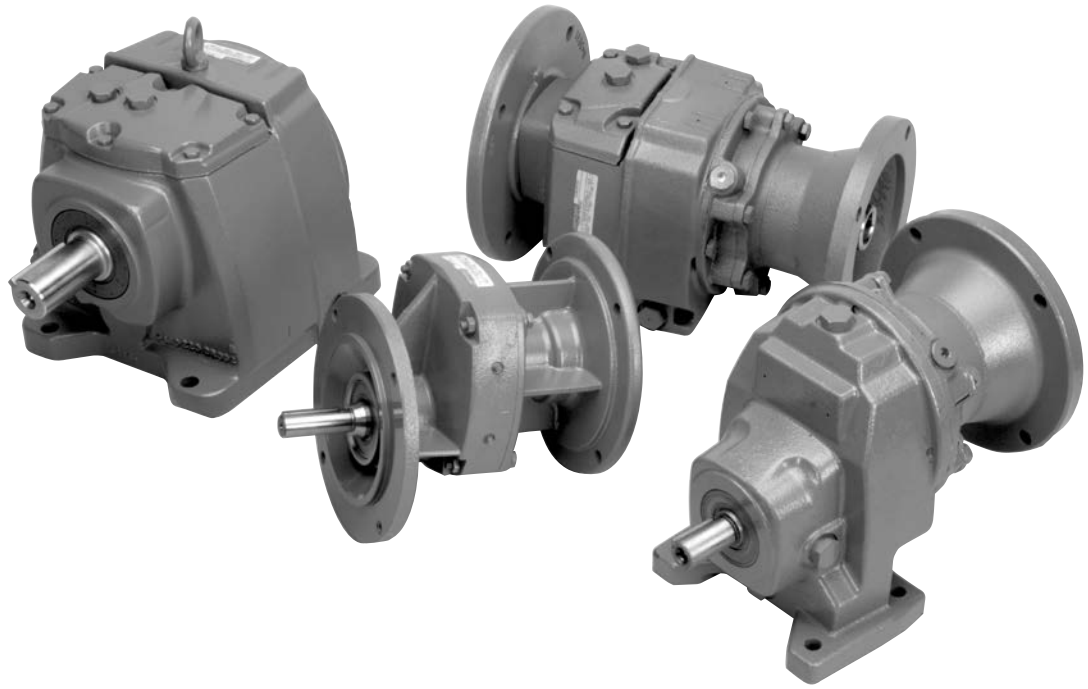

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F600B Series Helical Gear Flanged Reducers

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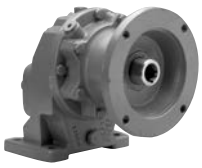

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Foot Mounted, Flange Input
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Double & Triple Reduction
Foot Mounted, Flange Input
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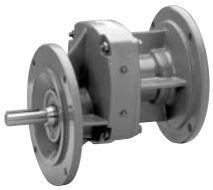

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600B Series Helical Gear Non-Flanged Reducers

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Single Reduction
Foot Mounted
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Double & Triple Reduction
Foot Mounted
Dimensions - Page 302

600 Series Catalog Number

*BK F 6 3 2 B F – 16 – K – B9 – MOTOR CATALOG NUMBER (If Required)

Input Shaft Style
Blank–Projecting Input Shaft
F – Quill Style C-Face Motor Flange

Reducer Size
1
2
3
4
5
6

Number of Reductions
1 – Single (4:1 only)
2 – Double
3 – Triple

Lubrication
Blank–No Lubrication
K – Klubersynth UH1 6-460

Reducer Material/Paint (Cast Iron)
Blank–Standard Paint
BK – *BostKleen* White Paint
SBK – Stainless *BostKleen* Paint

Series 600 Series

Base/Mounting Attachment
Blank–Foot Mounted
F – Output Flange

Nominal Gear Ratio
Refer to Selection Table for Available Ratios

NEMA Motor Mounting

Code Bore	NEMA Mounting	Input Size	Keyway
B5	56C	.625	3/16 x 3/32
B7	140TC/180C	.875	3/16 x 3/32
B9	180TC/210C	1.125	1/4 x 1/8
B11	210TC/250UC	1.375	5/16 x 5/32
B13	250TC	1.625	3/8 x 3/16
Blank–	Solid Input Shaft (No Flange)		

***Example —** Above listed configuration is an example part number using this numbering system.

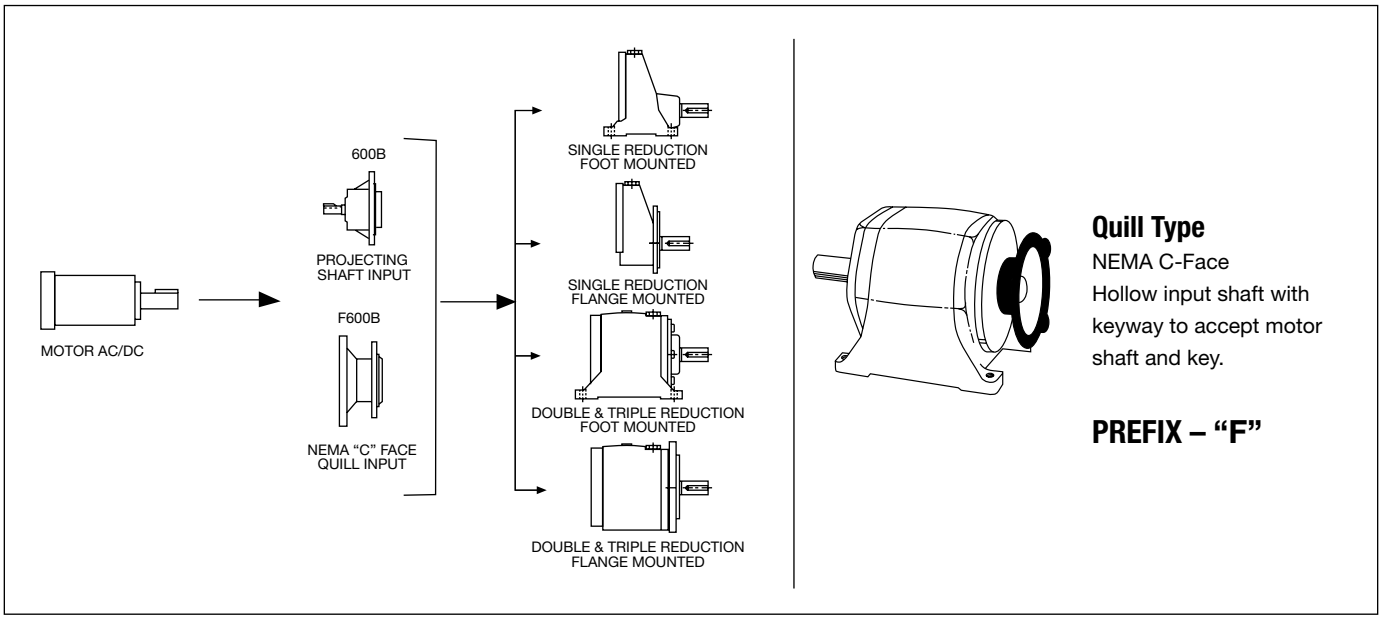
How to Order

When ordering please note the complete catalog number and/or item code. With either of these two numbers your local distributor will have several alternatives to enter your order into the Boston Gear system.

Example: Required flanged input, reducer size 3, 16:1 ratio, double reduction, no lubrication, NEMA mounting 182TC motor to be 3 HP, 1750 RPM, 230/460 volt, 3 phase, 60 Hz totally enclosed fan cooled

Order: 1 pc F632B-16-B9 or 5 digit item code 28300
1 pc LUTF, ref page 334.

Available Configurations



Quill Type
NEMA C-Face
Hollow input shaft with keyway to accept motor shaft and key.

PREFIX – "F"

Note: For applications requiring backstop or other special considerations, please consult factory.

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To properly select a speed reducer, the following application information should be known.

1. Service Factor or AGMA Service class.
2. Output Horsepower or Torque
3. Output RPM or Ratio

Non-Motorized Speed Reducer

1. Determine application service factor from table 1 or from application classification tables on pages 348-349.
2. Determine design Horsepower or Torque.
   – Design HP = Application HP x S.F.
   – Design Torque = Application Torque x S.F.
3. Select a Speed reducer that satisfies output RPM, service class and/or output torque requirement. Ref. rating tables pages 291-296.
4. Overhung shaft load should be checked when belt or chain drives are used, to prevent premature shaft or bearing failure. Reference page 275 for calculations.

Example

Select an in-line 600B Series Speed Reducer for a continuous duty concrete mixer requiring 8000 lb-in. of torque at approx. 35 RPM, to operate up to 8 hrs/day. The Speed Reducer will be driven at 1160 input RPM.

1. Application Service Factor = 1.25
2. Design Torque = 8000 x 1.25
   = 10,000 lb-in.
3. Select at speed and torque level of 10,000 lb-ins. or greater
4. Order 652B-32 (Item Code 28698)

NOTE: The use of an auxiliary drive between the speed reducer and the driven machine reduces the torque required at the output shaft in direct proportion to the auxiliary drive ratio.

A 3:1 chain ratio would reduce the torque requirement at the output shaft of the reducer to one-third, resulting in a smaller unit size selection.

SERVICE FACTOR TABLE 1

AGMA CLASS OF SERVICE	SERVICE FACTOR	OPERATING CONDITIONS
I	1.00	Moderate Shock-not more than 15 minutes in 2 hours. Uniform Load-not more than 10 hours per day.
II	1.25	Moderate Shock-not more than 10 hours per day. Uniform Load-more than 10 hours per day.
	1.50	Heavy Shock-not more than 15 minutes in 2 hours. Moderate Shock-more than 10 hours per day.
III	1.75	Heavy Shock-not more than 10 hours per day. Heavy Shock-more than 10 hours per day.
	2.00	

For complete AGMA Service Factors and Load Classifications, see Engineering Pages 348-349.

600 Series Ratio and Capacity Selection Tables

Non-Flanged Reducers; Input Speeds 1750 and 1150 RPM

Service Factor 1.0*

Catalog Number†	Item Code	Input Speed						Gear Ratio††
		1750 RPM			1160 RPM			
		Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)	
612C-32	28682	55	791	0.7	36	821	.42	33.48
622B-32	28685	55	1780	1.68	36	1799	1.13	30.55
632B-32	28690	55	3977	3.79	36	4023	2.54	30.29
642B-32	28695	55	5910	5.4	36	6416	3.93	32.32
652B-32	28698	55	13826	12.52	36	14014	8.41	31.9
662B-32	28703	55	26088	25	36	26487	16.82	30.14
612C-40	28707	44	794	0.57	29	799	0.38	40.32
622B-40	28710	44	1790	1.33	29	1804	0.89	38.84
632B-40	28713	44	4002	2.95	29	4038	1.97	39.2

Reference Page 295

K

Motorized Speed Reducer

1. Determine application service factor from table 1 page 274 or from pages 348-349.
2. Determine output speed required
3. Determine HP or output torque requirement.
4. Select based on output speed and horsepower requirement for given service class.
5. Check overhung load (Reference calculation).

Example

Select an in-line motorized helical speed reducer and motor to drive a uniformly loaded line conveyor 24 hours/day requiring 3 HP at 35 RPM.

Power Requirement
230/460 volt
3 phase
60 hertz

1. Select Service Factor class pages 348-349 or from Table 1 page 274. Service Class = II
2. Output RPM = 35
3. 5 HP
4. Select a 5 HP drive that will satisfy min. of II service class.
5. O.H.L = 3670 # page 277
6. Order: 1 – F652B-50-B11 (28748) Ref. Pg. 287
   1 – NUTF Motor Ref. page 337 for specific motor mfg.

Overhung Load

If the output shaft of a speed reducer is connected to the driven machine by other than a flexible coupling, an overhung load is imposed on the shaft. This load may be calculated as follows:

$$OHL = \frac{2\,TK}{D}$$

OHL = Overhung Load (LB.)
T = Shaft Torque (LB.-INS.)
D = PD of Sprocket, Pinion or Pulley (IN.)
K = Load Connection Factor

Load Connection Factor (K)

Sprocket or Timing Belt 1.00
Pinion and Gear Drive 1.25
Pulley and V-Belt Drive. 1.50
Pulley and Flat Belt Drive 2.50

An overhung load greater than permissible load value may be reduced to an acceptable value by the use of a sprocket, pinion or pulley of a larger PD. Relocation of the load closer to the center of reducer will also increase OHL capacity.

Permissible Overhung Loads and Output Shaft Thrust Loads are listed for each reducer in the Tables on Pages 277.

600 Series Output RPM and Capacity Selection Tables

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE

Output RPM	Ratio*	Non-Flanged Reducers: Gear Capacity: Output Torque (LB-IN.)	Non-Flanged Reducers: Gear Capacity: HP: Input	Non-Flanged Reducers: Gear Capacity: HP: Output	Non-Flanged Reducers: Catalog No. (Item Code)	Flanged Reducers (Gearmotors): Ratings: Motor HP	Ratings: Output Torque (LB-IN.)	Ratings: S.C.**	Catalog Numbers (Item Code): Foot Mounted	Catalog Numbers (Item Code): Output Flange Mounted	AC Motors†	DC Motors††
35	50	6100	3.46	3.25	643B-50 (28742)	3	5288	I	F643B-50-B9 (28743)	F643BF-50-B9 (28744)	LUTF	PM18300
						2	3525	II	F643B-50-B7 (28745)	F643BF-50-B7 (28746)	KUTF	PM18200
						1.5	2644	III			JUTF	PM18150
		14004	8.03	7.71	652B-50 (28747)	7.5	13048	I	F652B-50-B11 (28748)	F652BF-50-B11 (28749)	NUTF	—
						5	8699	II	F652B-50-B9 (28750)	F652BF-50-B9 (28751)	MUTF	—
						3	5219	III			LUTF	PM18300

* Gear Ratio is Approximate. For Actual Gear Ratio Reference Page 291-296.
** Class I (S.F. = 1.00) Class II (S.F. = 1.50) Class III (S.F. = 2.00)
† AC Motors – 230/460-3-60 TEFC, for specific motor manufacturers and 5 digit item code refer to pages 337-339.
†† DC Motors – 90 VDC or 180 VDC where applicable, for specific motor manufacturers and 5 digit item code ref. pages 334, 340 and 341.
Overhung Load Ratings refer to Pages 277.

600 Series Mounting Positions & Lubrication

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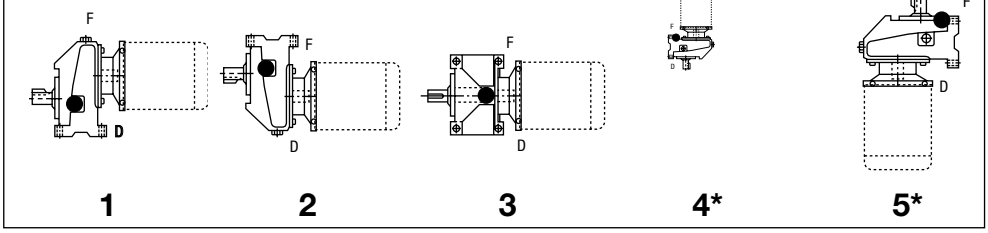
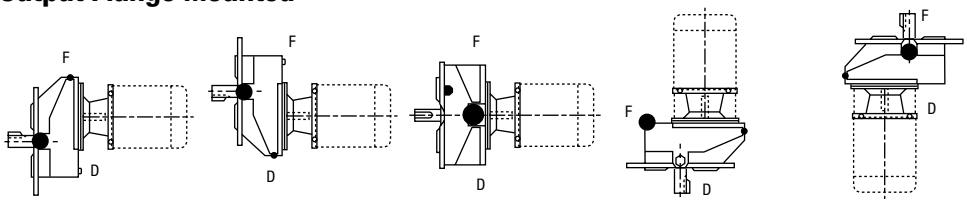
Foot Mounted



Output Flange Mounted



CAUTION

Mounting of speed reducers in overhead positions may be hazardous. Use of external guides or supports is strongly recommended for overhead mounting.

Mounting positions are the same for multiple reduction units, and for non-flanged reducers.
F - Fill • - Oil Level, D - Drain.
* Position 4 and 5, Level Should be 1/2" Below Top Fill.

Recommended Lubricant

Synthetic lubricants are recommended for 600B Series reducers, and at all times, the lubricant must remain free from contamination. During the initial break-in of the gear set, higher than normal operating temperatures may result.

An initial oil change should be made after the first 1,500-hours of operation and at 5,000-hour intervals thereafter. Relubrication should be performed at shorter intervals if the reducer operates in high ambient temperatures or unusually contaminated environments.

For operating temperatures in excess of 225°F special seal considerations may be necessary.

Recommended Lubricant	Ambient (Room) Temperature	ISO Viscosity Grade No.	Boston Gear Item Code Quart
Klubersynth UH1 6-460	–20° to 225°F (-29° TO 107°C)	460	65159
Mobil SHC634	-30° to 225°F (-34° TO 107°C)	320/460	51493

FOOT MOUNTED REDUCERS†

Frame Size	Quarts per Mounting Position				
	1	2	3	4	5
611C	*	*	*	*	*
621B	0.37	0.74	0.53	0.58	1.06
631B	0.26	1.06	0.63	0.69	1.27
641B	0.95	2.01	1.48	2.22	2.22
651B	2.09	4.42	3.33	4.05	3.15
661B	3.38	7.71	6.34	6.13	8.03
612C/613C	*	*	*	*	*
622B/623B	0.63	1.16	0.90	1.22	1.48
632B/633B	1.00	2.38	2.43	2.38	2.85
642B/643B	1.69	4.76	4.62	4.76	4.65
652B/653B	3.49	7.08	7.08	7.93	7.93
662B/663B	5.49	13.95	13.21	15.53	14.48

OUTPUT FLANGE MOUNTED REDUCERS†

Frame Size	Quarts per Mounting Position				
	1	2	3	4	5
611CF	*	*	*	*	*
621BF	0.37	0.74	0.53	0.58	1.06
631BF	0.26	1.06	0.63	0.69	1.27
641BF	0.95	2.01	1.48	2.22	2.22
651BF	2.09	4.42	3.33	4.05	3.15
661BF	3.38	7.71	6.34	6.13	8.03
612CF/613CF	*	*	*	*	*
622BF/623BF	0.63	††	††	1.22	1.48
632BF/633BF	1.00	††	††	2.38	2.85
642BF/643BF	1.69	††	††	4.76	4.65
652BF/653BF	3.49	††	††	7.93	7.93
662BF/663BF	5.49	††	††	15.53	14.48

* Prelubricated for life.
† Oil capacities apply to non-flanged reducers as well.
†† Use mounting position number 1. Cannot use on mounting position 2 & 3.

Single Reduction Overhung Load (lbs.)*

Output RPM	Reducer Size					
	611	621	631	641	651	661
>1000	84	222	230	500	580	802
801-1000	80	229	250	600	615	757
551-800	75	240	288	648	674	1041
451-550	54	320	360	668	874	1234
351-450	33	334	370	806	1244	1495
<350	153	366	457	786	1560	1744

* Load is assumed to be in the center of the shaft extension

Multiple Reduction Overhung Load (lbs.)

Output RPM	Reducer Size					
	610	620	630	640	650	660
301-450	-----	455	460	890	1755	1983
201-300	-----	469	557	1200	1829	2065
151-200	129	591	670	1233	2013	2065
101-150	138	603	685	1296	2015	2163
51-100	388	701	850	1305	2472	2213
31-50	600	1030	1105	1305	3424	3733
16-30	600	1297	1357	1905	3670	4580
<15	600	1345	1610	1905	4340	4580

600 Series Output RPM and Capacity Selection Tables

@ 1750 RPM Input

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FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
1094	1.6	338	6.15	6.03	621B-1.6 (28000)	5	275	I	F621B-1.6-B9 (28001)	F621BF-1.6-B9 (28002)	MUTF	PM18500
						3	165	III	F621B-1.6-B7 (28003)	F621BF-1.6-B7 (28004)	LUTF	PM18300
		623	11.39	11.16	631B-1.6 (28005)	10	547	I	F631B-1.6-B11 (28006)	F631BF-1.6-B11 (28007)	PUTF	—
						7.5	410	II	F631B-1.6-B9 (28008)	F631BF-1.6-B9 (28009)	NUTF	—
						5	273	III			MUTF	PM18500
		761	13.43	13.16	641B-1.6 (28010)	10	568	I	F641B-1.6-B11 (28011)	F641BF-1.6-B11 (28012)	PUTF	—
						7.5	426	II			NUTF	—
						5	284	III	F641B-1.6-B9 (28013)	F641BF-1.6-B9 (28014)	MUTF	PM18500
		2292	41.74	40.91	651B-1.6 (28015)	20	1101	III	F651B-1.6-B13 (28016)	—	SUTF	—
		3230	57.18	56.03	661B-1.6 (28017)	20	1129	III	F661B-1.6-B13 (28018)	—	SUTF	—
875	2.0	212	3.06	3.00	611C-2 (28019)	2	138	II	F611C-2-B7 (28020)	F611CF-2-B7 (28021)	KUTF	PM18200
						1.5	104	III			JUTF	PM18150
		399	5.65	5.54	621B-2 (28022)	5	353	I	F621B-2-B9 (28023)	F621BF-2-B9 (28024)	MUTF	PM18500
						3	212	II			KUTF	PM18300
						2	141	III	F621B-2-B7 (28025)	F621BF-2-B7 (28026)	KUTF	PM18200
		708	10.35	10.14	631B-2 (28027)	10	684	I	F631B-2-B11 (28028)	F631BF-2-B11 (28029)	PUTF	—
						7.5	513	II			NUTF	—
						5	342	III	F631B-2-B9 (28030)	F631BF-2-B9 (28031)	MUTF	PM18500
		1030	14.33	14.04	641B-2 (28032)	10	720	I	F641B-2-B11 (28033)	F641BF-2-B11 (28034)	PUTF	—
						7.5	540	II			NUTF	—
						5	360	III	F641B-2-B9 (28035)	F641BF-2-B9 (28036)	MUTF	PM18500
		2521	36.29	35.56	651B-2 (28037)	20	1390	II	F651B-2-B13 (28038)	—	SUTF	—
						15	1043	III			RUTF	—

* Gear Ratio is Approximate. For Actual Gear Ratio Reference Page 291-296.
** Class I (S.F. = 1.00) Class II (S.F. = 1.50) Class III (S.F. = 2.00)
† AC Motors – 230/460-3-60 TEFC, for specific motor manufacturers and 5 digit item code refer to pages 337-339.
†† DC Motors – 90 VDC or 180 VDC where applicable, for specific motor manufacturers and 5 digit item code ref. pages 334, 340 and 341.
Overhung Load Ratings refer to Pages 277.

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
875 (Cont)	2.0	3735	52.88	51.82	661B-2 (28039)	20	1411	III	F661B-2-B13 (28040)	—	SUTF	—
700	2.5	275	3.06	3.00	611C-2.5 (28041)	2	180	II	F611C-2.5-B7 (28042)	F611CF-2.5-B7 (28043)	KUTF	PM18200
						1.5	135	III			JUTF	PM18150
		442	4.86	4.76	621B-2.5 (28044)	3	273	II	F621B-2.5-B9 (28045)	F621BF-2.5-B9 (28046)	LUTF	PM18300
						2	182	III	F621B-2.5-B7 (28047)	F621BF-2.5-B7 (28048)	KUTF	PM18200
		708	7.88	7.22	631B-2.5 (28049)	7.5	675	I	F631B-2.5-B11 (28050)	F631BF-2.5-B11 (28051)	NUTF	—
						5	450	II	F631B-2.5-B9 (28052)	F631BF-2.5-B9 (28053)	MUTF	PM18500
						3	270	III			LUTF	PM18300
		1273	13.96	13.68	641B-2.5 (28054)	10	910	I	F641B-2.5-B11 (28055)	F641BF-2.5-B11 (28056)	PUTF	—
						7.5	683	II			NUTF	—
						5	455	III	F641B-2.5-B9 (28057)	F641BF-2.5-B9 (28058)	MUTF	PM18500
		4152	48.17	47.21	661B-2.5 (28062)	20	1722	III	F661B-2.5-B13 (28063)	—	SUTF	—
557	3.2	340	2.98	2.92	611C-3.2 (28064)	2	229	II	F611C-3.2-B7 (28065)	F611CF-3.2-B7 (28066)	KUTF	PM18200
						1.5	171	III			JUTF	PM18150
		442	3.86	3.78	621B-3.2 (28067)	3	344	I	F621B-3.2-B9 (28069)	F621BF-3.2-B9 (28070)	LUTF	PM18300
						2	229	II	F621B-3.2-B7 (28071)	F621BF-3.2-B7 (28072)	KUTF	PM18200
						1.5	172	III			JUTF	PM18150
		708	6.50	6.37	631B-3.2 (28073)	5	545	I	F631B-3.2-B9 (28074)	F631BF-3.2-B9 (28075)	MUTF	PM18500
						3	327	III			LUTF	PM18300

* Gear Ratio is Approximate. For Actual Gear Ratio Reference Page 291-296.
** Class I (S.F. = 1.00) Class II (S.F. = 1.50) Class III (S.F. = 2.00)
† AC Motors – 230/460-3-60 TEFC, for specific motor manufacturers and 5 digit item code refer to pages 337-339.
†† DC Motors – 90 VDC or 180 VDC where applicable, for specific motor manufacturers and 5 digit item code ref. pages 334, 340 and 341.
Overhung Load Ratings refer to Pages 277.

600 Series Output RPM and Capacity Selection Tables

@ 1750 RPM Input

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FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
557 (Cont)	3.2	1127	10.10	9.90	641B-3.2 (28076)	10	1115	I	F641B-3.2-B11 (28077)	F641BF-3.2-B11 (28078)	PUTF	—
						7.5	836	II			LUTF	—
						5	557	III	F641B-3.2-B9 (28079)	F641BF-3.2-B9 (28080)	MUTF	PM18500
		2894	25.76	25.24	651B-3.2 (28081)	20	2244	I	F651B-3.2-B13 (28082)	—	SUTF	—
						15	1683	II			RUTF	—
						10	1122	III	F651B-3.2-B11 (28084)	F651BF-3.2-B11 (28085)	PUTF	—
		4655	42.96	42.10	661B-3.2 (28086)	20	2166	III	F661B-3.2-B13 (28087)	—	SUTF	—
438	4.0	372	2.58	2.53	611C-4 (28088)	2	288	I	F611C-4-B7 (28089)	F611CF-4-B7 (28092)	KUTF	PM18200
						1.5	216	II			JUTF	PM18150
						1	144	III	F611C-4-B5 (28091)	F611CF-4-B5 (28090)	HUTF-5/8	PM18100 PM9100-5/8
		442	3.19	3.1262	621B-4 (28093)	3	416	I	F621B-4-B9 (28094)	F621BF-4-B9 (28095)	LUTF	PM18300
						2	277	II	F621B-4-B7 (28096)	F621BF-4-B7 (28097)	KUTF	PM18200
						1.5	208	III			JUTF	PM18150
		708	5.15	5.05	631B-4 (28098)	5	686	I	F631B-4-B9 (28099)	F631BF-4-B9 (28100)	MUTF	PM18500
						3	412	II			LUTF	PM18300
						2	274	III	F631B-4-B7 (28106)	F631BF-4-B7 (28107)	JUTF	PM18150
		1315	9.42	9.23	641B-4 (28108)	7.5	1045	I	F641B-4-B11 (28109)	F641BF-4-B11 (28110)	NUTF	—
						5	697	II	F641B-4-B9 (28111)	F641BF-4-B9 (28112)	MUTF	PM18500
						3	418	III			LUTF	PM18300
		2903	20	19.60	651B-4 (28113)	20	2900	I	F651B-4-B13 (28114)	F651BF-4-B13 (28115)	SUTF	—
						15	2175	II			RUTF	—
						10	1450	III	F651B-4-B11 (28116)	F651BF-4-B11 (28118)	PUTF	—

* Gear Ratio is Approximate. For Actual Gear Ratio Reference Page 291-296.
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Overhung Load Ratings refer to Pages 277.

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity				Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP		Catalog No. (Item Code)	Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
438 (Cont)	4.0	5221	38.16	37.40	661B-4 (28119)	20 15	2738 2053	II III	F661B-4-B13 (28120)	—	SUTF RUTF	— —
350	5.0	192	1.05	1.03	611C-5 (28121)	1 .75 .5	182 137 91	I II III	F611C-5-B5 (28122)	F611CF-5-B5 (28123)	HUTF-5/8 GUTF FUTF	PM9100-5/8 PM18100-5/8 PM975 PM1875 PM950
		442	2.55	2.50	621B-5 (28124)	2 1.5	347 260	I II	F621B-5-B7 (28125)	F621BF-5-B7 (28126)	KUTF JUTF	PM18200 PM18150
						1	174	III	F621B-5-B5 (28127)	F621BF-5-B5 (28128)	HUTF-5/8	PM9100-5/8 PM18100-5/8
		708	4.11	4.03	631B-5 (28129)	3	516	II	F631B-5-B9 (28130)	F631BF-5-B9 (28131)	LUTF	PM18300
						2	344	III	F631B-5-B7 (28132)	F631BF-5-B7 (28133)	KUTF	PM18200
		1327	7.73	7.575	641B-5 (28134)	7.5	1289	I	F641B-5-B11 (28135)	F641BF-5-B11 (28137)	NUTF	—
						5 3	859 515	II III	F641B-5-B9 (28138)	F641BF-5-B9 (28139)	MUTF LUTF	PM18500 PM18300
		2903	16.01	15.69	651B-5 (28140)	15	2715	I	F651B-5-B13 (28141)	—	RUTF	—
						10 7.5	1810 1357	II III	F651B-5-B11 (28143)	F651BF-5-B11 (28144)	PUTF NUTF	— —
		5221	30.49	29.88	661B-5 (28145)	20 15	3422 2567	II III	F661B-5-B13 (28146)	—	SUTF RUTF	— —
278	6.3	1251	5.63	5.52	622B-6.3 (28147)	5 3	1109 666	I II	F622B-6.3-B9 (28148)	F622BF-6.3-B9 (28149)	MUTF LUTF	PM18500 PM18300
						2	444	III	F622B-6.3-B7 (28150)	F622BF-6.3-B7 (28151)	KUTF	PM18200
		2208	10.45	10.03	632B-6.3 (28152)	10 7.5	2108 1581	I II	F632B-6.3-B11 (28153)	F632BF-6.3-B11 (28154)	PUTF NUTF	— —
						5	1054	III	F632B-6.3-B9 (28155)	F632BF-6.3-B9 (28159)	MUTF	PM18500

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Overhung Load Ratings refer to Pages 277.

600 Series Output RPM and Capacity Selection Tables

@ 1750 RPM Input

K

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
278 (Cont)	6.3	3615	16.28	15.63	642B-6.3 (28157)	15	3323	I	F642B-6.3-B13 (28158)	—	SUTF	—
						10	2215	II	F642B-6.3-B11 (28160)	F642BF-6.3-B11 (28161)	PUTF	—
						7.5	1661	III			NUTF	—
		7883	36.83	35.36	652B-6.3 (28162)	20	4292	II	F652B-6.3-B13 (28163)	—	SUTF	—
						15	3219	III			RUTF	—
		11903	53.87	51.72	662B-6.3 (28164)	20	4410	III	F662B-6.3-B13 (28165)	—	SUTF	—
219	8	762	2.69	2.58	612C-8 (28166)	2	564	I	F612C-8-B7 (28167)	F612CF-8-B7 (28168)	KUTF	PM18200
						1.5	423	II			JUTF	PM181500
						1	282	III	F612C-8-B5 (28169)	F612CF-8-B5 (28170)	HUTF-5/8	PM9100-5/8 PM18100-5/8
		1252	4.37	4.20	622B-8 (28171)	3	858	I	F622B-8-B9 (28172)	F622BF-8-B9 (28173)	LUTF	PM18300
						2	572	III	F622B-8-B7 (28174)	F622BF-8-B7 (28175)	KUTF	PM18200
		2208	7.95	7.63	632B-8 (28176)	7.5	2079	I	F632B-8-B11 (28177)	F632BF-8-B11 (28178)	NUTF	—
						5	1386	II	F632B-8-B9 (28179)	F632BF-8-B9 (28180)	MUTF	PM18500
						3	832	III			LUTF	PM18300
		3615	12.83	12.32	642B-8 (28181)	10	2813	I	F642B-8-B11 (28184)	F642BF-8-B11 (28185)	PUTF	—
						7.5	2110	II			NUTF	
						5	1407	III	F642B-8-B9 (28182)	F642BF-8-B9 (28183)	MUTF	PM18500
		10329	38.77	37.22	652B-8 (28186)	20	5315	II	F652B-8-B13 (28187)	—	SUTF	—
						15	3986	III			RUTF	—
		18252	66.63	63.96	662B-8 (28188)	20	5474	III	F662B-8-B13 (28199)	—	SUTF	—
175	10	768	2.17	2.08	612C-10 (28190)	2	705	I	F612C-10-B7 (28191)	F612CF-10-B7 (28192)	KUTF	PM18200
						1.5	529	II			JUTF	PM18150
						1	353	III	F612C-10-B5 (28193)	F612CF-10-B5 (28194)	HUTF-5/8	PM9100-5/8 PM18100-5/8

* Gear Ratio is Approximate. For Actual Gear Ratio Reference Page 291-296.
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@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
175 (Cont)	10	1252	3.46	3.32	622B-10 (28195)	3	1081	I	F622B-10-B9 (28196)	F622BF-10-B9 (28198)	LUTF	PM18300
						2	721	II	F622B-10-B7 (28199)	F622BF-10-B7 (28200)	KUTF	PM18200
						1.5	541	III			JUTF	PM18150
		2208	6.56	6.30	632B-10 (28201)	5	1680	II	F632B-10-B9 (28202)	F632BF-10-B9 (28203)	MUTF	PM18500
						3	1008	III			LUTF	PM18300
		3615	10.49	10.07	642B-10 (28204)	10	3449	I	F642B-10-B11 (28207)	F642BF-10-B11 (28208)	PUTF	—
						7.5	2587	II			NUTF	—
						5	1719	III	F642B-10-B9 (28861)	F642BF-10-B5 (28862)	MUTF	PM18500
		11933	35.65	34.22	652B-10 (28209)	20	6684	II	F652B-10-B13 (28210)	—	SUTF	—
						15	5013	III			RUTF	—
		20956	60.86	58.43	662B-10 (28211)	20	6871	III	F662B-10-B13 (28212)	—	SUTF	—
140	12.5	772	1.82	1.75	612C-12.5 (28213)	1.5	634	I	F612C-12.5-B7 (28214)	F612CF-12.5-B7 (28215)	JUTF	PM18150
						1	423	II	F612C-12.5-B5 (28216)	F612CF-12.5-B5 (28217)	HUTF-5/8	PM9100-5/8 PM18100-5/8
						.75	317	III			GUTF	PM975 PM1875
		1252	2.87	2.76	622B-12.5 (28218)	2	872	I	F622B-12.5-B7 (28219)	F622BF-12.5-B7 (28220)	KUTF	PM18200
						1.5	654	II			JUTF	PM18150
						1	436	III	F622B-12.5-B5 (28221)	F622BF-12.5-B5 (28222)	HUTF-5/8	PM9100 5/8 PM18100 5/8
		2208	5.2	4.99	632B-12.5 (28223)	5	2120	I	F632B-12.5-B9 (28224)	F632BF-12.5-B9 (28225)	MUTF	PM18500
						3	1272	II			LUTF	PM18300
						2	848	III	F632B-12.5-B7 (28226)	F632BF-12.5-B7 (28227)	KUTF	PM18200
		3615	8.39	8.05	642B-12.5 (28228)	7.5	3227	I	F642B-12.5-B11 (28231)	F642BF-12.5-B11 (28863)	NUTF	—
						5	2151	II	F642B-12.5-B9 (28876)	F642BF-12.5-B9 (28864)	MUTF	PM18500
						3	1291	III			LUTF	PM18300

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600 Series Output RPM and Capacity Selection Tables

@ 1750 RPM Input

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FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
140 (Cont)	12.5	12844	30.33	29.12	652B-12.5 (28232)	20 15	8453 6340	II III	F652B-12.5-B13 (28234)	—	SUTF RUTF	— —
		23128	47.77	45.86	662B-12.5 (28235)	20	8592	III	F662B-12.5-B13 (28236)	—	SUTF	—
109	16	777	1.46	1.40	612C-16 (28251)	1 .75 .5	530 398 265	I II III	F612C-16-B5 (28252)	F612CF-16-B5 (28254)	HUTF-5/8 GUTF FUTF	PM9100-5/8 PM18100-5/8 PM975 PM1875 PM950
		1252	2.29	2.20	622B-16 (28256)	2 1.5	1091 819	I II	F622B-16-B7 (28265)	F622BF-16-B7 (28276)	KUTF JUTF	PM18200 PM18150
						1	546	III	F622B-16-B5 (28277)	F622BF-16-B5 (28284)	HUTF-5/8	PM9100 5/8 PM18100 5/8
		2208	4.15	3.98	632B-16 (28291)	3	1593	II	F632B-16-B9 (28300)	F632BF-16-B9 (28302)	LUTF	PM18300
						2	1062	III	F632B-16-B7 (28306)	F632BF-16-B7 (28328)	KUTF	PM18200
		3615	6.81	6.54	642B-16 (28330)	5 3	2649 1589	I III	F642B-16-B9 (28355)	F642BF-16-B9 (28360)	MUTF LUTF	PM18500 PM18300
		13452	24.63	23.64	652B-16 (28366)	20 15	10900 8175	I II	F652B-16-B13 (28384)	—	SUTF RUTF	— —
						10	5450	III	F652B-16-B11 (28385)	F652BF-16-B11 (28388)	PUTF	—
		23788	45.28	43.47	662B-16 (28390)	20	10486	III	F662B-16-B13 (28395)	—	SUTF	—
88	20	783	1.12	1.08	612C-20 (28396)	1 .75 .5	699 525 350	I II III	F612C-20-B5 (28538)	F612CF-20-B5 (28564)	HUTF-5/8 GUTF FUTF	PM9100-5/8 PM18100-5/8 PM975 PM1875 PM950
		1252	1.80	1.73	622B-20 (28570)	1.5	1040	I	F622B-20-B7 (28573)	F622BF-20-B7 (28586)	JUTF	PM18150
						1 .75	694 520	II III	F622B-20-B5 (28587)	F622BF-20-B5 (28588)	HUTF-5/8 GUTF	PM9100 5/8 PM18100 5/8 PM975 PM1875

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@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
88 (Cont)	20	2208	3.21	3.08	632B-20 (28589)	3	2060	I	F632B-20-B9 (28590)	F632BF-20-B9 (28591)	LUTF	PM18300
						2	1373	II	F632B-20-B7 (28592)	F632BF-20-B7 (28593)	KUTF	PM18200
						1.5	1030	III			JUTF	PM18150
		3615	6	5.76	642B-20 (28594)	5	2995	I	F642B-20-B9 (28597)	F642BF-20-B9 (28598)	MUTF	PM18500
						3	1797	III			LUTF	PM18300
		13601	19.86	19.07	652B-20 (28650)	15	10249	I	F652B-20-B13 (28651)	—	RUTF	—
						10	6833	II	F652B-20-B11 (28652)	F652BF-20-B11 (28653)	PUTF	—
						7.5	5124	III			NUTF	—
		24111	36.51	35.05	662B-20 (28654)	20	13181	II	F662B-20-B13 (28655)	—	SUTF	—
						15	9886	III			RUTF	—
70	25	787	.89	0.85	612C-25 (28656)	.75	663	I	F612C-25-B5 (28657)	F612CF-25-B5 (28658)	GUTF	PM975
						.5	442	II			FUTF	PM1875
						.33	292	III			EUTF	PM950
												PM933
		877	1	0.96	622B-25 (28659)	1	877	I	F622B-25-B5 (28660)	F622BF-25-B5 (28662)	HUTF-5/8	PM9100 5/8
						.75	658	II				PM18100 5/8
						.5	439	III			GUTF	PM975
											FUTF	PM1875
												PM950
		2208	2.51	2.41	632B-25 (28663)	2	1758	I	F632B-25-B7 (28664)	F632BF-25-B7 (28665)	KUTF	PM18200
						1.5	1319	II			JUTF	PM18150
						1	879	III	F632B-25-B5 (28666)	F632BF-25-B5 (28667)	HUTF-5/8	PM9100-5/8
												PM18100
		3615	4.23	4.23	642B-25 (28668)	3	2559	I	F642B-25-B9 (28672)	F642BF-25-B9 (28673)	LUTF	PM18300
						2	1706	III	F642B-25-B7 (28877)	F642BF-25-B7 (28878)	KUTF	PM18200
		13727	15.52	14.90	652B-25 (28674)	15	13245	I	F652B-25-B13 (28675)	—	RUTF	—
						10	8830	II	F652B-25-B11 (28676)	F652BF-25-B11 (28677)	PUTF	—
						7.5	6623				NUTF	—

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600 Series Output RPM and Capacity Selection Tables

@ 1750 RPM Input

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ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
70 (Cont)	25	25876	31.03	29.79	662B-25 (28679)	20	16644	II	F662B-25-B13 (28681)	—	SUTF	—
						15	12483	III			RUTF	—
55	32	791	.7	0.67	612C-32 (28682)	.5	579	II	F612C-32-B5 (28683)	F612CF-32-B5 (28684)	FUTF	PM950
						.33	382	III			DUTF	PM925
		1780	1.68	1.61	622B-32 (28685)	1.5	1584	I	F622B-32-B7 (28686)	F622BF-32-B7 (28687)	JUTF	PM18150
						1	1056	II	F622B-32-B5 (28688)	F622BF-32-B5 (28689)	HUTF-5/8	PM9100-5/8
												PM1800-5/8
						.75	792	III			GUTF	PM975
												PM1875
		3977	3.79	3.64	632B-32 (28690)	3	3140	I	F632B-32-B9 (28691)	F632BF-32-B9 (28692)	LUTF	PM18300
						2	2094	II	F632B-32-B7 (28693)	F632BF-32-B7 (28694)	KUTF	PM18200
						1.5	1570	III			DUTF	PM18150
		5910	5.40	5.18	642B-32 (28695)	5	5585	I	F643B-32-B9 (28696)	F642BF-32-B9 (28697)	MUTF	PM18500
						3	3351	II			LUTF	PM18300
						2	2234	III	F643B-32-B7 (28879)	F643BF-32-B7 (28880)	KUTF	PM18200
		13826	12.52	12.02	652B-32 (28698)	10	11025	I	F652B-32-B11 (28699)	F652BF-32-B11 (28700)	PUTF	—
						7.5	8268	II			NUTF	—
						5	5512	III	F652B-32-B9 (28701)	F652BF-32-B9 (28702)	MUTF	PM18500
		26088	25	24.00	662B-32 (28703)	20	20833	I	F662B-32-B13 (28704)	—	SUTF	—
						15	15625	II			RUTF	—
						10	10416	III	F662B-32-B11 (28705)	F662BF-32-B11 (28706)	PUTF	—
44	40	794	.57	0.55	612C-40 (28707)	.5	697	I	F612C-40-B5 (28708)	F612CF-40-B5 (28709)	FUTF	PM950
						.33	460	II			EUTF	PM933
						.25	348	III			DUTF	PM925
		1790	1.33	1.28	622B-40 (28710)	1	1342	I	F622B-40-B5 (28711)	F622BF-40-B5 (28712)	HUTF-5/8	PM9100-5/8
												PM18100-5/8
						.75	1007	II			GUTF	PM975
						.5	671	III			FUTF	PM1875
												PM950

* Gear Ratio is Approximate. For Actual Gear Ratio Reference Page 291-296.
** Class I (S.F. = 1.00) Class II (S.F. = 1.50) Class III (S.F. = 2.00)
† AC Motors – 230/460-3-60 TEFC, for specific motor manufacturers and 5 digit item code refer to pages 337-339.
†† DC Motors – 90 VDC or 180 VDC where applicable, for specific motor manufacturers and 5 digit item code ref. pages 334, 340 and 341.
Overhung Load Ratings refer to Pages 277.

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
44 (Cont)	40	4002	2.95	2.83	632B-40 (28713)	2 1.5	2710 2032	I III	F632B-40-B7 (28714)	F632BF-40-B7 (28715)	KUTF JUTF	PM18200 PM18150
		6010	4.3	4.04	643B-40 (28716)	3	4172	II	F643B-40-B9 (28717)	F643BF-40-B9 (28718)	LUTF	PM18300
						2	2782	III	F643B-40-B7 (28719)	F643BF-40-B7 (28720)	KUTF	PM18200
		13901	10.5	10.08	652B-40 (28721)	10 7.5	13216 9912	I II	F652B-40-B11 (28722)	F652BF-40-B11 (28723)	PUTF NUTF	— —
						5	6608	III	F652B-40-B9 (28724)	F652BF-40-B9 (28725)	MUTF	PM18500
		26314	19.37	18.60	662B-40 (28726)	15	20337	II	F662B-40-B13 (28727)	—	RUTF	—
						10 7.5	13558 10168	III	F662B-40-B11 (28728)	F662BF-40-B11 (28729)	PUTF NUTF	— —
35	50	796	.45	0.42	613C-50 (28730)	.33 .25	549 416	II III	F613C-50-B5 (28731)	F613CF-50-B5 (28732)	EUTF DUTF	PM933 PM925
		1699	1	0.96	622B-50 (28733)	1 .75 .5	1699 1274 849	I II III	F622B-50-B5 (28734)	F622BF-50-B5 (28735)	HUTF-5/8 GUTF FUTF	PM9100-5/8 PM18100-5/8 PM975/PM1875 PM950
		4024	2.32	2.23	632B-50 (28736)	2 1.5	3469 2602	I II	F632B-50-B7 (28737)	F632BF-50-B7 (28738)	KUTF JUTF	PM18200 PM18150
						1	1735	III	F632B-50-B5 (28740)	F632BF-50-B5 (28741)	HUTF-5/8	PM9100-5/8 PM18100-5/8
		6100	3.46	3.25	643B-50 (28742)	3	5288	I	F643B-50-B9 (28743)	F643BF-50-B9 (28744)	LUTF	PM18300
						2 1.5	3525 2644	II III	F643B-50-B7 (28745)	F643BF-50-B7 (28746)	KUTF JUTF	PM18200 PM18150
		14004	8.03	7.71	652B-50 (28747)	7.5	13048	I	F652B-50-B11 (28748)	F652BF-50-B11 (28749)	NUTF	—
						5 3	8699 5219	II III	F652B-50-B9 (28750)	F652BF-50-B9 (28751)	MUTF LUTF	— PM18300

* Gear Ratio is Approximate. For Actual Gear Ratio Reference Page 291-296.
** Class I (S.F. = 1.00) Class II (S.F. = 1.50) Class III (S.F. = 2.00)
† AC Motors – 230/460-3-60 TEFC, for specific motor manufacturers and 5 digit item code refer to pages 337-339.
†† DC Motors – 90 VDC or 180 VDC where applicable, for specific motor manufacturers and 5 digit item code ref. pages 334, 340 and 341.
Overhung Load Ratings refer to Pages 277.

600 Series Output RPM and Capacity Selection Tables

@ 1750 RPM Input

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FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
35 (Cont)	50	26496	15.39	14.77	662B-50 (28752)	15	25770	I	F662B-50-B13 (28753)	—	RUTF	—
						10	17180	II	F662B-50-B11 (28754)	F662BF-50-B11 (28755)	PUTF	—
						7.5	12885	III			NUTF	PM18500
28	63	800	.4	0.38	613C-63 (28756)	.33	715	I	F613C-63-B5 (28757)	F613CF-63-B5 (28758)	EUTF	PM933
						.25	542	II			DUTF	PM925
		1406	.63	0.59	623B-63 (28759)	.5	1104	I	F623B-63-B5 (28760)	F623BF-63-B5 (28761)	FUTF	PM950
						.33	729	II			EUTF	PM933
						.25	552	III			DUTF	PM925
		4038	1.85	1.74	633B-63 (28762)	1.5	3259	I	F633B-63-B7 (28763)	F633BF-63-B7 (28764)	JUTF	PM18150
						1	2173	II	F633B-63-B5 (28765)	F633BF-63-B5 (28766)	HUTF-5/8	PM9100-5/8
						.75	1629	III			GUTF	PM18100-5/8 PM975 PM1875
		6100	2.73	2.57	643B-63 (28767)	2	4474	I	F643B-63-B7 (28768)	F643BF-63-B7 (28769)	KUTF	PM18200
						1.5	3356	II			JUTF	PM18150
						1	2237	III	F643B-63-B5 (28770)	F643BF-63-B5 (28771)	HUTF-5/8	PM9100 5/8 PM10100-5/8
		14084	6.48	6.09	653B-63 (28772)	5	10817	II	F653B-63-B9 (28773)	F653BF-63-B9 (28774)	MUTF	PM18500
						3	6490	III			LUTF	PM18300
		23239	11.13	10.46	663B-63 (28775)	10	20791	I	F663B-63-B11 (28776)	F663BF-63-B11 (28777)	PUTF	—
						7.5	15593	II			NUTF	—
						5	10396	II	F663B-63-B9 (28778)	F663BF-63-B9 (28779)	MUTF	PM18500
22	80	1519	.54	0.51	623B-80 (28780)	.5	1375	I	F623B-80-B5 (28781)	F623BF-80-B5 (28782)	FUTF	PM950
						.33	908	II			EUTF	PM933
						.25	688	III			DUTF	PM925
		4038	1.53	1.44	633B-80 (28783)	1.5	3952	I	F633B-80-B7 (28784)	F633BF-80-B7 (28785)	JUTF	PM18150
						1	2635	II	F633B-80-B5 (28786)	F633BF-80-B5 (28787)	HUTF-5/8	PM9100-5/8
						.75	1976	III			GUTF	PM18100-5/8 PM975

* Gear Ratio is Approximate. For Actual Gear Ratio Reference Page 291-296.
** Class I (S.F. = 1.00) Class II (S.F. = 1.50) Class III (S.F. = 2.00)
† AC Motors – 230/460-3-60 TEFC, for specific motor manufacturers and 5 digit item code refer to pages 337-339.
†† DC Motors – 90 VDC or 180 VDC where applicable, for specific motor manufacturers and 5 digit item code ref. pages 334, 340 and 341.
Overhung Load Ratings refer to Pages 277.

@ 1750 RPM Input

FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
22 (Cont)	80	6100	2.2	2.07	643B-80 (28788)	2 1.5	5473 4104	I II	F643B-80-B7 (28789)	F643BF-80-B7 (28790)	KUTF JUTF	PM18200 PM18150
						1	2736	III	F643B-80-B5 (28791)	F643BF-80-B5 (28792)	HUTF-5/8	PM9100-5/8 PM18100-5/8
		14152	5.2	4.89	653B-80 (28793)	5 3	13558 8135	I II	F653B-80-B9 (28794)	F653BF-80-B9 (28796)	MUTF LUTF	PM18500 PM18300
						2	5423	III	F653B-80-B7 (28797)	F653BF-80-B7 (28798)	KUTF	PM18200
		25562	9.74	9.16	663B-80 (28799)	7.5	19604	I	F663B-80-B11 (28800)	F663BF-80-B11 (28801)	MUTF	PM18500
						5	13069	III	F663B-80-B9 (28802)	F663BF-80-B9 (28803)	LUTF	PM18300
18	100	1618	.48	0.45	623B-100 (28804)	.33 .25	1110 841	I III	F623B-100-B5 (28805)	F623BF-100-B5 (28806)	EUTF DUTF	PM933 PM925
		4038	1.21	1.14	633B-100 (28808)	1 .75 .5	3324 2493 1662	I II III	F633B-100-B5 (28809)	F633BF-100-B5 (28810)	HUTF-5/8 GUTF FUTF	PM9100-5/8 PM18100-5/8 PM975/PM1875 PM950
		6100	1.78	1.67	643B-100 (28811)	1.5	5133	I	F643B-100-B7 (28812)	F643BF-100-B7 (28813)	JUTF	PM18150
						1 .75	3422 2567	II III	F643B-100-B5 (28814)	F643BF-100-B5 (28815)	HUTF-5/8 GUTF	PM9100-5/8 PM18100-5/8 PM975 PM1875
		14222	4.04	3.80	653B-100 (28816)	2 1.5	7008 5256	I II	F653B-100-B7 (28817)	F653BF-100-B7 (28818)	KUTF JUTF	PM18200 PM18150
						1	3504	III	F653B-100-B5 (28819)	F653BF-100-B5 (28820)	HUTF-5/8	PM9100-5/8 PM18100-5/8
		26602	8.03	7.55	663B-100 (28821)	7.5	24753	I	F663B-100-B11 (28822)	F663BF-100-B11 (28823)	NUTF	—
						5 3	16502 9901	II III	F663B-100-B9 (28824)	F663BF-100-B9 (28825)	MUTF LUTF	PM18500 PM18300
14	125	1744	.41	0.39	623B-125 (28826)	.33 .25	1389 1052	I II	F623B-125-B5 (28827)	F623BF-125-B5 (28828)	EUTF DUTF	PM933 PM925

* Gear Ratio is Approximate. For Actual Gear Ratio Reference Page 291-296.
** Class I (S.F. = 1.00) Class II (S.F. = 1.50) Class III (S.F. = 2.00)
† AC Motors – 230/460-3-60 TEFC, for specific motor manufacturers and 5 digit item code refer to pages 337-339.
†† DC Motors – 90 VDC or 180 VDC where applicable, for specific motor manufacturers and 5 digit item code ref. pages 334, 340 and 341.
Overhung Load Ratings refer to Pages 277.

600 Series Output RPM and Capacity Selection Tables

@ 1750 RPM Input

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FOR RATINGS AT OTHER INPUT SPEEDS, SEE TABLES ON PAGES 291-296.
ORDER BY CATALOG NUMBER OR ITEM CODE.

Output RPM	Ratio*	Non-Flanged Reducers				Flanged Reducers (Gearmotors)					AC Motors†	DC Motors††
		Gear Capacity			Catalog No. (Item Code)	Ratings			Catalog Numbers (Item Code)			
		Output Torque (LB-IN.)	HP			Motor HP	Output Torque (LB-IN.)	S.C.**	Foot Mounted	Output Flange Mounted		
			Input	Output								
14	125	4038	.97	0.91	633B-125 (28829)	.75 .5 .33	3121 2080 1373	I II III	F633B-125-B5 (28830)	F633BF-125-B5 (28831)	GUTF FUTF EUTF	PM975 PM1875 PM950 PM933
		6100	1.45	1.36	643B-125 (28832)	1 .75 .5	4214 3161 2107	I II III	F643B-125-B5 (28833)	F643BF-125-B5 (28834)	HUTF-5/8 GUTF FUTF	PM9100-5/8 PM18100-5/8 PM975 PM1875 PM950
		14277	3.25	3.06	653B-125 (28835)	3 2	13125 8750	I II	F653B-125-B9 (28836)	F653BF-125-B9 (28839)	LUTF KUTF	PM18300 PM18200
						1.5	6562	III	F653B-125-B7 (28840)	F653BF-125-B7 (28841)	JUTF	PM18150
		27049	6.52	6.13	663B-125 (28842)	5	20653	II	F663B-125-B9 (28843)	F663BF-125-B9 (28844)	MUTF	PM18500
						3	12392	III	F663B-125-B7 (28845)	F663BF-125-B7 (28846)	LUTF	PM18300
11	160	6100	1.10	1.03	643B-160 (28847)	1 .75 .5	5485 4114 2743	I II III	F643B-160-B5 (28848)	F643BF-160-B5 (28849)	HUTF-5/8 GUTF FUTF	PM9100-5/8 PM18100-5/8 PM975 PM1875 PM950
		14317	2.72	2.56	653B-160 (28850)	2 1.5	10489 7867	I II	F653B-160-B7 (28851)	F653BF-160-B7 (28853)	KUTF JUTF	PM18200 PM18150
						1	5245	III	F653B-160-B5 (28854)	F653BF-160-B5 (28855)	HUTF-5/8	PM9100-5/8 PM18100-5/8
		27173	5.03	4.73	663B-160 (28856)	5 3	26881 16128	I II	F663B-160-B9 (28857)	F663BF-160-B9 (28858)	MUTF LUTF	PM18500 PM18300
						2	10752	III	F663B-160-B7 (28859)	F663BF-160-B7 (28860)	KUTF	PM18200

* Gear Ratio is Approximate. For Actual Gear Ratio Reference Page 291-296.
** Class I (S.F. = 1.00) Class II (S.F. = 1.50) Class III (S.F. = 2.00)
† AC Motors – 230/460-3-60 TEFC, for specific motor manufacturers and 5 digit item code refer to pages 337-339.
†† DC Motors – 90 VDC or 180 VDC where applicable, for specific motor manufacturers and 5 digit item code ref. pages 334, 340 and 341.
Overhung Load Ratings refer to Pages 277.

Non-Flanged Reducers; Input Speeds 1750 and 1160 RPM

Service Factor 1.0*

Catalog Number†	Item Code	Input Speed						Gear Ratio††
		1750 RPM			1160 RPM			
		Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)	
621B-1.6	28000	1094	338	6.15	725	399	4.8	1.56
631B-1.6	28005	1094	623	11.39	725	708	8.58	1.55
641B-1.6	28010	1094	761	13.43	725	897	10.49	1.61
651B-1.6	28015	1094	2292	41.74	725	2378	28.7	1.56
661B-1.6	28017	1094	3230	57.18	725	3677	43.14	1.6
611C-2	28019	875	212	3.06	580	212	2.03	1.96
621B-2	28022	875	399	5.65	580	442	4.14	2
631B-2	28027	875	708	10.35	580	708	6.86	1.94
641B-2	28032	875	1030	14.33	580	1214	11.2	2.04
651B-2	28037	875	2521	36.29	580	2610	24.9	1.97
661B-2	28039	875	3735	52.88	580	4256	39.95	2
611C-2.5	28041	700	275	3.06	464	276	2.03	2.55
621B-2.5	28044	700	442	4.86	464	442	3.22	2.58
631B-2.5	28049	700	708	7.88	464	708	5.22	2.55
641B-2.5	28054	700	1273	13.96	464	1327	9.65	2.58
651B-2.5	28059	700	2745	30.62	464	2835	20.96	2.54
661B-2.5	28062	700	4152	48.17	464	4731	36.38	2.44
611C-3.2	28064	557	340	2.98	368	348	2.02	3.24
621B-3.2	28067	557	442	3.86	368	442	2.56	3.25
631B-3.2	28073	557	708	6.50	368	708	4.31	3.09
641B-3.2	28076	557	1127	10.10	368	1327	7.89	3.16
651B-3.2	28081	557	2894	25.76	368	2903	17.13	3.18
661B-3.2	28086	557	4655	42.96	368	5221	31.94	3.07
611C-4	28088	438	372	2.58	290	380	1.75	4.08
621B-4	28093	438	442	3.19	290	442	2.11	3.93
631B-4	28098	438	708	5.15	290	708	3.41	3.89
641B-4	28108	438	1315	9.42	290	1327	6.31	3.95
651B-4	28113	438	2903	20	290	2903	13.26	4.11
661B-4	28119	438	5221	38.16	290	5221	25.3	3.88
611C-5	28121	350	192	1.05	230	179	0.65	5.17
621B-5	28124	350	442	2.55	230	442	1.69	4.92
631B-5	28129	350	708	4.11	230	708	2.73	4.88
641B-5	28134	350	1327	7.73	230	1327	5.12	4.87
651B-5	28140	350	2903	16.01	230	2903	10.62	5.13
661B-5	28145	350	5221	30.49	230	5221	20.21	4.85
622B-6.3	28147	278	1251	5.63	183	1252	3.73	6.43
632B-6.3	28152	278	2208	10.45	183	2208	6.92	6.1
642B-6.3	28157	278	3615	16.28	183	3615	10.79	6.41
652B-6.3	28162	278	7883	36.83	183	8159	25.13	6.21
662B-6.3	28164	278	11903	53.87	183	12354	37.06	6.38

* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348-349, before selection.

† Reducer dimensions can be found on pages 297-302.

†† Gear Ratio is the actual ratio rounded to the nearest hundredth.

Non-Flanged Reducers; Input Speeds 690 and 100 RPM

Service Factor 1.0*

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Catalog Number†	Item Code	Input Speed						Gear Ratio††
		690 RPM			100 RPM			
		Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)	
621B-1.6	28000	431	425	3.04	63	425	0.44	1.56
631B-1.6	28005	431	708	5.10	63	708	0.74	1.55
641B-1.6	28010	431	959	6.65	63	959	0.96	1.61
651B-1.6	28015	431	2411	17.27	63	2411	2.50	1.56
661B-1.6	28017	431	3677	25.67	63	3677	3.72	1.6
611C-2	28019	345	210	1.20	50	210	0.17	1.96
621B-2	28022	345	442	2.47	50	442	0.36	2
631B-2	28027	345	708	4.08	50	708	0.59	1.94
641B-2	28032	345	1327	7.27	50	1327	1.05	2.04
651B-2	28037	345	2870	16.28	50	2870	2.36	1.97
661B-2	28039	345	4731	26.43	50	4731	3.83	2
611C-2.5	28041	276	276	1.21	40	276	0.18	2.55
621B-2.5	28044	276	442	1.91	40	442	0.28	2.58
631B-2.5	28049	276	708	3.10	40	708	0.45	2.55
641B-2.5	28054	276	1327	5.75	40	1327	0.83	2.58
651B-2.5	28059	276	2870	12.62	40	2870	1.83	2.54
661B-2.5	28062	276	4731	21.66	40	4731	3.14	2.44
611C-3.2	28064	240	350	1.21	31	350	0.17	3.24
621B-3.2	28067	216	442	1.52	31	442	0.22	3.25
631B-3.2	28073	216	708	2.56	31	708	0.37	3.09
641B-3.2	28076	216	1327	4.69	31	1327	0.68	3.16
651B-3.2	28081	216	2903	10.20	31	2903	1.48	3.18
661B-3.2	28086	216	5221	19.00	31	5221	2.75	3.07
611C-4	28088	173	375	1.03	25	375	0.15	4.08
621B-4	28093	173	442	1.26	25	442	0.18	3.93
631B-4	28098	173	708	2.03	25	708	0.29	3.89
641B-4	28108	173	1327	3.75	25	1327	0.54	3.95
651B-4	28113	173	2903	7.89	25	2903	1.14	4.11
661B-4	28119	173	5221	15.03	25	5221	2.18	3.88
611C-5	28121	138	178	0.38	20	178	0.06	5.17
621B-5	28124	138	442	1.00	20	442	0.15	4.92
631B-5	28129	138	708	1.62	20	708	0.23	4.88
641B-5	28134	138	1327	3.04	20	1327	0.44	4.87
651B-5	28140	138	2903	6.32	20	2903	0.92	5.13
661B-5	28145	138	5221	12.03	20	5221	1.74	4.85
622B-6.3	28147	110	1252	2.22	16	1252	0.32	6.43
632B-6.3	28152	110	2208	4.13	16	2208	0.60	6.1
642B-6.3	28157	110	3615	6.43	16	3615	0.93	6.41
652B-6.3	28162	110	8267	15.18	16	8267	2.20	6.21
662B-6.3	28164	110	12531	22.40	16	12531	3.25	6.38

* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348-349, before selection.

† Reducer dimensions can be found on pages 297-302.

†† Gear Ratio is the actual ratio rounded to the nearest hundredth.

Non-Flanged Reducers; Input Speeds 1750 and 1160 RPM

Service Factor 1.0*

Catalog Number†	Item Code	Input Speed						Gear Ratio††
		1750 RPM			1160 RPM			
		Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)	
612C-8	28166	219	762	2.69	144	775	1.82	8.16
622B-8	28171	219	1252	4.37	144	1252	2.89	8.28
632B-8	28176	219	2208	7.95	144	2208	5.27	8.02
642B-8	28181	219	3615	12.83	144	3615	8.5	8.14
652B-8	28186	219	10329	38.77	144	10729	26.69	7.69
662B-8	28188	219	18252	66.63	144	18254	44.17	7.92
612C-10	28190	175	768	2.17	115	777	1.46	10.2
622B-10	28195	175	1252	3.46	115	1252	2.3	10.43
632B-10	28201	175	2208	6.56	115	2208	4.35	9.72
642B-10	28204	175	3615	10.49	115	3615	6.95	9.95
652B-10	28209	175	11933	35.65	115	13476	26.68	9.67
662B-10	28211	175	20956	60.86	115	22907	44.17	9.94
612C-12.5	28213	140	772	1.82	92	776	1.22	12.23
622B-12.5	28218	140	1252	2.87	92	1252	1.9	12.61
632B-12.5	28223	140	2208	5.2	92	2208	3.44	12.27
642B-12.5	28228	140	3615	8.39	92	3615	5.56	12.45
652B-12.5	28232	140	12844	30.33	92	13603	21.29	12.23
662B-12.5	28235	140	23128	47.77	92	24062	37.06	12.43
612C-16	28251	109	777	1.46	72	785	0.98	15.35
622B-16	28256	109	1252	2.29	72	1252	1.52	15.79
632B-16	28291	109	2208	4.15	72	2208	2.75	15.36
642B-16	28330	109	3615	6.81	72	3615	4.51	15.33
652B-16	28366	109	13452	24.63	72	13728	16.66	15.77
662B-16	28390	109	23788	45.28	72	25221	31.82	15.17
612C-20	28396	88	783	1.12	58	792	0.75	20.24
622B-20	28570	88	1252	1.8	58	1252	1.19	20.07
632B-20	28589	88	2208	3.21	58	2208	2.13	19.87
642B-20	28594	88	3615	6	58	3615	3.47	17.33
652B-20	28650	88	13601	19.86	58	13829	13.39	19.77
662B-20	28654	88	24111	36.51	58	24929	25.02	19.07
612C-25	28656	70	787	0.89	46	787	0.59	25.59
622B-25	28659	70	877	1	46	867	0.65	25.39
632B-25	28663	70	2208	2.51	46	2208	1.66	25.44
642B-25	28668	70	3615	4.23	46	3615	2.8	24.68
652B-25	28674	70	13727	15.52	46	13932	10.44	25.55
662B-25	28679	70	25876	31.03	46	26310	20.91	24.08

* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348-349, before selection.

† Reducer dimensions can be found on pages 297-302.

†† Gear Ratio is the actual ratio rounded to the nearest hundredth.

Non-Flanged Reducers; Input Speeds 690 and 100 RPM

Service Factor 1.0*

K

Catalog Number†	Item Code	Input Speed						Gear Ratio††
		690 RPM			100 RPM			
		Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)	
612C-8	28166	86	779	1.09	13	779	0.16	8.16
622B-8	28171	86	1252	1.72	13	1252	0.25	8.28
632B-8	28176	86	2208	3.14	13	2208	0.46	8.02
642B-8	28181	86	3615	5.06	13	3615	0.73	8.14
652B-8	28186	86	10887	16.15	13	10887	2.34	7.69
662B-8	28188	86	18250	26.28	13	18250	3.81	7.92
612C-10	28190	69	783	0.88	10	783	0.13	10.2
622B-10	28195	69	1252	1.37	10	1252	0.20	10.43
632B-10	28201	69	2208	2.59	10	2208	0.38	9.72
642B-10	28204	69	3615	4.14	10	3615	0.60	9.95
652B-10	28209	69	13589	16.03	10	13589	2.32	9.67
662B-10	28211	69	22902	26.28	10	22902	3.81	9.94
612C-12.5	28213	55	786	0.73	8	786	0.11	12.23
622B-12.5	28218	55	1252	1.13	8	1252	0.16	12.61
632B-12.5	28223	55	2208	2.05	8	2208	0.30	12.27
642B-12.5	28228	55	3615	3.31	8	3615	0.48	12.45
652B-12.5	28232	55	13706	12.78	8	13706	1.85	12.23
662B-12.5	28235	55	24410	22.40	8	24410	3.25	12.43
612C-16	28251	43	790	0.59	6	790	0.09	15.35
622B-16	28256	43	1252	0.90	6	1252	0.13	15.79
632B-16	28291	43	2208	1.64	6	2208	0.24	15.36
642B-16	28330	43	3615	2.69	6	3615	0.39	15.33
652B-16	28366	43	13821	9.99	6	13821	1.45	15.77
662B-16	28390	43	25563	19.22	6	25563	2.79	15.17
612C-20	28396	35	794	0.45	5	794	0.06	20.24
622B-20	28570	35	1252	0.71	5	1252	0.10	20.07
632B-20	28589	35	2208	1.27	5	2208	0.18	19.87
642B-20	28594	35	3615	2.38	5	3615	0.34	17.33
652B-20	28650	35	13914	8.03	5	13914	1.16	19.77
662B-20	28654	35	25248	15.10	5	25248	2.19	19.07
612C-25	28656	28	798	0.36	4	798	0.05	25.59
622B-25	28659	28	861	0.39	4	861	0.06	25.39
632B-25	28663	28	2208	0.99	4	2208	0.14	25.44
642B-25	28668	28	3615	1.67	4	3615	0.24	24.68
652B-25	28674	28	14008	6.25	4	14008	0.91	25.55
662B-25	28679	28	26475	12.54	4	26475	1.82	24.08

* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348-349, before selection.

† Reducer dimensions can be found on pages 297-302.

†† Gear Ratio is the actual ratio rounded to the nearest hundredth.

Non-Flanged Reducers; Input Speeds 1750 and 1160 RPM

Service Factor 1.0*

Catalog Number†	Item Code	Input Speed						Gear Ratio††
		1750 RPM			1160 RPM			
		Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)	
612C-32	28682	55	791	0.7	36	821	.42	33.48
622B-32	28685	55	1780	1.68	36	1799	1.13	30.55
632B-32	28690	55	3977	3.79	36	4023	2.54	30.29
642B-32	28695	55	5910	5.4	36	6416	3.93	32.32
652B-32	28698	55	13826	12.52	36	14014	8.41	31.9
662B-32	28703	55	26088	25	36	26487	16.82	30.14
612C-40	28707	44	794	0.57	29	799	0.38	40.32
622B-40	28710	44	1790	1.33	29	1804	0.89	38.84
632B-40	28713	44	4002	2.95	29	4038	1.97	39.2
643B-40	28716	44	6010	4.3	29	6100	2.9	41.1
652B-40	28721	44	13901	10.5	29	14074	7.04	38.24
662B-40	28726	44	26314	19.37	29	26673	13.02	39.23
613C-50	28730	35	796	0.45	23	803	0.32	49.16
622B-50	28733	35	1699	1	23	1666	0.65	49.15
632B-50	28736	35	4024	2.32	23	4038	1.54	50.19
643B-50	28742	35	6100	3.46	23	6100	2.29	52.09
652B-50	28747	35	14004	8.03	23	14158	5.38	50.34
662B-50	28752	35	26496	15.39	23	26823	10.33	49.71
613C-63	28756	28	800	0.4	18	785	0.24	64.07
623B-63	28759	28	1406	0.63	18	1657	0.5	65.25
633B-63	28762	28	4038	1.85	18	4038	1.23	64.2
643B-63	28767	28	6100	2.73	18	6100	1.9	66.11
653B-63	28772	28	14084	6.48	18	14223	4.34	63.93
663B-63	28775	28	23239	11.13	18	26947	8.56	61.44
623B-80	28780	22	1519	0.54	14	1790	0.42	81.29
633B-80	28783	22	4038	1.53	14	4038	1.01	77.86
643B-80	28788	22	6100	2.2	14	6100	1.52	80.86
653B-80	28793	22	14152	5.2	14	14278	3.48	80.13
663B-80	28799	22	25562	9.74	14	27062	6.84	77.24
623B-100	28804	18	1618	0.48	12	1804	0.35	99.4
633B-100	28808	18	4038	1.21	12	4038	0.8	98.24
643B-100	28811	18	6100	1.78	12	6100	1.23	101.13
653B-100	28816	18	14222	4.04	12	14334	2.7	103.54
663B-100	28821	18	26602	8.03	12	27177	5.44	97.53
623B-125	28826	14	1744	0.41	9	1804	0.28	124.4
633B-125	28829	14	4038	0.97	9	4038	0.64	122.96
643B-125	28832	14	6100	1.45	9	6100	0.96	124.53
653B-125	28835	14	14277	3.25	9	14378	2.17	129.28
663B-125	28842	14	27049	6.52	9	27265	4.36	122.06
643B-160	28847	11	6100	1.1	7	6100	0.77	162.1
653B-160	28850	11	14317	2.72	7	14410	1.81	154.98
663B-160	28856	11	27173	5.03	7	27372	3.36	158.87

* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348-349, before selection.

† Reducer dimensions can be found on pages 297-302.

†† Gear Ratio is the actual ratio rounded to the nearest hundredth.

Non-Flanged Reducers; Input Speeds 690 and 100 RPM

Service Factor 1.0*

Catalog Number†	Item Code	Input Speed						Gear Ratio††
		690 RPM			100 RPM			
		Approx. Output RPM	Output Torque (LB-IN)(Max.)	Input HP (Max.)	Approx. Output RPM	Output Torque (LB-IN) (Max.)	Input HP (Max.)	
612C-32	28682	22	800	0.27	3	800	0.04	33.48
623B-32	28685	22	1804	0.67	3	1804	0.10	30.55
633B-32	28690	22	4023	1.51	3	4023	0.22	30.29
642B-32	28695	22	6100	2.15	3	6100	0.31	32.32
652B-32	28698	22	14083	5.03	3	14083	0.73	31.9
662B-32	28703	22	26634	10.08	3	26634	1.46	30.14
613C-40	28707	17	800	0.23	2.5	800	0.03	40.32
623B-40	28710	17	1804	0.54	2.5	1804	0.08	38.84
633B-40	28713	17	4038	1.20	2.5	4038	0.17	39.2
643B-40	28716	17	6100	1.73	2.5	6100	0.25	41.1
653B-40	28721	17	14138	4.31	2.5	14138	0.62	38.24
663B-40	28726	17	26802	7.96	2.5	26802	1.15	39.23
613C-50	28730	14	796	0.19	2	796	0.03	49.16
623B-50	28733	14	1804	0.43	2	1804	0.06	49.15
633B-50	28736	14	4038	0.94	2	4038	0.14	50.19
643B-50	28742	14	6100	1.36	2	6100	0.20	52.09
653B-50	28747	14	14215	3.29	2	14215	0.48	50.34
663B-50	28752	14	26941	6.31	2	26941	0.91	49.71
613C-63	28756	11	800	0.15	1.6	800	0.02	64.07
623B-63	28759	11	1804	0.32	1.6	1804	0.05	65.25
633B-63	28762	11	4038	0.73	1.6	4038	0.11	64.2
643B-63	28767	11	6100	1.07	1.6	6100	0.16	66.11
653B-63	28772	11	14274	2.60	1.6	14274	0.38	63.93
663B-63	28775	11	27053	5.13	1.6	27053	0.74	61.44
623B-80	28780	9	1804	0.26	1.3	1804	0.04	81.29
633B-80	28783	9	4038	0.60	1.3	4038	0.09	77.86
643B-80	28788	9	6100	0.88	1.3	6100	0.13	80.86
653B-80	28793	9	14324	2.08	1.3	14324	0.30	80.13
663B-80	28799	9	27162	4.10	1.3	27162	0.59	77.24
623B-100	28804	7	1804	0.21	1	1804	0.03	99.4
633B-100	28808	7	4038	0.48	1	4038	0.07	98.24
643B-100	28811	7	6100	0.70	1	6100	0.10	101.13
653B-100	28816	7	14375	1.62	1	14375	0.23	103.54
663B-100	28821	7	27260	3.26	1	27260	0.47	97.53
623B-125	28826	6	1380	0.13	0.8	1380	0.02	124.4
633B-125	28829	6	4038	0.38	0.8	4038	0.06	122.96
643B-125	28832	6	6100	0.57	0.8	6100	0.08	124.53
653B-125	28835	6	14415	1.30	0.8	14415	0.19	129.28
663B-125	28842	6	27348	2.61	0.8	27348	0.38	122.06
643B-160	28847	4	6100	0.44	0.6	6100	0.06	162.1
653B-160	28850	4	14444	1.09	0.6	14444	0.16	154.98
663B-160	28856	4	27442	2.01	0.6	27442	0.29	158.87

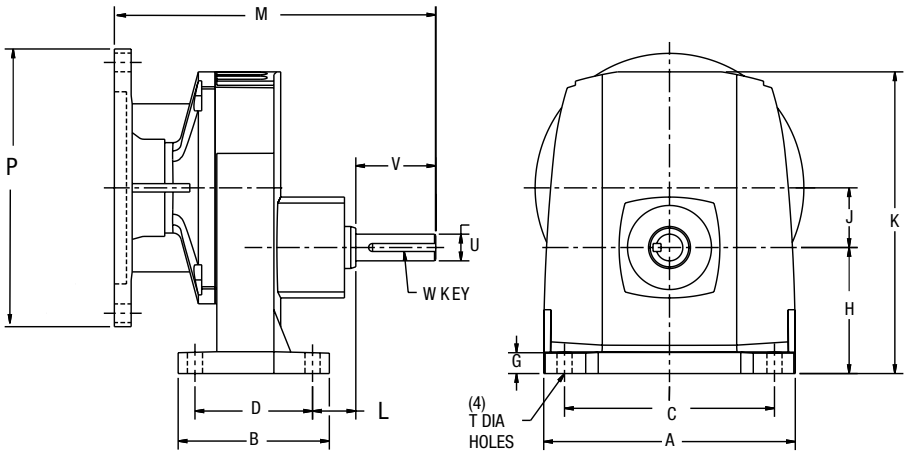
* For applications requiring a service factor greater than 1.0, multiply the design torque or horsepower by the application factor, found on pages 348-349, before selection.

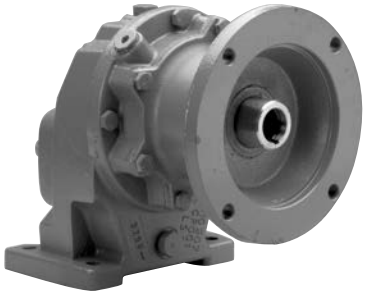
† Reducer dimensions can be found on pages 297-302.

†† Gear Ratio is the actual ratio rounded to the nearest hundredth.

F600B Series – Flanged Quill Type

Foot Mounted





Size	A	B	C	D	G	H	J	K	L
611C	5.90	3.54	4.92	2.76	.48	2.95	1.40	7.07	1.01
621B	6.14	4.13	4.72	2.95	.71	3.15	1.83	8.24	.71
631B	7.08	4.48	5.52	3.15	.77	3.54	2.48	9.76	.75
641B	9.69	5.30	7.48	3.94	1.00	4.41	2.76	11.69	1.08
651B	11.02	6.59	8.50	4.92	1.33	5.20	3.43	13.90	1.10
661B	13.65	7.76	10.24	6.30	1.71	6.30	4.33	17.36	1.18

	M						Low Speed Shaft				
	NEMA Mounting								W-Key		Approx. Weight (lb.)
	B5	B7	B9	B11	B13	T	*U	V	Sq.	Length	
Size	56C	140TC	180TC	210TC	250TC						
611C	8.50	8.50	– –	– –	– –	.35	.625	1.88	3/16	1.48	11
621B	10.43	10.43	12.15	– –	– –	.43	.750	1.50	3/16	1.28	30
631B	11.05	11.05	12.77	12.77	– –	.55	1.000	2.00	1/4	1.56	40
641B	– –	– –	14.17	14.17	– –	.63	1.375	2.75	5/16	2.40	62
651B	– –	– –	– –	15.54	16.75	.71	1.500	3.00	3/8	2.56	68
661B	– –	– –	– –	– –	17.48	.79	1.750	3.50	3/8	3.06	89
P	9.00	9.00	9.00								

Output shaft rotation is opposite input shaft rotation.

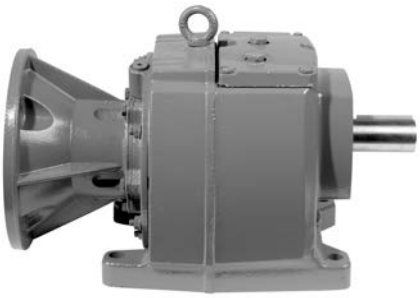
* Shaft extension tolerance: +.0000"; -.0005" up to 1.5" diameter inclusive. Larger diameters: +.000; -.001".

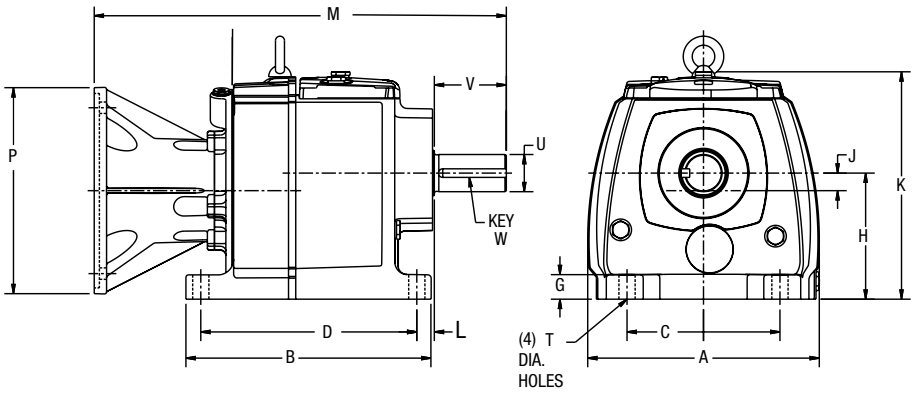
Dimensions to rough casting are approximate.

F600B Series – Flanged Quill Type

Foot Mounted

K





Size	A	B	C	D	G	H	J	K	L
612C/613C	5.90	4.92/5.71	4.92	4.13/4.92	.48	2.95	.28*	6.00	.87
622B/623B	6.76	7.68	4.33	6.50	.71	3.54	.33	6.60	.59
632B/633B	8.72	8.50	5.32	7.56	.84	4.53	.39	7.97	.51
642B/643B	10.13	10.72	6.68	9.45	1.07	5.51	.77	9.94	.77
652B/653B	12.00	10.86	9.06	9.25	1.37	7.09	1.02	11.89	.98
662B/663B	14.19	12.89	11.02	11.02	1.73	8.86	1.14	14.84	1.10

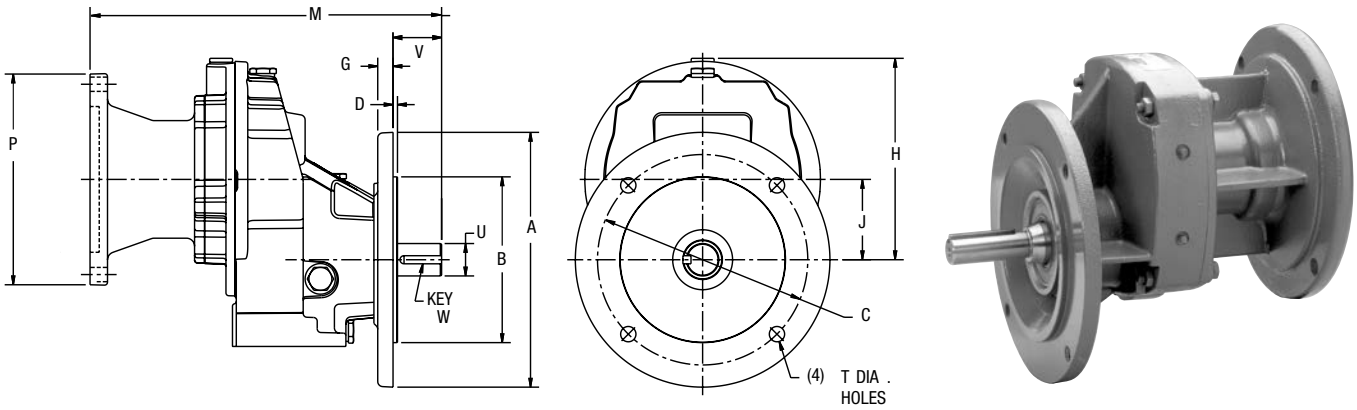
* 612/613 Only "J" is Higher than "H".

	M										
	NEMA Mounting						Low Speed Shaft				
	B5	B7	B9	B11	B13				W-Key		Approx. Weight (lb.)
Size	56C	140TC	180TC	210TC	250TC	T	*U	V	Sq.	Length	
612C/613C	9.29/10.08	– –	– –	– –	– –	.35	.750	1.75	3/16	1.48	17
622B/623B	13.00	13.00	14.72	– –	– –	.35	1.000	2.00	1/4	1.56	45
632B/633B	14.17	14.17	15.89	15.89	– –	.55	1.250	2.50	1/4	2.16	61
642B/643B	16.31	16.31	18.03	18.03	18.66	.71	1.500	3.00	3/8	2.56	90
652B/653B	17.88	17.88	19.60	19.60	20.81	.71	2.125	3.50	1/2	3.06	95
662B/663B	– –	20.29	22.01	22.01	23.24	.87	2.375	4.72	5/8	4.19	165
P	6.50	6.50	9.00	9.00	9.00						

Output shaft rotation, relative to input shaft rotation, is identical for double reduction and opposite for triple reduction reducers.
* Shaft extension tolerance: +.0000"; -.0005" up to 1.5" diameter inclusive. Larger diameters: +.000; -.001".
Dimensions to rough casting are approximate.

F600B Series – Flanged Quill Type

Output Flange Mounted



Size	A	B	C	D	G	H	J
611CF*	6.50	4.50	5.88	.12	.39	4.65	1.40
621BF	6.30	4.33	5.12	.14	.39	4.82	1.83
631BF	7.87	5.12	6.50	.14	.47	6.22	2.48
641BF	9.83	7.09	8.46	.16	.47	7.28	2.76
651BF	11.80	9.06	10.43	.16	.59	8.70	3.43

* Output flange to NEMA 56C dimensions. (611CF only)

	M					Low Speed Shaft				
	NEMA Mounting									
	B5	B7	B9	B11				W-Key		Approx. Weight (lb.)
Size	56C	140TC	180TC	210TC	T	*U	V	Sq.	Length	
611CF	8.51	8.51	– –	– –	3/8-16 UNC	.625	2.06	3/16	1.48	13
621BF	10.74	10.74	12.46	– –	.35	.750	1.50	3/16	1.28	33
631BF	10.86	10.86	12.58	12.58	.47	1.000	1.50	1/4	1.16	44
641BF	– –	– –	14.56	14.56	.55	1.375	2.75	5/16	2.40	68
651BF	– –	– –	– –	16.31	.55	1.500	3.00	3/8	2.56	76
P	6.50	6.50	9.00	9.00						

Output shaft rotation is opposite input shaft rotation.

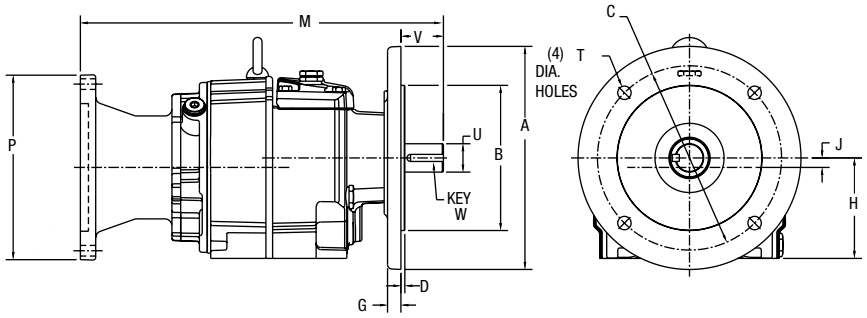
* Shaft extension tolerance: +.0000"; -.0005" up to 1.5" diameter inclusive. Larger diameters: +.000; -.001".

Dimensions to rough casting are approximate.

F600B Series – Flanged Quill Type

Output Flange Mounted

K



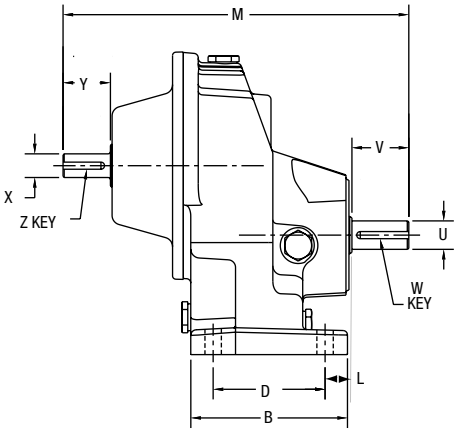
Size	A	B	C	D	G	H	J
612CF/613CF*	6.50	4.50	5.88	.12	.39	2.48	.28‡
622BF/623BF	7.87	5.12	6.50	.14	.47	3.54	.33
632BF/633BF	9.83	7.09	8.46	.16	.47	4.53	.39
642BF/643BF	11.80	9.06	10.43	.16	.47	5.51	.77
652BF/653BF	13.77	9.84	11.81	.16	.59	7.09	1.02
662BF/663BF	15.75	11.81	13.78	.20	.71	8.86	1.14

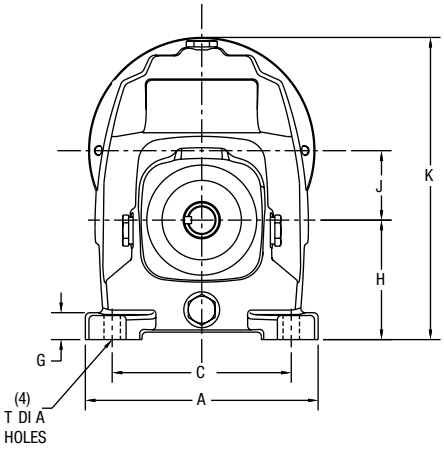
* Output flange to NEMA 56C dimensions. (612CF/613CF only)
‡ 612/613 "J" Is higher than "H"

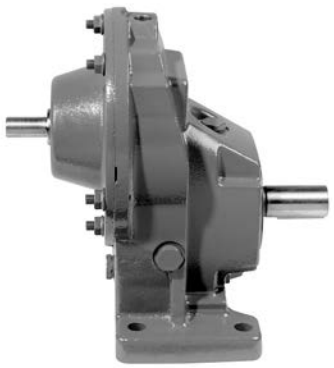
	M					Low Speed Shaft				
	NEMA Mounting									
	B5	B7	B9	B11				W-Key		Approx. Weight (lb.)
Size	56C	140TC	180TC	210TC	T	*U	V	Sq.	Length	
612CF/613CF	9.60/10.39	9.60/10.39	– –	– –	3/8-16 UNC	.625	2.06	3/16	1.48	18
622BF/623BF	12.81	12.81	14.53	– –	.47	1.000	1.50	1/4	1.16	47
632BF/633BF	14.56	14.56	16.28	16.28	.55	1.250	2.50	1/4	2.16	65
642BF/643BF	17.18	17.18	18.90	18.90	.55	1.500	3.00	3/8	2.56	98
652BF/653BF	18.63	18.63	20.35	20.35	.71	2.125	3.50	1/2	3.06	103
662BF/663BF	– –	21.26	22.99	22.99	.71	2.375	4.72	5/8	4.19	174
P	6.50	6.50	9.00	9.00						

Output shaft rotation, relative to input shaft rotation, is identical for double reduction and opposite for triple reduction reducers.
* Shaft extension tolerance: +.0000"; -.0005" up to 1.5" diameter inclusive. Larger diameters: +.000; -.001".
Dimensions to rough casting are approximate.

600B Series
Foot Mounted







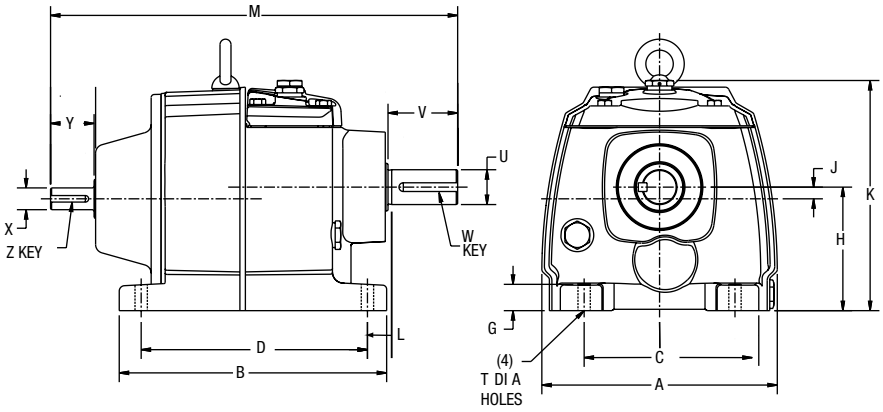
Size	A	B	C	D	G	H	J	K	L	M
611C	5.90	3.54	4.92	2.76	.48	2.95	1.40	7.07	1.01	8.77
621B	6.14	4.13	4.72	2.95	.71	3.15	1.83	7.97	.71	9.12
631B	7.28	4.48	5.52	3.15	.77	3.54	2.48	9.67	.75	9.74
641B	9.69	5.30	7.48	3.94	1.00	4.41	2.76	11.69	1.08	12.88
651B	11.02	6.59	8.50	4.92	1.34	5.20	3.43	13.90	1.10	14.35
661B	13.65	7.76	10.24	6.30	1.61	6.30	4.33	17.37	1.18	16.73

Size	T	Low Speed Shaft				High Speed Shaft				Approx. Weight (lb.)
				W-Key				Z-Key		
		*U	V	Sq.	Length	*X	Y	Sq.	Length	
611C	.35	.625	1.88	3/16	1.48	.500	1.00	9/32 Flat		9
621B	.43	.750	1.50	3/16	1.28	.625	1.25	3/16	1.00	23
631B	.55	1.000	2.00	1/4	1.56	.625	1.25	3/16	1.00	28
641B	.63	1.375	2.75	5/16	2.40	1.125	2.25	1/4	1.94	55
651B	.71	1.500	3.00	3/8	2.56	1.125	2.25	1/4	1.94	66
661B	.79	1.750	3.50	3/8	3.06	1.375	2.75	5/16	2.31	89

Output shaft rotation is opposite input shaft rotation.
* Shaft extension tolerance: +.0000"; -.0005" up to 1.5" diameter inclusive. Larger diameters: +.000; -.001".
Dimensions to rough casting are approximate.

600B Series

Foot Mounted



Size	A	B	C	D	G	H	J	K	L	M
612C/613C	5.90	4.92/5.71	4.92	4.13/4.92	.48	2.95	.28*	6.00	.87	9.56/10.35
622B/623B	6.76	7.68	4.33	6.50	.71	3.54	.33	6.60	.59	11.69
632B/633B	8.72	8.50	5.32	7.56	.84	4.53	.39	7.97	.51	12.86
642B/643B	10.13	10.72	6.68	9.45	1.07	5.51	.77	9.94	.77	16.59
652B/653B	12.00	10.86	9.06	9.25	1.37	7.09	1.02	11.89	.98	18.41
662B/663B	14.19	12.89	11.02	11.02	1.73	8.86	1.14	14.84	1.10	22.45

* 612C/613C Only "J" is higher than "H".

Size	T	Low Speed Shaft				High Speed Shaft				Approx. Weight (lb.)
				W-Key				Z-Key		
		*U	V	Sq.	Length	*X	Y	Sq.	Length	
612C/613C	.35	.750	1.75	3/16	1.48	.500	1.00	9/32 Flat		15
622B/623B	.35	1.000	2.00	1/4	1.56	.625	1.25	3/16	1.00	37
632B/633B	.55	1.250	2.50	1/4	2.16	.625	1.25	3/16	1.00	50
642B/643B	.71	1.500	3.00	3/8	2.56	1.125	2.25	1/4	1.94	87
652B/653B	.71	2.125	3.50	1/2	3.06	1.125	2.25	1/4	1.94	99
662B/663B	.87	2.375	4.72	5/8	4.15	1.375	2.75	5/16	2.31	198

Output shaft rotation, relative to input shaft rotation, is identical for double reduction and opposite for triple reduction reducers.
* Shaft extension tolerance: +.0000"; -.0005" up to 1.5" diameter inclusive. Larger diameters: +.000; -.001".
Dimensions to rough casting are approximate.

600B SERIES – BOST-KLEEN™

- Washable and Scrubbable
- Durable, Non-Absorbent, Non-Toxic White Epoxy Finish, USDA Approved
- Standard NEMA C-Face and Projecting Input Shaft Configurations
- Single, Double and Triple Reducton Rations – 1:6 TO 160:1
- Helical Gearing
- Output Mounting Flange Mount Attachment Available

BISCC Certified Basic Model Numbers, Dimensions and Available Ratios

WHITE BOST-KLEEN		STAINLESS BOST-KLEEN		NEMA Mounting	INPUT SHAFT DIA. +.000 -.001*	OUTPUT SHAFT DIA. +.000 -.001*	AVAILABLE RATIOS
NON-FLANGED TYPE	QUILL TYPE	NON-FLANGED TYPE	QUILL TYPE				
BK611	BKF611	SBK611	SBKF611	56C	.500	.625	ALL
BK621	BKF621	SBK621	SBKF621	56C,140TC,180TC	.625	.750	ALL
BK631	BKF631	SBK631	SBKF631	56C,140TC,180TC,210TC	.625	1.000	ALL
BK641	BKF641	SBK641	SBKF641	140TC,180TC,210TC,250TC	1.125	1.375	ALL
BK651	BKF651	SBK651	SBKF651	180TC,210TC,250TC	1.125	1.500	ALL
BK661	BKF661	SBK661	SBKF661	210TC,250TC	1.375	1.750	ALL
BK612/613	BKF612/613	SBK612/613	SBKF612/613	56C	.500	.625	ALL
BK622/623	BKF622/623	SBK622/623	SBKF622/623	56C,140TC,180TC	.625	1.000	ALL
BK632/633	BKF632/633	SBK632/633	SBKF632/633	56C,140TC,180TC,210TC	.625	1.250	ALL
BK642/643	BKF642/643	SBK642/643	SBKF642/643	56C,140TC,180TC,210TC	1.125	1.500	ALL
BK652/653	BKF652/653	SBK652/653	SBKF652/653	56C,140TC,180TC,210TC	1.125	1.750	ALL
BK662/663	BKF662/663	SBK662/663	SBKF662/663	140TC,180TC,210TC	1.375	2.375	ALL

* Shaft extension tolerance: +.0000"; -.0005" up to 1.5" diameter inclusive. Larger diameters: +.000; -.001".

Notes

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