

MAX-E2/841® Performance Data

CAT#	HP	FULL LOAD RPM	FRAME	POLES	EFFICIENCY (%)				POWER FACTOR (%)			CURRENTS (A)			KVA CODE LETTER	TORQUE			INERTIA		
					FULL LOAD		3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	NO LOAD 460V	FULL LOAD 460V	LOCKED ROTOR 460V		FULL LOAD (lb-ft)	LOCKED ROTOR (%FLT)	PULL UP (%FLT)	BREAK-DOWN (%FLT)	ROTOR WK' (lb-ft²)	NEMA LOAD WK' (lb-ft²)
					NOM.	MIN.	NOM.	NOM.	NOM.	NOM.	NOM.	NOM.	NOM.	NOM.		NOM.	NOM.	NOM.	NOM.	NOM.	NOM.
HB0012	1	3465	143T	2	82.5	80.0	81.5	78.5	85.0	79.5	68.5	0.68	1.34	15	N	1.515	350	365	400	0.046	1.2
HB0014	1	1745	143T	4	85.5	82.5	84.0	81.5	73.0	64.5	51.5	0.8	1.5	15	N	3.009	310	280	410	0.086	5.8
HB0016	1	1150	145T	6	82.5	80.0	82.5	80.0	65.5	57.0	44.5	1.15	1.73	15	N	4.566	250	220	300	0.122	15
HB1/52	1.5	3465	143T	2	84.0	81.5	84.0	81.5	83.5	77.0	65.0	0.93	2	20	M	2.273	340	280	350	0.052	1.8
HB1/54	1.5	1730	145T	4	86.5	84.0	86.5	85.5	78.0	70.0	57.0	1.11	2.08	20	M	4.552	300	260	360	0.093	8.6
HB1/56	1.5	1170	182T	6	87.5	85.5	85.5	82.5	63.5	55.0	42.5	1.71	2.53	20	M	6.731	210	190	350	0.313	23
HB0022	2	3465	145T	2	86.5	84.0	86.5	85.5	86.0	80.0	70.0	1	2.52	25	L	3.031	350	315	390	0.064	2.4
HB0024	2	1740	145T	4	86.5	84.0	84.0	84.0	78.0	70.0	57.0	1.46	2.78	25	L	6.035	270	220	330	0.108	11
HB0026	2	1170	184T	6	88.5	86.5	88.5	86.5	70.5	63.0	50.5	1.69	3	25	L	8.975	180	150	270	0.423	30
HB0032	3	3490	182T	2	88.5	86.5	90.2	89.5	90.0	87.0	79.5	1.19	3.53	32	K	4.513	280	250	380	0.19	3.5
HB0034	3	1755	182T	4	89.5	87.5	89.5	87.5	84.0	79.5	68.5	1.4	3.74	32	K	8.975	225	175	345	0.404	17
HB0036	3	1175	213T	6	89.5	87.5	89.5	87.5	78.0	70.5	58.5	2.09	4.02	32	K	13.41	210	180	340	0.918	44
HB0052	5	3480	184T	2	88.5	86.5	89.5	89.5	92.5	91.0	85.5	1.4	5.72	46	J	7.544	290	230	320	0.272	5.7
HB0054	5	1745	184T	4	89.5	87.5	88.5	88.5	85.5	81.5	71.5	2.22	6.12	46	J	15.04	185	140	285	0.422	27
HB0056	5	1170	215T	6	91.0	89.5	91.0	89.5	82.5	77.0	65.5	2.88	6.24	46	J	22.44	190	160	300	1.224	71
HB7/52	7.5	3510	213T	2	91.0	89.5	91.0	90.2	89.0	87.0	80.0	2.55	8.67	64	H	11.22	200	175	275	0.448	8.3
HB7/54	7.5	1755	213T	4	91.7	90.2	91.0	89.5	86.5	82.0	72.0	2.77	8.85	64	H	22.44	250	155	270	0.848	39
HB7/56	7.5	1170	254T	6	91.0	89.5	91.0	89.5	80.5	75.0	64.0	4.41	9.59	64	H	33.66	240	215	270	2.158	104
HB0102	10	3510	215T	2	91.0	89.5	91.7	91.0	89.5	88.5	82.5	2.96	11.5	81	H	14.96	220	180	260	0.573	11
HB0104	10	1755	215T	4	91.7	90.2	91.0	91.0	88.0	84.0	75.5	3.37	11.6	81	H	29.92	250	145	260	1.082	51
HB0106	10	1170	256T	6	91.0	89.5	91.7	90.2	80.5	75.0	64.0	5.87	12.8	81	H	44.87	225	185	250	2.872	137
HB0152	15	3525	254T	2	92.4	91.0	92.4	91.7	91.5	90.5	86.0	3.72	16.6	116	G	22.34	210	180	270	1.088	16
HB0154	15	1765	254T	4	92.4	91.0	93.0	92.4	88.0	85.0	77.0	6.04	17.3	116	G	44.62	245	180	270	2.179	75
HB0156	15	1175	284T	6	92.4	91.0	93.0	93.0	83.5	79.5	70.5	6.57	18.2	116	G	67.03	215	180	230	6.823	200
HB0202	20	3520	256T	2	92.4	91.0	93.0	93.6	92.5	91.5	88.0	4.14	21.9	145	G	29.83	210	180	260	1.407	21
HB0204	20	1760	256T	4	93.0	91.7	92.4	92.4	87.5	84.5	78.5	7.31	23	145	G	59.66	200	145	240	2.871	99
HB0206	20	1170	286T	6	91.7	90.2	92.4	92.4	84.0	81.0	73.0	7.48	24.3	145	G	89.75	210	160	225	8.34	262
HB0252	25	3545	284T5	2	92.4	91.0	93.0	92.4	91.0	90.5	86.5	5.53	27.8	183	G	37.03	175	135	250	2.507	26
HB0254	25	1765	284T	4	93.6	92.4	93.6	93.6	86.0	83.0	77.0	7.14	29.1	183	G	74.37	205	165	240	4.586	122
HB0256	25	1170	324T	6	93.0	91.7	93.6	93.6	83.0	80.0	71.5	8.65	30.3	183	G	112.2	200	155	205	11.877	324
HB0302	30	3545	286T5	2	93.0	91.7	93.6	93.0	91.0	90.5	87.5	6.04	33.2	218	G	44.43	175	140	240	2.831	31
HB0304	30	1770	286T	4	93.6	92.4	93.6	93.6	87.5	85.5	79.5	8.75	34.3	218	G	88.99	200	160	235	5.274	144
HB0306	30	1175	326T	6	93.0	91.7	93.6	93.6	80.5	78.5	71.0	11.6	37.5	218	G	134.1	210	180	230	12.372	384
HB0402	40	3550	324T5	2	94.1	93.0	94.5	94.1	90.0	89.0	84.5	9.2	44.2	290	G	59.16	150	130	240	3.59	40
HB0404	40	1770	324T	4	94.1	93.0	94.5	94.5	86.0	84.5	78.5	10.6	46.3	290	G	118.7	205	170	220	8.624	189
HB0406	40	1180	364T	6	94.1	93.0	94.5	94.1	86.5	84.5	78.0	15.1	46	290	G	178	200	150	220	17.937	503
HB0502	50	3550	326T5	2	94.1	93.0	94.5	94.5	91.0	90.0	86.5	10.2	54.7	363	G	73.95	150	130	240	4.488	49
HB0504	50	1770	326T	4	94.5	93.6	95.0	95.0	87.0	86.0	80.5	13.1	56.9	363	G	148.3	210	170	220	10.124	232
HB0506	50	1180	365T	6	94.1	93.0	94.5	93.6	86.0	83.0	75.5	20.9	57.8	363	G	222.5	225	170	240	21.386	620
HB0602	60	3550	364T5	2	94.1	93.0	94.5	94.1	93.0	92.0	88.5	12.5	64.2	435	G	88.74	145	130	240	7.379	58
HB0604	60	1775	364T	4	95.0	94.1	95.0	94.5	86.5	83.0	75.5	21.2	68.4	435	G	177.5	200	155	240	12.229	275
HB0606	60	1180	404T	6	94.5	93.6	94.5	94.1	87.0	86.5	80.5	18.1	68.3	435	G	267	200	185	245	33.535	735
HB0752	75	3555	365T5	2	94.5	93.6	95.0	95.0	93.0	92.5	89.0	14.8	79.9	543	G	110.8	145	130	250	9.056	71
HB0754	75	1775	365T	4	95.4	94.5	95.4	95.0	86.5	83.5	75.5	26	85.1	543	G	221.8	200	165	250	14.674	338
HB0756	75	1180	405T	6	94.5	93.6	94.5	94.5	86.5	84.5	79.0	22.6	85.9	543	G	333.7	200	175	225	37.862	904
HB1002	100	3560	405T5	2	95.4	94.5	95.8	95.4	92.0	91.5	88.5	19.6	107	725	G	147.5	140	125	270	10.773	92
HB1004	100	1775	405T	4	95.4	94.5	95.4	95.0	87.5	85.5	80.0	25.4	112	725	G	295.8	215	140	215	26.637	441
HB1006	100	1182	444T	6	95.0	94.1	94.5	93.6	82.5	80.0	73.0	48	119	725	G	444	140	110	230	56	1181
HB1252	125	3566	444T5	2	95.0	94.1	94.5	93.6	86.0	83.5	80.0	37.3	143	907.5	G	184	110	88	220	166	113
HB1254	125	1780	444T	4	95.4	94.5	95.0	94.1	84.0	82.0	77.0	37.9	146	907.5	G	368	130	100	220	44.3	542
HB1256	125	1185	445T	6	95.0	94.1	94.5	93.6	83.0	80.5	74.0	59.7	148	907.5	G	554	140	110	230	68	1452
HB1502	150	3570	445T5	2	95.0	94.1	94.5	93.6	87.0	84.5	81.0	42	170	1085	G	220	110	88	220	20	133
HB1504	150	1783	445T	4	95.8	95.0	95.4	94.5	84.0	82.0	78.0	46.6	175	1085	G	442	130	100	220	52	640
HB1506	150	1186	447T	6	95.8	95.0	95.4	94.5	83.5	81.0	74.0	50.4	176	1085	G	664	135	105	220	103	1719
HB2002	200	3580	447T5	2	95.4	94.5	95.0	94.1	87.0	84.5	81.0	44.6	226	1450	G	293	104	83	210	32	172
HB2004	200	1786	447T	4	96.2	95.4	95.8	95.0	84.5	82.5	78.5	46.4	230	1450	G	588	120	95	210	73.5	831
HB2006	200	1186	449T	6	95.8	95.0	95.4	94.5	84.0	81.0	74.0	65.6	233	1450	G	885	135	103	210	125	2238
HB2502	250	3583	449T5	2	95.8	95.0	95.4	94.5	88.0	85.5	82.0	46.8	278	1825	G	366	103	83	210	44	210
HB2504	250	1787	449T	4	96.2	95.4	95.8	95.0	85.5	83.5	80.0	53.8	285	1825	G	734	110	90	210	83	1017
HB2506	250	1188	449T	6	95.8	95.0	95.4	94.5	84.5	82.0	74.5	76.9	289	1825	G	1104	110	90	210	140	2744
HB3002	300	3583	449T5	2	95.8	95.0	95.4	94.5	88.0	85.5	82.5	50.5	333	2220	G	439	102	81	210	52.5	246
HB3004	300	1788	449T	4	96.2	95.4	95.8	95.0	85.5	83.5	80.0	61.7	342	2200	G	880	100	85	210	107	1197
HB3006	300	1188	449T	6	95.8	95															

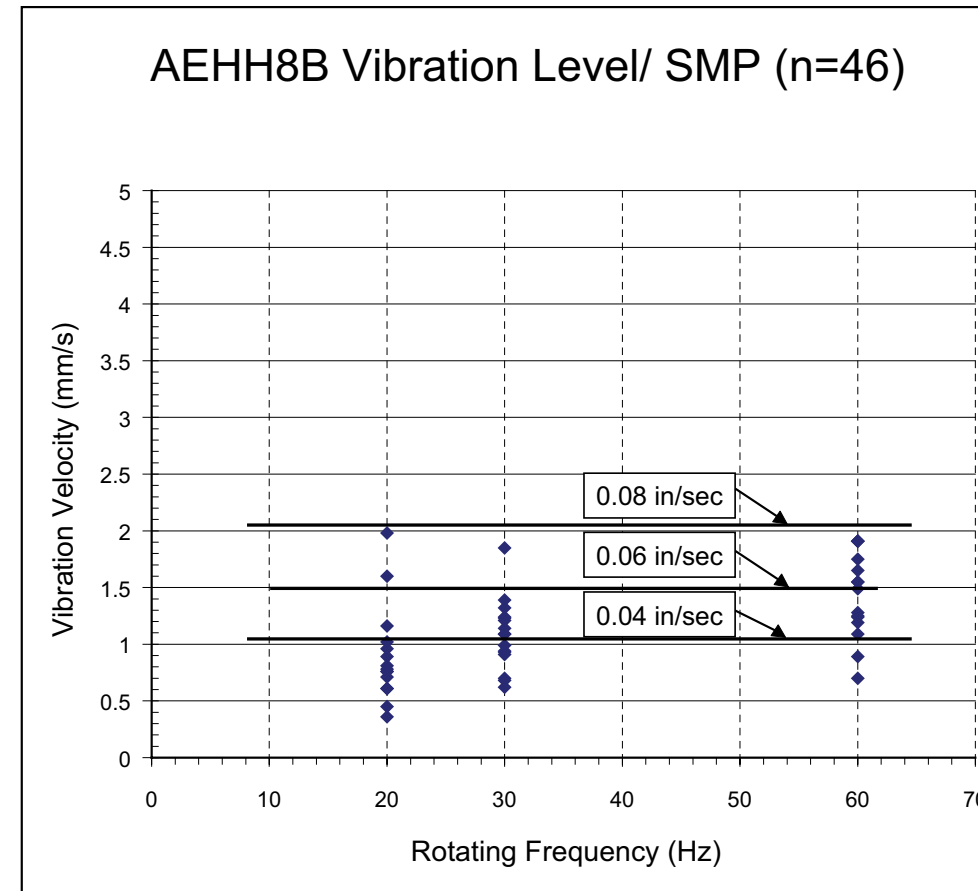
**ELECTRICAL DESIGN**

- 1 - 500 hp; 2, 4, 6 pole
- 3600, 1800, 1200 RPM
- 3 Phase, 60 Hz, 460V
- Motors can be re-rated for 380, 400 and 415 VAC at 50 Hz.
- Designed to meet NEMA MG-1, MG-13, and IEEE 841
- Stock available in 460V; other voltages available, contact factory for details.
- Premium Efficiency; meets or exceeds the requirements of NEMA MG1-12.60, NEMA Premium Efficiency, table 12-12, and Canadian Federal Efficiency Levels defined in CSA C390-93. Full load efficiency of all ratings is certified under the EEV Program of the CSA.
- UL recognized, Class F, non-hygroscopic insulation system with Inverter duty magnet, index, heavy heat resistance enameled copper wire insures longer winding life and reliability.
- CSA certified for Class 1, Division 2, Group B, C and D with Temperature Code T3C.
- Class B temperature rise, 80°C rise by resistance method at 1.0 S.F.; 90°C rise at 1.15 S.F. Class F insulation with Phenolic Alkyd Resin Varnish – 2 dips and bakes
- Three leads, solderless lug terminals.
- Meets IEEE 45 Marine Duty and ABS Type Certified
- Meets GM 7E-TA specifications.
- Suitable for Inverter Duty applications - 10:1 constant torque and 20:1 variable torque applications. 350 hp and larger are 3:1 CT.

**MECHANICAL DESIGN**

- NEMA Design B torques as a minimum
- Bearing temperature rise is below 45°C for all 4P and 6P ratings; 50°C for all 20 motors.
- Sound pressure levels are below 85 dBA providing quiet operation.
- Full cast iron construction: frame, brackets, fan cover, and conduit box.
- Frame provided with two threaded drain holes c/w drain plugs; a drilled and tapped hole for a ground lug is provided on the frame.
- Corrosion-resistant cast iron conduit box with IP55 rated protection has twice the volume required by NEMA. The conduit box is fully gasketed with NPT threaded conduit entry.
- Regreaseable bearing construction with inner bearing caps prevent bearing contamination.
- Non-sparking plastic or bronze fan.
- All interior exposed surfaces including stator coil ends and rotor surfaces are cleaned and coated with moisture resistant varnish. The exterior is painted with zinc-chromate epoxy base with a blue finish.
- Stainless steel hardware and nameplate.
- Vibration will not exceed 0.08 inches per second.
- Optimum rotor design allows for industry leading locked rotor torque per locked rotor amp levels
- Dual Drilled Feet - longer frames (i.e. 145T drilled also for 143T) through 449T Frames only

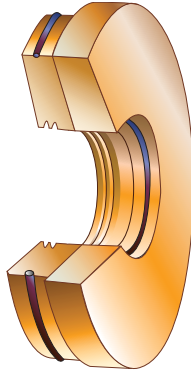
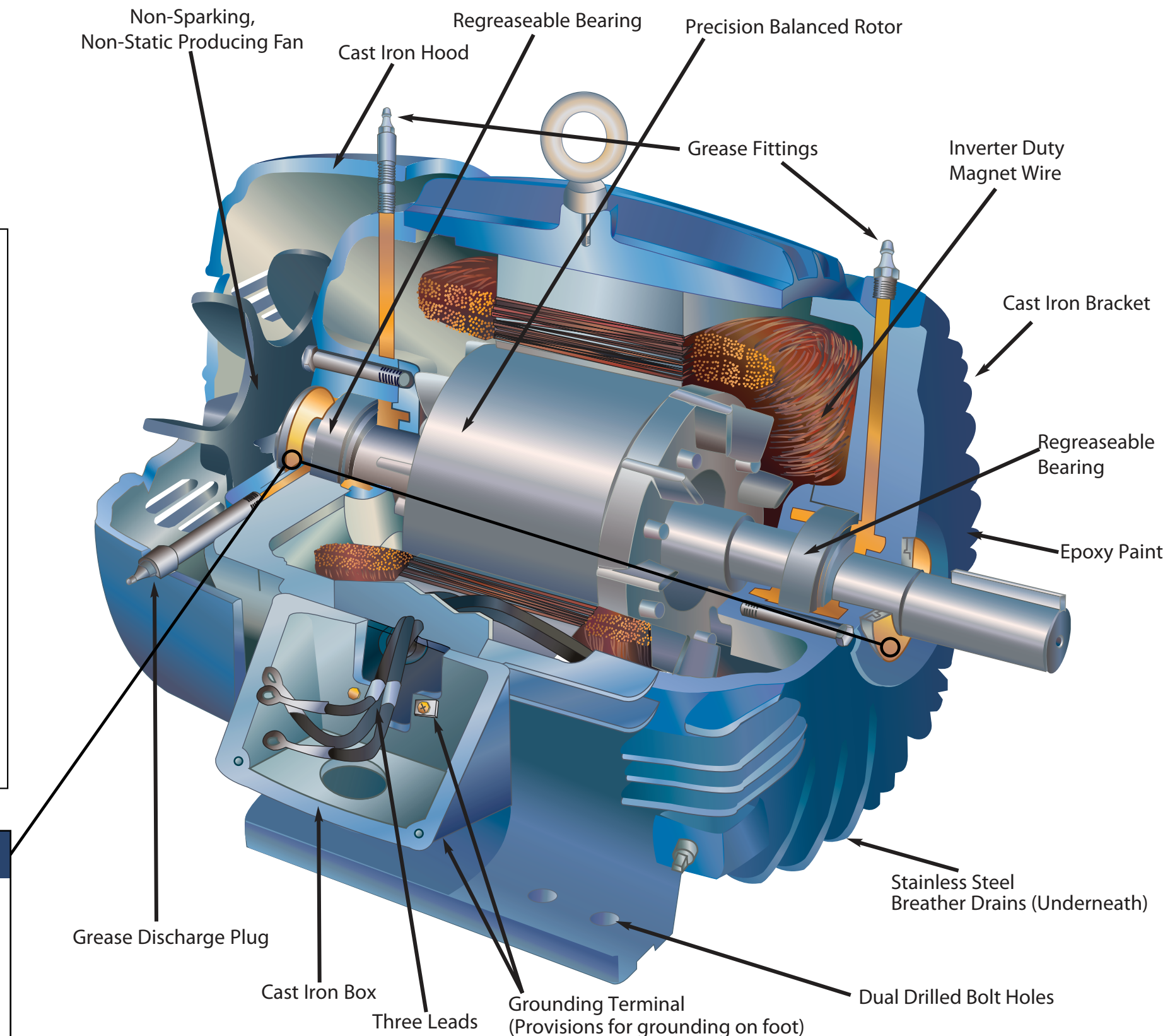
**5 Year Warranty from the Date of Manufacture!**



**Inpro/Seal™**

The Inpro/Seal™ “VBX” bearing isolator, installed on the drive-end and non-drive end for all frames sizes (143T-449T), prevents bearing contamination from moisture, dust, dirt or other materials.

- Dynamically balanced rotor not to exceed 0.08 inches/ second peak velocity; and every motor is guaranteed to meet IEEE 841 vibration standards. A vibration test report is shipped with each motor.
- The foot flatness and shaft runout meet or exceed IEEE 841.
- All cast iron construction except fabricated conduit box for 447T/449T frames.

- UL recognized and CSA approved for inverter duty per NEMA MG 1, Part 31. 300 hp and below (Motor service factor is 1.0 when operated on a VFD).
- Inverter Duty Magnet Wire capable of withstanding voltage spikes of up to 2200V.
- Speed Ranges: 20:1 VT, 10:1 CT. 350 hp and larger are 3:1 CT.