

CAST IRON THREE PHASE MOTORS

150 & 170 SERIES • RIGID BASE • GENERAL PURPOSE



For reliable performance in heavy-duty industrial applications, nothing beats the LEESON Heavyweights. With their cast iron construction and 1.15 Service Factor, they are ideal for "tough to handle" applications.

But that's only part of the story. LEESON 150 and 170-series cast iron motors are extremely versatile and can be field converted in minutes to a number of different configurations, including:

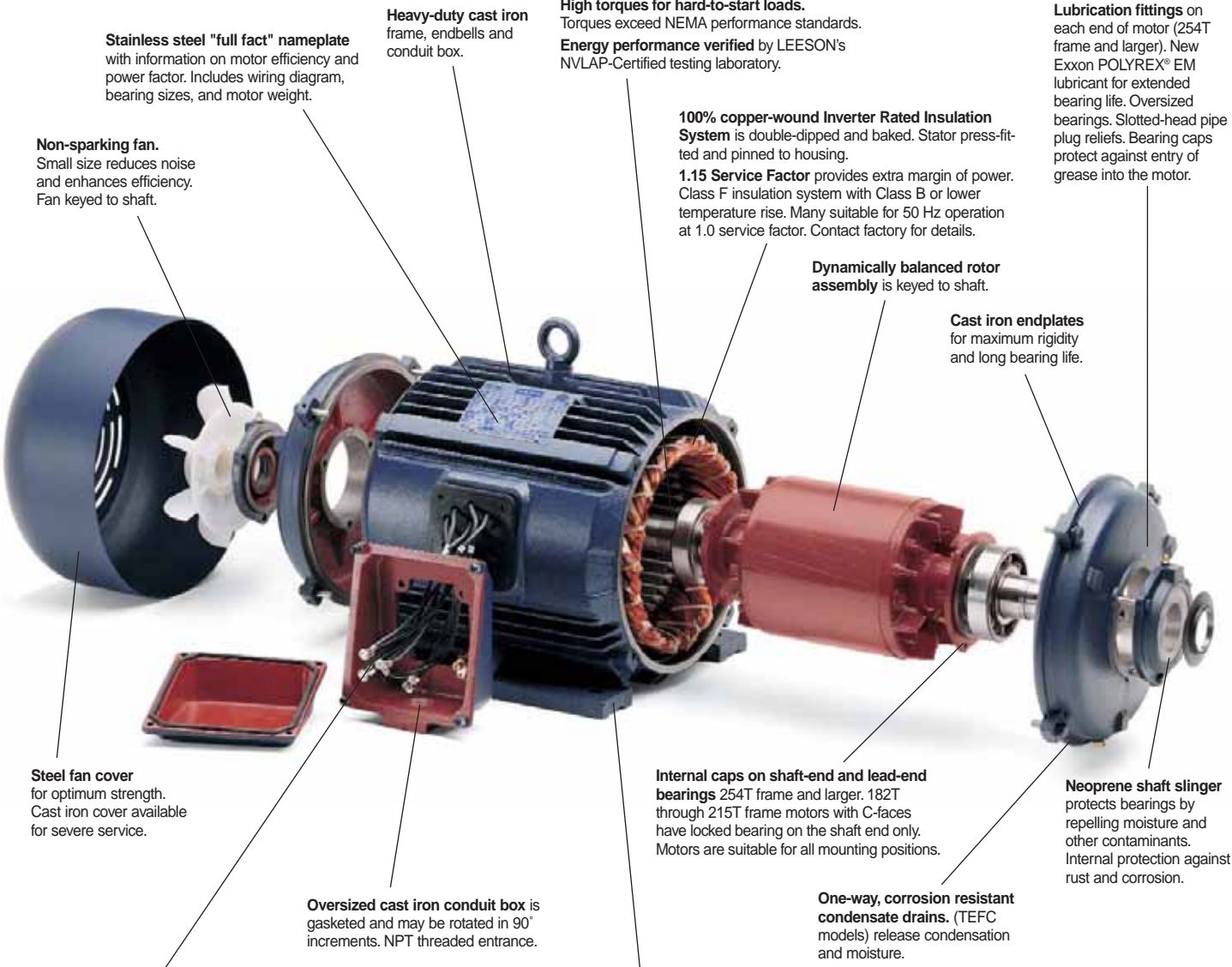
- Severe Duty TEFC (using cast iron fan guard kit)
- F2 mounting (by reassembly)
- C face with rigid base (from stock or using C face kit)
- D flange with base (using D flange kit)

CSA certified under report number LR62104
 CSA Energy Efficiency Verification report number EEV78720-1

UL recognized insulation system, file number E55555 and UL recognized construction, file number E57948 on all cast iron motors produced in June 2003 and later.

LEESON's Inverter Rated Insulation System (IRIS™)

provides superior motor protection against voltage spikes induced by variable frequency drives. This *total insulation system* protects better than spike-resistant magnet wire alone. Specially formed phase insulation, cushioned and sleeved connections (from the leads all the way into the turns), and deep-penetrating, non-hygroscopic, high temperature varnish are just a few features contributing to the extra protection. All this plus second generation, spike-resistant magnet wire. The IRIS™ *total insulation system* is standard at no extra cost in all LEESON stock NEMA three-phase motors, 1 HP and larger.



Stainless steel "full fact" nameplate with information on motor efficiency and power factor. Includes wiring diagram, bearing sizes, and motor weight.

Heavy-duty cast iron frame, endbells and conduit box.

High torques for hard-to-start loads. Torques exceed NEMA performance standards.
Energy performance verified by LEESON's NVLAP-Certified testing laboratory.

Lubrication fittings on each end of motor (254T frame and larger). New Exxon POLYREX® EM lubricant for extended bearing life. Oversized bearings. Slotted-head pipe plug reliefs. Bearing caps protect against entry of grease into the motor.

Non-sparking fan. Small size reduces noise and enhances efficiency. Fan keyed to shaft.

100% copper-wound Inverter Rated Insulation System is double-dipped and baked. Stator press-fitted and pinned to housing.
1.15 Service Factor provides extra margin of power. Class F insulation system with Class B or lower temperature rise. Many suitable for 50 Hz operation at 1.0 service factor. Contact factory for details.

Dynamically balanced rotor assembly is keyed to shaft.

Cast iron endplates for maximum rigidity and long bearing life.

Steel fan cover for optimum strength. Cast iron cover available for severe service.

Internal caps on shaft-end and lead-end bearings 254T frame and larger. 182T through 215T frame motors with C-faces have locked bearing on the shaft end only. Motors are suitable for all mounting positions.

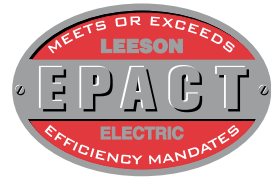
Neoprene shaft slinger protects bearings by repelling moisture and other contaminants. Internal protection against rust and corrosion.

Oversized cast iron conduit box is gasketed and may be rotated in 90° increments. NPT threaded entrance.

One-way, corrosion resistant condensate drains. (TEFC models) release condensation and moisture.

12-Lead Delta windings (254T to 405T frame and larger) for across-the-line or wye delta starts. (182T & 215T frame motors are dual voltage with nine leads. Motors above 405T frame are single voltage with six leads. 575V motors have six leads, except 213T-215T which have three leads) Permanently marked leads with lugs for easy connection. Normally-closed thermostat standard on WATTS-AVER® designs.

Cast iron mounting feet. Precision-machined for accurate alignment. Dual mounting provisions (six mounting holes) on 184T, 215T, 256T, 286T, 326T, 365T and 405T frames.





DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3	3510	...	...	...	...	...	...	...	...	...
	1760	...	...	...	...	...	...	...	...	...
	1760	...	...	...	...	...	...	...	...	...
	1170	213T	171574	\$603	C	159	208-230/460	10.0	88.5	16.38
5	3500	...	...	...	...	...	...	...	...	...
	1760	...	...	...	...	...	...	...	...	...
	1760	...	...	...	...	...	...	...	...	...
	1170	215T	171575	764	C	185	208-230/460	15.0	90.2	16.38
850	...	...	...	...	...	...	...	...	...
7½	3510	...	...	...	...	...	...	...	...	...
	3510	...	...	...	...	...	...	...	...	...
	1750	213T	G150142	502	C	147	208-230/460	19.6	88.5	16.38
	1760	213T	170142 [W]	605	C	160	208-230/460	19.8	91.0	16.38
	1170	254T	G150145	780	C	240	208-230/460	20.2	88.5	20.94
	1170	254T	170145	955	C	281	208-230/460	22.4	92.4	20.94
850	...	...	...	...	...	...	...	...	...
10	3510	213T	G150143	620	C	168	208-230/460	24.0	88.5	16.38
	3510	213T	170143 [W]	692	C	150	208-230/460	23.6	91.0	16.38
	1750	215T	G150144	635	C	168	208-230/460	25.0	89.5	17.87
	1760	215T	170144 [W]	715	C	200	208-230/460	25.6	91.7	17.87
	1170	256T	G150146	1009	C	268	208-230/460	27.0	90.2	22.60
	1170	256T	170146	1191	C	305	208-230/460	29.6	91.7	22.60
	850	...	...	...	...	...	...	...	...	...
	850	...	...	...	...	...	...	...	...	...
15	3450	...	...	...	...	...	...	...	...	...
	3510	215T	G150064	835	C	173	208-230/460	35.0	89.5	17.87
	3510	215T	170064 [W]	927	C	175	208-230/460	34.6	91.0	17.87
	3525	...	...	...	...	...	...	...	...	...
	3525	...	...	...	...	...	...	...	...	...
	1770	254T	G150065	867	C	265	208-230/460	37.6	91.0	20.94
	1770	254T	170065 [W]	951	C	279	208-230/460	37.0	93.0	20.94
	1170	284T	G150067	1323	C	365	208-230/460	41.0	90.2	23.54
	1170	284T	170067	1568	C	414	208-230/460	39.4	92.4	23.54
	850	...	...	...	...	...	...	...	...	...
	850	...	...	...	...	...	...	...	...	...
	20	3525	254T	G150032	1021	C	258	208-230/460	46.6	90.2	20.94
3525		254T	170032 [W]	1166	C	275	208-230/460	46.0	93.0	20.94
1750		256T	G150006	1098	C	307	208-230/460	48.0	92.0	22.60
1770		256T	170006 [W]	1161	C	324	208-230/460	51.0	93.0	22.60
1170		286T	G150000	1623	C	385	208-230/460	53.0	90.2	25.00
1170		286T	170000	1911	C	457	208-230/460	55.0	92.4	25.00
850		...	...	...	...	...	...	...	...	...
850		...	...	...	...	...	...	...	...	...
850		...	...	...	...	...	...	...	...	...
850		...	...	...	...	...	...	...	...	...

TOTALLY ENCLOSED FAN COOLED (TEFC)

NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
182T	G151563	\$457	C	93	208-230/460	7.4	85.5	16.14
182T	171320 [W]	521	C	104	208-230/460	7.8	89.5	15.89
182T	G151320	445	C	94	208-230/460	8.5	87.5	15.89
213T	171378	736	C	170	208-230/460	9.4	89.5	18.19
184T	G150299	462	C	100	208-230/460	12.0	87.5	16.80
184T	171322 [W]	540	C	109	208-230/460	12.8	89.5	15.89
184T	G151322	473	C	101	208-230/460	13.8	87.5	15.89
215T	171379	821	C	176	208-230/460	14.4	89.5	19.61
254T	151355	1858	C	188	208-230/460	14.4	88.3	23.23
213T	170158 [W]	751	C	147	208-230/460	18.0	91.0	18.19
213T	G150158	609	C	150	208-230/460	17.8	88.5	18.20
213T	G150157	549	C	153	208-230/460	19.2	89.5	18.19
213T	170157 [W]	724	C	155	208-230/460	18.6	91.7	18.19
254T	G150122	986	C	250	208-230/460	20.0	89.5	23.19
254T	170122 [W]	1070	C	249	208-230/460	22.2	91.7	23.19
256T	151356	2050	C	300	208-230/460	20.0	87.7	24.96
215T	G150159	708	C	167	208-230/460	23.6	89.5	19.61
215T	170159 [W]	890	C	181	208-230/460	23.0	91.7	19.61
215T	G150140	682	C	176	208-230/460	25.2	89.5	19.61
215T	170140 [W]	863	C	177	208-230/460	25.0	91.7	19.61
256T	G150123	1231	C	277	208-230/460	26.2	89.5	24.92
256T	170123 [W]	1531	C	300	208-230/460	29.0	91.7	24.92
284T	150282	2382	C	346	208-230/460	26.0	88.8	26.26
215T	G151317	948	C	168	208-230/460	35.0	89.2	19.61
...
...
...
254T	G150062	949	C	260	208-230/460	35.0	90.2	23.19
254T	170062 [W]	1209	C	282	208-230/460	35.0	92.4	23.19
254T	G150066	976	C	284	208-230/460	37.0	91.0	23.19
254T	170066 [W]	1170	C	280	208-230/460	36.0	92.4	23.19
284T	G150068	1696	C	359	208-230/460	40.4	90.2	26.26
284T	170068 [W]	2072	C	333	208-230/460	40.6	92.4	26.26
286T	150261	3110	C	480	208-230/460	40.0	91.0	27.83
256T	G150033	1289	C	296	208-230/460	46.2	90.2	24.92
256T	170033 [W]	1477	C	316	208-230/460	46.0	92.4	24.92
256T	G150007	1201	C	321	208-230/460	48.2	91.0	24.92
256T	170007 [W]	1462	C	322	208-230/460	49.0	93.0	24.92
286T	G150001	2027	C	408	208-230/460	52.6	90.2	27.83
286T	170001 [W]	2591	C	392	208-230/460	54.0	91.7	27.83
324T	150263	3738	C	640	208-230/460	54.0	91.0	29.53

All 150 & 170 Series motors on pages 12-14 have a 1.15 Service Factor, Class F insulation.

NOTE: 150 and 170 Series Drip-Proof and TEFC motors in NEMA frames 180T thru 447T can be field converted, by reassembly, to F2 conduit box locations.

[W] Premium efficiency WATTS-AVER® motor. See page 15 for details.

CONTINUED ON NEXT PAGE

FOR 50 HZ OPERATION OF THESE MOTOR SIZES SEE PAGE 67

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

Catalog numbers in blue are NEW items.
Catalog numbers in green are EPACT motors.

CAST IRON THREE PHASE MOTORS

150 & 170 SERIES • RIGID BASE • GENERAL PURPOSE



Cast Iron

DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL Amps 230V	% FL Eff.	"C" Dim. (Inches)	
25	3500	...	...	...	...	...	...	...	...	...
	3525	256T	G150034	\$1260	C	292	208-230/460	57.0	91.0	22.60	
	3525	256T	170034	1445	C	327	208-230/460	52.4	93.0	22.60	
	3550	...	...	...	...	...	...	...	...	...
	3550	...	...	...	...	...	...	...	...	...
	1770	284T	G150009	1266	C	388	208-230/460	59.6	91.7	23.54	
	1770	284T	170009	1445	C	404	208-230/460	59.6	93.6	23.54	
	1180	324T	G150002	1966	C	529	208-230/460	67.0	91.7	26.02	
	1190	324T	170002	2275	C	695	208-230/460	67.0	93.0	26.02	
	850	...	...	...	...	...	...	...	...	...
	30	3550	284TS	G150036	1483	C	373	208-230/460	70.4	91.0	22.17
		3550	284TS	170036	1679	C	396	208-230/460	67.0	94.1	22.17
1770		286T	G150013	1457	C	434	208-230/460	72.0	92.4	25.00	
1770		286T	170013	1568	C	471	208-230/460	71.0	94.1	25.00	
1180		326T	G150004	2211	C	567	208-230/460	78.8	92.4	27.52	
1190		326T	170004	2374	C	760	208-230/460	78.0	93.6	27.52	
40	3550	286TS	G150038	1779	C	426	208-230/460	93.0	91.7	23.62	
	3550	286TS	170038	2212	C	441	208-230/460	91.2	93.6	23.62	
	3550	...	...	...	...	...	...	...	...	...
	3550	...	...	...	...	...	...	...	...	...
	1780	324T	G150017	1854	C	528	208-230/460	96.0	93.0	26.02	
	1780	324T	170017	2067	C	560	208-230/460	96.0	94.1	26.02	
50	1180	364T	G150147	2687	C	654	208-230/460	100.0	93.0	28.01	
	1180	364T	170147	3383	C	892	208-230/460	103.0	94.1	32.64	
	3550	324TS	G150040	2192	C	511	208-230/460	112.0	92.4	24.53	
	3550	324TS	170040	2696	C	548	208-230/460	112.0	94.1	24.53	
	1780	326T	G150021	2096	C	612	208-230/460	120.0	93.0	27.52	
	1780	326T	170021	2497	C	614	208-230/460	118.0	94.5	27.52	
60	1180	365T	G150148	3425	C	716	208-230/460	125.0	93.0	31.18	
	1180	365T	170148	3872	C	918	208-230/460	128.0	94.5	33.62	
	3550	326TS	G150042	2452	C	560	208-230/460	134.0	93.0	26.02	
	3550	326TS	170042	3225	C	590	208-230/460	136.0	94.1	26.02	
	3570	...	...	...	...	...	...	...	...	...
	3570	...	...	...	...	...	...	...	...	...
75	1780	364T	G150025	2650	C	715	208-230/460	141.0	93.6	28.01	
	1780	364T	170025	2748	C	716	208-230/460	139.0	94.1	28.01	
	1190	404T	G150149	3916	C	1010	208-230/460	142.0	93.6	32.76	
	1190	...	...	...	...	...	...	...	...	...
	3570	364TS	G150044	3525	C	707	208-230/460	173.0	93.0	26.89	
	3570	364TS	170044	4262	C	720	208-230/460	176.0	94.1	26.89	

TOTALLY ENCLOSED FAN COOLED (TEFC)

NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL Amps 230V	% FL Eff.	"C" Dim. (Inches)
256T	G151318	\$1520	C	307	208-230/460	56.4	90.2	24.92
...
284TS	G150035	1557	C	349	208-230/460	58.2	91.0	24.88
284TS	170035	1921	C	383	208-230/460	56.8	93.0	24.88
284T	G150011	1414	C	370	208-230/460	58.8	92.4	26.26
284T	170011	1814	C	385	208-230/460	59.0	93.6	26.26
324T	G150003	2458	C	494	208-230/460	64.8	91.7	29.53
324T	170003	3033	C	545	208-230/460	66.0	93.0	29.53
326T	150265	4360	C	700	208-230/460	63.0	90.2	31.02
286TS	G150037	1716	C	375	208-230/460	69.2	91.0	26.46
286TS	170037	2267	C	385	208-230/460	67.6	93.0	26.46
286T	G150015	1719	C	428	208-230/460	69.8	92.4	27.83
286T	170015	2114	C	432	208-230/460	70.0	94.1	27.83
326T	G150005	2663	C	528	208-230/460	77.0	91.7	31.02
326T	170005	3404	C	615	208-230/460	77.2	93.6	31.02
...
324TS	G150039	2250	C	496	208-230/460	93.0	91.7	28.03
324TS	170039	2829	C	504	208-230/460	89.0	93.6	28.03
324T	G150019	2221	C	528	208-230/460	90.0	93.0	29.53
324T	170019	2807	C	528	208-230/460	92.0	94.1	29.53
364T	G150096	3838	C	638	208-230/460	101.0	93.0	32.64
364T	170096	4665	C	636	208-230/460	102.0	94.1	32.64
326TS	G150041	2785	C	637	208-230/460	112.0	92.4	29.53
326TS	170041	3436	C	554	208-230/460	111.0	94.5	29.53
326T	G150023	2738	C	561	208-230/460	117.8	93.0	31.02
326T	170023	3392	C	587	208-230/460	117.0	94.5	31.02
365T	G150097	4481	C	686	208-230/460	123.0	93.0	33.62
365T	170097	5598	C	672	208-230/460	124.0	94.1	33.62
...
364TS	G150043	4306	C	695	208-230/460	137.0	93.0	30.51
364TS	170043	5095	C	735	208-230/460	136.0	94.1	30.51
364T	G150027	3997	C	687	208-230/460	138.0	93.6	32.64
364T	170027	4824	C	666	208-230/460	137.0	95.4	32.64
404T	G150098	5179	C	888	208-230/460	145.0	93.6	36.42
404T	170098	6604	C	870	208-230/460	142.0	94.5	36.42
365TS	G150045	5073	C	850	208-230/460	172.0	93.0	31.50
365TS	170045	6242	C	780	208-230/460	169.0	94.5	31.50
365T	G150031	4615	C	723	208-230/460	173.0	94.1	33.62
365T	170031	6020	C	733	208-230/460	171.0	95.8	33.62
405T	G150099	6100	C	973	208-230/460	179.0	93.6	37.91
405T	170099	6962	C	975	208-230/460	176.0	95.0	37.91

All 150 & 170 Series motors on pages 12-14 have a 1.15 Service Factor, Class F insulation.

CONTINUED ON NEXT PAGE

FOR 50 HZ OPERATION OF THESE MOTOR SIZES SEE PAGE 67

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

Catalog numbers in green are EPACT motors.
Catalog numbers in blue are new items.

LEESON CAST IRON • THREE PHASE MOTORS

150 & 170 SERIES • RIGID BASE • GENERAL PURPOSE

Cast Iron



DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
100	3570	365TS	G150151	\$4135	C	752	208-230/460	236.0	93.0	29.06
	3570	365TS	170151 [W]	4819	C	775	208-230/460	226.0	94.5	29.06
	3570	...	...	...	...	...	...	...	...	...
	3570	...	...	...	...	...	...	...	...	...
1780	1780	404T	G150152	4119	C	988	208-230/460	240.0	94.1	32.76
	1780	404T	170152	4637	C	1141	208-230/460	225.0	95.4	32.76
	1780	...	...	...	...	...	...	...	...	...
	1780	...	...	...	...	...	...	...	...	...
125	3570	404TS	G150154	4719	C	987	230/460	282.0	93.6	29.76
	3570	...	...	...	...	...	...	...	...	...
	1780	405T	G150155	4773	C	1083	230/460	280.0	94.5	34.25
	1780	405T	170155	5870	C	1236	230/460	280.0	95.4	34.25
150	3570	405TS	G151449	6978	C	1073	460	167.0+	93.6	31.26
	1790	444T	G151522	6369	C	1852	460	164.0+	95.0	40.00
	1780	...	...	...	...	...	...	...	...	...
	1780	...	...	...	...	...	...	...	...	...
200	1785	445T	G151523	7699	C	1860	460	229.0+	95.0	40.00
	1790	445T	171523	7993	C	2037	460	229.0+	95.8	40.00
250	1770	...	...	...	...	...	...	...	...	...
	1785	445T	151524	8972	C	1940	460	284.0+	94.5	40.00
300	1785	445T	151525	10294	C	1962	460	329.0+	95.0	40.00
350	1780	445T	151518	11361	C	2041	460	392.0+	94.1	40.00
	1790	...	...	...	...	...	...	...	...	...

TOTALLY ENCLOSED FAN COOLED (TEFC)

NEMA Frame	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
...
405TS	G150160	\$6364	C	985	208-230/460	220.0	93.6	34.92
405TS	170160 [W]	7685	C	955	208-230/460	218.0	95.0	34.92
405T	G150087	6199	C	1050	208-230/460	229.0	94.5	37.91
405T	170087 [W]	7485	C	1070	208-230/460	225.0	95.4	37.91
444T	G151367	8759	C	1900	460	114.5+	94.1	42.87
444TS	G151368	9043	C	1282	460	134.0+	94.5	39.10
444T	G151369	8232	C	1920	460	139.0+	94.5	42.87
444T	170369 [W]	9940	C	1950	460	137.5+	95.4	42.87
445T	G151370	10018	C	2179	460	147.0+	94.1	44.88
445T	170260	11196	C	1596	460	155.0+	95.4	44.88
445T	G151371	9237	C	1900	460	169.0+	95.0	44.88
445T	170371	11372	C	1627	460	163.0+	95.8	44.88
447T	170352	13025	C	2115	460	217.0+	96.2	48.00
447T	G150352	11775	C	2053	460	223.0+	95.0	48.00
449T	151516	14081	C	2425	460	274.0+	95.0	52.80
449T	151529	15837	C	2558	460	327.0+	95.4	52.80
449T	151530	16503	C	2710	460	402.0+	95.4	52.80

♦ Full Load Amps 460 volt
 [W] Premium efficiency WATTSaver® motor.
 See page 15 for details.

All 150 & 170 Series motors on pages 12-14 have a 1.15 Service Factor, Class F insulation.

FOR 50 HZ OPERATION OF THESE MOTOR SIZES SEE PAGE 67

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

Catalog numbers in blue are NEW items.
Catalog numbers in green are EPACT motors.

QUICK REFERENCE

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