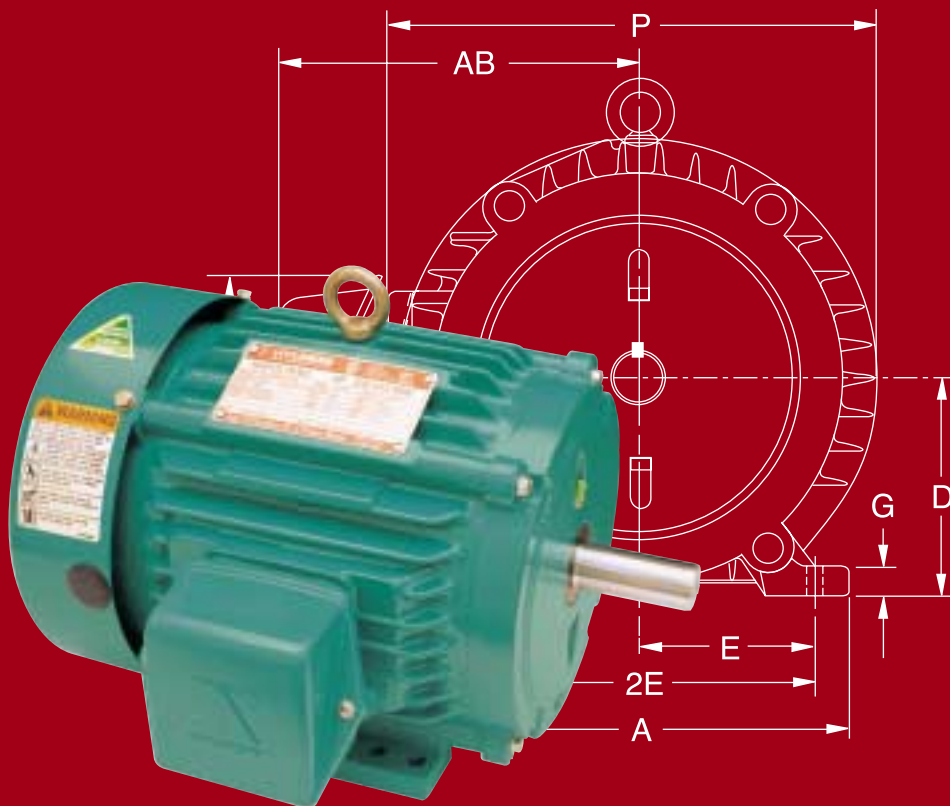




Crown Signature™ Series Motor

-TEFC: Cast Iron Frame



High Efficiency
CSA C390 & EPACT' 92

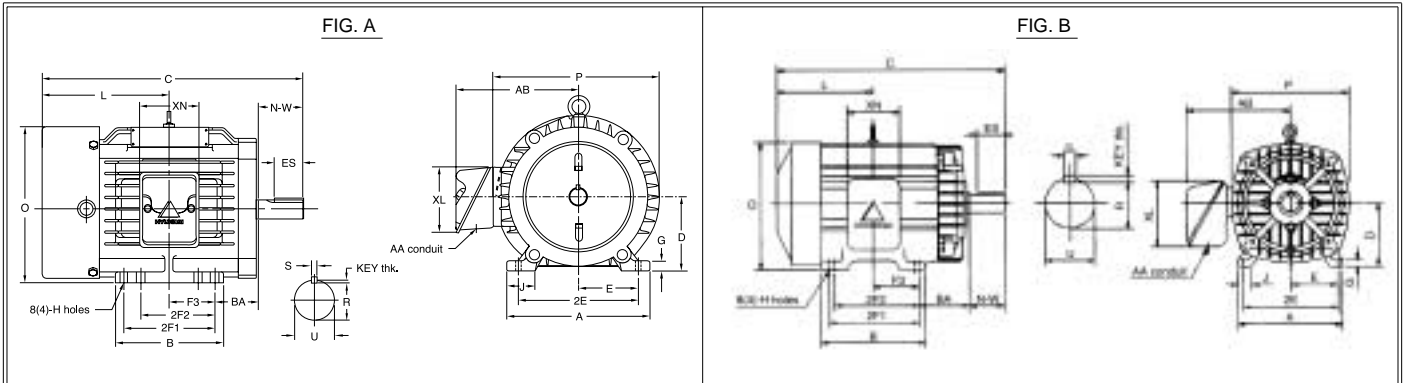
Foot Mounted Motors



TEFC, Crown Signature™ High Efficiency Motors Cast Iron Frame

- CSA C390 & EPACT'92 efficiency
- Cast iron construction
- NEMA design B torque
- Class F insulation with class B temp. rise
- Diagonally split, gasketed conduit box, fully rotatable at 90° increments
- S.F. 1.15
- Suitable for horizontal or vertical mounting

Outline Dimensions in Inches



Frame Size	Overall				Mounting				Conduit Box		Shaft			Key		Fig.
	BA	C	D	O	P	2E	2F1	2F2	AA	AB	U	N-W	Keyway R	S (SQ.)	Length	
143T	2.25	12.88	3.50	7.44	7.44	5.50	(5.00)	4.00	0.75	6.46	0.875	2.250	0.771	0.188	1.410	A
145T	2.25	12.88	3.50	7.44	7.44	5.50	5.00	(4.00)	0.75	6.46	0.875	2.250	0.771	0.188	1.410	
182T	2.75	14.69	4.50	9.45	9.89	7.50	4.50	-	0.75	7.75	1.125	2.750	0.986	0.250	1.780	
184T	2.75	15.69	4.50	9.45	9.89	7.50	5.50	(4.50)	0.75	7.75	1.125	2.750	0.986	0.250	1.780	
213T	3.50	18.33	5.25	11.00	11.50	8.50	5.50	-	1.00	8.50	1.375	3.380	1.201	0.312	2.410	
215T	3.50	19.83	5.25	11.00	11.50	8.50	7.00	(5.50)	1.00	8.50	1.375	3.380	1.201	0.312	2.410	
254T	4.25	23.52	6.25	13.08	13.65	10.00	8.25	-	1.25	12.30	1.625	4.000	1.416	0.375	2.910	
256T	4.25	25.25	6.25	13.08	13.65	10.00	10.00	(8.25)	1.25	12.30	1.625	4.000	1.416	0.375	2.910	
284TS	4.75	25.50	7.00	14.74	15.48	11.00	9.50	-	1.50	12.87	1.625	3.250	1.416	0.375	1.910	
284T	4.75	26.87	7.00	14.74	15.48	11.00	9.50	-	1.50	12.87	1.875	4.620	1.591	0.500	3.280	
286TS	4.75	27.00	7.00	14.74	15.48	11.00	11.00	(9.50)	1.50	12.87	1.625	3.250	1.416	0.375	1.910	
286T	4.75	28.37	7.00	14.74	15.48	11.00	11.00	(9.50)	1.50	12.87	1.875	4.620	1.591	0.500	3.280	
324TS	5.25	29.78	8.00	15.91	15.82	12.50	(12.00)	10.50	2.00	15.04	1.875	3.750	1.591	0.500	2.030	
324T	5.25	31.28	8.00	15.91	15.82	12.50	(12.00)	10.50	2.00	15.04	2.125	5.250	1.845	0.500	3.910	
326TS	5.25	29.78	8.00	15.91	15.82	12.50	12.00	(10.50)	2.00	15.04	1.875	3.750	1.591	0.500	2.030	
326T	5.25	31.28	8.00	15.91	15.82	12.50	12.00	(10.50)	2.00	15.04	2.125	5.250	1.845	0.500	3.910	
364TS	5.88	31.86	9.00	18.65	17.72	14.00	(12.25)	11.25	2.36	16.18	1.875	3.750	1.591	0.500	2.030	
364T	5.88	33.99	9.00	18.65	17.72	14.00	(12.25)	11.25	2.36	16.18	2.375	5.880	2.021	0.625	4.280	
365TS	5.88	31.86	9.00	18.65	17.72	14.00	12.25	(11.25)	2.36	16.18	1.875	3.750	1.591	0.500	2.030	
365T	5.88	33.99	9.00	18.65	17.72	14.00	12.25	(11.25)	2.36	16.18	2.375	5.880	2.021	0.625	4.280	
404T	6.62	38.94	10.00	20.95	19.69	16.00	(13.75)	12.25	3.00	19.72	2.875	7.250	2.450	0.750	5.650	
405TS	6.62	35.94	10.00	20.95	19.69	16.00	13.75	(12.25)	3.00	19.72	2.125	4.250	1.845	0.500	2.800	
405T	6.62	38.94	10.00	20.95	19.69	16.00	13.75	(12.25)	3.00	19.72	2.875	7.250	2.450	0.750	5.650	
444TS	7.50	41.01	11.00	23.17	22.44	18.00	(16.50)	14.50	3.00	21.14	2.375	4.750	2.021	0.625	3.030	
444T	7.50	44.76	11.00	23.17	22.44	18.00	(16.50)	14.50	3.00	21.14	3.375	8.500	2.880	0.875	6.930	
445TS	7.50	41.01	11.00	23.17	22.44	18.00	16.50	(14.50)	3.00	21.14	2.375	4.750	2.021	0.625	3.030	
445T	7.50	44.76	11.00	23.17	22.44	18.00	16.50	(14.50)	3.00	21.14	3.375	8.500	2.880	0.875	6.930	
447TS	7.50	44.51	11.00	23.17	22.44	18.00	20.00	(17.99)	3.00	21.14	2.375	4.750	2.021	0.625	3.030	
447T	7.50	48.28	11.00	23.17	22.44	18.00	20.00	(17.99)	3.00	21.14	3.375	8.500	2.880	0.875	6.930	
447TZ	7.50	49.89	11.00	23.17	22.44	18.00	20.00	(17.99)	3.00	21.14	3.375	10.125	2.880	0.875	8.500	
449TS	7.50	49.63	11.00	23.17	22.44	18.00	25.00	(20.00)	3.00	21.14	2.375	4.750	2.021	0.625	3.030	
449T	7.50	53.40	11.00	23.17	22.44	18.00	25.00	(20.00)	3.00	21.14	3.375	8.500	2.880	0.875	6.930	
449TZ	7.50	55.01	11.00	23.17	22.44	18.00	25.00	(20.00)	3.00	21.14	3.375	10.125	2.880	0.875	8.500	

Note: 1. Dimension "D" Tolerance
140T-360T: +0.00, -0.03
400T-440T: +0.00, -0.06

2. Dimension "U" Tolerance
Up to 1.500 Dia. : +0.000, -0.0005
1.625 Dia. & Larger: +0.000, -0.001

Performance Data

TEFC, Cast Iron Frame Crown Signature™ High Efficiency Motors

3-phase, 60 Hz, 230/460 V (usable on 208 V), 575 V, 1.15 S.F., Continuous Duty
NEMA Design B or C, Class F, 40°C amb.

Rated Output	Pole	Frame Size	Characteristics at Rated Output								Locked Rotor Current		Torque			Moment of Inertia WK ²	NEMA Code Letter	Approx Weight		
			Full Load Speed	Efficiency			Power Factor	Full Load Current		460 V	575 V	460 V	575 V	Full Load	Locked Rotor				Break-Down	
				Full Load		3/4 Load		Full Load	460 V											575 V
				NOM.	MIN.															
HP			RPM	%	%	%	%	A	A	A	A	LB. FT	% FLT	% FLT	LB. FT ²		LBS			
1	4	143T	1720	82.5	80.0	80.0	73.0	1.6	1.2	14.0	11.2	3.1	280	290	0.109	M	52			
	6	145T	1135	80.0	77.0	79.0	65.0	1.8	1.4	14.0	10.9	4.6	200	250	0.123	M	52			
1.5	2	143T	3450	82.5	80.0	81.5	83.0	2.1	1.6	20.0	16.0	2.3	230	260	0.065	M	52			
	4	145T	1725	84.0	81.5	83.0	76.0	2.2	1.8	19.0	15.2	4.6	255	265	0.123	M	53			
2	6	182T	1140	85.5	82.5	85.2	71.5	2.3	1.8	15.4	12.3	6.9	180	240	0.159	K	95			
	2	145T	3450	84.0	81.5	83.0	85.0	2.6	2.1	24.0	19.2	3.0	230	250	0.065	L	52			
	4	145T	1725	84.0	81.5	83.5	77.0	2.9	2.3	25.0	20.0	6.1	240	250	0.138	L	53			
3	6	184T	1140	86.5	84.0	86.2	72.0	3.0	2.4	21.0	16.8	9.2	190	250	0.197	K	99			
	2	182T	3460	85.5	82.5	84.5	82.0	4.0	3.2	32.0	25.6	4.6	165	270	0.110	K	84			
	4	182T	1745	87.5	85.5	87.4	83.5	3.8	3.1	28.1	22.5	9.0	230	330	0.327	J	91			
5	6	213T	1175	87.5	85.5	87.7	72.0	4.5	3.6	31.7	25.3	13.4	200	300	0.702	K	143			
	2	184T	3510	87.5	85.5	87.4	85.5	6.3	5.0	45.7	36.5	7.5	180	280	0.147	J	100			
	4	184T	1730	87.5	85.5	88.4	85.0	6.3	5.0	46.0	36.8	15.2	215	300	0.411	J	94			
7.5	6	215T	1165	87.5	85.5	88.1	76.5	7.0	5.6	45.5	36.4	22.5	170	280	0.845	J	186			
	2	213T	3500	88.5	86.5	88.4	84.0	9.4	7.6	63.3	50.6	11.3	175	270	0.363	J	135			
	4	213T	1760	89.5	87.5	90.5	84.5	9.3	7.4	63.1	50.5	22.4	230	260	1.032	H	158			
10	6	254T	1180	89.5	87.5	90.0	71.0	11.1	8.8	63.0	50.4	33.4	200	240	1.825	H	270			
	2	215T	3495	89.5	87.5	90.7	87.5	12.0	9.6	77.7	62.2	15.0	150	250	0.403	G	170			
	4	215T	1750	89.5	87.5	90.6	84.0	12.5	10.0	78.5	62.8	30.0	190	240	1.125	H	170			
15	6	256T	1175	89.5	87.5	90.9	74.0	14.1	11.3	80.6	64.5	44.7	200	230	2.432	H	345			
	2	254T	3530	90.2	88.5	90.0	88.5	17.6	14.1	112.6	90.1	22.3	150	250	0.873	G	246			
	4	254T	1765	91.0	89.5	92.0	84.5	18.3	14.6	115.1	92.1	44.6	180	220	2.432	G	295			
20	6	284T	1180	90.2	88.5	91.6	83.0	18.8	15.0	114.4	91.6	66.8	145	220	6.341	G	380			
	2	256T	3535	90.2	88.5	91.7	89.0	23.3	18.7	140.0	112.0	29.7	145	220	1.011	G	263			
	4	256T	1760	91.0	89.5	92.4	84.5	24.4	19.5	141.3	113.0	59.7	200	220	3.040	G	356			
25	6	286T	1175	90.2	88.5	91.7	83.5	24.9	19.9	144.2	115.4	89.4	135	210	7.102	G	409			
	2	284TS	3555	91.0	89.5	90.7	91.0	28.3	22.6	169.6	135.7	36.9	150	220	2.874	G	386			
	4	284T	1770	92.4	91.0	92.8	84.0	30.2	24.1	181.0	144.8	74.2	180	215	4.222	G	465			
30	6	324T	1180	91.7	90.2	91.8	81.0	31.5	25.2	182.5	146.0	111.3	180	220	11.162	G	573			
	2	286TS	3550	91.0	89.5	91.5	91.5	33.7	27.0	212.5	170.0	44.4	150	220	3.351	G	409			
	4	286T	1770	92.4	91.0	93.1	84.0	36.2	29.0	213.5	170.8	89.0	170	220	4.824	G	481			
40	6	326T	1180	91.7	90.2	91.8	82.0	37.4	29.9	216.9	173.5	133.5	180	230	14.352	G	575			
	2	324TS	3555	91.7	90.2	91.2	90.5	45.1	36.1	284.3	227.5	59.1	170	240	4.338	G	468			
	4	324T	1770	93.0	91.7	93.6	84.0	47.9	38.4	289.8	232.3	118.7	180	230	8.763	G	558			
50	6	364T	1180	93.0	91.7	93.1	85.0	47.4	37.9	290.0	232.0	178.0	150	210	26.650	G	870			
	2	326TS	3520	92.4	91.0	92.0	91.0	55.7	44.5	362.1	289.3	74.6	160	230	5.103	G	513			
	4	326T	1770	93.0	91.7	93.6	84.5	59.6	47.7	362.4	290.0	148.4	185	230	11.162	G	581			
60	6	365T	1180	93.0	91.7	93.1	85.0	59.2	47.4	362.5	290.0	222.5	150	210	32.000	G	930			
	2	364TS	3540	93.0	91.7	92.9	91.0	66.4	53.1	435.0	348.0	89.0	130	200	9.280	G	870			
	4	364T	1775	93.6	92.4	93.6	86.0	69.8	55.8	435.0	348.0	177.5	150	210	17.640	G	870			
75	6	404T	1180	93.6	92.4	93.7	86.0	69.8	55.8	435.0	348.0	266.9	150	210	46.280	G	1380			
	2	365TS	3540	93.0	91.7	92.9	92.0	82.1	65.7	542.5	434.0	111.2	130	200	11.040	G	930			
	4	365T	1775	94.1	93.0	94.1	86.0	86.8	69.4	642.5	514.0	221.8	150	210	20.900	G	930			
100	6	405T	1180	93.6	92.4	93.7	86.0	87.2	69.8	642.5	514.0	333.7	150	210	55.310	G	1410			
	2	405TS	3550	93.6	92.4	93.5	90.0	111.1	88.9	725.0	580.0	147.9	120	200	18.450	G	1410			
	4	405T	1775	94.5	93.6	94.6	86.5	114.5	91.6	725.0	580.0	295.8	140	210	35.910	G	1410			
125	6	444T	1180	94.1	93.0	94.2	86.0	115.7	92.6	725.0	580.0	444.9	140	210	73.410	G	1720			
	2	444TS	3555	94.5	93.6	94.4	90.0	137.6	110.1	907.5	726.0	184.6	110	200	27.420	G	1720			
	4	444T	1778	94.5	93.6	94.5	87.5	141.5	113.2	907.5	726.0	369.1	130	210	52.510	G	1720			
150	6	445T	1180	94.1	93.0	94.2	86.5	143.8	115.0	907.5	726.0	556.1	130	210	89.860	G	2010			
	2	445TS	3565	94.5	93.6	94.4	90.0	165.1	132.1	1085.0	868.0	220.9	110	200	33.660	G	2010			
	4	445T	1780	95.0	94.1	95.2	88.0	168.0	134.4	1085.0	868.0	442.4	130	210	67.430	G	2010			
200	6	447TZ	1180	95.0	94.1	95.1	86.5	170.9	136.7	1085.0	868.0	667.4	130	210	106.310	G	2230			
	2	447TS	3565	95.0	94.1	94.9	91.0	216.6	173.3	1450.0	1160.0	294.5	120	200	44.130	G	2230			
	4	447TZ	1780	95.0	94.1	95.2	88.0	224.0	179.2	1450.0	1160.0	589.9	130	210	73.030	G	2230			
250	6	449TZ	1180	95.0	94.1	95.1	87.0	226.6	181.3	1450.0	1160.0	889.8	130	210	153.550	G	2910			
	2	449TS	3565	95.4	94.5	95.4	91.5	268.2	214.5	1825.0	1460.0	368.2	110	200	58.330	G	2910			
4	449TZ	1780	95.0	94.1	95.0	88.5	278.4	222.7	1825.0	1460.0	737.4	120	200	105.370	G	2910				

Note: 1. The above data are average expected values.
 2. Actual minimum efficiencies can be certified by direct measurement based on ANSI/IEEE 112 test method B and CSA C 390.
 3. Technical data are subject to change without notice.
 4. 150HP and above are single voltage (460 V or 575 V) only.

“Experience Combined with Technology”

Hyundai Induction Motors use Finite Element Analysis (FEA) and Computer Aided Design (CAD) methods to develop and produce the most innovative motors from state-of-the-art and fully automated manufacturing facilities.

Hyundai’s Crown Signature™ Series cast iron frames sharply improve motor performance by maximizing heat dissipation.

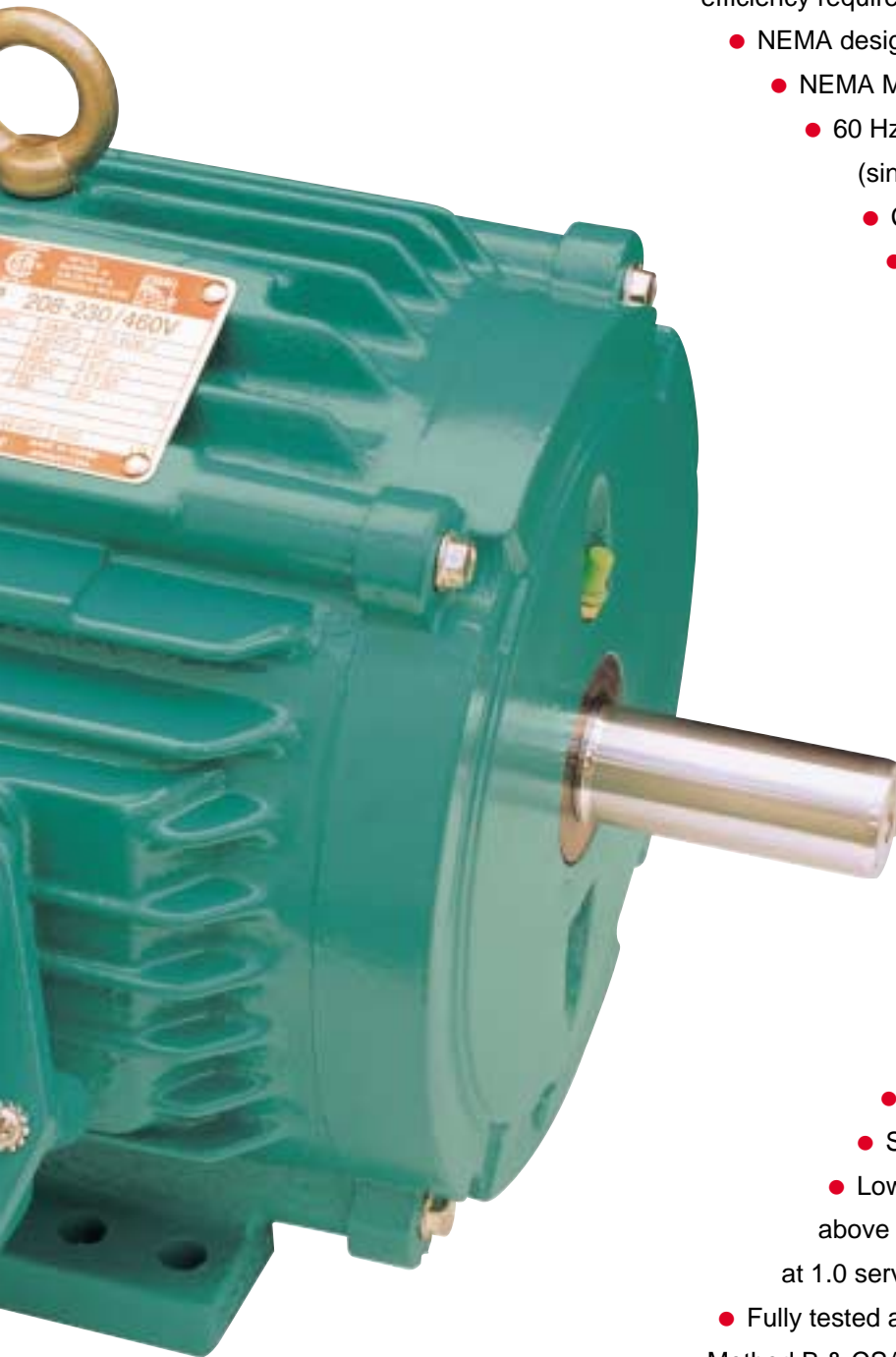
The use of advanced technology to design and produce electric motors allows the motor design to be maximized in both performance and cost, providing the market with a superior quality product at a reasonable price.

Compared with normal efficiency motors, Hyundai’s Crown Signature™ Series High efficiency motors guarantee better performance.

- Approvals: CSA, CSA C US, EEV mark,
Class 1, Division 2, C-UL



Typical Features & Construction



- AC 3 phase, squirrel cage induction motor
 - Totally Enclosed Fan Cooled
 - High efficiency meets CSA C390 and EPACT'92 efficiency requirements
 - NEMA design B torque
 - NEMA MG.1, EEMAC M1-6, CSA C390
 - 60 Hz, 208-230/460 V and 575 V
(single voltage only for 150HP & above)
 - Class F insulation with class B temperature rise
 - 1.15 Service factor
 - Continuous duty
 - Supply voltage $\pm 10\%$, frequency $\pm 5\%$
 - Wye-delta start capability from 15HP (254T) to 250HP (449T)
 - Part winding start capability at low voltage from 1HP to 125HP
 - Bidirectional rotation
 - Low temperature bearing grease (Beacon 325) allows ambient temperature's of -50°C to $+50^{\circ}\text{C}$
 - Altitude below 3300 feet (1,000 meters)
 - Rigid cast iron construction
 - F-1 mounting (F-2 field modifiable)
 - Oversized gasketed conduit box, with neoprene lead seal
 - Oversized vacuum degassed bearings
 - Corrosion resistant zinc plated hardware
 - Corrosion resistant paint
 - Stainless steel name plate
 - Low temperature rise design will allow rating above 40°C ambient and altitudes above 3300 feet, at 1.0 service factor.
 - Fully tested and documented per IEEE Std. 112, Method B & CSA C390
 - EEV mark on nameplate
 - CE mark available
- CSA for Class 1, Division 2, Group A, B, C, D, Temperature Code T3 available

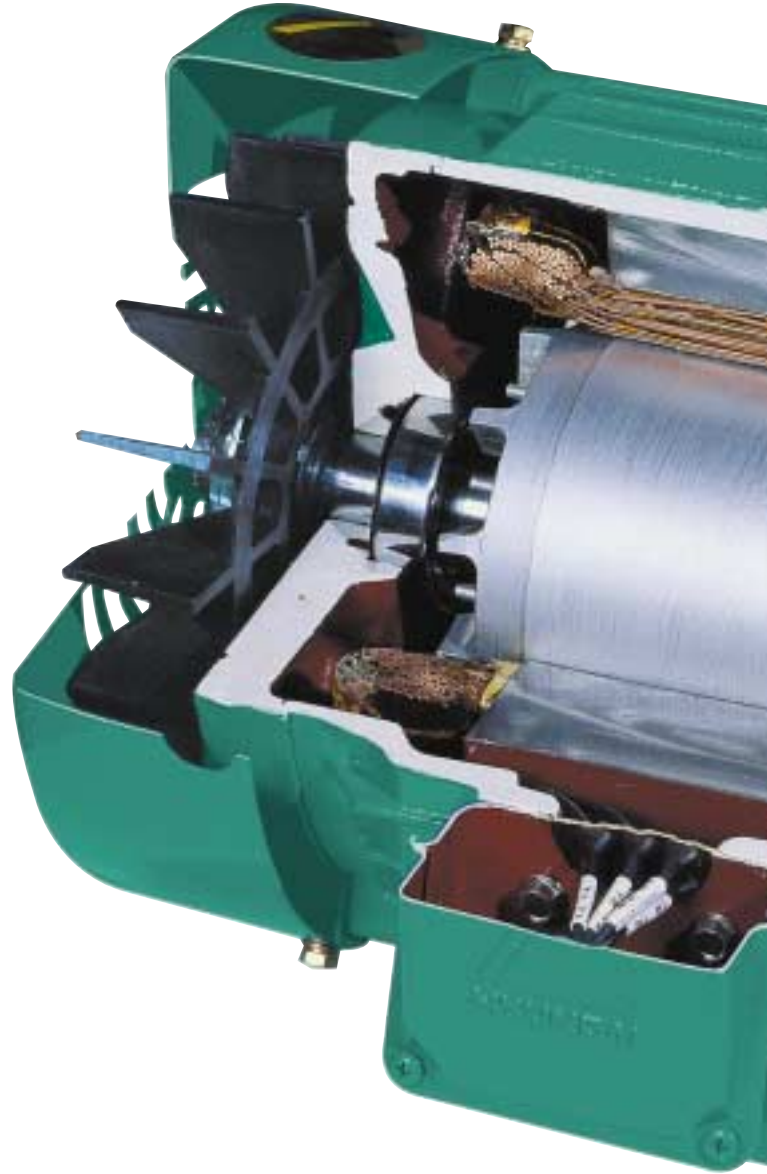
Crown Signature™ Series Cast Iron

Production Range

- Frame size: 143T to 449TZ
- Horsepower: 1HP to 250HP
- Poles: 2, 4, 6 pole
- Enclosure: TEFC,
Rigid cast iron construction

Typical Features

- High Efficiency
- Two year warranty
- Temperature rise
below class B with class F insulation
provides longer winding life
- Quiet running
minimizing noise and vibration
- Service factor
1.15 at 40°C, or S.F. 1.0 at 50°C ambient
- Suitable for horizontal or vertical mounting
- Approvals
CSA, CSA C US, EEV mark,
Class 1, Division 2, C-UL
- C-Face and D-Flange Kits
available



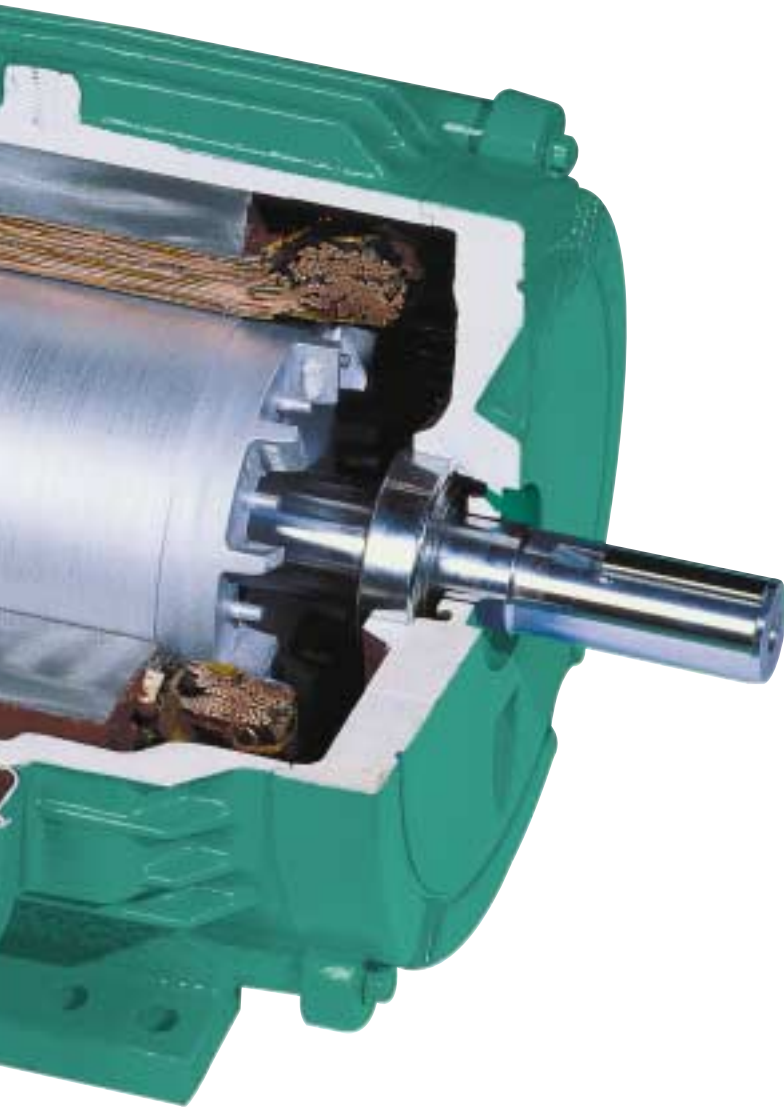
Frames 143T - 286T



Frames 324T - 326T



High Efficiency Motor



Frames 364T - 449TZ



Improved and Optimized Materials with More Features & Performance Benefits

- High grade, low loss, insulated electro-magnetic steel laminations are punched and core loss is controlled for maximum efficiency.
- Heavy enamel coated copper windings with precise winding process ensure consistent motor performance and extended insulation life.
- Superior Class F non-hygroscopic insulation system, multidipped and baked with class H insulation varnish.
- Clearly numbered leads make connection easy.
- Die cast rotor of high conductivity aluminum eliminates variations in bar & end ring resistance. This assures consistent motor performance.
- Dynamically balanced rotor with HALF key ensures smooth operation, exceeding standard NEMA vibration requirements.
- Rotor surface is coated with corrosion resistant paint for outstanding resistance to severe environments.
- Regreasable bearings (324T & larger) with integral grease fittings are shielded against contaminants with internal cast iron bearing caps.
- Oversized gasketed conduit box exceeding CSA, NEMA & NEC minimum volumes is diagonally split and fully rotatable at 90° increments.
- Neoprene lead gasket on conduit box protects motors against moisture and dust.
- Non-sparking, corrosion resistant external polypropylene fan assures best cooling and quieter operation.
- Plastic drain plugs, removable to allow condensation to drain from the motor.
- Corrosion resistant paint and corrosion resistant zinc plated hardware protect motors against severe environments.