Global Leader

CC 038A

ISO 9001/ISO 14001/OHSAS 18001(N/A)
REGISTERED FIRM
DNV Certification B.V. THE NETHERLANDS

Crown Signature
CSA C390•93/EPACT
HIGH EFFICIENCY
HYUNDAI

Crown Signature™ Series Motor

-TEFC: Aluminum Frame, Rolled Steel Frame
-ODP : Rolled Steel Frame, Cast Iron Frame

Meets CSA C390/EPACT'92

HYUNDAI
HEAVY INDUSTRIES CO., LTD.

CC 038A

Foot Mounted Motors

TEFC, Aluminum Frame Motors

- CSA C390 & EPACT'92 efficiency
- Aluminum construction
- Suitable for horizontal or vertical mounting
- Light weight, fast heat dissipation
- NEMA design B torque
- Class F insulation with class B temp. rise
- Die cast aluminum end brackets
- Diagonally split, gasketed steel conduit box, fully rotatable at 90° increments

Outline Dimensions in Inches

FIG. A

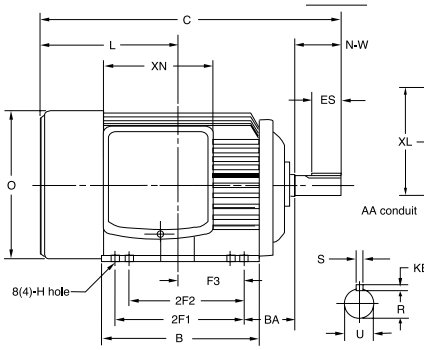
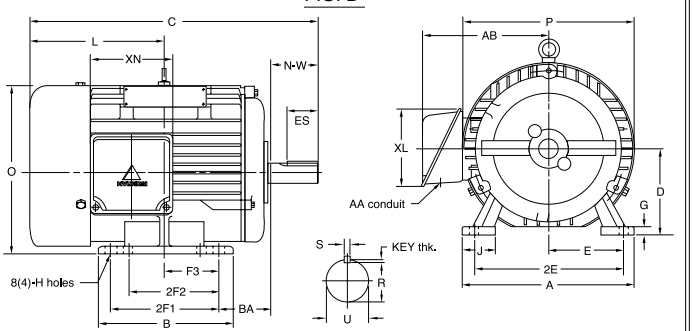


FIG. B

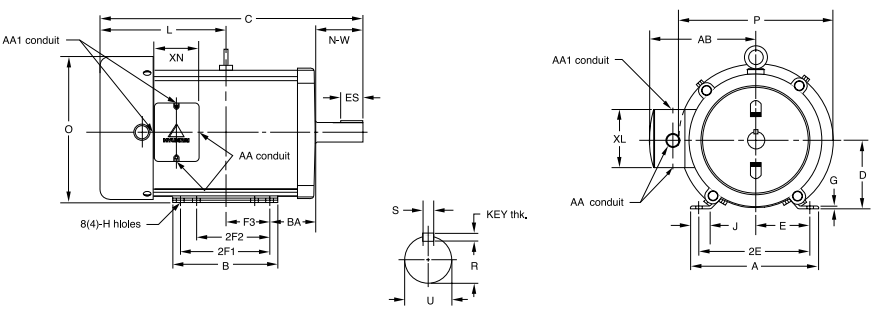


Frame Size	Overall					Mounting			Conduit Box		Shaft			Key		Fig.
	BA	C	D	O	P	2E	2F1	2F2	AA	AB	U	N-W	Keyway R	S (SQ.)	Length	
143T	2.25	12.88	3.50	7.44	7.44	5.50	(5.00)	4.00	0.75	6.46	0.875	2.25	0.771	0.188	1.41	A
145T	2.25	12.88	3.50	7.44	7.44	5.50	5.00	(4.00)	0.75	6.46	0.875	2.25	0.771	0.188	1.41	
182T	2.75	15.42	4.50	8.93	8.86	7.50	(5.50)	4.50	0.75	7.40	1.125	2.75	0.986	0.250	1.78	B
184T	2.75	15.42	4.50	8.93	8.86	7.50	5.50	(4.50)	0.75	7.40	1.125	2.75	0.986	0.250	1.78	
213T	3.50	19.83	5.25	11.00	11.50	8.50	(7.00)	5.50	1.00	8.59	1.375	3.38	1.201	0.312	2.41	
215T	3.50	19.83	5.25	11.00	11.50	8.50	7.00	(5.50)	1.00	8.59	1.375	3.38	1.201	0.312	2.41	

TEFC, Rolled Steel Frame Motors

- CSA C390 & EPACT'92 efficiency
- Rolled steel frame with rigid base
- Cast iron end brackets
- Suitable for horizontal or vertical mounting
- NEMA design B Torque
- Class F insulation
- Steel conduit box with four cable entries at 90° increments
- Gaskets on conduit box

Outline Dimensions in Inches



Frame Size	Overall					Mounting			Conduit Box			Shaft			Key	
	BA	C	D	O	P	2E	2F1	2F2	AA	AA1	AB	U	N-W	Keyway R	S (SQ.)	Length
182T	2.75	15.69	4.50	9.45	9.89	7.50	(5.50)	4.50	0.75	1.00	7.24	1.125	2.75	0.986	0.250	1.78
184T	2.75	15.69	4.50	9.45	9.89	7.50	5.50	(4.50)	0.75	1.00	7.24	1.125	2.75	0.986	0.250	1.78
213T	3.50	19.83	5.25	11.00	11.50	8.50	(7.00)	5.50	1.00	0.75	8.03	1.375	3.38	1.201	0.312	2.41
215T	3.50	19.83	5.25	11.00	11.50	8.50	7.00	(5.50)	1.00	0.75	8.03	1.375	3.38	1.201	0.312	2.41
254T	4.25	25.25	6.25	13.08	13.65	10.00	(10.00)	8.25	1.25	1.50	10.16	1.625	4.00	1.416	0.375	2.91
256T	4.25	25.25	6.25	13.08	13.65	10.00	10.00	(8.25)	1.25	1.50	10.16	1.625	4.00	1.416	0.375	2.91
284TS	4.75	27.00	7.00	14.74	15.48	11.00	(11.00)	9.50	1.50	1.25	10.75	1.625	3.25	1.416	0.375	1.91
284T	4.75	28.37	7.00	14.74	15.48	11.00	(11.00)	9.50	1.50	1.25	10.75	1.875	4.62	1.591	0.500	3.28
286TS	4.75	27.00	7.00	14.74	15.48	11.00	11.00	(9.50)	1.50	1.25	10.75	1.625	3.25	1.416	0.375	1.91
286T	4.75	28.37	7.00	14.74	15.48	11.00	11.00	(9.50)	1.50	1.25	10.75	1.875	4.62	1.591	0.500	3.28

Note: 1. Dimension "D" Tolerance
140T-286T: +0.00, -0.03

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

CC 038A

Foot Mounted Motors

Open Drip Proof Motors

- CSA C390 & EPACT'92 efficiency
- 182T-286T: Rolled steel frame
- 324T & 326T: Cast iron frame
- NEMA design B torque
- Suitable for horizontal or vertical mounting
- Class F insulation with class B temp. rise
- Cast iron end brackets
- Steel conduit box cable entry at 90° increments

Outline Dimensions in Inches

FIG. A - Rolled Steel Frame

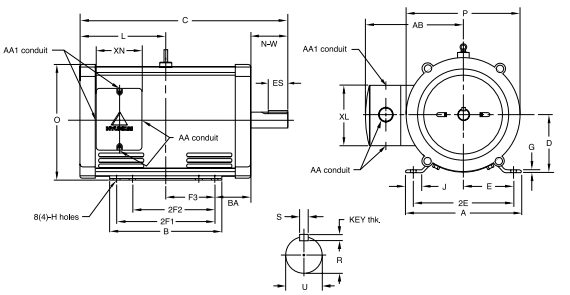
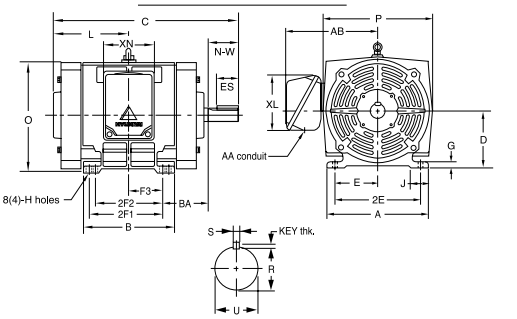


FIG. B - Cast Iron Frame



Frame Size	Overall					Mounting			Conduit Box			Shaft			Key		Fig.
	BA	C	D	O	P	2E	2F1	2F2	AA	AA1	AB	U	N-W	Keyway R	S (SQ.)	Length	
182T	2.75	13.62	4.50	8.74	8.50	7.50	(5.50)	4.50	0.75	1.00	7.24	1.125	2.750	0.986	0.250	1.78	A
184T	2.75	13.62	4.50	8.74	8.50	7.50	5.50	(4.50)	0.75	1.00	7.24	1.125	2.750	0.986	0.250	1.78	
213T	3.50	17.31	5.25	10.27	10.07	8.50	(7.00)	5.50	1.00	0.75	8.03	1.375	3.380	1.201	0.312	2.41	
215T	3.50	17.31	5.25	10.27	10.07	8.50	7.00	(5.50)	1.00	0.75	8.03	1.375	3.380	1.201	0.312	2.41	
254T	4.25	22.39	6.25	12.29	12.30	10.00	(10.00)	8.25	1.25	1.50	10.16	1.625	4.000	1.416	0.375	2.91	
256T	4.25	22.39	6.25	12.29	12.30	10.00	10.00	(8.25)	1.25	1.50	10.16	1.625	4.000	1.416	0.375	2.91	
284TS	4.75	23.70	7.00	13.76	13.46	11.00	(11.00)	9.50	1.50	1.25	10.75	1.625	3.250	1.416	0.375	1.91	
284T	4.75	25.07	7.00	13.76	13.46	11.00	(11.00)	9.50	1.50	1.25	10.75	1.875	4.620	1.591	0.500	3.28	
286TS	4.75	23.70	7.00	13.76	13.46	11.00	11.00	(9.50)	1.50	1.25	10.75	1.625	3.250	1.416	0.375	1.91	
286T	4.75	25.07	7.00	13.76	13.46	11.00	11.00	(9.50)	1.50	1.25	10.75	1.875	4.620	1.591	0.500	3.28	
324TS	5.25	24.56	8.00	16.46	16.54	12.50	(12.00)	10.50	2.00	-	14.57	1.875	3.750	1.591	0.500	2.03	B
324T	5.25	26.06	8.00	16.46	16.54	12.50	(12.00)	10.50	2.00	-	14.57	2.125	5.250	1.845	0.500	3.91	
326TS	5.25	24.56	8.00	16.46	16.54	12.50	12.00	(10.50)	2.00	-	14.57	1.875	3.750	1.591	0.500	2.03	
326T	5.25	26.06	8.00	16.46	16.54	12.50	12.00	(10.50)	2.00	-	14.57	2.125	5.250	1.845	0.500	3.91	

Note: 1. Dimension "D" Tolerance
140T-326T: +0.00, -0.03
2. Dimension "U" Tolerance
Up to 1.500 Dia. : +0.000, -0.0005
1.625 Dia.& Larger: +0.000, -0.001

CC 038A

Performance Data

TEFC, Aluminum Frame Motors

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

Rated Output	Pole	Frame Size	Characteristics at Rated Output							Locked Rotor Current		Torque			Moment of Inertia WK²	NEMA Code Letter	Approx Weight
			Full Load Speed	Efficiency			Power Factor	Full Load Current				Full Load	Locked Rotor	Break-Down			
				Full Load		3/4 Load	Full Load	460 V	575 V	460 V	575 V						
				NOM.	MIN.												
HP			RPM	%	%	%	%	A	A	A	A	LB. FT	% FLT	% FLT	LB. FT²		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	37
	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	38
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	38
	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	39
	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	60
2	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	38
	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	40
	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	64
3	2	145T	3460	85.5	82.5	85.0	86.0	3.8	3.1	32.0	25.6	4.6	200	250	0.073	K	38
	4	182T	1725	87.5	85.5	87.3	82.0	3.9	3.1	27.4	21.9	9.1	220	280	0.147	J	60
	6	213T	1175	87.5	85.5	87.7	72.0	4.5	3.6	31.7	25.4	13.4	200	300	0.702	K	94
5	2	184T	3485	87.5	85.5	88.0	84.0	6.4	5.1	42.7	34.2	7.5	180	270	0.159	H	64
	4	184T	1720	87.5	85.5	87.3	83.0	6.4	5.1	45.1	36.1	15.3	210	280	0.216	J	64
	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	105
7.5	2	184T	3490	88.5	86.5	88.9	84.0	9.4	7.6	63.3	50.6	11.3	180	270	0.196	H	64
	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	94
10	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	94
	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	94
15	2	215T	3485	90.2	88.5	91.3	88.5	17.6	14.1	112.6	90.1	22.6	150	220	0.524	G	105

TEFC, Rolled Steel Frame Motors

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

Rated Output	Pole	Frame Size	Characteristics at Rated Output							Locked Rotor Current		Torque			Moment of Inertia WK²	NEMA Code Letter	Approx Weight
			Full Load Speed	Efficiency			Power Factor	Full Load Current				Full Load	Locked Rotor	Break-Down			
				Full Load		3/4 Load	Full Load	460 V	575 V	460 V	575 V						
				NOM.	MIN.												
HP			RPM	%	%	%	%	A	A	A	A	LB. FT	% FLT	% FLT	LB. FT²		LBS
3	4	182T	1745	87.5	85.5	87.4	83.5	3.8	3.0	28.1	22.5	9.0	230	330	0.327	J	67
	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	119
5	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	82
	4	184T	1730	87.5	85.5	88.4	85.0	6.3	5.1	46.0	36.8	15.2	215	300	0.411	J	82
	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	150
7.5	2	184T	3500	88.5	86.5	89.1	87.5	9.1	7.3	60.8	48.6	11.3	190	250	0.197	H	82
	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	119
	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	232
10	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	150
	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	150
	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	287
15	2	215T	3485	90.2	88.5	91.3	88.5	17.6	14.1	112.6	90.1	22.6	150	220	0.524	G	150
	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	232
	6	284T	1180	90.2	88.5	91.6	83.0	18.3	15.0	114.4	91.6	66.8	145	220	6.341	G	348
20	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	287
	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	287
	6	286T	1175	90.2	88.5	91.7	83.5	24.9	19.9	144.2	115.4	87.4	135	210	7.102	G	384
25	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	348
	4	284T	1770	92.4	91.0	92.8	84.0	30.2	24.2	181.0	144.8	74.2	180	215	4.222	G	348
30	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	384
	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	384

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.

Performance Data

Open Drip Proof Motors

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

Rated Output	Pole	Frame Size	Characteristics at Rated Output							Locked Rotor Current		Torque			Moment of Inertia WK²	NEMA Code Letter	Approx Weight
			Full Load Speed	Efficiency			Power Factor	Full Load Current				Full Load	Locked Rotor	Break-Down			
				Full Load		3/4 Load	Full Load	460 V	575 V	460 V	575 V						
				NOM.	MIN.												
HP			RPM	%	%	%	%	A	A	A	A	LB. FT	% FLT	% FLT	LB. FT²		LBS
3	4	182T	1750	86.5	84.0	87.5	79.5	4.1	3.3	29.8	23.9	9.0	250	340	0.247	K	63
	6	213T	1175	86.5	84.0	86.2	70.5	4.6	3.7	32.0	25.6	13.4	170	290	0.562	K	106
5	2	182T	3500	85.5	82.5	86.9	78.5	7.0	5.6	45.7	36.6	7.5	155	250	0.109	J	63
	4	184T	1730	87.5	85.5	88.8	85.0	6.3	5.0	46.0	36.8	15.2	260	340	0.370	J	72
	6	215T	1165	87.5	85.5	88.3	76.0	7.0	5.6	45.8	36.6	22.5	170	270	0.845	J	121
7.5	2	184T	3485	87.5	85.5	88.7	81.0	9.9	7.9	63.4	50.7	11.3	165	270	0.147	H	72
	4	213T	1755	88.5	86.5	89.9	82.5	9.6	7.7	62.5	50.0	22.4	220	260	0.702	H	106
	6	254T	1180	88.5	86.5	89.7	70.5	11.3	9.0	63.5	50.8	33.4	180	230	1.649	H	196
10	2	213T	3500	88.5	86.5	89.9	81.0	13.1	10.4	81.0	64.8	15.0	165	250	0.301	H	106
	4	215T	1750	89.5	87.5	90.7	84.0	12.5	10.0	78.5	62.8	30.0	230	250	0.937	G	121
	6	256T	1175	90.2	88.5	90.0	72.5	14.3	11.5	80.9	64.7	44.7	185	230	2.259	H	225
15	2	215T	3480	89.5	87.5	90.4	82.5	19.0	15.2	116.0	92.8	22.6	170	230	0.363	G	121
	4	254T	1770	91.0	89.5	92.0	82.5	18.7	15.0	116.0	92.8	44.5	210	240	1.825	G	196
	6	284T	1180	90.2	88.5	91.9	82.0	19.0	15.2	115.8	92.7	66.8	180	230	5.833	G	296
20	2	254T	3540	90.2	88.5	92.4	87.0	23.9	19.1	144.4	115.5	29.7	140	220	0.873	G	196
	4	256T	1760	91.0	89.5	92.4	83.0	24.8	19.8	143.8	115.0	59.7	185	200	2.171	G	225
	6	286T	1180	91.0	89.5	92.2	83.0	24.8	19.8	143.8	115.0	89.0	150	205	7.102	G	364
25	2	256T	3535	91.0	89.5	92.5	88.5	29.1	23.3	174.4	139.5	37.1	135	230	1.011	F	225
	4	284T	1775	91.7	90.2	93.0	82.0	31.1	24.9	182.1	145.7	74.0	160	215	3.377	G	296
	6	324T	1180	91.7	90.2	92.8	81.0	31.5	25.2	182.5	146.0	111.3	180	220	11.162	G	518
30	2	284TS	3560	91.0	89.5	92.0	90.0	34.3	27.4	216.1	172.9	44.3	165	210	2.394	G	296
	4	286T	1770	92.4	91.0	93.4	82.5	36.8	29.5	217.4	173.9	89.0	155	210	3.858	G	364
	6	326T	1180	92.4	91.0	93.4	82.0	37.1	29.7	216.9	173.5	133.5	180	230	14.352	G	540
40	2	286TS	3555	91.7	90.2	93.0	90.5	45.1	36.1	284.3	227.5	59.1	170	240	2.874	G	364
	4	324T	1770	93.0	91.7	93.6	84.0	47.9	38.4	282.9	226.3	118.7	190	240	8.213	G	518
50	2	324TS	3565	92.4	91.0	92.0	86.0	58.9	47.1	362.3	289.9	73.7	160	230	5.103	G	518
	4	326T	1770	93.0	91.7	93.6	84.5	59.6	47.7	357.4	286.0	148.4	200	250	11.162	G	540
60	2	326TS	3565	93.0	91.7	92.1	89.0	67.9	54.3	434.4	347.5	88.4	160	230	6.821	G	540

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.

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“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 cast iron, rolled steel and aluminum 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.

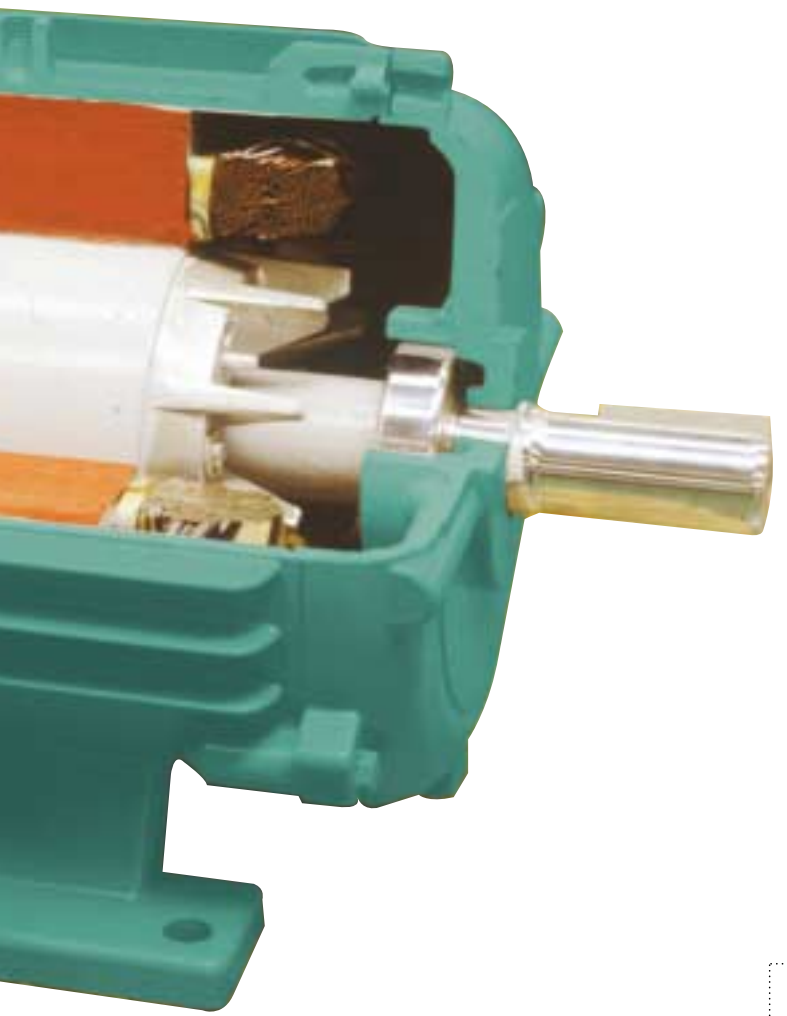
Compared with standard efficiency motors, Hyundai's High Efficiency motors guarantee better performance.

- Approvals: CSA, CSA C US, EEV mark

Standard Specifications

- AC 3 phase, squirrel cage induction motor
- CSA C390 & EPACT'92 efficiency
- NEMA design B torque
- NEMA MG.1, EEMAC M1-6, CSA C390
- 60 Hz, 208-230/460 V and 575 V
- Class F insulation
- 1.15 Service Factor
- Continuous duty
- Supply voltage ±10%, frequency ±5%
- Wye-delta start capability from 15HP (254T & higher)
- Part winding start capability at low voltage
- Low temperature bearing grease (Polyrex EM Grease) allows ambient temperature of -30℃ to +50℃
- Altitude below 3300 feet (1,000 meters)
- F-1 mounting (F-2 field modifiable)
- Antifriction deep groove ball bearings
- Bidirectional rotation
- Corrosion resistant zinc plated hardware
- Fully tested and documented per IEEE Std. 112, Method B & CSA C390
- CSA C UL mark on nameplate
- EEV mark on nameplate
- CE mark available

Typical Features & Construction



Totally Enclosed Fan Cooled Enclosure

- Rolled steel frame: 182T to 286T
- Aluminum frame: 143T to 215T

Open Drip Proof Enclosure

- Rolled steel frame: 182T to 286T
- Cast Iron frame: 324T & 326T

Construction of ODP Cast Iron Frame

- Cast iron frame and cast iron end brackets
- Suitable for horizontal or vertical mounting
- Diagonally split, gasketed steel conduit box, fully rotatable at 90° increments
- Accepts C-face kits
- Stainless steel name plate

Construction of Rolled Steel Frame

- Rolled steel frame with rigid base
- Suitable for horizontal or vertical mounting
- Cast iron end brackets
- Steel conduit box with four cable entries at 90° increments
- Removable base
- C-face kits available for TEFC
- Mylar nameplate

Construction of Aluminum Frame

- Die cast aluminum frame
- Suitable for horizontal or vertical mounting
- Die cast aluminum end brackets
- Diagonally split, gasketed steel conduit box, fully rotatable at 90° increments
- Accepts C-face kits
- Stainless steel name plate

Typical Construction

- High grade, low loss, cold-rolled steel laminations
- Superior Class F insulation system with class H insulation varnish
- Clearly numbered leads
- Die cast rotor of high conductivity aluminum
- Dynamically balanced rotor with HALF key
- Corrosion resistant coating on rotor surface
- Prelubricated double shield bearings: 286T & below
- Regreasable bearings with cast iron bearing caps: 324T & 326T
- Non-sparking external polypropylene fan for TEFC enclosure
- Gaskets on conduit box
- Grounding terminal inside of conduit box