

TXC IEEE-841 Three-Phase Motor Petrochem motor-NEMA premium efficiency

Description

TXC NEMA Premium motors meet or exceed all NEMA Premium requirements for energy efficiency. These TXC IEEE 841 NEMA Premium efficiency mill and chemical duty motors are specially suited for pulp and paper mills, Steel mills and applications requiring severe duty long life motors.

Applications

- Pumping applications
- Pulp and paper mills
- Petrochemical

Standard Features

- Three-phase, 2, 4, 6 pole, 60Hz
- Voltage: 460 or 575V(3 wire)
- Totally enclosed fan cooled (TEFC)
- Degree of protection: IP55
- Class: "F" insulation ("B" Temperature rise at full load)
- 104°F (40°C) ambient temperature

Service Factor:

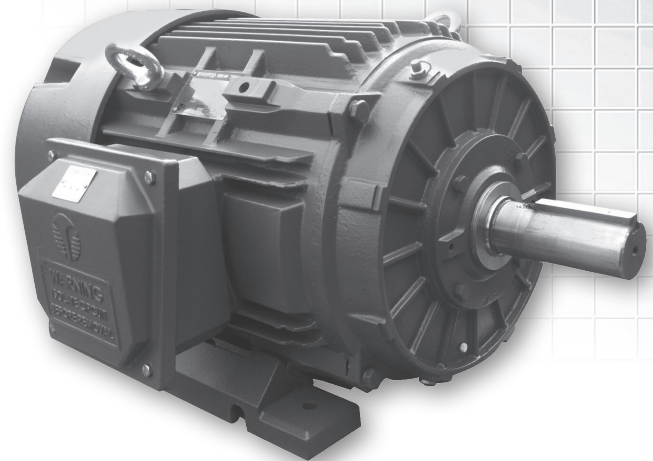
- -1.25-up to 100 HP, -1.15-from 125HP and up
- Squirrel cage rotor/ Aluminum die cast
- 143T up to 449T cast iron frame
- All cast iron reinforced construction: frame, endshields, terminal box and fan cover
- F1 mounting
- Stainless steel nameplate
- Labyrinth type oil seal on drive end and opposite drive end
- External paint: Epoxy polyamide enamel, meets 240h salt spray as per ASTM B117-03
- Internal corrosion resistant epoxy finish
- Regreasable ball bearings D.E. and O.D.E
- Grease outlet through the fan cover
- High tensile steel shaft (for frame 404T and up -4 poles and up)
- Fan: Conductive plastic or Bronze
- "T" type stainless steel condensate drain
- Balance quality grade G1
- Solid milled feet
- Foot flatness 0.005 in (0.127 mm)
- Hex-head bolts or socket-head cap screws and organometallic surface lining
- Stainless steel grease inlet extension
- Minimum Bearing life L10h:50,000 hours for directed-connected loads and 26,280 hours belted

Optional Features

- Special voltages
- Specialty designed shaft
- Space heaters
- Additional terminal box
- Drip cover(canopy) for shaft down applications
- Cable glands
- Terminal block
- Flange mounting
- Roller bearings

Notes

All motors supplied with IEEE 841 Test Report ALL TECHTOP motors are energy efficiency verified by UL addition to the DOE



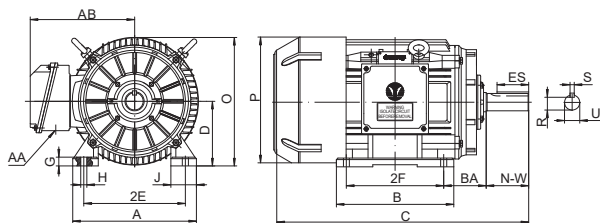


Figure1 NEMA Foot Mounted

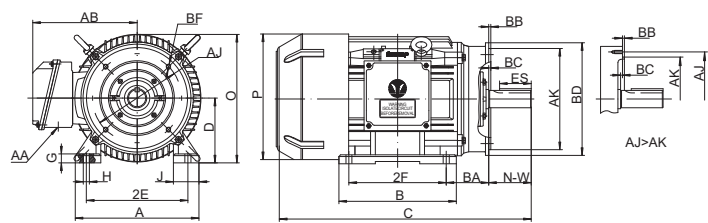


Figure2 NEMA C-Face Foot Mounted

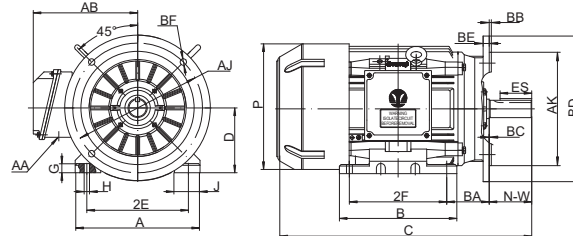


Figure2 NEMA D-Face Foot Mounted

Overall & Installation Dimensions

Frame	Foot Mounting								Shaft					General					
	A	B	G	J	2E	2F	H	BA	N-W	U	S	R	ES	C	D	O	AA	AB	P
143T	7	5.12	0.55	1.46	5.5	4	0.34	2.25	2.25	0.875	0.188	0.771	1.41	13.38	3.5	7.01	3/4	5.69	7.25
145T		6.1				5								14.38					
182T	9	6.1	0.675	1.77	7.5	4.5	0.41	2.75	2.75	1.125	0.25	0.986	1.78	15.9	4.5	8.83	3/4	7.37	9.06
184T		7.09				5.5								16.9					
213T	10.27	7.48	0.71	1.81	8.5	5.5	0.41	3.5	3.38	1.375	0.312	1.201	2.42	19.1	5.25	10.35	1	8.13	10.63
215T		8.98				7								20.6					
254T	12.36	10.35	0.63	2.36	10	8.25	0.53	4.25	4	1.625	0.375	1.416	2.91	24.28	6.25	12.44	1-1/4	10.24	12.68
256T		12.05				10								25.98					
284T	13.8	12.2	0.985	2.95	11	9.5	0.53	4.75	4.62	1.875	0.5	1.591	3.28	27.73	7	13.9	1-1/2	10.91	14.53
286T		13.7				11								29.23					
284TS	13.8	12.2	0.985	2.95	11	9.5	0.53	4.75	3.25	1.625	0.375	1.416	1.91	26.36	7	13.9	1-1/2	10.91	14.53
286TS		13.7				11								27.86					
324T	15.4	13	1.12	3.15	12.5	10.5	0.66	5.25	5.25	2.125	0.5	1.845	3.91	30.2	8	15.9	2	13	16.06
326T		14.5				12								31.7					
324TS	15.4	13	1.12	3.15	12.5	10.5	0.66	5.25	3.75	1.875	0.5	1.591	2.03	28.7	8	15.9	2	13	16.06
326TS		14.5				12								30.2					
364T	17.17	14.2	1.24	3.15	14	11.25	0.66	5.88	5.88	2.375	0.625	2.021	4.28	33.83	9	18	3	15.3	18.425
365T		15.2				12.25								34.83					
364TS	17.17	14.2	1.24	3.15	14	11.25	0.66	5.88	3.75	1.875	0.5	1.591	2.03	31.7	9	18	3	15.3	18.425
365TS		15.2				12.25								32.7					
404T	19.06	17.44	1.33	3.15	16	12.25	0.81	6.62	7.25	2.875	0.75	2.45	5.65	38.75	10	20	3	16.1	20.32
405T						13.75													
444T	21.93	20.08	1.315	3.94	18	14.5	0.81	7.5	8.5	3.375	0.875	2.88	6.91	44.52	11	22	3	17.72	22.36
445T						16.5													
444TS	21.93	20.08	1.315	3.94	18	14.5	0.81	7.5	4.75	2.375	0.625	2.021	3.03	40.77	11	22	3	17.72	22.36
445TS						16.5													
447T	21.93	28.6	1.315	3.94	18	20	0.81	7.5	8.5	3.375	0.875	2.88	6.91	53.02	11	22	3	17.72	22.36
449T						25													
447TS	21.93	28.6	1.315	3.94	18	20	0.81	7.5	4.75	2.375	0.625	2.021	3.03	49.27	11	22	3	17.72	22.36
449TS						25													

Frame	C-Face						D-Face						
	AJ	AK	BB	BC	BD	BF	AJ	AK	BB	BC	BD	BE	BF
143-145T	5.875	4.5	0.16	0.12	6.5	4*3/8-16	10.0	9.0	0.25	0	11	0.5	4*0.53
182-184T	7.25	8.5	0.25	0.12	9	4*1/2-13	10.0	9.0	0.25	0	11	0.5	4*0.53
213-215T	7.25	8.5	0.25	0.25	8.95	4*1/2-13	10.0	9.0	0.25	0	11	0.5	4*0.53
254-256T	7.25	8.5	0.25	0.25	10	4*1/2-13	12.5	11.0	0.25	0	14	0.75	4*0.81
284-286T/TS	9	10.5	0.25	0.25	11.25	4*1/2-13	12.5	11.0	0.25	0	14	0.75	4*0.81
324-326T/TS	11	12.5	0.25	0.25	14	4*5/8-11	16.0	14.0	0.25	0	18	0.75	4*0.81
364-365T/TS	11	12.5	0.25	0.25	14	8*5/8-11	16.0	14.0	0.25	0	18	0.75	4*0.81
404-405T/TS	11	12.5	0.25	0.25	15.5	8*5/8-11	20.0	18.0	0.25	0	22	1	8*0.81
444-449T/TS	14	16	0.25	0.25	18	8*5/8-11	20.0	18.0	0.25	0	22	1	8*0.81

IEEE-841 NEMA Premium Efficiency TEFC Motor Design B Technical Data(60Hz)

HP	Full Load Speed (r/min)	NEMA Frame	Full Load Current		Eff. 100%FL	Power Factor (cos Φ)	Full Load Torque lbf-ft	KVA Code	Locked Rotor		BDT (%FL)	Service Factor	Moment of inertia (lb*ft ²)	Net weight (lbs)
			I _{1,460V} (A)	I _{1,575V} (A)					LRA 230V (A)	LRT (%FL)				
1	3500	143T	1.5	1.2	77	0.83	1.50	K	22	220	300	1.25	0.027765	41.2
	1740	143T	1.5	1.2	85.5	0.75	3.02	J	19	280	300	1.25	0.065733	46.3
	1150	145T	1.7	1.3	82.5	0.68	4.57	H	17	200	270	1.25	0.115330	52.9
1.5	3500	143T	2.0	1.6	84	0.84	2.25	K	32	220	300	1.25	0.037257	41.9
	1740	145T	2.2	1.7	86.5	0.75	4.53	L	34	280	300	1.25	0.088514	54.0
	1175	182T	2.4	1.9	87.5	0.66	6.71	L	35	220	300	1.25	0.428570	93.7
2	3500	145T	2.6	2.1	85.5	0.85	3.00	L	47	220	300	1.25	0.046986	48.5
	1740	145T	2.8	2.2	86.5	0.78	6.04	K	42	280	300	1.25	0.111295	59.5
	1175	184T	3.1	2.5	88.5	0.68	8.94	L	46	220	300	1.25	0.570003	112.5
3	3510	182T	3.6	2.9	86.5	0.9	4.49	K	61	200	280	1.25	0.111533	82.7
	1750	182T	3.8	3.1	89.5	0.82	9.01	K	64	220	300	1.25	0.283103	97.5
	1175	213T	4.4	3.5	89.5	0.72	13.41	K	64	200	250	1.25	1.070477	152
5	3510	184T	5.7	4.6	88.5	0.92	7.48	J	92	180	250	1.25	0.160655	97.0
	1750	184T	6.2	4.9	89.5	0.85	15.01	J	92	185	250	1.25	0.380635	112.9
	1175	215T	6.9	5.5	89.5	0.76	22.36	J	92	190	240	1.25	1.291169	172
7.5	3510	213T	8.5	6.8	89.5	0.92	11.23	H	127	180	250	1.25	0.365210	144
	1750	213T	9.5	7.6	91.7	0.81	22.52	H	127	180	220	1.25	1.010439	163
	1175	254T	10.3	8.2	91	0.75	33.54	H	127	180	220	1.25	2.507588	247
10	3510	215T	11.2	8.9	90.2	0.93	14.97	H	162	180	250	1.25	0.487659	173
	1750	215T	12.6	10.1	91.7	0.81	30.02	H	162	180	220	1.25	1.251302	194
	1175	256T	13.5	10.8	91	0.76	44.72	H	162	180	220	1.25	2.775741	278
15	3530	254T	16.8	13.4	91	0.92	22.33	G	232	180	220	1.25	1.228284	255
	1770	254T	17.3	13.8	92.4	0.88	44.53	G	232	180	220	1.25	2.373037	279
	1180	284T	20.2	16.1	91.7	0.76	66.79	G	232	180	210	1.25	6.627417	397
20	3530	256T	22.6	18.1	91	0.91	29.77	G	290	180	220	1.25	1.326053	276
	1770	256T	22.9	18.3	93	0.88	59.37	G	290	180	220	1.25	2.942328	331
	1180	286T	26.9	21.5	91.7	0.86	89.05	G	290	180	210	1.25	7.719726	443
25	3530	284TS	28.1	22.4	91.7	0.91	37.21	G	365	170	200	1.25	1.801609	354
	1770	284T	30.5	24.4	93.6	0.82	74.21	G	365	180	220	1.25	3.571420	366
	1175	324T	31.9	25.5	93	0.79	111.79	G	365	150	200	1.25	9.608188	501
30	3530	286TS	33.7	26.9	91.7	0.91	44.65	G	435	170	200	1.25	1.997385	381
	1770	286T	35.3	28.2	93.6	0.85	89.05	G	435	180	220	1.25	4.270991	417
	1175	326T	38.2	30.6	93	0.79	134.15	G	435	150	200	1.25	11.709987	680
40	3550	324TS	45.0	36.0	92.4	0.9	59.20	G	580	180	210	1.25	3.684377	509
	1770	324T	45.7	36.6	94.1	0.87	118.74	G	580	180	210	1.25	7.142366	539
	1180	364T	48.0	38.4	94.1	0.83	178.11	G	580	180	200	1.15	19.002091	809
50	3550	326TS	55.3	44.3	93	0.91	74.00	G	725	180	210	1.25	4.854996	593
	1770	326T	56.3	45.0	94.5	0.88	148.42	G	725	180	210	1.25	8.376820	617
	1180	365T	60.0	48.0	94.1	0.83	222.63	G	725	180	200	1.15	22.105074	895
60	3560	364TS	66	53	93.6	0.91	88.55	G	870	140	210	1.15	7.636432	783
	1775	364T	68.8	55	95	0.86	177.61	G	870	160	210	1.15	16.186246	783
	1185	404T	72	57	94.5	0.83	266.03	G	870	180	210	1.15	32.817436	1042
75	3560	365TS	82.5	66	93.6	0.91	110.69	G	1085	160	210	1.15	9.017539	816
	1775	365T	84.6	68	95.4	0.87	222.01	G	1085	160	210	1.15	18.984294	873
	1185	405T	90	72	94.5	0.83	332.54	G	1085	180	210	1.15	38.680498	1122
100	3560	405TS	112	89	94.1	0.89	147.59	G	1450	150	210	1.15	13.680082	1098
	1780	405T	117	93	95.4	0.84	295.18	G	1450	200	210	1.15	27.020820	1180
	1190	444T	119	94	95	0.83	441.53	G	1450	200	210	1.15	83.599710	1678
125	3560	444TS	137	110	95	0.9	184.49	G	1815	160	210	1.15	22.396958	1438
	1785	444T	138	110	95.4	0.89	367.94	G	1815	190	200	1.15	45.156278	1480
	1190	445	147	117	95	0.84	551.91	G	1815	200	210	1.15	93.497646	1775
150	3565	445TS	162	130	95	0.91	221.07	G	2170	160	210	1.15	30.353987	1691
	1785	445T	165	132	95.8	0.89	441.53	G	2170	200	200	1.15	57.265410	1661
	1190	447T	172	138	95.8	0.85	662.29	G	2170	200	210	1.15	111.329830	2130
200	3570	447TS	216	173	95.4	0.91	294.35	G	2900	200	210	1.15	35.120943	2007
	1785	447T	219	175	96.2	0.89	588.70	G	2900	200	200	1.15	71.604484	2055
	1190	449T	230	184	95.8	0.85	883.05	G	2900	200	210	1.15	136.084400	2377
250	3570	449TS	269	215	95.8	0.91	367.94	G	3650	200	210	1.15	45.739570	2262
	1785	449T	273	219	96.2	0.89	735.88	G	3650	200	200	1.15	88.903210	2289