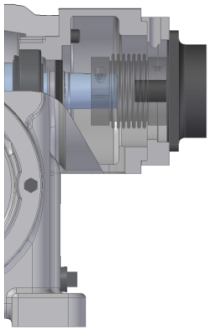
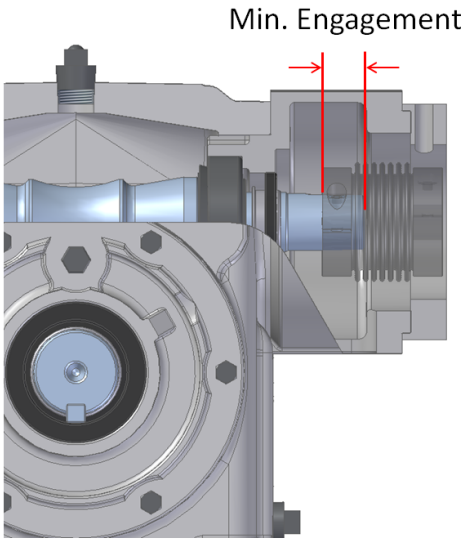


Table 1. Servo Coupling Engagement and Bolt Torque

Coupling	Min. Engagement (mm)	Tightening Torque of Coupling Bolt	
		in-lb	Nm
GAM KLC50	16	160	18
GAM KLC125	19	355	40
GAM KM270	29	1020	115
GAM KM400	30	1020	115
GAM KM600	33	1770	200
GAM KM900	46	1770	200
R&W EK2-300	30	620	70
R&W EK2-450	35	1060	120
R&W EK2-800	46	2570	290



START-UP

1. After the reducer has been properly mounted, aligned and lubricated, it is ready for startup.
2. Make sure driven machine is clear of all obstructions and all safety guards and covers are in place, according to appropriate local, state, and federal requirements. If possible, turn motor shaft by hand to confirm drive system is operating freely and in correct direction of rotation.
3. Jog motor to confirm proper rotation.
4. Operate reducer with minimum load for approximately 15 minutes (in both directions if applicable) to seat gears, bearings, and oil seals.

OPERATION

1. All reducers require a few hours of "run-in" under load to achieve optimum efficiency. During this initial run-in the reducer will probably run warmer than normal and draw more current than after the run-in period. Reducers operating at a very low load or speed will take much longer to run-in and even if operated continuously at low load or speed may never achieve the efficiency that they would if operated at or near their catalog rating.
2. **IMPORTANT:** Normal reducer operating temperature measured at the oil sump area of the housing should not exceed 200°F. Excessive oil sump temperature is indicative of overloading, misalignment, or improper or marginal lubrication. Continuous operation of the reducer with the oil sump temperature above 200°F will result in premature breakdown of the oil and reduce the useful life of the reducer or result in premature failure.

MAINTENANCE

1. The reducer oil levels should be checked regularly and the recommended oil added as required to maintain the proper oil level.
2. Grease fittings and internal retainers are furnished when required. They should be greased with a high quality lithium base NLGI #2 or NLGI #3 bearing grease at normal maintenance intervals depending on the duty cycle of the reducer.
3. The reducer, particularly finned areas and fan covers, should be kept clean to allow maximum heat dissipation.
4. All reducers and foundation bolts should be checked for tightness after three (3) months of service and annually thereafter.
5. If a reducer is to be repaired, contact Cone Drive for detailed instructions, drawings, parts lists, etc. If it is necessary, field service is available.
6. If a reducer is to be returned, contact Cone Drive for instructions and a return material authorization (CASE) number.

OIL CHANGE

If an approved synthetic lubricant is used, it should be changed after 5000 hours of operation or once per year, whichever occurs first. See Cone Drive's *Approved List of Lubricants* (23169) for recommended lubricants. These change intervals are recommended for units operating under favorable conditions. Where operating conditions are severe, such a rapid rise and fall in temperature of the gear case with accompanied sweating of the inside walls and resulting formation of sludge, or where operation is in moist or dusty atmospheres, or in the presence of chemical fumes or extended running at sump temperatures in excess of 180°F, it may be necessary to change the oil at intervals of one to three months. It is recommended a sampling program be established with your lubricant manufacturer where reducers are exposed to the severe operating conditions, mentioned above.

If switching to a different type of lubricant, care should be taken to thoroughly flush out all of the old lubricant before filling with new lubricant. Mixing of different lubricants can result in degraded performance or failure.

STORAGE RECOMMENDATIONS FOR CONE DRIVE SPEED REDUCERS

If a reducer is to be stored or shut down for more than 60 days, it should be protected from water condensation and corrosion as follows:
Any enclosed system of gearing is subject to water condensation on the inside of the reducer caused by fluctuating ambient temperatures. This condensation can cause severe rusting of the worm and bearings which could lead to premature failure of the reducer. However, this condition can be prevented by following the recommendations outlined for various storage conditions. If the reducer is furnished with a motor, follow the motor manufacturer's recommendations for motor preservation.

1. **Standard Shipping Procedure - Protection for Maximum Storage Duration of 60 Days.** Cone Drive speed reducers are treated inside using a rust inhibitor, the exterior is painted with one coat of primer and all exposed shafting coated with a rust preventative prior to shipment. This procedure is intended to protect the reducers during shipment and short term inside storage for a maximum period of sixty (60) days after shipment.

2. **Long Term Storage (Indoors) for Periods up to One Year.**
   2a. Fill the reducer completely full with one of the lubricants shown on Cone Drive's Approved List of Lubricants (23169). A copy of the lubricant list is shipped with each unit.
   2b. Rotate the worm shaft and gear shaft at least every 60 days to keep the seals from sticking to the shafts.
   2c. If it is not practical to rotate the worm shaft periodically, it is recommended to purchase a spare set of oil seals to have on hand in case of seal leakage at start-up.
   2d. Before putting the reducer into service, lower the oil in the reducer to the proper operating level

3. **Long Term Storage (Outdoors) for Periods Up to One Year.** Proceed as in (2) with the following additions:
   3a. After filling the unit with oil, plug the breather with a pipe plug and wire the breather to the unit.
   3b. Paint the outside of the unit with a finish coat of paint. (Reducer from the factory is prime coated only.)
   3c. Coat all exposed shafting with a long term rust preventative.

4. **Extended Storage Periods Exceeding One Year.** Immediately after receipt of the reducer:
   4a. Apply finish paint to the exterior of the unit, excluding shafts and mounting points
   4b. Coat all exposed unpainted surfaces with a long term rust preventative
   4c. Place the unit in a vapor corrosion inhibitor (VCI) bag and seal the bag air tight.
   4d. Crate the unit and cover the crate to keep out water.
   4e. Purchase a spare set of oil seals to have on hand in case of leakage at start-up.

LUBRICATION

Lubrication is very important for successful operation of Cone Drive gearsets and speed reducers. Inadequate lubrication can result in increased power consumption, added maintenance and gearset failure. Please review the following recommendations and the "Approved List of Lubricants" shipped with all Cone Drive gearsets and speed reducers. Use of other lubricants can result in gearset failure which will not be covered under warranty. See reducer's nameplate for the recommended lubricant.

TYPE OF OIL
Rated performance of Cone Drive products is based on synthetic lubricants.

AMBIENT TEMPERATURE
The oils shown in Cone Drives *Approved List of Lubricants* (23169) are for use in an ambient temperature range of approximately 15°F to 125°F with the low end of the range depending on the pour point of the specific oil used. If the ambient temperature will be below or above this range please contact Cone Drive for specific recommendations on proper lubricant as well as proper oil seal and shim materials.

SLUDGE
It is necessary that the oil be clean and free from sludge at all times to obtain long life from a gear unit. Sludge in gear units may be caused by excessive heat, from dust and dirt and other contaminates and by the presence of moisture or chemical fumes. Therefore, every precaution should be taken to prevent water and foreign particles from entering the gear case.

OIL LEVEL
Cone Drive reducers are furnished with a bronze colored hex head pipe plug to indicate oil level. An oil level tag is affixed to the unit near the oil level indicator. Oil level should always be checked with the unit stopped. Estimated oil capacities for standard reducers are listed in *Oil Capacity for Model HP* (25172) which is shipped with all Cone Drive reducers.

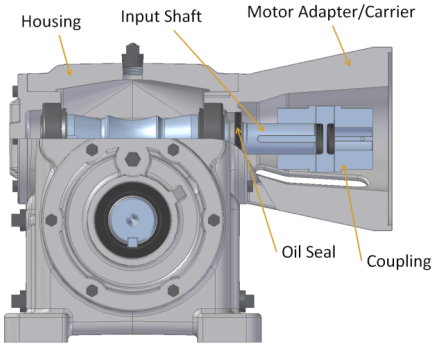
DOUBLE AND TRIPLE REDUCTION REDUCERS
These units utilize separate housings and are furnished with separate oil sumps. It is important that all sumps are filled to the proper oil level.

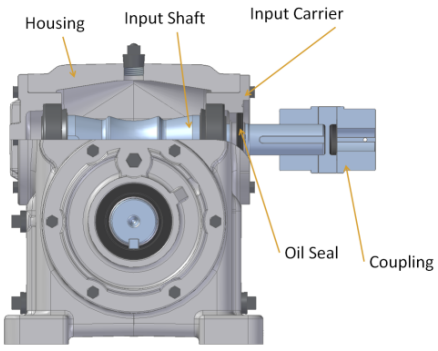
EXTREME PRESSURE OR ANTI-SCUFFING LUBRICANTS
Lubricants rated extreme pressure (EP), anti-scuffing (AS), or having sulphur-phosphorus additives are not acceptable and should not be used in Cone Drive speed reducers or worm gearing.

OIL SEAL REPLACEMENT INSTRUCTIONS

IF THE INPUT OIL SEALS REQUIRE REPLACEMENT

1. Uninstall reducer
2. Drain lubricant from reducer
3. Remove exterior components (motor, adapter plate, coupling etc.)
4. Unbolt motor adapter bell with the seal from the housing
    - Be sure to not damage the shims located between the motor adapter bell and the housing. The shims are necessary for proper spacing of the input shaft bearings
5. In the case of units without a motor adapter bell, the input carrier does not need to be unbolted from the housing
6. Remove seal(s)
    - Be careful not to scratch housing or shaft, or create fragments that could enter reducer as damage or penetration could result in potential leaks and failure
7. Install replacement seals
    - Press-up seals evenly and carefully to avoid damage to the seal and reducer components
8. Re-attach the motor adapter with the new seal to the housing, ensuring the shims are between the motor adapter and housing
9. Flush and refill the reducer with an approved lubricant, see *Approved List of Lubricants* (23169)
10. Reattach coupling and any exterior components
11. Reinstall reducer

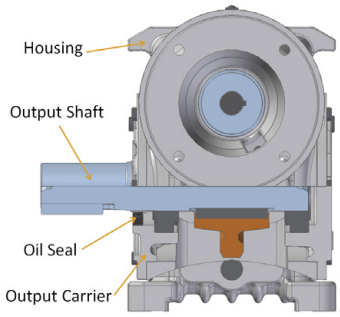




Reducer, Single Reduction

IF THE OUTPUT OIL SEALS REQUIRE REPLACEMENT

1. Uninstall reducer
2. Drain lubricant
3. Remove exterior components (output flange)
4. Remove seal(s)
    - Be careful not to scratch housing or shaft, or create fragments that could enter reducer as damage or penetration could result in potential leaks and failure
5. Install replacement seals
    - Press-up seals evenly and carefully to avoid damage to the seal and reducer components
6. Flush and refill the reducer with an approved lubricant (See table 1 and 2)
7. Reattach exterior components
8. Reinstall reducer



Operating Specifications For Speed Reducers Equipped With Cooling Coils

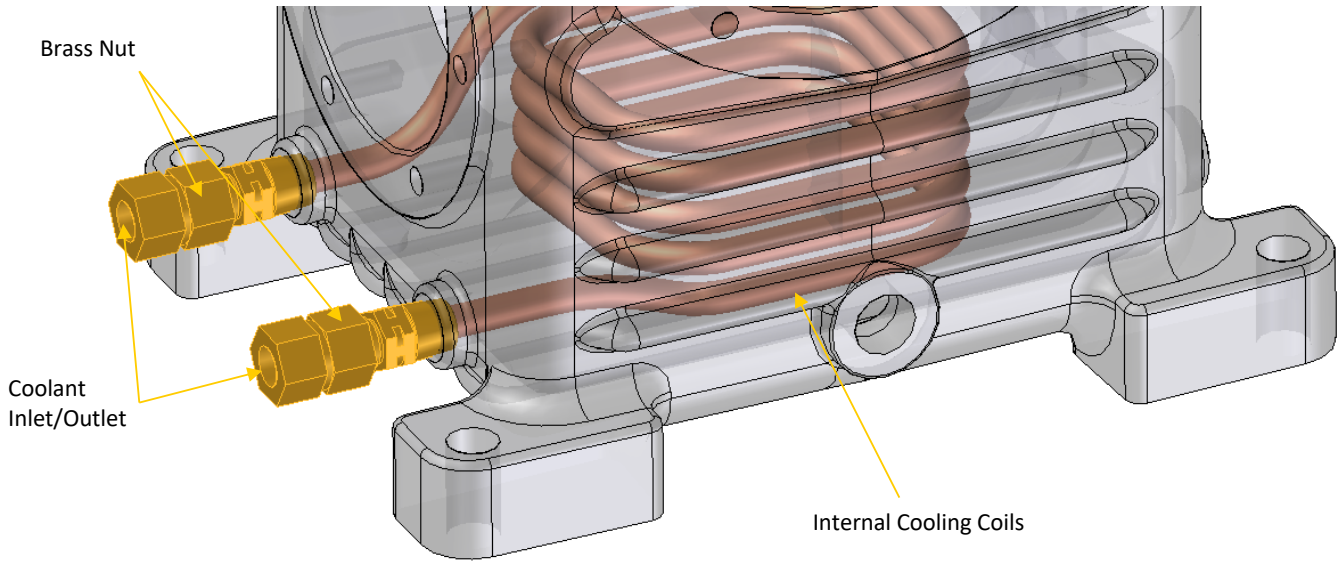
Water cooling coils are installed in the oil sump to remove excess heat generated by loading the unit beyond its normal thermal capacity. The copper-cooling coil absorbs the heat from the oil and transfers this heat to the cooler water, which is circulated through the cooling coil. The amount of heat removed is a function of the difference between water inlet and outlet temperatures. The rate of water flow must be such that it will remove the amount of heat, which the coil has the ability to absorb.

Under normal operating conditions, the water inlet temperature will be in the range of 40 degrees F. to 60 degrees F. This temperature range represents the temperature of the water as it is received from the water source. We have found that northern states generally have 40-degree water, whereas southern states generally have 60-degree water. To operate properly, the water outlet temperature of a cooling coil arrangement should be 100 degrees F. to 110 degrees F. At this water outlet temperature the cooling coil is operating at its optimum rate, dissipating the maximum heat for which it was designed. The proper procedure for obtaining an outlet temperature of 100 degrees to 110 degrees F is to slowly adjust the flow of water, increasing or decreasing the flow until the proper outlet temperature has been reached.

The control value used for this adjustment should be located on the outlet side of the cooling coil since optimum heat transfer will occur only when the coil is full of circulating water. In some smaller cooling coil applications, the water flow rates are on the order of one (1) GPM or less. It is suggested that a gate valve or other fine adjustment control valve be installed in the cooling coil outlet line to allow accurate flow rate adjustment to achieve proper water outlet temperature.

It should be emphasized that once a cooling coil is operating under optimum conditions, increases the rate of flow through the cooling coil will not dissipate more heat. Actually, the inverse is true, since as the rate of water flow is increased, the outlet temperature drops and the oil inside the unit will become congealed around the cold cooling coil tubes. The normal reducer oil agitation is not sufficient to move the cooled oil away from the tubes and there is a loss of heat dissipation and unit thermal capacity with a resultant rise in the reducer oil sump temperature.

CAUTION: WHEN ASSEMBLING WATER LINES TO COOLING COIL FITTINGS, A BACKING WRENCH MUST BE USED ON THE BRASS NUT TO PREVENT DAMAGE TO THE INTERNAL COPPER TUBING.



SAFETY PRECAUTIONS

IMPORTANT: In any applications of Cone Drive Products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

THE FOLLOWING INFORMATION IS FOR YOUR PROTECTION. DO NOT ATTEMPT TO INSTALL OR OPERATE THIS GEARBOX UNTIL ALL OF THESE INSTRUCTIONS ARE READ AND THOROUGHLY UNDERSTOOD.

SELF-LOCKING

It is a common misconception that all worm gears are self-locking or non-overhauling. Actually, worm gear ratios up to 15:1 will overhaul quite freely. Ratios from 20:1 to 40:1 can generally be considered as overhauling with difficulty (particularly from rest). Ratios above 40:1 may or may not overhaul depending on loading, lubrication, and the amount of vibration present. Cone Drive cannot guarantee any worm gear ratio to be self-locking. There have been instances where single reduction ratios as high as 100:1 have overhauled. Therefore, it is not acceptable to rely on a worm gear to prevent movement in a system. Whenever a load must be stopped or held in place, a positive mechanical device must be incorporated into the system to prevent rotation of the gear set.

BACKDRIVING OR OVERHAULING

Applications such as wheel drives that require a brake on the motor or input shaft to decelerate a high inertial load require special attention to brake selection. Whenever possible, these applications should utilize freely overhauling ratios (15:1 or less). If self-locking ratios are used with a brake, the gear set can, under certain conditions, lock-up during decelerations and impose severe shock loading on the gearbox and driven equipment. Each reduction should be limited to 15:1 or less to allow the gearbox to overhaul. Contact Cone Drive for specific information on backdriving efficiency and brake selection.

RATINGS & SERVICE FACTORS

The horsepower or output torque capacity of this gearbox and the service factor (maximum allowable operating cycle) are documented in the product catalog. These values are not to be exceeded as overloading can result in gearbox failure. Exceeding the rating and duty cycle will void the warranty. Please contact Cone Drive with any questions regarding rating and service factors.

ALTERATION

Do not alter the gearbox without approval from Cone Drive.

OPERATION & REPAIR

This gearbox has moving mechanical components and may have connected electrical devices operating under high voltage. Operation and repair should only be done by qualified personnel.

PROTECTIVE GUARDING

Cone Drive products are furnished without guard covers. It is the responsibility of the purchase or user to provide guards for all exposed shafting, couplings, sprockets, sheaves, belts, chains, clutches, and any other moving parts in accordance with current local, state, and federal requirements.

LOCK-OUT/TAG-OUT

Before servicing a gearbox, the main electrical disconnect or other input power sources must be moved to and locked in the off-position. The person performing the work should post on that disconnect a warning to others not to turn on the power. Loads on the input and output shafts should be disconnected prior to working on the gearbox.

GEARBOX SURFACE IS HOT

It is normal for the gearbox to operate at temperatures up to and exceeding 200˚F. To prevent burns, proper personal protective equipment, guards, or shields should be provided by the purchaser or user to prevent personnel from touching the gearbox.



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