



"F" Series – Offset Helical MGS® Adjustable Speed Drives

Performance Specifications:

- Horsepower ratings – from 1/2 to 7 1/2
- Output speeds – available from 528 to .6 RPM
- Speed range – 5:1 to 7:1
- Output torques – up to 9,744 in.lbs.
- NEMA frames – from 56C to 215TC

STÖBER's versatility continues with MGS Reducers and ComTrac Adjustable Speed Drives when using the Offset Helical Series.

Compact size and flexibility make these gear drives a popular choice for applications that require high performance, efficiency, and durability.

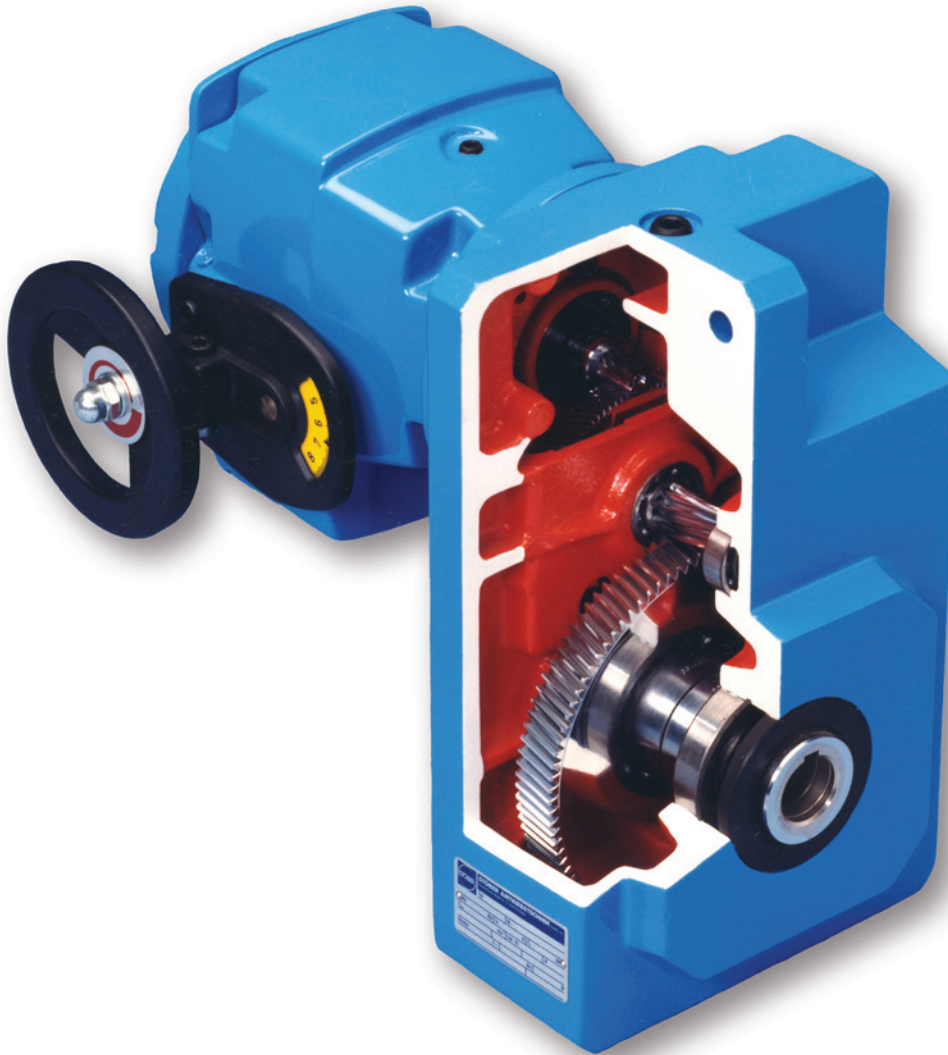


Table No. 1 "F" Series – Output Diameter Options

Base Module	Stainless Bushing Bores Sizes – inches												Hollow			Shaft		
	3/4	1	1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 11/16	1 3/4	1 7/8	1 15/16	2	Standard	Stainless	Metric ⁽¹⁾	Standard	Metric ⁽¹⁾
F102	x	—	—	—	—	—	—	—	—	—	—	—	—	.750	—	20	1.000	25
F202/F203	—	x	x	—	—	—	—	—	—	—	—	—	—	1.000	1.000	25	1.250	30
F302/F303	—	x	x	x	x	x	x	—	—	—	—	—	—	1.250	1.250	30	1.375	35
F402/F403	—	x	x	x	x	x	x	—	—	—	—	—	—	1.500	—	40	1.625	40
F602/F603	—	—	x	—	—	x	x	x	x	x	x	x	x	2.000	—	50	2.125	50

⁽¹⁾Contact STÖBER Drives for availability.



"F" Series – MGS Adjustable Speed Drive Selection Data



Speed Range Output RPM ⁽¹⁾		Part Number	Maximum		Transition ⁽²⁾		Minimum	
			RPM	Torque in.lbs.	RPM	Torque in.lbs.	RPM	Torque in.lbs.
Max.	Min.							

.50 HP, 1750 RPM Motor

528	75	F102_0043	TD270K 050-050	528	48	75	278	75	278
486	69	F202_0047	TD270K 050-050	486	53	69	302	69	302
352	50	F102_0065	TD270K 050-050	352	73	50	416	50	416
318	45	F102_0072	TD270K 050-050	318	81	45	461	45	461
254	36	F102_0089	TD270K 050-050	254	101	36	577	36	577
253	36	F202_0090	TD270K 050-050	253	101	36	580	36	580
208	30	F102_0110	TD270K 050-050	208	123	30	704	30	704
167	24	F102_0135	TD270K 050-050	167	153	24	876	24	876
123	18	F102_0185	TD270K 050-050	123	208	21	1,063	18	1,063
99	14	F102_0230	TD270K 050-050	99	260	23	1,063	14	1,063
81	12	F102_0280	TD270K 050-050	81	317	24	1,063	12	1,063
65	9.3	F102_0350	TD270K 050-050	65	394	25	1,063	9.3	1,063
49	7.0	F102_0460	TD270K 050-050	49	523	25	1,063	7.0	1,063
48	6.9	F202_0470	TD270K 050-050	48	529	11	2,126	6.9	2,126
41	5.8	F102_0560	TD270K 050-050	41	630	25	1,063	5.8	1,063
40	5.8	F302_0560	TD270K 050-050	40	636	5.9	3,543	5.8	3,543
40	5.7	F202_0570	TD270K 050-050	40	638	12	2,126	5.7	2,126
32	4.6	F102_0700	TD270K 050-050	32	788	25	1,063	4.6	1,063
32	4.6	F202_0700	TD270K 050-050	32	789	12	2,126	4.6	2,126
24	3.5	F202_0940	TD270K 050-050	24	1,056	13	2,126	3.5	2,126
24	3.5	F402_0930	TD270K 050-050	24	1,050	3.5	6,015	3.5	6,015
20	2.9	F302_1130	TD270K 050-050	20	1,270	7.4	3,543	2.9	3,543
20	2.9	F402_1120	TD270K 050-050	20	1,264	3.6	6,201	2.9	6,201
16	2.3	F402_1400	TD270K 050-050	16	1,573	3.9	6,201	2.3	6,201
12	1.8	F303_1820	TD270K 050-050	12	2,024	7.5	3,543	1.8	3,543
13	1.8	F403_1820	TD270K 050-050	13	2,013	4.1	6,201	1.8	6,201
13	1.8	F603_1810	TD270K 050-050	13	2,004	2.3	9,744	1.8	9,744
11	1.5	F403_2160	TD270K 050-050	11	2,401	4.2	6,201	1.5	6,201
11	1.5	F603_2150	TD270K 050-050	11	2,390	2.4	9,744	1.5	9,744
10	1.5	F303_2180	TD270K 050-050	10	2,423	7.4	3,543	1.5	3,543
8	1.2	F603_2690	TD270K 050-050	8	2,987	2.6	9,744	1.2	9,744
8	1.2	F303_2720	TD270K 050-050	8	3,018	7.3	3,543	1.2	3,543
8	1.2	F403_2710	TD270K 050-050	8	3,005	4.3	6,201	1.2	6,201
6	0.9	F403_3610	TD270K 050-050	6	4,003	4.3	6,201	0.9	6,201
6	0.9	F603_3610	TD270K 050-050	6	4,003	2.7	9,744	0.9	9,744
5	0.7	F403_4340	TD270K 050-050	5	4,815	4.2	6,201	0.7	6,201
5	0.7	F603_4340	TD270K 050-050	5	4,812	2.7	9,744	0.7	9,744
4	0.6	F603_5400	TD270K 050-050	4	5,994	2.7	9,744	0.6	9,744

.75 HP, 1750 RPM Motor

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528	75	F102_0043	TD270K 050-075	528	72	131	278	75	278
486	69	F202_0047	TD270K 050-075	486	78	120	302	69	302
352	50	F102_0065	TD270K 050-075	352	108	87	416	50	416
318	45	F102_0072	TD270K 050-075	318	120	79	461	45	461
254	36	F102_0089	TD270K 050-075	254	150	63	577	36	577

¹⁾ Speed tolerance at rated load is ±3%. At less than rated load, minimum speed may increase 5%.

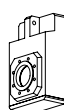
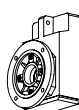
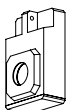
²⁾ The ComTrac drive operates at constant horsepower above transition values and at constant torque below transition values. Note shaded area. Engineering advances may cause slight changes to the information shown.

Housing Styles

B – Basic

F – Round Flange

G – Tapped Holes



Housing Style "F" is available as Hollow (A) or Solid (V) Output.

See page 78 for mounting positions.

Output Shaft Diameter and
Hollow Output (inches)

See Page 43 for other options.

Base Module	Output Shaft	Hollow Output
F102	1.0000	.7500
F202/F203	1.2500	1.0000
F302/F303	1.3750	1.2500
F402/F403	1.6250	1.5000
F602/F603	2.1250	2.0000



"F" Series – MGS Adjustable Speed Drive Selection Data



Speed Range Output RPM ⁽¹⁾		Part Number	Maximum		Transition ⁽²⁾		Minimum	
			RPM	Torque in.lbs.	RPM	Torque in.lbs.	RPM	Torque in.lbs.
Max.	Min.							

.75 HP, 1750 RPM Motor

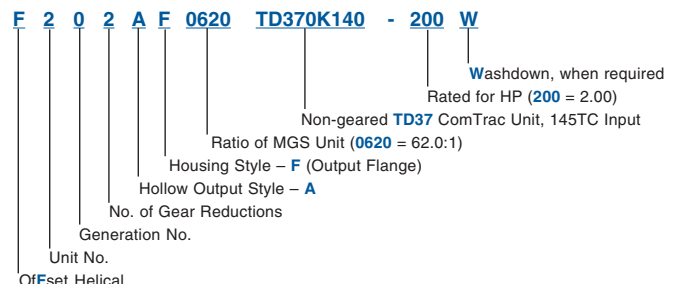
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253	36	F202_0090	TD270K 050-075	253	151	63	580	36	580
208	30	F102_0110	TD270K 050-075	208	183	52	704	30	704
167	24	F102_0135	TD270K 050-075	167	227	41	876	24	876
123	18	F102_0185	TD270K 050-075	123	309	35	1,063	18	1,063
99	14	F102_0230	TD270K 050-075	99	386	37	1,063	14	1,063
81	12	F102_0280	TD270K 050-075	81	471	37	1,063	12	1,063
65	9.3	F102_0350	TD270K 050-075	65	586	38	1,063	9.3	1,063
64	9.2	F202_0350	TD270K 050-075	64	593	17	2,126	9.2	2,126
49	7.0	F102_0460	TD270K 050-075	49	776	37	1,063	7.0	1,063
48	6.9	F202_0470	TD270K 050-075	48	786	18	2,126	6.9	2,126
41	5.8	F102_0560	TD270K 050-075	41	936	36	1,063	5.8	1,063
40	5.8	F302_0560	TD270K 050-075	40	944	10	3,543	5.8	3,543
40	5.7	F202_0570	TD270K 050-075	40	948	19	2,126	5.7	2,126
32	4.6	F202_0700	TD270K 050-075	32	1,172	19	2,126	4.6	2,126
32	4.6	F302_0700	TD270K 050-075	32	1,176	11	3,543	4.6	3,543
24	3.5	F202_0940	TD270K 050-075	24	1,568	19	2,126	3.5	2,126
24	3.5	F302_0940	TD270K 050-075	24	1,565	11	3,543	3.5	3,543
24	3.5	F402_0930	TD270K 050-075	24	1,560	6.0	6,015	3.5	6,015
20	2.9	F302_1130	TD270K 050-075	20	1,886	11	3,543	2.9	3,543
20	2.9	F402_1120	TD270K 050-075	20	1,877	6.1	6,201	2.9	6,201
16	2.3	F402_1400	TD270K 050-075	16	2,336	6.3	6,201	2.3	6,201
12	1.8	F303_1820	TD270K 050-075	12	3,006	11	3,543	1.8	3,543
13	1.8	F403_1820	TD270K 050-075	13	2,990	6.3	6,201	1.8	6,201
13	1.8	F603_1810	TD270K 050-075	13	2,976	3.8	9,744	1.8	9,744
11	1.5	F403_2160	TD270K 050-075	11	3,565	6.4	6,201	1.5	6,201
11	1.5	F603_2150	TD270K 050-075	11	3,549	3.9	9,744	1.5	9,744
8.4	1.2	F603_2690	TD270K 050-075	8.4	4,436	4.0	9,744	1.2	9,744
8.4	1.2	F403_2710	TD270K 050-075	8.4	4,462	6.3	6,201	1.2	6,201
6.3	0.9	F403_3610	TD270K 050-075	6.3	5,945	6.1	6,201	0.9	6,201
6.3	0.9	F603_3610	TD270K 050-075	6.3	5,945	4.0	9,744	0.9	9,744
5.2	0.7	F603_4340	TD270K 050-075	5.2	7,147	4.0	9,744	0.7	9,744
4.2	0.6	F603_5400	TD270K 050-075	4.2	8,902	3.9	9,744	0.6	9,744
528	75	F102_0043	TD270K 140-100	528	98	190	278	75	278
486	69	F202_0047	TD270K 140-100	486	107	175	302	69	302
352	50	F102_0065	TD270K 140-100	352	147	127	416	50	416
318	45	F102_0072	TD270K 140-100	318	163	115	461	45	461
254	36	F102_0089	TD270K 140-100	254	204	92	577	36	577
253	36	F202_0090	TD270K 140-100	253	205	91	580	36	580
208	30	F102_0110	TD270K 140-100	208	249	75	704	30	704
167	24	F102_0135	TD270K 140-100	167	310	60	876	24	876
123	18	F102_0185	TD270K 140-100	123	421	50	1,063	18	1,063
122	17	F202_0185	TD270K 140-100	122	425	44	1,202	17	1,202
99	14	F102_0230	TD270K 140-100	99	526	51	1,063	14	1,063
97	14	F202_0230	TD270K 140-100	97	534	35	1,510	14	1,510
81	12	F102_0280	TD270K 140-100	81	642	51	1,063	12	1,063
81	12	F202_0280	TD270K 140-100	81	641	29	1,812	12	1,812

Part No. Explanation

Selection Procedure:

- Determine the MGS/ComTrac combination according to the Input HP of the application and the Output RPM nearest the required **maximum** speed.
- Verify that the output torque will sufficiently meet the application requirements.
- Complete the Part No. per the example by adding "A" or "V" for the Output Style and the Housing Style letter ("B", "F", or "G") as required. "V" output is only available with the "F" housing style.





"F" Series – MGS Adjustable Speed Drive Selection Data



Speed Range		Part Number		Maximum		Transition ⁽²⁾		Minimum	
Output RPM ⁽¹⁾				RPM	Torque in.lbs.	RPM	Torque in.lbs.	RPM	Torque in.lbs.
Max.	Min.								
.75 HP, 1750 RPM Motor									
Continued									
65	9.3	F102_0350	TD270K 140-100	65	799	51	1,063	9.3	1,063
64	9.2	F202_0350	TD270K 140-100	64	808	25	2,126	9.2	2,126
49	7.0	F102_0460	TD270K 140-100	49	1,058	49	1,063	7.0	1,063
48	6.9	F202_0470	TD270K 140-100	48	1,072	26	2,126	6.9	2,126
48	6.9	F302_0470	TD270K 140-100	48	1,075	17	3,041	6.9	3,041
40	5.8	F302_0560	TD270K 140-100	40	1,287	15	3,543	5.8	3,543
40	5.7	F202_0570	TD270K 140-100	40	1,293	26	2,126	5.7	2,126
32	4.6	F202_0700	TD270K 140-100	32	1,598	25	2,126	4.6	2,126
32	4.6	F302_0700	TD270K 140-100	32	1,603	15	3,543	4.6	3,543
24	3.5	F302_0940	TD270K 140-100	24	2,134	15	3,543	3.5	3,543
24	3.5	F402_0930	TD270K 140-100	24	2,127	8.8	6,015	3.5	6,015
20	2.9	F302_1130	TD270K 140-100	20	2,572	15	3,543	2.9	3,543
20	2.9	F402_1120	TD270K 140-100	20	2,559	8.7	6,201	2.9	6,201
16	2.3	F402_1400	TD270K 140-100	16	3,185	8.8	6,201	2.3	6,201
16	2.3	F602_1400	TD270K 140-100	16	3,185	5.9	9,006	2.3	9,006
13	1.8	F403_1820	TD270K 140-100	13	4,077	8.6	6,201	1.8	6,201
13	1.8	F603_1810	TD270K 140-100	13	4,057	5.4	9,744	1.8	9,744
11	1.5	F403_2160	TD270K 140-100	11	4,861	8.5	6,201	1.5	6,201
11	1.5	F603_2150	TD270K 140-100	11	4,838	5.5	9,744	1.5	9,744
8.4	1.2	F603_2690	TD270K 140-100	8.4	6,048	5.5	9,744	1.2	9,744
8.4	1.2	F403_2710	TD270K 140-100	8.4	6,084	8.3	6,201	1.2	6,201
6.3	0.9	F603_3610	TD270K 140-100	6.3	8,105	5.4	9,744	0.9	9,744
5.2	0.7	F603_4340	TD270K 140-100	5.2	9,744	5.2	9,744	0.7	9,744

1.0 HP, 1750 RPM Motor

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508	102	F102_0043	TD370K 140-150	508	152	194	407	102	407
471	94	F302_0046	TD370K 140-150	471	163	180	439	94	439
467	93	F202_0047	TD370K 140-150	467	165	179	442	93	442
394	79	F202_0056	TD370K 140-150	394	195	151	525	79	525
339	68	F102_0065	TD370K 140-150	339	227	129	611	68	611
306	61	F102_0072	TD370K 140-150	306	252	117	676	61	676
244	49	F102_0089	TD370K 140-150	244	315	93	846	49	846
243	49	F202_0090	TD370K 140-150	243	317	93	851	49	851
200	40	F102_0110	TD370K 140-150	200	384	83	956	40	956
202	40	F202_0110	TD370K 140-150	202	380	77	1,021	40	1,021
161	32	F102_0135	TD370K 140-150	161	478	85	950	32	950
161	32	F202_0135	TD370K 140-150	161	479	61	1,288	32	1,288
119	24	F102_0185	TD370K 140-150	119	649	84	952	24	952
117	23	F202_0185	TD370K 140-150	117	656	45	1,763	23	1,763
117	23	F302_0190	TD370K 140-150	117	660	45	1,774	23	1,774
95	19	F102_0230	TD370K 140-150	95	812	82	962	19	962
93	19	F202_0230	TD370K 140-150	93	824	37	2,126	19	2,126
93	19	F302_0240	TD370K 140-150	93	827	36	2,223	19	2,223
78	16	F202_0280	TD370K 140-150	78	989	38	2,126	16	2,126
77	15	F302_0280	TD370K 140-150	77	993	30	2,668	15	2,668

¹⁾ Speed tolerance at rated load is ±3%. At less than rated load, minimum speed may increase 5%.

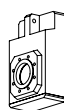
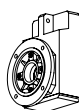
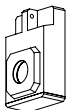
²⁾ The ComTrac drive operates at constant horsepower above transition values and at constant torque below transition values. Note shaded area. Engineering advances may cause slight changes to the information shown.

Housing Styles

B – Basic

F – Round Flange

G – Tapped Holes



Housing Style "F" is available as Hollow (A) or Solid (V) Output.

See page 78 for mounting positions.

Output Shaft Diameter and
Hollow Output (inches)

See Page 43 for other options.

Base Module	Output Shaft	Hollow Output
F102	1.0000	.7500
F202/F203	1.2500	1.0000
F302/F303	1.3750	1.2500
F402/F403	1.6250	1.5000
F602/F603	2.1250	2.0000



"F" Series – MGS Adjustable Speed Drive Selection Data



Speed Range Output RPM ⁽¹⁾		Part Number	Maximum		Transition ⁽²⁾		Minimum	
			RPM	Torque in.lbs.	RPM	Torque in.lbs.	RPM	Torque in.lbs.
Max.	Min.							

1.0 HP, 1750 RPM Motor

Continued

62	12	F202_0350	TD370K 140-150	62	1,247	38	2,126	12	2,126
62	12	F302_0350	TD370K 140-150	62	1,233	24	3,311	12	3,311
46	9.3	F202_0470	TD370K 140-150	46	1,655	37	2,126	9.3	2,126
46	9.3	F302_0470	TD370K 140-150	46	1,660	23	3,543	9.3	3,543
39	7.7	F302_0560	TD370K 140-150	39	1,987	23	3,543	7.7	3,543
39	7.8	F402_0560	TD370K 140-150	39	1,969	15	5,290	7.8	5,290
39	7.7	F202_0570	TD370K 140-150	39	1,996	37	2,126	7.7	2,126
31	6.2	F302_0700	TD370K 140-150	31	2,475	23	3,543	6.2	3,543
31	6.2	F402_0700	TD370K 140-150	31	2,465	13	6,201	6.2	6,201
23	4.7	F402_0930	TD370K 140-150	23	3,283	13	6,201	4.7	6,201
23	4.7	F602_0930	TD370K 140-150	23	3,283	9.0	8,821	4.7	8,821
23	4.7	F302_0940	TD370K 140-150	23	3,294	22	3,543	4.7	3,543
19	3.9	F402_1120	TD370K 140-150	19	3,950	13	6,201	3.9	6,201
19	3.9	F602_1120	TD370K 140-150	19	3,947	8.2	9,744	3.9	9,744
16	3.1	F602_1400	TD370K 140-150	16	4,916	8.3	9,744	3.1	9,744
12	2.4	F603_1810	TD370K 140-150	12	6,263	8.2	9,744	2.4	9,744
10	2.0	F603_2150	TD370K 140-150	10	7,469	8.0	9,744	2.0	9,744
8.1	1.6	F603_2690	TD370K 140-150	8.1	9,337	7.8	9,744	1.6	9,744

2.0 HP, 1750 RPM Motor

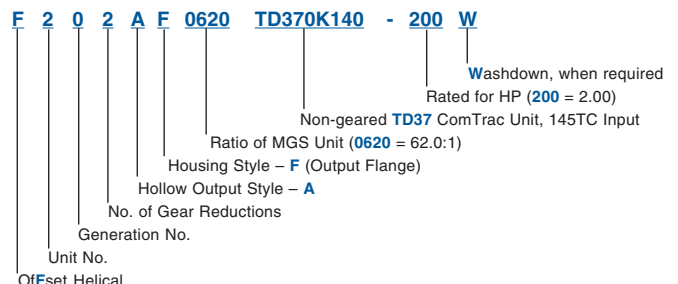
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508	102	F102_0043	TD370K 140-200	508	207	271	407	102	407
471	94	F302_0046	TD370K 140-200	471	223	251	439	94	439
467	93	F202_0047	TD370K 140-200	467	225	249	442	93	442
394	79	F202_0056	TD370K 140-200	394	267	210	525	79	525
339	68	F102_0065	TD370K 140-200	339	310	180	611	68	611
306	61	F102_0072	TD370K 140-200	306	344	163	676	61	676
305	61	F202_0072	TD370K 140-200	305	344	163	677	61	677
244	49	F102_0089	TD370K 140-200	244	430	136	812	49	812
243	49	F202_0090	TD370K 140-200	243	432	129	851	49	851
200	40	F102_0110	TD370K 140-200	200	524	136	813	40	813
202	40	F202_0110	TD370K 140-200	202	519	108	1,021	40	1,021
161	32	F102_0135	TD370K 140-200	161	653	132	821	32	821
161	32	F202_0135	TD370K 140-200	161	654	86	1,288	32	1,288
117	23	F202_0185	TD370K 140-200	117	896	63	1,763	23	1,763
117	23	F302_0190	TD370K 140-200	117	902	62	1,774	23	1,774
93	19	F202_0230	TD370K 140-200	93	1,125	52	2,126	19	2,126
93	19	F302_0240	TD370K 140-200	93	1,129	50	2,223	19	2,223
78	16	F202_0280	TD370K 140-200	78	1,350	52	2,126	16	2,126
77	15	F302_0280	TD370K 140-200	77	1,356	41	2,668	15	2,668
62	12	F202_0350	TD370K 140-200	62	1,703	51	2,126	12	2,126
62	12	F302_0350	TD370K 140-200	62	1,682	33	3,311	12	3,311
46	9.3	F302_0470	TD370K 140-200	46	2,266	31	3,543	9.3	3,543
47	9.3	F402_0470	TD370K 140-200	47	2,254	25	4,437	9.3	4,437
39	7.7	F302_0560	TD370K 140-200	39	2,713	31	3,543	7.7	3,543
39	7.8	F402_0560	TD370K 140-200	39	2,688	21	5,290	7.8	5,290

Part No. Explanation

Selection Procedure:

- Determine the MGS/ComTrac combination according to the Input HP of the application and the Output RPM nearest the required **maximum** speed.
- Verify that the output torque will sufficiently meet the application requirements.
- Complete the Part No. per the example by adding "A" or "V" for the Output Style and the Housing Style letter ("B", "F", or "G") as required. "V" output is only available with the "F" housing style.





"F" Series – MGS Adjustable Speed Drive Selection Data



Speed Range Output RPM ⁽¹⁾		Part Number	Maximum		Transition ⁽²⁾		Minimum	
			RPM	Torque in.lbs.	RPM	Torque in.lbs.	RPM	Torque in.lbs.
Max.	Min.							

2.0 HP, 1750 RPM Motor Continued

31	6.2	F302_0700	TD370K 140-200	31	3,379	30	3,543	6.2	3,543
31	6.2	F402_0700	TD370K 140-200	31	3,364	18	6,201	6.2	6,201
31	6.3	F602_0700	TD370K 140-200	31	3,344	17	6,582	6.3	6,582
23	4.7	F402_0930	TD370K 140-200	23	4,482	18	6,201	4.7	6,201
23	4.7	F602_0930	TD370K 140-200	23	4,482	12	8,821	4.7	8,821
19	3.9	F402_1120	TD370K 140-200	19	5,391	17	6,201	3.9	6,201
19	3.9	F602_1120	TD370K 140-200	19	5,388	11	9,744	3.9	9,744
16	3.1	F602_1400	TD370K 140-200	16	6,711	11	9,744	3.1	9,744
12	2.4	F603_1810	TD370K 140-200	12	8,550	11	9,744	2.4	9,744

3.0 HP, 1750 RPM Motor

471	94	F302_0046	TD470K 180-300	471	344	204	798	94	798
467	93	F202_0047	TD470K 180-300	467	347	203	804	93	804
394	79	F202_0056	TD470K 180-300	394	412	171	954	79	954
382	76	F302_0057	TD470K 180-300	382	424	166	983	76	983
376	75	F402_0058	TD470K 180-300	376	431	163	999	75	999
305	61	F202_0072	TD470K 180-300	305	531	132	1,232	61	1,232
243	49	F202_0090	TD470K 180-300	243	668	105	1,548	49	1,548
243	49	F302_0090	TD470K 180-300	243	666	106	1,544	49	1,544
202	40	F202_0110	TD470K 180-300	202	801	88	1,856	40	1,856
203	41	F302_0110	TD470K 180-300	203	800	88	1,853	41	1,853
161	32	F202_0135	TD470K 180-300	161	1,010	89	1,860	32	1,860
163	33	F302_0135	TD470K 180-300	163	992	71	2,300	33	2,300
117	23	F202_0185	TD470K 180-300	117	1,383	90	1,853	23	1,853
117	23	F402_0185	TD470K 180-300	117	1,381	51	3,200	23	3,200
117	23	F302_0190	TD470K 180-300	117	1,392	51	3,226	23	3,226
93	19	F202_0230	TD470K 180-300	93	1,738	88	1,872	19	1,872
94	19	F402_0230	TD470K 180-300	94	1,721	41	3,989	19	3,989
93	19	F302_0240	TD470K 180-300	93	1,744	46	3,543	19	3,543
77	15	F302_0280	TD470K 180-300	77	2,093	47	3,543	15	3,543
78	16	F402_0280	TD470K 180-300	78	2,075	34	4,809	16	4,809
62	12	F302_0350	TD470K 180-300	62	2,598	47	3,543	12	3,543
62	12	F402_0350	TD470K 180-300	62	2,601	27	6,028	12	6,028
46	9.3	F302_0470	TD470K 180-300	46	3,499	46	3,543	9.3	3,543
47	9.3	F402_0470	TD470K 180-300	47	3,481	27	6,201	9.3	6,201
47	9.4	F602_0470	TD470K 180-300	47	3,464	20	8,028	9.4	8,028
39	7.8	F402_0560	TD470K 180-300	39	4,151	27	6,201	7.8	6,201
39	7.9	F602_0560	TD470K 180-300	39	4,131	17	9,574	7.9	9,574
31	6.2	F402_0700	TD470K 180-300	31	5,195	27	6,201	6.2	6,201
31	6.3	F602_0700	TD470K 180-300	31	5,164	17	9,744	6.3	9,744
23	4.7	F602_0930	TD470K 180-300	23	6,921	17	9,744	4.7	9,744

5.0 HP, 1750 RPM Motor Continued next page

471	94	F302_0046	TD570K 180-500	471	590	235	1,197	94	1,197
467	93	F202_0047	TD570K 180-500	467	594	233	1,206	93	1,206

¹⁾ Speed tolerance at rated load is ±3%. At less than rated load, minimum speed may increase 5%.

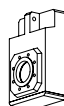
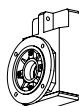
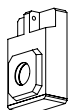
²⁾ The ComTrac drive operates at constant horsepower above transition values and at constant torque below transition values. Note shaded area. Engineering advances may cause slight changes to the information shown.

Housing Styles

B – Basic

F – Round Flange

G – Tapped Holes



Housing Style "F" is available as Hollow (A) or Solid (V) Output.

See page 78 for mounting positions.

Output Shaft Diameter and
Hollow Output (inches)

See Page 43 for other options.

Base Module	Output Shaft	Hollow Output
F102	1.0000	.7500
F202/F203	1.2500	1.0000
F302/F303	1.3750	1.2500
F402/F403	1.6250	1.5000
F602/F603	2.1250	2.0000



"F" Series – MGS Adjustable Speed Drive Selection Data



Speed Range Output RPM ⁽¹⁾		Part Number	Maximum		Transition ⁽²⁾		Minimum	
			RPM	Torque in.lbs.	RPM	Torque in.lbs.	RPM	Torque in.lbs.
Max.	Min.							

5.0 HP, 1750 RPM Motor

Continued

468	94	F402_0047	TD570K 180-500	468	594	233	1,206	94	1,206
394	79	F202_0056	TD570K 180-500	394	705	197	1,429	79	1,429
382	76	F302_0057	TD570K 180-500	382	726	191	1,474	76	1,474
376	75	F402_0058	TD570K 180-500	376	738	188	1,498	75	1,498
305	61	F202_0072	TD570K 180-500	305	910	201	1,419	61	1,419
305	61	F302_0072	TD570K 180-500	305	911	152	1,849	61	1,849
243	49	F202_0090	TD570K 180-500	243	1,144	199	1,423	49	1,423
243	49	F302_0090	TD570K 180-500	243	1,141	121	2,316	49	2,316
244	49	F402_0090	TD570K 180-500	244	1,140	121	2,315	49	2,315
202	40	F202_0110	TD570K 180-500	202	1,372	195	1,434	40	1,434
203	41	F302_0110	TD570K 180-500	203	1,370	101	2,780	41	2,780
202	40	F402_0110	TD570K 180-500	202	1,375	101	2,790	40	2,790
163	33	F302_0135	TD570K 180-500	163	1,700	93	3,058	33	3,058
161	32	F402_0135	TD570K 180-500	161	1,723	80	3,498	32	3,498
117	23	F402_0185	TD570K 180-500	117	2,364	59	4,800	23	4,800
117	23	F302_0190	TD570K 180-500	117	2,384	93	3,054	23	3,054
94	19	F402_0230	TD570K 180-500	94	2,948	47	5,984	19	5,984
94	19	F602_0230	TD570K 180-500	94	2,955	47	5,999	19	5,999
93	19	F302_0240	TD570K 180-500	93	2,987	90	3,082	19	3,082
78	16	F402_0280	TD570K 180-500	78	3,554	46	6,201	16	6,201
78	16	F602_0280	TD570K 180-500	78	3,554	39	7,214	16	7,214
62	12	F402_0350	TD570K 180-500	62	4,455	46	6,201	12	6,201
62	12	F602_0350	TD570K 180-500	62	4,471	31	9,075	12	9,075
47	9.3	F402_0470	TD570K 180-500	47	5,961	45	6,201	9.3	6,201
47	9.4	F602_0470	TD570K 180-500	47	5,933	29	9,744	9.4	9,744
39	7.9	F602_0560	TD570K 180-500	39	7,075	29	9,744	7.9	9,744
31	6.3	F602_0700	TD570K 180-500	31	8,844	29	9,744	6.3	9,744

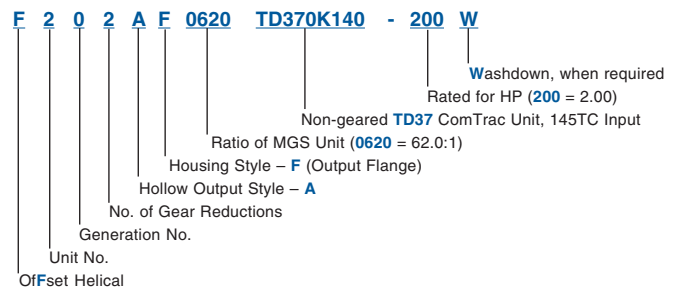
7.5 HP, 1750 RPM Motor

481	96	F602_0045	TD670K 210-750	481	858	262	1,601	96	1,601
468	94	F402_0047	TD670K 210-750	468	883	255	1,648	94	1,648
386	77	F602_0057	TD670K 210-750	386	1,071	210	1,998	77	1,998
376	75	F402_0058	TD670K 210-750	376	1,097	205	2,048	75	2,048
304	61	F402_0072	TD670K 210-750	304	1,359	166	2,537	61	2,537
244	49	F402_0090	TD670K 210-750	244	1,695	133	3,164	49	3,164
202	40	F402_0110	TD670K 210-750	202	2,043	110	3,813	40	3,813
161	32	F402_0135	TD670K 210-750	161	2,561	88	4,780	32	4,780
161	32	F602_0135	TD670K 210-750	161	2,569	88	4,794	32	4,794
117	23	F402_0185	TD670K 210-750	117	3,515	80	5,302	23	5,302
118	24	F602_0185	TD670K 210-750	118	3,496	64	6,525	24	6,525
94	19	F402_0230	TD670K 210-750	94	4,382	79	5,325	19	5,325
94	19	F602_0230	TD670K 210-750	94	4,393	51	8,198	19	8,198
78	16	F402_0280	TD670K 210-750	78	5,282	77	5,368	16	5,368
78	16	F602_0280	TD670K 210-750	78	5,282	43	9,744	16	9,744
62	12	F602_0350	TD670K 210-750	62	6,645	44	9,744	12	9,744
47	9.4	F602_0470	TD670K 210-750	47	8,818	43	9,744	9.4	9,744

Part No. Explanation

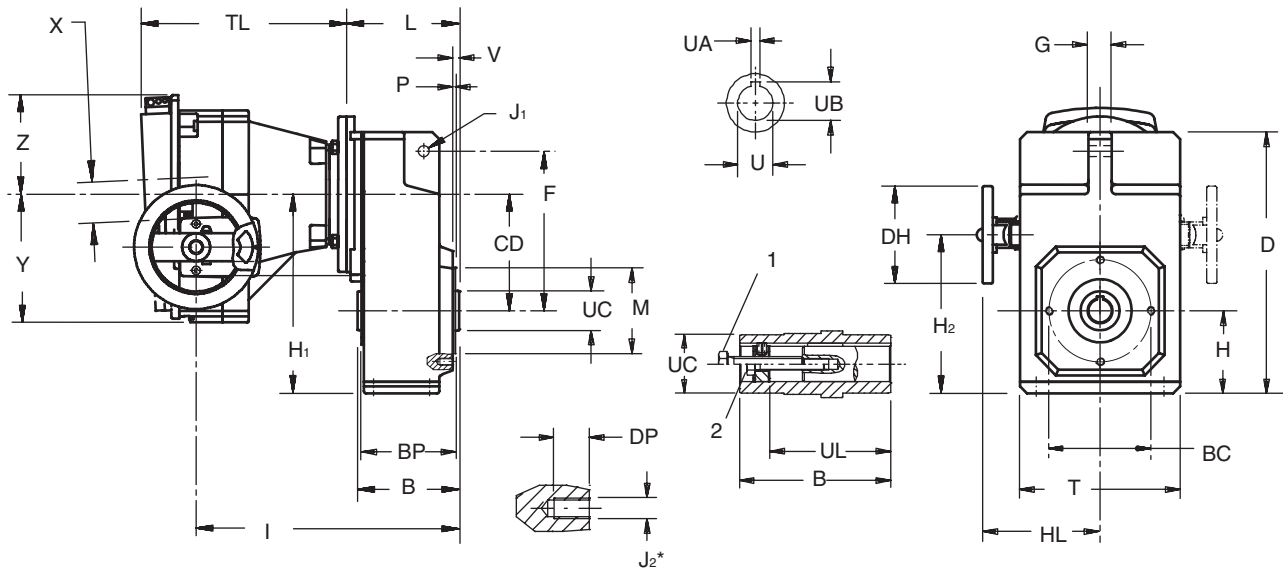
Selection Procedure:

- Determine the MGS/ComTrac combination according to the Input HP of the application and the Output RPM nearest the required **maximum** speed.
- Verify that the output torque will sufficiently meet the application requirements.
- Complete the Part No. per the example by adding "A" or "V" for the Output Style and the Housing Style letter ("B", "F", or "G") as required. "V" output is only available with the "F" housing style.





"F" Series – MGS® Adjustable Speed Drives Dimensional Data



Drawing for Units
F102AG — F603AG

Part No. Example
Basic Unit with ComTrac
F302AG0620 TD270K140

Table No. 1 "F" Series – Tapped Holes Unit Dimensions (Inches) – "G" Housing Style

Base Module	CD	B	D	F	G	H	H ₁	J ₁	J ₂ *	M	Tolerance	P	T	V	BC	BP	DP
F102	4.02	3.74	9.37	5.91	.79	2.91	6.93	.43	M8	2.756	+0.007/-0.0005	.10	5.71	.26	3.35	3.43	.51
F202/F203	5.16	4.53	11.77	7.13	.87	3.66	8.82	.43	M8	3.740	+0.007/-0.0005	.12	7.09	.31	4.53	4.13	.51
F302/F303	5.89	5.12	13.23	8.07	1.18	4.17	10.06	.55	M10	4.331	+0.007/-0.0005	.14	8.11	.33	5.12	4.72	.63
F402/F403	6.65 ¹⁾	5.71	14.57	8.98	1.18	4.57	11.22	.55	M10	4.331	+0.007/-0.0005	.14	9.06	.33	5.12	5.31	.63
F602/F603	7.72	7.09	17.64	10.63	1.38	5.39	13.11	.87	M10	5.118	+0.008/-0.0006	.14	10.43	.41	6.50	6.54	.63

* F602 and F603 has 8 tapped holes instead of 4 as shown on drawing.

¹⁾ "CD" is 5.20 for a F403 with TD27.

Table No. 2 "F" Series Bore Dimensions (Inches)

Base Module	U	Tolerance	UA	UB	UC	UL	1
F102	.750	+0.008/-0.0000	.187	.84	1.38	2.87	3/8-16
F202	1.000	+0.008/-0.0000	.250	1.12	1.77	3.62	1/2-13
F302	1.250	+0.010/-0.0000	.250	1.37	1.97	4.06	1/2-13
F402/F403	1.500	+0.010/-0.0000	.375	1.67	2.17	4.49	3/4-10
F602/F603	2.000	+0.012/-0.0000	.500	2.23	2.76	5.63	3/4-10

1. Removal Bolt — not supplied.

2. Mounting Bolt — must be smaller than removal bolt.

All weights are approximate.

Table No. 3 "F" Series – Unit Dimensions (Inches)

ComTrac Part No.	NEMA C-Flange	DH	HL	TL	X	Y	Z
TD270K050	56C	4.92	5.67	7.87	2.09	5.55	4.41
TD270K140	143/145TC	4.92	5.67	7.87	2.09	5.55	4.41
TD370K140	143/145TC	4.92	5.91	8.50	2.17	5.67	4.37
TD470K180	182/184TC	6.30	6.81	8.94	2.80	7.20	5.59
TD570K180	182/184TC	7.87	8.31	11.89	3.11	8.11	6.30
TD670K210	213/215TC	7.87	9.17	12.17	3.86	9.02	7.13

Table No. 4 "F" Series – Unit Dimensions (Inches)

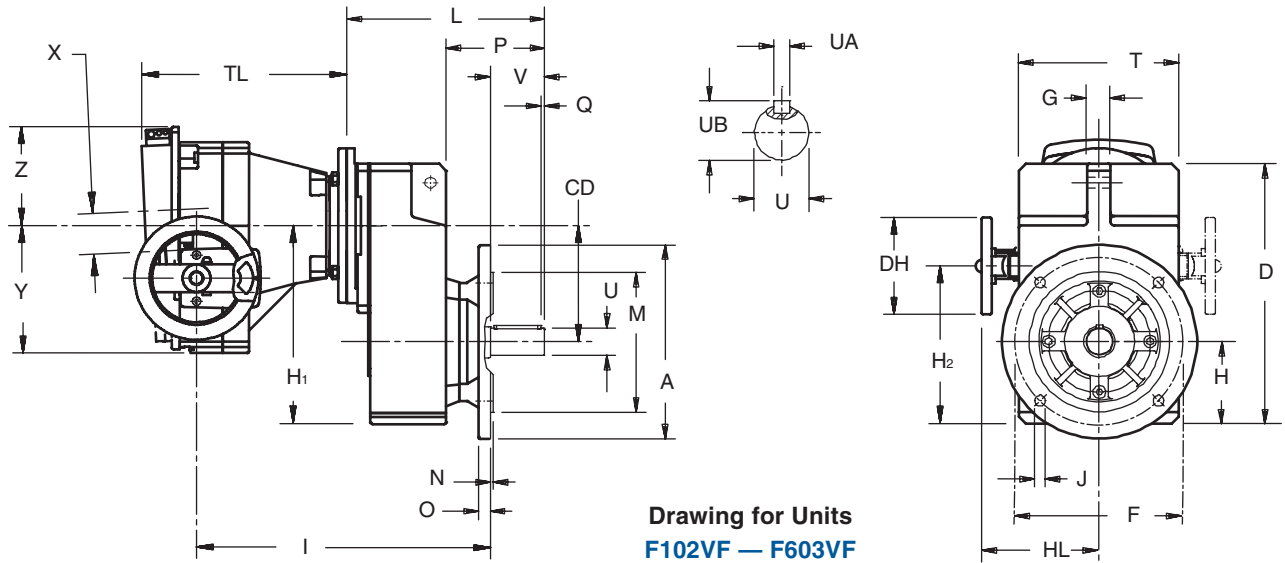
Base Module	TD270K050 ⁽²⁾			Wt. lbs.	TD370K140			Wt. lbs.	TD470K180			Wt. lbs.	TD570K180			Wt. lbs.	TD670K210			Wt. lbs.
	H ₂	I	L		H ₂	I	L		H ₂	I	L		H ₂	I	L		H ₂	I	L	
F102	5.35	10.43	4.25	71	4.88	11.10	4.25	89	—	—	—	—	—	—	—	—	—	—	—	
F202	7.24	11.18	5.08	84	6.77	11.85	5.08	102	6.22	11.97	5.08	110	—	—	—	—	—	—	—	
F302	8.48	11.77	5.67	100	8.01	12.52	5.67	118	7.46	12.56	5.67	126	6.20	15.20	5.67	155	—	—	—	
F402	9.65	12.36	6.38	117	9.17	13.03	6.38	135	8.62	13.15	6.38	143	7.87	15.79	6.38	172	7.68	16.10	6.38	
F403	8.19	14.06	7.87	124	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
F602	11.54	13.85	7.48	198	11.06	14.33	7.68	216	10.51	14.45	7.68	224	9.76	17.09	7.68	253	9.57	17.40	7.68	
F603	11.54	15.35	9.17	210	11.06	16.02	9.17	228	—	—	—	—	—	—	—	—	—	—	—	

⁽²⁾ Also available for a NEMA 143TC frame motor.



"F" Series – MGS® Adjustable Speed Drives

Dimensional Data



Drawing for Units
F102VF – F603VF

Part No. Example
Basic Unit with ComTrac
F302VF0620 TD270K140

Table No. 1 "F" Series – Round Flange Dimensions (Inches) – "F" Housing Style

Base Module	CD	A	D	F	G	H	H ₁	J	M	Tolerance	N	O	P	Q	T	V
F102	4.02	6.30	9.37	5.12	.79	2.91	6.93	.35	4.331	+0.0008/-0.0006	.14	.39	3.80	.16	5.71	1.97
F202/F203	5.16	7.87	11.77	6.50	.87	3.66	8.82	.43	5.118	+0.0008/-0.0006	.14	.55	4.53	.16	7.09	2.36
F302/F303	5.89	9.84	13.23	8.46	1.18	4.17	10.06	.55	7.087	+0.0008/-0.0006	.16	.59	5.10	.16	8.11	2.76
F402/F403	6.65 ¹⁾	9.84	14.57	8.46	1.18	4.57	11.22	.55	7.087	+0.0008/-0.0006	.16	.59	5.49	.16	9.06	3.15
F602/F603	7.72	11.81	17.64	10.43	1.38	5.39	13.11	.55	9.055	+0.0012/-0.0008	.16	.67	6.44	.20	10.43	3.94

¹⁾ "CD" is 5.20 for a F403 with TD27.

Table No. 2 "F" Series Shaft Dimensions (Inches)

Base Module	U	Tolerance	UA – Key	UB
F102	1.000	+0.0000/-0.0006	1/4 x 1/4 x 1 ⁹ / ₁₆	1.11
F202	1.250	+0.0000/-0.0007	1/4 x 1/4 x 1 ¹⁵ / ₁₆	1.36
F302	1.375	+0.0000/-0.0007	3/16 x 3/16 x 2 ⁹ / ₁₆	1.51
F402/F403	1.625	+0.0000/-0.0007	3/8 x 3/8 x 2 ⁷ / ₈	1.79
F602/F603	2.125	+0.0000/-0.0008	1/2 x 1/2 x 3 ⁵ / ₃₂	2.35

Table No. 3 "F" Series – Unit Dimensions (Inches)

ComTrac Part No.	NEMA C-Flange	DH	HL	TL	X	Y	Z
TD270K050	56C	4.92	5.67	7.87	2.09	5.55	4.41
TD270K140	143/145TC	4.92	5.67	7.87	2.09	5.55	4.41
TD370K140	143/145TC	4.92	5.91	8.50	2.17	5.67	4.37
TD470K180	182/184TC	6.30	6.81	8.94	2.80	7.20	5.59
TD570K180	182/184TC	7.87	8.31	11.89	3.11	8.11	6.30
TD670K210	213/215TC	7.87	9.17	12.17	3.86	9.02	7.13

Table No. 4 "F" Series – Unit Dimensions (Inches)

Base Module	TD270K050 ⁽²⁾			Wt. lbs.	TD370K140			Wt. lbs.	TD470K180			Wt. lbs.	TD570K180			Wt. lbs.	TD670K210			Wt. lbs.
	H ₂	I	L		H ₂	I	L		H ₂	I	L		H ₂	I	L		H ₂	I	L	
F102	5.35	11.46	7.24	71	4.88	12.13	7.24	89	—	—	—	—	—	—	—	—	—	—	—	
F202	7.24	12.44	8.54	84	6.77	13.11	8.54	102	6.22	13.15	8.62	110	—	—	—	—	—	—	—	
F302	8.48	13.11	9.61	100	8.01	13.78	9.61	118	7.46	13.81	9.69	126	6.20	16.45	9.69	155	—	—	—	
F402	9.65	13.82	10.59	117	9.17	14.49	10.59	135	8.62	14.53	10.67	143	7.87	17.17	10.67	172	7.68	17.36	10.79	214
F403	8.19	15.31	12.28	124	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
F602	11.54	15.03	12.60	198	11.06	15.75	12.60	216	10.51	15.71	12.68	224	9.76	18.39	12.68	253	9.57	18.58	12.80	295
F603	11.54	15.35	14.29	210	11.06	16.02	14.29	228	—	—	—	—	—	—	—	—	—	—	—	

⁽²⁾ Also available for a NEMA 143TC frame motor.

All weights are approximate.