

Blue Chip® Severe Duty / Automotive Duty: GM 7E-TA NEMA Premium® XRI® IEEE-841, Hazardous Duty™

Totally Enclosed, Rigid Base, Three Phase



Applications: For extreme applications in the process industries such as chemical plants, pulp and paper mills, refineries, above-ground mines, food processing, foundries, and other severe duty environments where long life and ultra-high efficiency are required. Guaranteed efficiencies offer an eXtra Return on your Investment when using these premium efficiency motors on high cycle or long run time applications.

Features:

- Meets or exceeds NEMA Premium® efficiencies, except where noted
- NEMA Premium® models are in compliance with EISA2007
- Meets IEEE-841 standard for severe duty applications
- Blue Chip® quality, 100% cast iron construction for rigidity and reduced vibration
- Inpro/Seal® VBX® bearing isolators on drive end shaft extension TENV and on both ends of TEFC
- Provisions to add stub shaft for an encoder (182T-449T, TEFC only)
- Internal and external epoxy paint
- MAX GUARD® Class F insulation system
- Constant Torque speed range is listed in CT SPEED RANGE column
- 1.15 Service Factor on sinewave, 1.0 Service Factor on IGBT power
- Bearing caps (254T and larger)
- Precision balanced
- Extended grease tubes, regreasable in service
- Brass drain and breather
- Meets IEEE45 USCG Marine Duty, API RPI4F for offshore platforms, IP56
- Meets NEMA MG1 - 1.26.6 Waterproof specification
- Hazardous Duty™ Division 2 CSA certification nameplate
- Division 2 / Zone 2 Class I (gases), Groups A, B, C, D
- Meets temperature code T2B
- Actual test and vibration data supplied with each motor
- Ball bearings (except as noted)
- UL Recognized (through 449T) and CSA Certified
- Five year warranty



Models through 40 HP are capable of modification as follows (contact factory to confirm):

- 1.25 Service Factor (sinewave only)
- 50Hz at same HP, 1.0 Service Factor (sinewave only)
- Certain combinations of existing and new nameplate markings are not possible (contact factory to confirm)
- Any nameplate changes are subject to modification charges (see MOD Central section)
- Contact Marathon Electric for optional nameplate markings on 50 HP and larger

Suitable for use on VFD per guidelines on page 17.

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	CT SPEED RANGE*	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	"C" DIM.	FOOT NOTES	C FACE KIT
1	1800	460	143T	W501	143THTN9026	*	1000:1	\$618	E9	85.5	1.5	10.43	75,76,N	A181
	1800	575	143T	W502	143THTN19033		1000:1	\$618	E9	85.5	1.2	10.43	75,76,N	A181
	1200	460	145T	W503	145THTN9076		1000:1	\$778	E9	80.0	1.65	11.43	75,76,N,NP	A262
	1200	575	145T	W638	145THTN19079		1000:1	\$778	E9	80.0	1.3	11.43	75,76,N,NP	A262
	900	460	182T	W504	182THFS19101		20:1	\$1,367	E9	74.0	2.2	15.19	75,NE	A182
1 1/2	3600	460	143T	W505	143THTN9001		1000:1	\$774	E9	86.5	2.0	10.43	75,76,N	A181
	3600	575	143T	W506	143THTN9005		1000:1	\$774	E9	86.5	1.6	10.43	75,76,N	A181
	1800	460	145T	W507	145THTN9026	*	1000:1	\$670	E9	84.0	2.2	11.43	75,76,N,NP	A262
	1800	575	145T	W508	145THTN19045	*	1000:1	\$670	E9	84.0	1.75	11.43	75,76,d,N,NP	A262
	1200	460	182T	W509	182THTS9076	*	1000:1	\$996	E9	87.5	2.2	12.71	75,d,N	A182
2	3600	460	145T	W511	145THTN9001		1000:1	\$811	E9	85.5	2.5	11.43	75,76,N	A262
	3600	575	145T	W512	145THTN19002		1000:1	\$811	E9	85.5	2.0	11.43	75,76,N	A262
	1800	460	145T	W513	145THTN9027	*	1000:1	\$736	E9	85.5	3.0	11.43	75,76,N,NP	A262
	1800	575	145T	W514	145THTN19033		1000:1	\$736	E9	85.5	2.4	11.43	75,76,N,NP	A262
	1200	460	184T	W515	184THTS9076		1000:1	\$1,230	E9	88.5	3.0	13.71	75,N	A182
3	3600	460	182T	W517	182THTS9001		1000:1	\$1,114	E9	87.5	3.8	12.71	75,N	A182
	1800	460	182T	W519	182THTS9026	*	1000:1	\$999	E9	90.2	4.0	12.71	75,N	A182
	1800	575	182T	W520	182THTS19033		1000:1	\$999	E9	90.2	3.2	12.71	75,N	A182
	1200	460	213T	W521	213THFS9076	*	20:1	\$1,515	E9	89.5	4.4	18.22	75	A183
	900	460	215T	W522	215THFS9101		20:1	\$2,269	E9	86.5	5.0	19.72	75,NE	A183

Blue shaded areas are Cast Iron Frames

* Requires nameplate modification

Catalog numbers (Cat No.) highlighted in bold blue have efficiency levels that meet or exceed U.S. EPA and/or NRC Canadian standards.

Continued on next page.

Blue Chip® Severe Duty / Automotive Duty: GM 7E-TA NEMA Premium® XRI® IEEE-841, Hazardous Duty™

Totally Enclosed, Rigid Base, Three Phase

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	CT SPEED RANGE*	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	"C" DIM.	FOOT NOTES	C FACE KIT
5	3600	460	184T	W523	184THFS9001	★	2:1	\$1,238	E9	89.5	5.9	16.19	75	A182
	3600	575	184T	W524	184THFS19006		2:1	\$1,238	E9	89.5	4.7	16.19	75	A182
	1800	460	184T	W525	184THFS9026	★	20:1	\$1,158	E9	90.2	6.2	16.19	75	A182
	1800	575	184T	W526	184THFS9030	★	20:1	\$1,158	E9	90.2	5.0	16.19	75	A182
	1200	460	215T	W527	215THFS9076	★	20:1	\$1,860	E9	89.5	6.9	19.72	75	A183
	1200	575	215T	W528	215THFS19077		20:1	\$1,860	E9	89.5	5.5	19.72	75	A183
	900	460	254T	W529	254THFNA9101			\$2,958	E9	88.5	7.5	23.52	75,NE	A184
7 1/2	3600	460	213T	W530	213THTS9001	★	2:1	\$1,495	E9	91.7	8.9	17.18	75,N	A183
	3600	575	213T	W531	213THTS19005		2:1	\$1,495	E9	91.7	7.1	17.18	75,N	A183
	1800	460	213T	W532	213THFS9026	★	20:1	\$1,419	E9	91.7	9.6	19.73	75	A183
	1800	575	213T	W533	213THFS9030	★	20:1	\$1,419	E9	91.7	7.7	19.72	75	A183
	1200	460	254T	W534	254THFNA9076	★	20:1	\$2,233	E9	91.0	9.9	23.52	75	A184
	900	460	256T	W536	256THFNA9101		20:1	\$3,668	E9	88.5	11.0	25.27	75,NE	A184
	10	3600	460	215T	W537	215THFS9001	★	2:1	\$1,746	E9	91.7	11.9	19.72	75
3600		575	215T	W538	215THFS19006		2:1	\$1,746	E9	91.7	9.5	19.72	75	A183
1800		460	215T	W539	215THFS9026	★	20:1	\$1,709	E9	91.7	12.5	19.72	75	A183
1800		575	215T	W540	215THFS19033	★	20:1	\$1,709	E9	91.7	10.0	19.73	75	A183
1200		460	256T	W541	256THFNA9076		20:1	\$2,727	E9	91.0	13.1	25.27	75	A184
1200		575	256T	W542	256THFNA19081		20:1	\$2,727	E9	91.0	10.5	25.27	75	A184
900		460	284T	W543	284THFNA19102		20:1	\$4,459	E9	90.2	16.0	27.88	NE	A186
15	3600	460	254T	W544	254THFNA9001	★	20:1	\$2,165	E9	91.7	17.5	23.52		A184
	1800	460	254T	W546	254THFNA9026	★	20:1	\$2,033	E9	92.4	18.8	23.52		A184
	1800	575	254T	W547	254THFNA9030	★	20:1	\$2,033	E9	92.4	15.1	23.52		A184
	1200	460	284T	W548	284THFNA9076	★	20:1	\$3,620	E9	91.7	20.4	27.88		A186
	1200	575	284T	W549	284THFNA16585		20:1	\$3,620	E9	91.7	16.3	26.34		A186
	900	460	286T	W550	286THFNA19101		20:1	\$5,594	E9	90.2	22.0	27.84	NE	A186
20	3600	460	256T	W551	256THFNA9001	★	2:1	\$2,683	E9	92.4	23.4	25.27	75	A184
	1800	460	256T	W553	256THFNA9026	★	20:1	\$2,533	E9	93.0	24.1	25.27	75	A184
	1800	575	256T	W554	256THFNA19033	★	20:1	\$2,533	E9	93.0	19.3	25.27	75	A184
	1200	460	286T	W555	286THFNA9076		20:1	\$4,410	E9	91.7	26.8	27.84		A186
	1200	575	286T	W556	286THFNA19077		20:1	\$4,410	E9	91.7	21.4	27.84		A186
25	3600	460	284TS	W558	284TSHFNA9001	★	2:1	\$3,305	E9	93.6	28.1	24.97		A186
	3600	575	284TS	W559	284TSHFNA9005		2:1	\$3,305	E9	93.6	22.4	24.97		A186
	1800	460	284T	W560	284THFNA9026	★	20:1	\$3,015	E9	93.6	31.0	26.44		A186
	1800	575	284T	W561	284THFNA19033		20:1	\$3,015	E9	93.6	24.8	26.34		A186
	1200	460	324T	W562	324THFS9076		20:1	\$5,346	E9	93.0	32.5	28.87		A187
	1200	575	324T	W563	324THFS9080		20:1	\$5,346	E9	93.0	26.0	28.87		A187
30	3600	460	286TS	W565	286TSHFNA9001	★	2:1	\$3,860	E9	93.6	33.8	26.44		A186
	1800	460	286T	W567	286THFNA9026	★	20:1	\$3,507	E9	94.1	36.5	27.84		A186
	1800	575	286T	W568	286THFNA19033		20:1	\$3,507	E9	94.1	29.2	27.84		A186
	1200	460	326T	W569	326THFS9076	★	20:1@	\$6,157	E9	93.0	38.5	30.37		A187
	1200	575	326T	W643	326THFS19078	★	20:1@	\$6,157	E9	93.0	31.0	30.37	d	A187
40	3600	460	324TS	W571	324TSHFS9001	★	2:1	\$5,090	E9	93.6	47.0	27.37		A187
	1800	460	324T	W573	324THFS9026	★	20:1@	\$4,657	E9	94.1	47.5	28.87		A187
	1800	575	324T	W574	324THFS19033		20:1@	\$4,657	E9	94.1	38.0	30.37		A187
	1200	460	364T	W575	364THFS9086		20:1@	\$7,677	E9	93.6	50.0	31.50	NP	A188
	1200	575	364T	W639	364THFS19077		20:1@	\$7,677	E9	93.6	40.0	31.50	NP	A188
	900	460	365T	W576	365THFS19101		20:1@	\$10,946	E9	91.7	53.0	32.50	NE	A188

SEVERE DUTY

Blue shaded areas are Cast Iron Frames

* Requires nameplate modification
@ Requires larger fan

Catalog numbers (Cat No.) highlighted in bold blue have efficiency levels that meet or exceed U.S. EPA and/or NRCan Canadian standards.

Continued on next page.

Blue Chip® Severe Duty / Automotive Duty: GM 7E-TA NEMA Premium® XRI® IEEE-841, Hazardous Duty™

Totally Enclosed, Rigid Base, Three Phase

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	CT SPEED RANGE*	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	"C" DIM.	FOOT NOTES	C FACE KIT
50	3600	460	326TS	W577	326TSHFS9001		2:1	\$6,584	E9	93.6	58.0	28.87		A187
	3600	575	326TS	W578	326TSHFS9005		2:1	\$6,584	E9	93.6	46.5	28.87		A187
	1800	460	326T	W580	326THFS9026	*	20:1@	\$5,720	E9	94.5	60.0	30.37		A187
	1800	460	326TS	W579	326TSHFS9036		20:1@	\$5,720	E9	94.5	60.0	28.87		A187
	1800	575	326T	W581	326THFS19033		20:1@	\$5,720	E9	94.5	48.0	30.37		A187
	1200	460	365T	W582	365THFS9086	*	20:1@	\$8,816	E9	93.6	61.5	32.50	NP	A188
	1200	575	365T	W640	365THFS19077		20:1@	\$8,816	E9	93.6	49.0	32.50	NP	A188
	900	460	404T	W583	404THFS9101		20:1@	\$12,316	E9	93.6	66.0	35.62	NE	A190
60	3600	460	364TS	W584	364TSHFS9001	*	2:1	\$7,969	E9	94.5	67.0	29.38		A189
	1800	460	364T	W587	364THFS9036	*	20:1@	\$7,549	E9	95.0	69.0	31.50		A188
	1800	460	364TS	W586	364TSHFS9026		20:1@	\$7,549	E9	95.0	69.0	29.38		A189
	1800	575	364T	W588	364THFS19033		20:1@	\$7,549	E9	95.0	55.0	31.50		A188
	1200	460	404T	W589	404THFS9086		20:1@	\$10,330	E9	94.5	72.0	35.62		A190
	900	460	405T	W590	405THFS19101		20:1@	\$13,819	E9	93.6	80.0	37.12	NE	A190
75	3600	460	365TS	W591	365TSHFS9001	*	2:1	\$10,007	E9	94.5	84.0	30.38		A189
	3600	575	365TS	W592	365TSHFS19002		2:1	\$10,007	E9	94.5	67.0	30.38		A189
	1800	460	365T	W594	365THFS9036	*	20:1@	\$9,571	E9	95.4	86.0	32.50		A188
	1800	460	365TS	W593	365TSHFS9026		20:1@	\$9,571	E9	95.4	86.0	30.38		A189
	1800	575	365T	W595	365THFS9044	*	20:1@	\$9,571	E9	95.4	69.0	32.50		A188
	1200	460	405T	W596	405THFS9086		20:1@	\$12,159	E9	95.0	90.0	37.12		A190
	900	460	444T	W597	444THFS9101		20:1@	\$18,375	E9	93.6	100	41.25	NE	A192
	100	3600	460	405TS	W598	405TSHFS9001	*	2:1	\$13,409	E9	95.0	108	34.12	
1800		460	405T	W600	405THFS9036	*	20:1	\$11,824	E9	95.4	113	37.12		A190
1800		460	405TS	W599	405TSHFS9026		20:1@	\$11,824	E9	95.4	113	34.12		A191
1800		575	405T	W601	405THFS9040	*	20:1@	\$11,824	E9	95.4	90.0	37.12		A190
1200		460	444T	W636	444THFN19081		20:1@	\$17,931	E9	95.0	124	41.25		A192
900		460	445T	W603	445THFN9106		20:1@	\$22,518	E9	94.1	142	43.19	NE	A192
125		3600	460	444TS	W604	444TSHFS9001		2:1@	\$17,530	E9	95.4	136	37.50	
	1800	460	444T	W606	444THFS9036		20:1@	\$15,566	E9	95.4	141	41.25		A192
	1800	575	444T	W607	444THFS9040	*	20:1@	\$15,566	E9	95.4	113	41.25		A192
	1200	460	445T	W608	445THFN9086		20:1@	\$20,412	E9	95.0	155	43.19		A192
	900	460	445T	W609	445THFN9102		20:1@	\$23,128	E9	94.5	172	43.19	NE	A194
150	3600	460	445TS	W610	445TSHFN9001		2:1	\$21,058	E9	95.8	165	39.37		A195
	1800	575	445TS	W611	445TSHFN9026	*	20:1@	\$18,096	E9	95.8	172	39.37		A194
	1800	460	445T	W612	445THFN9036	*	20:1@	\$18,096	E9	95.8	172	43.19		A194
	1800	575	445T	W641	445THFN19033		20:1@	\$18,096	E9	95.8	138	43.19		A194
	1800	575	445T	W613	445THFN9037		20:1@	\$18,096	E9	95.8	138	43.19		A194
	1200	460	445T	W614	445THFN9087		20:1@	\$22,839	E9	95.8	181	43.19	H,RB	A194
	900	460	L447/9T	W615	449THFS9101		20:1@	\$29,415	E9	95.4	205	51.88	NE	
	200	3600	460	445TS	W616	445TSHFN9005		2:1@	\$26,639	E9	95.8	223	39.37	H,SL
1800		460	445T	W618	445THFN9038		20:1@	\$22,009	E9	96.2	226	43.19	RB	A194
1800		460	445TS	W617	445TSHFN9028		20:1@	\$22,009	E9	96.2	226	39.37		A195
1800		460	447/9T	W619	449THFS9030		20:1@	\$25,310	E9	96.5	225	51.69		
1800		575	445T	W642	445THFN19034	*	20:1@	\$25,310	E9	96.2	181	43.19		A194
1200		460	447/9T	W621	449THFS19092		20:1@	\$27,957	E9	95.8	225	51.84		
1200		460	447/9T	W622	449THFS9088		20:1@	\$27,957	E9	95.8	240	51.69	RB	
1200		575	447/449T	W630	449THFS19079		20:1@	\$27,957	E9	95.8	192	51.69	RB	

Blue shaded areas are Cast Iron Frames

* Requires nameplate modification
@ Requires larger fan

Catalog numbers (Cat No.) highlighted in bold blue have efficiency levels that meet or exceed U.S. EPA and/or NRC Canadian standards.

Continued on next page.

Blue Chip® Severe Duty / Automotive Duty: GM 7E-TA NEMA Premium® XRI® IEEE-841, Hazardous Duty™

Totally Enclosed, Rigid Base, Three Phase

HP	RPM	VOLTS	FRAME	CAT. NO.	MODEL NO.	STOCK	CT SPEED RANGE*	LIST PRICE	MULT. SYMB.	NOM. EFF.	F.L. AMPS	"C" DIM.	FOOT NOTES	C FACE KIT
250	3600	460	447/9TS	W624	449TSHFS9003		2:1	\$33,596	E9	96.5	2700	47.94		N/A
	1800	460	447/9T	W626	449THFS9028		20:1@	\$31,755	E9	96.5	2830	51.69		N/A
300	1800	460	447/9T	W632	449THFS9027		20:1@	\$32,390	E9	96.5	3211	51.84		
350	3600	460	447/9TS	W634	449TSHFS9001		2:1	\$49,938	E9	96.2	3064	47.94	SL	
	1800	460	447/9T	W635	449THFS9036		2:1	\$41,174	E9	96.2	3350	51.84	RB,SL	

Blue shaded areas are Cast Iron Frames

* Requires nameplate modification
@ Requires "R164" rework (reduces efficiency)

Catalog numbers (Cat No.) highlighted in bold blue have efficiency levels that meet or exceed U.S. EPAct and/or NRCan Canadian standards.

SEVERE DUTY