

Max-E1 Motors, Type AEHE:

In most industrial plants, motor electrical consumption accounts for up to 75% of the total electricity bill.

Compared with standard efficiency designs, the MAX-E1 will reduce your electrical bill and lower production costs. Also, it will provide for lower loading on electrical distribution circuits. In fact, the high efficiency design of the MAX-E1 can save you thousands of dollars over the life of the motor.

Furthermore, low temperature operation reduces fatigue and adds to the overall bearing life.

Impressive Design Features:

- * Non-hygroscopic, Class F insulation system.
- * High-grade, electro-magnetic steel laminations for low core loss and high efficiency.
- * All cast-iron construction including frame, end brackets, fan cover and conduit box for rigidity and excellent corrosion resistance.
- * Reinforced end turn lacing
- * Neoprene lead separator
- * High performance bearings of degassed steel
- * 90° rotatable oversized cast iron conduit box for easy connection.
- * Corrosion-resistant, non-sparking external fan.
- * Dynamically balanced pressure die-cast aluminum rotor.
- * Epoxy or phenolic rust-proof base coat
- * Zn-Cd coated hardware
- * CSA Certified for Class I, Division 2, Groups B, C, and D, with Temperature Code T3C.(CSA File 64671)

Name Plate

TECO MAX-E1™ PREMIUM EFFICIENCY SEVERE DUTY 3-PHASE INDUCTION MOTOR			
TYPE	HP	KW	FRAME
OUTPUT	INS.	F	TEFC
POLES			
Hz			
VOLTS			
AMPS			
R.P.M.			
DESIGN	AMB	40°C	
NEMA NOM. EFF.		NEMA MIN. EFF.	RATING CONT.
S.F.	1.15	BEARINGS	
CODE		SERIAL NO.	
USABLE ON	V NETWORK	AT	AMP.
TECO Elec. & Mach. Co., Ltd.			



Performance Data

ITEM		STANDARD SPECIFICATION	
RATING	KIND OF MOTOR	SQUIRREL-CAGE INDUCTION MOTOR (SCIM).	
	DESIGN STANDARD	NEMA MG-1, MG-13.	
	VOLTAGE	50Hz: 380V 60Hz: 230/460V(208V DE-RATING OPERATION), 460V ~ 575V	
	FREQUENCY	50Hz OR 60Hz	
	OUTPUT RANGE	1HP~350HP	
	R.P.M. (SYN.)	50Hz: 3000~750 R.P.M.(2~8 POLE) 60Hz: 3600~900 R.P.M.(2~8 POLE)	
	TIME DUTY	CONTINUOUS, 50Hz: S.F. 1.10(S1, MCR) 60Hz: S.F. 1.15(S1, MCR)	
	FRAME NO.	143T~449T & TS,5007~6808B	
	PROTECTION ENCLOSURE	FRAME NO.143T~449T & TS: TOTALLY ENCLOSED (IP 44) FRAME NO.5007~6808B: TOTALLY ENCLOSED (IP 54)	
	COOLING METHOD	SELF EXTERNAL FAN, SURFACE COOLING (IC 411).	
MOUNTING	HORIZONTAL FOOT MOUNTING F-1 (IM 1001), HOWEVER, F-1,F-2 ARE CHANGEALBE.		
APPLICATION	AMBIENT CONDITION	PLACE	NON-HAZARDOUS.
		TEMPERATURE	-15°C ~40°C
		HUMIDITY	RELATIVE HUMIDITY: LESS THAN 90% RH (NON-CONDENSATION).
		ALTITUDE	LESS THAN 3,300FT (1000M).
	DRIVE METHOD	BELT SERVICE, HOWEVER, 2 POLE 25HP AND UP COUPLING SERVICE IS THE WAY.	
	DIRECTION OF ROTATION	BI-DIRECTIONAL	
	METHOD OF STARTING	FULL VOLTAGE DIRECT ON LINE, FOR 7.5HP & UP Y-Δ STARTING.	
CONSTRUCTION	BEARING	BRACKET MOUNTING, VACUUM DE-GASSED HIGH QUALITY OPEN BEARINGS WITH GREASE RELIEF VALVE FOR FRAME SIZE OF 280TS AND 324T~405TS, GREASE PRE-PACKED SHIELDED ROLLING BEARINGS, WITH GREASE RELIEVABLE UNITES FOR THE OTHERS.	
	TERMINAL BOX	CAST IRON, THE CLEARANCE HOLE CABLE ENTRANCE IN N.P.T. THREADED, CAN BE SET 90° APART, WITH CLEARANCE HOLE CABLE ENTRANCE, F-1, F-2 CHANGEABLE.	
	LEAD TERMINAL	9 LEADS, WITH SOLDERLESS LUG TERMINALS UNDER 7.5HP. 12 LEADS, WITH SOLDERLESS LUG TERMINALS FOR 7.5HP TO 125HP. 6 LEADS, WITH SOLDERLESS LUG TERMINALS OVER 125HP.	
	STATOR INSULATION	CLASS F INSULATION SYSTEM	
	PAINTING	PHENOLIC RUST PROOF BASE PLUS LACQUER SURFACE FINISHED PAINTING IN BLUE-GRAY COLOR (MUNSELL N5.0).	
	BOLT THREAD	ISO METRIC SYSTEM	
PERFORMANCE	TEST PROCEDURE	IEEE-112 METHOD B AND FULL VOLTAGE MEASURING STARTING PERFORMANCE FOR MOTORS NOT OVER 300HP, IEEE-112 METHOD E1 AND REDUCED VOLTAGE MEASURING STARTING PERFORMANCE FOR THE OTHERS.	
	TEMPERATURE RISE	NOT TO EXCEED 90°C FOR S.F. 1.15 OR 80°C FOR S.F. 1.0 BY RESISTANCE METHOD.	
	OVER SPEED	FRAME NO.143T~449T & TS: 125% SYN. R.P.M. FOR 2 MINUTES(2~4 POLE) 150% SYN. R.P.M. FOR 2 MINUTES(6~8 POLE) FRAME NO.5007~6808B: 120% SYN. R.P.M. FOR 2 MINUTES(2 POLE) 125% SYN. R.P.M. FOR 2 MINUTES(4~8 POLE)	
	OVER TORQUE	160% RATED TORQUE FOR 15 SEC.	

Dimensions Totally-Enclosed Fan-Cooled Horizontal Foot-Mounted, Type AEHE

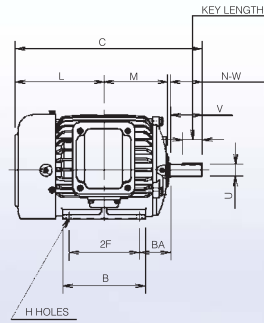


FIG. 1

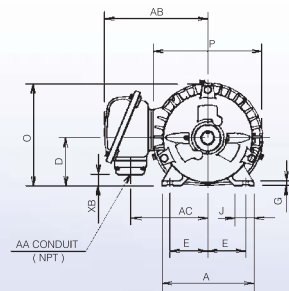
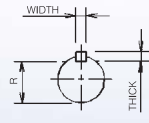


FIG. 2

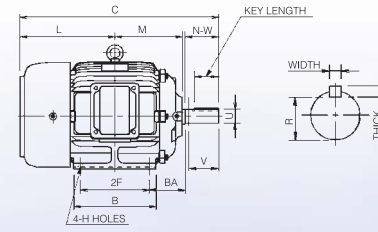
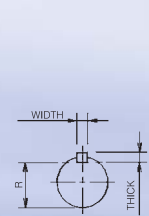


FIG. 3

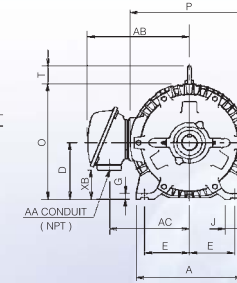


FIG. 4

1. Dimension D tolerance :
+0.00 inch - 0.03 inch (143T-405TS);
+0.00 inch - 0.06 inch (444T-449T).
2. Dimension U tolerance:
+0.000 inch - 0.0005 inch (143T-215T);
+0.000 inch - 0.001 (254T-6808B).
3. Dimension R tolerance:
+0.000 inch - 0.015 inch.
4. Dimension V is the length of straight part of shaft.

OUT PUT (HP)				FRAME SIZE (EH)	FIG.	MOUNTING					A	B	C	CL1	CL2	D	G	J	K	L	
2P	4P	6P	8P			E	2F	2F1	2F2	H											BA
1.5	1	0.75	—	143T	1	2.75	4.00	—	—	0.34	2.25	6.7	5.1	12.34	—	—	3.5	0.35	1.4	—	5.84
2	1.5	1	—	145T		2.75	5.00	—	—	0.34	2.25	6.7	5.9	13.32	—	—	3.5	0.35	1.4	—	6.32
3	3	1.5	1	182T	2	3.75	4.50	—	—	0.41	2.75	8.8	5.9	14.71	—	—	4.5	0.65	1.75	—	6.96
5	5	2	1.5	184T		3.75	5.50	—	—	0.41	2.75	8.8	6.9	15.73	—	—	4.5	0.65	1.75	—	7.48
7.5	7.5	3	2	213T	3	4.25	5.50	—	—	0.41	3.5	9.85	6.9	17.98	—	—	5.25	0.7	1.75	—	8.35
10	10	5	3	215T		4.25	7.00	—	—	0.41	3.5	9.85	8.35	19.48	—	—	5.25	0.7	1.75	—	9.1
15	15	7.5	5	254T	4	5.00	8.25	—	—	0.53	4.25	11.8	9.85	23.7	—	—	6.25	0.65	1.95	—	11.33
20	20	10	7.5	256T		5.00	10.00	—	—	0.53	4.25	11.8	11.8	25.44	—	—	6.25	0.65	1.95	—	12.19
25	—	—	—	284TS	3	5.50	9.50	—	—	0.53	4.75	14	11.7	25.43	—	—	7	0.7	2.95	—	12.68
—	25	15	10	284T		5.50	9.50	—	—	0.53	4.75	14	11.7	26.8	—	—	7	0.7	2.95	—	12.68
30	—	—	—	286TS	4	5.50	11.00	—	—	0.53	4.75	14	13.2	26.93	—	—	7	0.7	2.95	—	13.43
—	30	20	15	286T		5.50	11.00	—	—	0.53	4.75	14	13.2	28.3	—	—	7	0.7	2.95	—	13.43
40	—	—	—	324TS	3	6.25	10.50	—	—	0.66	5.25	15.75	12.8	28.43	—	—	8	1.1	3.15	—	14.18
—	40	25	20	324T		6.25	10.50	—	—	0.66	5.25	15.75	12.8	29.93	—	—	8	1.1	3.15	—	14.18
50	—	—	—	326TS	4	6.25	12.00	—	—	0.66	5.25	15.75	14.35	29.92	—	—	8	1.1	3.15	—	14.92
—	50	30	25	326T		6.25	12.00	—	—	0.66	5.25	15.75	14.35	31.42	—	—	8	1.1	3.15	—	14.92
60	—	—	—	364TS	3	7.00	11.25	—	—	0.66	5.88	17.7	13.75	30.44	—	—	9	1.3	3.55	—	15.19
—	60	40	30	364T		7.00	11.25	—	—	0.66	5.88	17.7	13.75	32.57	—	—	9	1.3	3.55	—	15.19
75	—	—	—	365TS	4	7.00	12.25	—	—	0.66	5.88	17.7	14.75	31.42	—	—	9	1.3	3.55	—	15.67
—	75	50	40	365T		7.00	12.25	—	—	0.66	5.88	17.7	14.75	33.55	—	—	9	1.3	3.55	—	15.67
—	—	60	50	404T	3	8.00	12.25	—	—	0.81	6.62	19.7	15.15	36.3	—	—	10	1.55	3.95	—	16.3
100	—	—	—	405TS		8.00	13.75	—	—	0.81	6.62	19.7	16.75	34.8	—	—	10	1.55	3.95	—	17.05
—	100	75	60	405T	8.00	13.75	—	—	0.81	6.62	19.7	16.75	37.8	—	—	10	1.55	3.95	—	17.05	

★ DIMENSIONS IN INCHES

M	O	P	T	KEY SIZE			TERMINAL HOUSING			SHAFT EXTENSION			KEYSEAT R	BEARINGS		APPROX. WEIGHT LBS	
				WIDTH	THICK	LENGTH	AA	AB	AC	XB	N-W	U		V	DRIVE END		OPR. DRIVE END
4.03	7.48	7.97	—	0.188	0.188	1.41	3/4	7.56	5.63	0.86	2.25	0.875	2.2	0.771	6205ZZ	6205ZZ	55
4.53	7.48	7.97	—	0.188	0.188	1.41	3/4	7.56	5.63	0.86	2.25	0.875	2.2	0.771	6205ZZ	6205ZZ	62
4.87	9.31	9.61	1.30	0.25	0.25	1.78	3/4	8.31	6.38	1.86	2.75	1.125	2.7	0.986	6306ZZ	6306ZZ	95
5.37	9.31	9.61	1.30	0.25	0.25	1.78	3/4	8.31	6.38	1.86	2.75	1.125	2.7	0.986	6306ZZ	6306ZZ	114
6.06	10.8	11.1	1.65	0.312	0.312	2.41	1	9.78	7.34	2.34	3.38	1.375	3.3	1.201	6308ZZ	6306ZZ	167
6.81	10.8	11.1	1.65	0.312	0.312	2.41	1	9.78	7.34	2.34	3.38	1.375	3.3	1.201	6308ZZ	6306ZZ	189
8.06	12.83	13.15	2.01	0.375	0.375	2.91	1	11.3	8.86	3.22	4	1.625	3.9	1.416	6309ZZ	6307ZZ	288
8.94	12.83	13.15	2.01	0.375	0.375	2.91	1	11.3	8.86	3.22	4	1.625	3.9	1.416	6309ZZ	6307ZZ	332
9.31	14.52	15.04	2.36	0.375	0.375	1.93	1	12.28	9.84	3.97	3.25	1.625	3.2	1.416	6211C3	6211C3	418
9.23	14.52	15.04	2.36	0.5	0.5	3.28	1	12.28	9.84	3.97	4.62	1.875	4.5	1.591	6311ZZ	6310ZZ	429
10.06	14.52	15.04	2.36	0.375	0.375	1.93	1	12.28	9.84	3.97	3.25	1.625	3.2	1.416	6211C3	6211C3	455
9.98	14.52	15.04	2.36	0.5	0.5	3.28	1	12.28	9.84	3.97	4.62	1.875	4.5	1.591	6311ZZ	6310ZZ	475
10.29	16.27	16.54	2.36	0.5	0.5	2.03	2	14.65	11.3	3.59	3.75	1.875	3.65	1.591	6312C3	6212C3	618
10.29	16.27	16.54	2.36	0.5	0.5	3.91	2	14.65	11.3	3.59	5.25	2.125	5.15	1.845	6312	6212	664
11.04	16.27	16.54	2.36	0.5	0.5	2.03	2	14.65	11.3	3.59	3.75	1.875	3.65	1.591	6312C3	6212C3	693
11.04	16.27	16.54	2.36	0.5	0.5	3.91	2	14.65	11.3	3.59	5.25	2.125	5.15	1.845	6312	6212	724
11.29	18.02	18.03	2.76	0.5	0.5	2.03	3	16.81	13	2.39	3.75	1.875	3.65	1.591	6312C3	6212C3	818
11.29	18.02	18.03	2.76	0.625	0.625	4.28	3	16.81	13	2.39	5.88	2.375	5.75	2.021	6313	6213	880
11.79	18.02	18.03	2.76	0.5	0.5	2.03	3	16.81	13	2.39	3.75	1.875	3.65	1.591	6312C3	6212C3	898
11.79	18.02	18.03	2.76	0.625	0.625	4.28	3	16.81	13	2.39	5.88	2.375	5.75	2.021	6313	6213	928
12.52	20.04	20.08	3.54	0.75	0.75	5.65	3	19.37	14.76	1.81	7.25	2.875	7.15	2.45	6317	6313	1166
13.27	20.04	20.08	3.54	0.5	0.5	2.78	3	19.37	14.76	1.81	4.25	2.125	4.15	1.845	6313C3	6313C3	1144
13.27	20.04	20.08	3.54	0.75	0.75	5.65	3	19.37	14.76	1.81	7.25	2.875	7.15	2.45	6317	6313	1298

