

# MAX-PE™

Totally Enclosed Fan Cooled



**TECO**   **Westinghouse**



CC002A



# TOTALLY ENCLOSED FAN COOLED

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## DESIGN FEATURES AND CONSTRUCTION

All TECO-Westinghouse Totally Enclosed Fan Cooled, T-Frame squirrel-cage induction motors are designed, manufactured and tested to meet or exceed the latest NEMA, IEEE and CSA standards.

- Motors are dual nameplated for 60 Hz (230/460V) and 50 Hz (190/380V) frequencies; 1.0 S.F. @ 50 Hz.
- NEMA Design B
- 36 month warranty from date of manufacture
- UL recognized, Class F non-hygroscopic insulation system with heavy heat resistance enameled copper wire to provide longer winding life and reliability. Inverter rated; see below.
- Continuous rating with 1.15 service factor
- Design B torques as a minimum
- Class B temperature rise @ 40° C ambient
- Interchangeable F1 and F2 mounting
- Dual drilled feet - longer frame (i.e. 145T drilled also for 143T through 449T frame)
- Bi-directional rotation
- Dynamically balanced, die-cast aluminum rotor reduces overall system vibrations.
- Pressed steel main conduit box is 90 degree rotatable, oversized and fully gasketed.
- Neoprene lead and conduit box gaskets prevent the entry of moisture and contaminants.
- Grounding terminal inside main box
- Rugged cast iron frame and end brackets for rigidity and excellent corrosion resistance
- Rolled steel fan cover
- External fan is corrosion-resistant and also non-sparking.
- Stainless steel nameplate; Zn plated hardware
- C-face (143T- 449TZ) and D-flange (254T-449TZ) conversion kits are available.
- Oversized, double shielded vacuum degassed ball bearings for frame 140T-280T and open bearings with regreaseable provisions for frames 280TS, 320T and larger.
- Rubber flinger provided on DE for frames 140T to 280T.
- Labyrinth type metal flinger on both ends on frames 280TS, 320T and larger.
- Suitable for Class I, Division II, Groups B, C, and D; Temperature Code T3C (Self Certified)
- Marks are UL recognized, DOE certified, CSA approved, CE Marked, and EISA compliant.
- VFD rated per NEMA MG1, part 30.
- S. F. will be 1.0 when applied on VFD.
- Inverter duty wire capable of withstanding voltage spikes up to 2200V.
- Insulated bearings are available as an option. If not purchased, precautions should be taken to eliminate shaft currents that may be imposed on the motor by a VFD.
- Speed ranges 20:1 VT, 10:1 CT
- 9 leads for 5 hp and below, 12 leads for 7.5 - 12.5 hp, and 6 leads for 150 hp and higher.

# MAX-PE™ PERFORMANCE DATA

HP	FULL LOAD RPM	FRAME SIZE (EH)	EFFICIENCY (%)				POWER FACTOR			CURRENT		TORQUE				ROTOR WR <sup>2</sup> lb-ft <sup>2</sup>	NEMA APPRX. CODE LETTER
			FULL LOAD		3/4 LOAD NOM.	1/2 LOAD NOM.	FULL LOAD %	3/4 LOAD %	1/2 LOAD %	FULL LOAD (A)	LOCKED ROTOR (A)	FULL LOAD lb-ft	LOCKED ROTOR %FLT	PULL UP %FLT	BREAK-DOWN %FLT		
			NOM.	MIN.													
1	3465	143T	82.5	80.0	81.5	78.5	85.0	79.5	68.5	2.67	30	1.515	350	365	400	0.046	N
	1745	143T	85.5	82.5	84.0	81.5	73.0	64.5	51.5	3.00	30	3.009	310	280	410	0.086	N
	1150	145T	82.5	80.0	82.5	80.0	65.5	57.0	44.5	3.47	30	4.566	250	220	300	0.122	N
1.5	3465	143T	84.0	81.5	84.0	81.5	83.5	77.0	65.0	4.00	40	2.273	340	280	350	0.052	M
	1730	145T	86.5	84.0	86.5	85.5	78.0	70.0	57.0	4.16	40	4.552	300	260	360	0.093	M
	1170	182T	87.5	85.5	85.5	82.5	63.5	55.0	42.5	5.06	40	6.731	210	190	350	0.313	M
2	3465	145T	86.5	84.0	86.5	85.5	86.0	80.5	70.0	5.03	50	3.031	350	315	390	0.064	L
	1740	145T	86.5	84.0	84.0	84.0	78.0	70.0	57.0	5.55	50	6.035	270	220	330	0.108	L
	1170	184T	88.5	86.5	88.5	86.5	70.5	63.0	50.5	6.00	50	8.975	180	150	270	0.423	L
3	3490	182T	88.5	86.5	90.2	89.5	90.0	87.0	79.5	7.05	64	4.513	280	250	380	0.190	K
	1755	182T	89.5	87.5	89.5	87.5	84.0	79.5	68.5	7.47	64	8.975	225	175	345	0.404	K
	1175	213T	89.5	87.5	89.5	87.5	78.0	70.5	58.5	8.05	64	13.41	210	180	340	0.918	K
5	3480	184T	88.5	86.5	89.5	89.5	92.5	91.0	85.5	11.44	92	7.544	290	230	320	0.272	J
	1745	184T	89.5	87.5	88.5	88.5	85.5	81.5	71.5	12.24	92	15.04	185	140	285	0.422	J
	1170	215T	91.0	89.5	91.0	89.5	82.5	77.0	65.5	12.47	92	22.44	190	160	300	1.224	J
7.5	3510	213T	91.0	89.5	91.0	90.2	89.0	87.0	80.0	17.34	127	11.22	200	175	275	0.448	H
	1755	213T	91.7	90.2	91.0	89.5	86.5	82.0	72.0	17.71	127	22.44	250	155	270	0.848	H
	1170	254T	91.0	89.5	91.0	89.5	80.5	75.0	64.0	19.17	127	33.66	240	215	270	2.158	H
10	3510	215T	91.0	89.5	91.7	91.0	89.5	88.5	82.5	23.0	162	14.96	220	180	260	0.573	H
	1755	215T	91.7	90.2	91.0	91.0	88.0	84.0	75.5	23.2	162	29.92	250	145	260	1.082	H
	1170	256T	91.0	89.5	91.7	90.2	80.5	75.0	64.0	25.6	162	44.87	225	185	250	2.872	H
15	3525	254T	92.4	91.0	92.4	91.7	91.5	90.5	86.0	33.2	232	22.34	210	180	270	1.088	G
	1765	254T	92.4	91.0	93.0	92.4	88.0	85.0	77.0	34.5	232	44.62	245	180	270	2.179	G
	1175	284T	92.4	91.0	93.0	93.0	83.5	79.5	70.5	36.4	232	67.03	215	180	230	6.823	G
20	3520	256T	92.4	91.0	93.0	93.6	92.5	91.5	88.0	43.8	290	29.83	210	180	260	1.407	G
	1760	256T	93.0	91.7	92.4	92.4	87.5	84.5	78.5	46.0	290	59.66	200	145	240	2.871	G
	1170	286T	91.7	90.2	92.4	92.4	84.0	81.0	73.0	48.6	290	89.75	210	160	225	8.340	G
25	3545	284TS	92.4	91.0	93.0	92.4	91.0	90.5	86.5	55.7	365	37.03	175	135	250	2.507	G
	1765	284T	93.6	92.4	93.6	93.6	86.0	83.0	77.0	58.2	365	74.37	205	165	240	4.586	G
	1170	324T	93.0	91.7	93.6	93.6	83.0	80.0	71.5	60.7	365	112.2	200	155	205	11.877	G
30	3545	286TS	93.0	91.7	93.6	93.0	91.0	90.5	87.5	66.4	435	44.43	175	140	240	2.831	G
	1770	286T	93.6	92.4	93.6	93.6	87.5	85.5	79.5	68.6	435	88.99	200	160	235	5.274	G
	1175	326T	93.0	91.7	93.6	93.6	80.5	78.5	71.0	75.0	435	134.1	210	180	230	12.372	G
40	3550	324TS	94.1	93.0	94.5	94.1	90.0	89.0	84.5	88.4	580	59.16	150	130	240	3.590	G
	1770	324T	94.1	93.0	94.5	94.5	86.0	84.5	78.5	92.6	580	118.7	205	170	220	8.624	G
	1180	364T	94.1	93.0	94.5	94.1	86.5	84.5	78.0	92.0	580	178.0	200	150	220	17.937	G
50	3550	326TS	94.1	93.0	94.5	94.5	91.0	90.0	86.5	109.3	725	73.95	150	130	240	4.488	G
	1770	326T	94.5	93.6	95.0	95.0	87.0	86.0	80.5	113.9	725	148.3	210	170	220	10.124	G
	1180	365T	94.1	93.0	94.5	93.6	86.0	83.0	75.5	115.7	725	222.5	225	170	240	21.386	G
60	3550	364T	94.1	83.0	94.5	94.1	93.0	92.0	88.5	128.4	870	88.74	145	130	240	7.379	G
	1775	364T	95.0	94.1	95.0	94.5	86.5	83.0	75.5	136.7	870	177.5	200	155	240	12.229	G
	1180	404T	94.5	93.6	94.5	94.1	87.0	86.5	80.5	136.7	870	267.0	200	185	245	33.535	G
75	3555	365TS	94.5	93.6	95.0	95.0	93.0	92.5	89.0	159.8	1085	110.8	145	130	250	9.056	G
	1775	365T	95.4	94.5	95.4	95.0	86.5	83.5	75.5	170.2	1085	221.8	200	165	250	14.674	G
	1180	405T	94.5	93.6	94.5	94.5	86.5	84.5	79.0	171.8	1085	333.7	200	175	225	37.862	G
100	885	444T	93.0	91.7	92.4	91.0	79.0	76.0	67.0	95.6	548	445.0	120	100	220	55.1	G
	3560	405TS	95.4	94.5	95.8	95.4	92.0	91.5	88.5	213	1450	147.5	140	125	270	10.773	G
	1775	405T	95.4	94.5	95.4	95.0	87.5	85.5	80.0	224	1450	295.8	215	140	215	26.637	G
125	1181	444T	95.0	94.1	94.5	93.6	82.5	80.0	73.0	119	725	444.0	140	110	230	56.0	G
	885	445T	93.0	91.7	92.4	91.0	79.0	76.5	67.0	127	725	593.0	120	100	220	72.8	G
	3563	444TS	95.0	94.1	94.5	93.6	86.0	83.5	80.0	143	908	184.0	110	88	220	14.2	G
150	1780	444T	95.4	94.5	95.0	94.1	84.0	82.0	77.0	146	908	368.0	130	100	220	39.1	G
	1182	445T	95.0	94.1	94.5	93.6	83.0	80.5	74.0	148	908	554.0	140	110	230	68.0	G
	888	447T	93.6	92.4	93.0	91.7	80.0	77.0	69.0	156	908	739.0	120	100	220	120	G
200	3566	445TS	95.0	94.1	94.5	93.6	87.0	84.5	81.0	170	1085	220.0	110	88	220	16.0	G
	1783	445T	95.8	95.0	95.4	94.5	84.0	82.0	78.0	175	1085	442.0	130	100	220	52.0	G
	1185	447T	95.8	95.0	95.4	94.5	83.5	81.0	74.0	176	1085	664.0	135	105	220	100.6	G
200	888	449T	93.6	92.4	93.4	92.1	80.0	77.0	69.0	188	1085	887.0	120	100	220	140	G
	3572	447TS	95.4	94.5	95.0	94.1	87.0	84.5	81.0	226	1450	293.0	104	83	210	30.2	G
	1785	447T	96.2	95.4	95.8	95.0	84.5	82.5	78.5	230	1450	588.0	120	95	210	73.5	G
	1186	449T	95.8	95.0	95.4	94.5	84.0	81.0	74.0	233	1450	885.0	135	105	210	115.0	G

- Note:
1. The data above are typical values based on test according to IEEE standard 112, method B.
  2. Breakdown & locked rotor torques are shown as average expected values.
  3. Efficiency, power factor, speed and torque are the same for other voltages.  
Current values vary inversely with voltage.
  4. Tolerance according to NEMA MG1-12 & IEC60034-1.
  5. Data subject to change without notice.





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