

NEMA STANDARD SERIES THREE PHASE ASYNCHRONOUS ELECTRIC MOTOR

GENERAL DESCRIPTION

NEMA standard high efficiency motors are totally enclosed self-cooled machine(IP55).This series motors are designed and manufactured in accordance with NEMA standard of U.S.A and C390-93 standard of Canada. These motors are of a novel style and of excellent workmanship. The motors are characterized as reliability safety, minimal temperaure rise , high efficiency, low noise. low vibration. high starting torque, etc. The motors adopt design Band class F insulation, Their service factor is 1.15. They are rated 208-230/460V, 460V or 575V and 60Hz. Exposure to an ambient temperature in the range of -15°C to 40°C, arid to an altitude which dose not exceed 3300 nfeet. They are ideal for application with no special requirement, They can be used to drive various kinds of mechanical equipment. This series motors can be specially manufactured on request, such as T, TC, TD or H insulation class, different voltage, different frequency, etc.



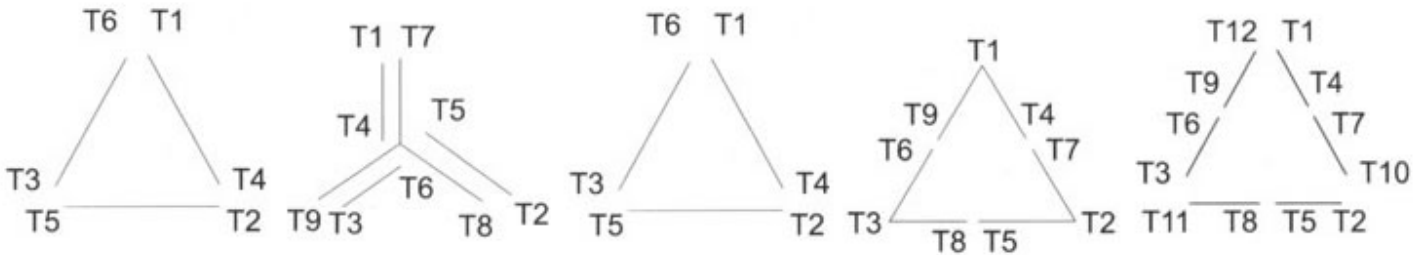
TERMINAL BOX

There are 3, 6, 9 and 12 outleads in the terminal box.

The follow diagrams indicate the ways of connection. The length of leads 6 inches measured from Frame surface. Terminal marking and connections should accord with MG 1-2.62. There is grounding screw with grounding marking in the terminal box.

Terminal markings for Y and Delta connected Dual-voltage and Single-voltage motors.

T type-common mounted motor with feet

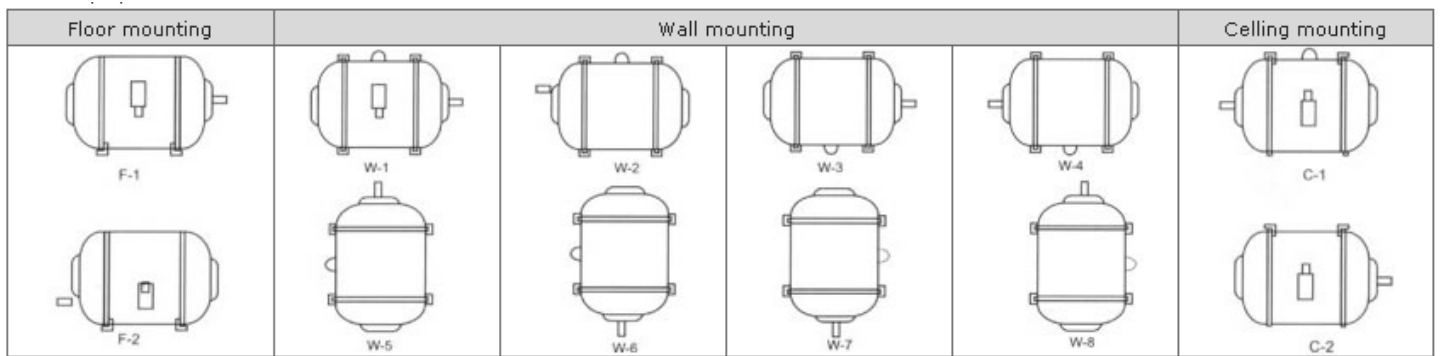


Voltage Frame Size	230V/460V				460V		575V	
	230V		460V		L1, L2, L3	Tie together	L1, L2, L3	Tie together
	L1, L2, L3	Tie together	L1, L2, L3	Tie together				
143T-184T (213T-215T (6P))	(T1,T7) (T2,T8) (T3,T9) (B)	(T4,T5,T6)	T1,T2,T3 (B)	(T4,T7) (T5,T8) (T6,T9)	NO		T1,T2,T3 (A)	
(213T-215T 2,4P) 254T-256T	T1,T2,T3 (D)	(T1,T6,T7) (T2,T4,T8) (T3,T5,T9)	T1,T2,T3 (D)	(T4,T7) (T5,T8) (T6,T9)				
284 _T S-286 _T S	T1,T2,T3 (E)	(T1,T6,T7,T12) (T2,T4,T8,T10) (T3,T5,T9,T11)	T1,T2,T3 (E)	(T4,T7)(T5,T8) (T6,T9)(T1,T12) (T2,T10)(T3,T11)				

TC type-motor with or without feet, the mounting method of C type motor with feet should be up to MG1-403 standards

Assembly symbols shall be as follws:

Mounting type

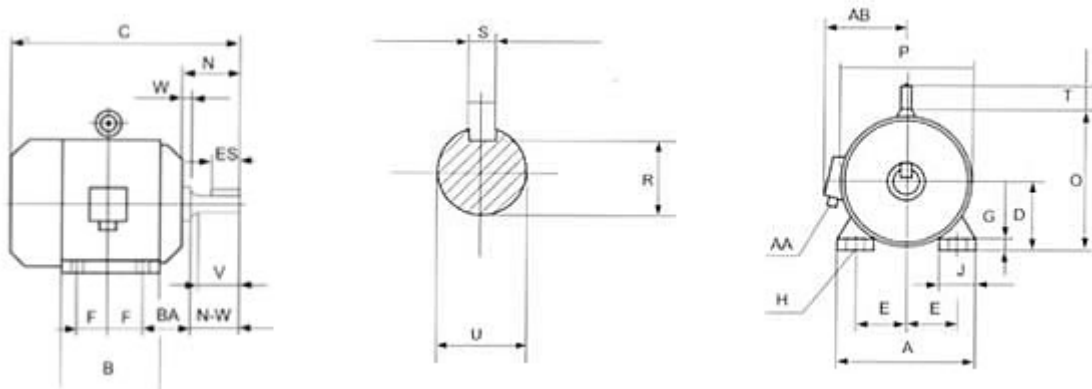


Note: Assembly symbols F-1, W-2, W-3, W-6, W-8, and C-2 show the same relative location for The terminal box the mounting feet and the shaft-extension

Frame Size	Rated power		Atfull load						Efficiency		Locked rotor current under*460V	Locked torque Rated torque (%)	Max torque Rated Torque (%)	Noise Level Lw dB(A)
	HP	kw	Speed r/min	Current under 460V	Connection method230/460V	Current under 575V	Connection method575V	Power factor (COS ϕ)	FL 100%	75%				
Synchronous Speed 3600r/mim 60Hz														
143T	1.0	0.75	3465	1.38	2/	1.1	λ	0.84	75.5	75.6	15	-	-	85
143T	1.5	1.1	3480	1.9	2/	1.52	λ	0.84	82.5	82.2	20	175	250	87
145T	2.0	1.5	3480	2.5	2/	1.97	λ	0.86	84.0	83.7	25	170	240	87
182T	3	2.2	3520	3.61	2/	2.88	λ	0.86	85.5	85.0	32	160	230	91
184T	5	3.7	3510	5.65	2/	4.7	λ	0.87	87.5	87.6	46	150	215	91
213T	7.5	5.5	3520	8.4	2 Δ / Δ	6.7	λ	0.88	88.5	88.5	63.5	140	200	94
215T	10	7.5	3530	11.2	2 Δ / Δ	9.0	λ	0.87	89.5	89.6	81	135	200	94
254T	15	11	3550	16.6	2 Δ / Δ	13.4	λ	0.86	90.2	89.2	116	130	200	94
256T	20	15	3545	22.5	2 Δ / Δ	18	λ	0.88	90.2	89.8	145	130	200	94
284TS	25	18.5	3555	27.9	2 Δ / Δ	22.2	Δ	0.88	91	90.5	182.5	130	200	95
286TS	30	22	3555	32.9	2 Δ / Δ	26.4	Δ	0.89	91	90.7	217.5	130	200	95
Synchronous Speed 1800r/mim 60Hz														
143T	1.0	0.75	1760	1.5	2/	1.2	λ	0.66	82.5	82.3	15	275	300	70
145T	1.5	1.1	1760	2.1	2/	1.7	λ	0.71	84.0	84.2	20	250	280	70
145T	2.0	1.5	1750	2.7	2/	2.2	λ	0.69	84.0	84.5	25	235	270	70
182T	3	2.2	1750	3.86	2/	3.1	λ	0.73	87.5	87.4	32	215	250	74
184T	5	3.7	1750	5.9	2/	5	λ	0.83	87.5	83.3	46	185	226	74
213T	7.5	5.5	1765	9.3	2 Δ / Δ	7.6	λ	0.8	89.5	89.8	63.5	175	215	79
215T	10	7.5	1760	12.4	2 Δ / Δ	10	λ	0.82	89.5	89.8	81	165	200	79
254T	15	11	1770	17.7	2 Δ / Δ	14.2	λ	0.84	91	89.8	116	160	200	84
256T	20	15	1770	23.8	2 Δ / Δ	19	λ	0.84	91	90.9	145	150	200	84
284T	25	18.5	1770	28.2	2 Δ / Δ	22.8	Δ	0.87	92.4	92.9	182.5	150	200	88
286T	30	22	1775	33.6	2 Δ / Δ	27	Δ	0.86	92.4	92.9	217.5	150	200	88
Synchronous Speed 1200r/min 60Hz														
145T	1.0	0.75	1145	1.6	2/	1.3	λ	0.65	80.0	80.9	15	170	265	64
182T	1.5	1.1	1175	2.41	2/	1.93	λ	0.64	85.5	85.2	20	165	250	67
184T	2.0	1.5	1170	3.05	2/	2.4	λ	0.69	86.5	86.1	25	160	240	67
213T	3	2.2	1180	4.2	2/	3.4	λ	0.72	87.5	88.0	32	155	230	71
215T	5	3.7	1180	6.8	2/	5.4	λ	0.71	87.5	88.0	46	150	215	71
254T	7.5	5.5	1180	10.6	2 Δ / Δ	8.4	λ	0.71	89.5	88.5	63.5	150	205	75
256T	10	7.5	1180	14	2 Δ / Δ	11.3	λ	0.74	89.5	88.7	81	150	200	75
284T	15	11	1180	19.2	2 Δ / Δ	15.6	Δ	0.78	90.2	90.8	116	140	200	80
286T	20	15	1180	25.9	2 Δ / Δ	21	Δ	0.79	90.2	90.8	145	135	200	80

- When the rated voltage value is not 460V, the values of full load current and locked-rotor current are inversely proportional to 460V's current value

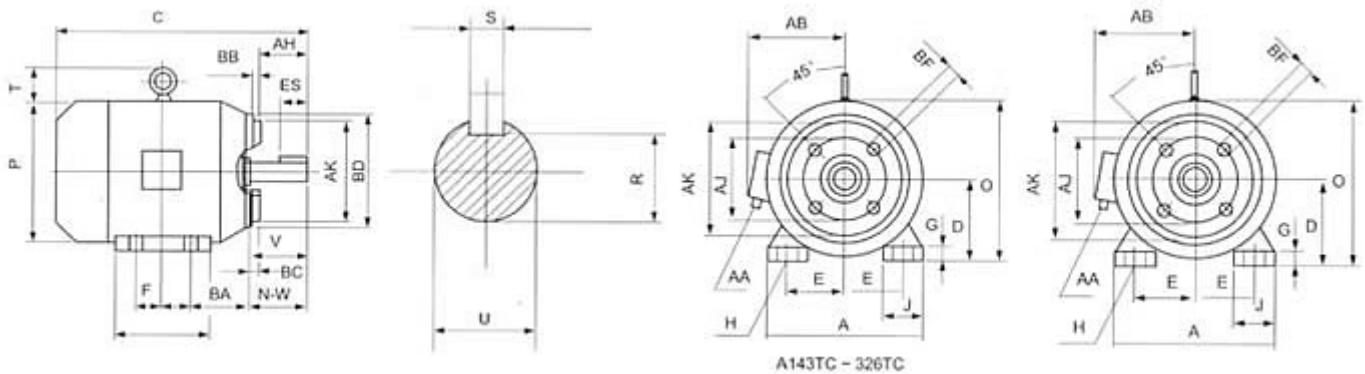
MOUNTING DIMENSIONS: T TYPE MOTOR WITH FEET



Dimension data

Frame Size	Dimensions(inch)																						
	Max A	Max B	C	D	E	F	G	H	J	N	N-W	O	P	R	S	T	U	MIN V	W	MIN ES	AA	AB	BA
143T	7	6	12.473	3.5	2.75	2	0.512	0.34	1.45	2.447	2.25	7.48	7.09	0.771	0.188	-	0.875	2	0.197	1.41	3/4	6.89	2.25
145T			13.466			2.5																	
182T	9	6.5	15.11	4.5	3.75	2.25	0.669	0.41	2.04	2.99	2.75	10.29	9.06	0.986	0.25	1.4	1.125	2.5	0.24	1.78	3/4	7.45	2.75
184T		7.5	16.116			2.75																	
213T	10.5	7.5	18.89	5.25	4.25	2.75	0.787	0.41	2.45	3.693	3.38	12.4	10.63	1.201	0.312	1.75	1.375	3.12	0.315	2.41	1	8.63	3.5
215T		9	20.488			3.5																	
254T	12.5	10.8	23.292	6.25	5	4.125	0.866	0.53	2.87	4.4	4	15.12	13	1.416	0.375	2.15	1.625	3.75	0.4	2.91	1/4	11.2	4.25
256T		12.5	25.058			5																	
284T	14	12.5	26.634	7	5.5	4.75	0.945	0.53	2.87	5.02	4.62	16.89	14.17	1.591	0.50	2.35	1.875	4.38	0.4	3.28	1/2	12	4.75
284TS			25.25											3.25	1.416								
286T	14	14	28.182	7	5.5	5.5	0.945	0.53	2.87	5.02	4.62	16.89	14.17	1.951	0.5	2.35	1.875	4.38	0.4	3.28	1/2	12	4.75
286TS			26.80											3.25	1.416								

MOUNTING DIMENSIONS: T TYPE MOTOR WITH FEET



Dimension data

Frame Size	Dimensions(inch)																											
	Max A	Max B	C	D	E	F	G	H	J	O	P	R	S	T	U	MIN V	MIN ES	AA	AB	AH	AJ	AK	BA	MIN BB	BC	MIN BD	BF	N-W
143TC	7	6	13.04	3.5	2.75	2	0.512	0.34	1.45	7.48	7.09	0.771	0.188	-	0.875	2	1.41	3/4	6.89	2.12	5.875	4.5	2.75	0.16	0.12	6.5	3/8-	2.25
145TC			14.04			2.5																					16	
182TC	9	6.5	15.84	4.5	3.75	2.25	0.669	0.41	2.04	10.29	9.06	0.986	0.25	1.4	1.125	2.5	1.78	3/4	7.45	2.62	7.25	8.5	3.5	0.25	0.12	9	1/2-	2.75
184TC		7.5	16.84			2.75																				13		
213TC	10.5	7.5	19.62	5.25	4.25	2.75	0.787	0.41	2.45	12.4	10.63	1.201	0.312	1.75	1.375	3.12	2.41	1	8.63	3.12	7.25	8.5	4.25	0.25	0.25	9	1/2-	3.38
215TC		9	21.22			3.5																				13		
254TC	12.5	10.8	23.77	6.25	5	4.125	0.866	0.53	2.87	15.12	13	1.416	0.375	2.15	1.625	3.75	2.91	1 1/4	11.2	3.75	7.25	8.5	4.75	0.25	0.25	10	1/2-	4
256TC		12.5	25.55			5																				13		
284TC	14	12.5	26.63	7	5.5	4.75	0.945	0.53	2.87	16.89	14.17	1.591	0.50	2.35	1.875	4.38	3.28	1 1/2	12	4.38	9	10.5	4.75	0,	0.25	11.25	1/2-	4.62
284TSC			1.416									0.375	1.625		3	1.91	3							3			3	3
286TC	14	14	28.18	7	5.5	5.5	0.945	0.53	2.87	16.89	14.17	1.951	0.5	2.35	1.875	4.38	3.28	1 1/2	12	4.38	9	10.5	4.75	0.25	0.25	11.25	1/2-	4.62
286TSC			1.416									0.375	1.625		3	1.91	3										3	3