

NEP Series Premium- Efficiency Three-phase Induction Motors



- Frame size: 140 ~ 440
- Voltage: 230V/460V, 575V
- Service factor: 1.15
- Efficiency levels: NEMA Premium
- Poles: 2,4,6
- Rated power: 1 to 250HP
- Frequency: 60Hz
- Insulation class: F
- Enclosure: TEFC
- Degree of protection: IP55



Applications: Typical applications include operations where continuous or frequent duty is required. Constant torque operation is 10:1, Variable torque operation is from zero to base speed. Premium-efficiency motors are designed to conserve energy over extended time period. Class F insulated, 1.15 service factor.

Features: Low-loss electrical grade lamination steel. Cast iron frames, IP55 protection, double lip seal keeps moisture and contamination. Over size bearing, spike resistant magnet wire, conduit box fully gasket and ground lug in conduit box. Stainless steel nameplate. C&D face kits available.

Performance Data

Type	Output HP	Frame	Conn.	Code	Full load r/min	Current at 460V			Torque			Efficiency			Power Factor		
						Idle	Full load (A)	Locked rotor (A)	Full load (LB-FT)	Locked rotor %	Break down %	Full load %	3/4 load %	1/2 load %	Full load %	3/4 load %	1/2 load %
NEP143T2-2	1	143T	2Y/Y	K	3495	0.74	1.5	9.6	1.50	220	265	77.0	81.08	78.29	82	74.75	62.34
NEP143T3-2	1.5	143T	2Y/Y	K	3490	0.87	2.0	13.8	2.26	215	250	84.0	84.34	83.46	84	79.20	68.59
NEP145T-2	2	145T	2Y/Y	J	3485	0.90	2.6	18.7	3.01	210	240	85.5	86.16	85.91	85	83.61	74.69
NEP143T2-4	1	143T	2Y/Y	K	1745	1.10	1.6	11.0	3.01	280	300	85.5	84.84	81.54	70	61.33	48.58
NEP145T1-4	1.5	145T	2Y/Y	K	1735	1.32	2.2	14.1	4.54	250	280	86.5	86.93	82.77	74	66.41	53.42
NEP145T2-4	2	145T	2Y/Y	J	1730	1.72	2.9	18.0	6.07	245	270	86.5	86.88	82.63	75	67.63	54.57
NEP145T-6	1	145T	2Y/Y	J	1155	1.30	1.7	9.8	4.55	260	280	82.5	81.96	77.97	65	55.57	42.55
NEP182T-2	3	182T	2Y/Y	J	3530	1.26	3.7	29.8	4.46	200	230	86.5	86.26	83.85	87	84.69	77.0
NEP184T-2	5	184T	2Y/Y	H	3520	1.56	6.0	45.1	7.46	180	215	88.5	88.75	87.64	88	85.51	78.01
NEP182T-4	3	182T	2Y/Y	J	1760	1.41	3.6	27.0	8.95	215	250	89.5	90.06	88.51	86	81.77	71.87
NEP184T-4	5	184T	2Y/Y	H	1755	2.11	6.1	40.2	14.96	185	225	89.5	90.45	90.05	86	83.93	75.48
NEP182T-6	1.5	182T	2Y/Y	H	1180	1.53	2.3	13.3	6.68	190	250	87.5	86.77	84.20	70	61.28	48.19
NEP184T-6	2	184T	2Y/Y	J	1180	1.98	3.0	18.1	8.90	180	240	88.5	88.0	85.52	70	60.84	47.80
NEP213T-2	7.5	213T	2△/△	H	3535	2.18	8.8	59.5	11.14	250	290	89.5	90.02	88.85	89	89.52	84.33
NEP215T-2	10	215T	2△/△	G	3530	2.58	11.7	76.5	14.88	240	280	90.2	90.79	89.57	89	87.69	84.29
NEP213T-4	7.5	213T	2△/△	G	1765	3.35	9.0	56.9	22.32	250	280	91.7	92.23	90.94	85	82.41	73.63
NEP215T-4	10	215T	2△/△	G	1765	4.18	12.0	77.9	29.76	240	200	91.7	92.27	91.13	85	82.09	72.98
NEP213T-6	3	213T	2Y/Y	J	1185	2.35	4.2	28.4	13.30	185	230	89.5	89.35	87.78	74	66.83	55.17
NEP215T-6	5	215T	2Y/Y	H	1180	3.41	7.1	42.1	22.26	170	215	89.5	89.20	88.31	74	68.4	57.98
NEP254T-2	15	254T	2△/△	G	3560	4.23	17.1	110	22.13	220	250	91.0	90.83	89.12	90	90.52	85.65
NEP256T-2	20	256T	2△/△	F	3555	4.97	22.9	140	29.55	220	250	91.0	91.16	90.03	90	89.71	85.40
NEP254T-4	15	254T	2△/△	G	1780	5.04	17.9	104	44.26	180	230	92.4	93.12	92.86	85	83.55	77.75

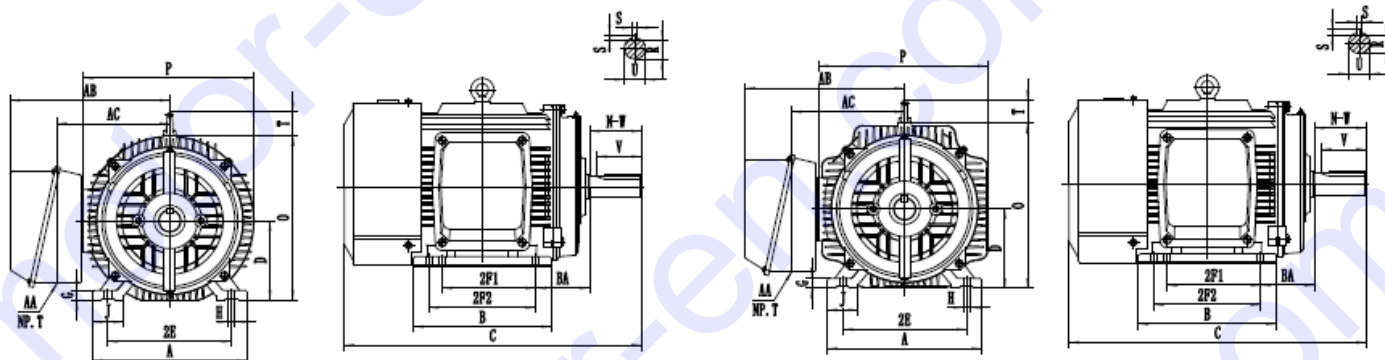
Type	Output HP	Frame	Conn.	Code	Full load r/min	Current at 460V			Torque			Efficiency			Power Factor		
						Idle	Full load (A)	Locked rotor (A)	Full load (LB-FT)	Locked rotor %	Break down %	Full load %	3/4 load %	1/2 load %	Full load %	3/4 load %	1/2 load %
NEP256T-4	20	256T	2△/△	G	1780	6.62	23.7	140	59.02	160	200	93.0	93.74	93.52	85	83.33	77.39
NEP254T-6	7.5	254T	2△/△	G	1190	4.82	10.3	59.3	33.10	190	230	91.0	91.41	90.59	75	70.72	60.96
NEP256T-6	10	256T	2△/△	G	1185	6.94	13.7	77.3	44.33	180	220	91.0	91.59	90.71	75	70.39	60.27
NEP284TS-2	25	284TS	2△/△	F	3560	7.25	28.4	161.2	36.89	180	220	91.7	91.97	89.28	90	89.0	84.88
NEP286TS-2	30	286TS	2△/△	F	3560	7.68	34.0	181.5	44.26	180	220	91.7	91.72	90.07	90	89.6	85.78
NEP284T-4	25	284T	2△/△	F	1780	10.33	29.4	156.8	73.77	180	230	93.6	94.01	93.49	85	82.08	73.42
NEP286T-4	30	286T	2△/△	F	1780	11.24	35.3	178.4	88.53	175	220	93.6	94.31	94.22	85	82.72	75.73
NEP284T-6	15	284T	2△/△	G	1185	8.27	18.9	103.5	66.49	170	200	91.7	91.91	90.92	81	76.06	65.29
NEP286T-6	20	286T	2△/△	F	1185	10.39	25.2	132.2	88.65	170	200	91.7	92.06	91.31	81	77.09	67.1
NEP324TS-2	40	324TS	2△/△	F	3560	8.59	45.0	281.2	59.02	200	225	92.4	92.62	91.55	90	89.69	86.33
NEP326TS-2	50	326TS	2△/△	F	3560	10.65	55.9	355.7	73.77	200	225	93.0	93.33	92.88	90	89.35	85.71
NEP324T-4	40	324T	2△/△	F	1775	11.78	45.2	279.6	118.37	195	235	94.1	94.81	94.76	88	86.37	81.45
NEP326T-4	50	326T	2△/△	F	1775	14.19	56.3	355.4	147.96	195	235	94.5	95.17	95.18	88	86.78	82.15
NEP324T-6	25	324T	2△/△	F	1175	8.47	30.7	167.5	111.76	175	220	93.0	93.59	93.82	82	81.18	75.75
NEP326T-6	30	326T	2△/△	E	1175	9.96	36.8	195.9	134.11	170	210	93.0	94.17	94.59	82	81.15	75.98
NEP364TS-2	60	364TS	2△/△	F	3575	11.55	66.0	398.5	88.16	160	205	93.6	93.79	93.07	91	90.59	88.21
NEP365TS-2	75	365TS	2△/△	F	3575	13.10	82.4	482.5	110.20	160	205	93.6	93.84	93.44	91	90.95	89.87
NEP364T-4	60	364T	2△/△	G	1785	18.02	68.0	427.5	176.56	175	210	95.0	95.4	95.08	87	86.11	80.73
NEP365T-4	75	365T	2△/△	G	1785	21.84	84.6	497.6	220.70	170	200	95.4	96.01	95.91	87	86.26	81.96
NEP364T-6	40	364T	2△/△	F	1190	14.67	48.5	247.1	176.56	150	200	94.1	94.94	94.35	82	81.74	75.22
NEP365T-6	50	365T	2△/△	G	1190	16.92	60.7	298.7	220.70	150	200	94.1	94.83	94.28	82	80.48	75.03
NEP405TS-2	100	405TS	2△/△	F	3575	22.4	109.3	667	146.93	180	250	94.1	94.17	94.01	91	92.74	90.20
NEP405T-4	100	405T	2△/△	F	1785	33.0	112.8	674	294.27	180	250	95.4	94.81	94.39	87	86.20	79.69
NEP404-6	60	404T	2△/△	F	1190	21.6	69.1	406	264.84	190	240	94.5	94.43	94.09	86	84.95	78.0
NEP405T-6	75	405T	2△/△	G	1190	25.8	86.4	531	331.05	190	230	94.5	94.69	94.32	86	85.15	78.46
NEP444TS-2	125	444TS	△	F	3580	24.1	135.4	810	183.40	165	230	95.0	95.01	94.00	91	92.01	89.01
NEP445TS-2	150	445TS	△	F	3580	35.8	162.5	980	220.08	160	230	95.0	95.05	93.80	91	92.08	89.38
NEP447TS-2	200	447TS	△	F	3580	36.0	213.4	1284	293.44	170	220	95.4	95.12	93.81	92	92.34	90.54
NEP449TS-2	250	449TS	△	F	3580	33.5	265.6	1550	366.80	185	220	95.8	95.41	94.30	92	92.41	91.03
NEP444T-4	125	444T	2-△	F	1790	32.9	139.4	828	366.80	180	240	95.4	95.03	94.67	88	89.50	85.07
NEP445T-4	150	445T	2-△	F	1790	36.4	166.6	982	440.16	170	240	95.8	95.28	94.94	88	90.34	86.60
NEP447T-4	200	447T	2-△	F	1790	42.1	221.2	1325	586.89	185	240	96.2	95.59	95.23	88	90.47	86.70
NEP449T-4	250	449T	2-△	F	1790	46.6	276.5	1667	733.61	185	230	96.2	95.82	95.49	88	91.13	88.01
NEP444T-6	100	444T	2-△	F	1190	36.5	114.6	691	441.40	180	230	95.0	94.77	94.28	86	83.25	75.54
NEP445T-6	125	445T	2-△	F	1190	40.4	143.3	852	551.75	180	230	95.0	95.02	94.57	86	84.28	77.29
NEP447T-6	150	447T	2-△	F	1190	42.5	170.5	1041	662.10	170	230	95.8	95.28	94.78	86	85.25	78.75
NEP449T-6	200	449T	2-△	F	1190	50.8	227.3	1376	882.80	170	220	95.8	95.49	95.06	86	86.06	80.34

NOTE: For current at 230V, multiple above values by 2.

Dimensions

inch

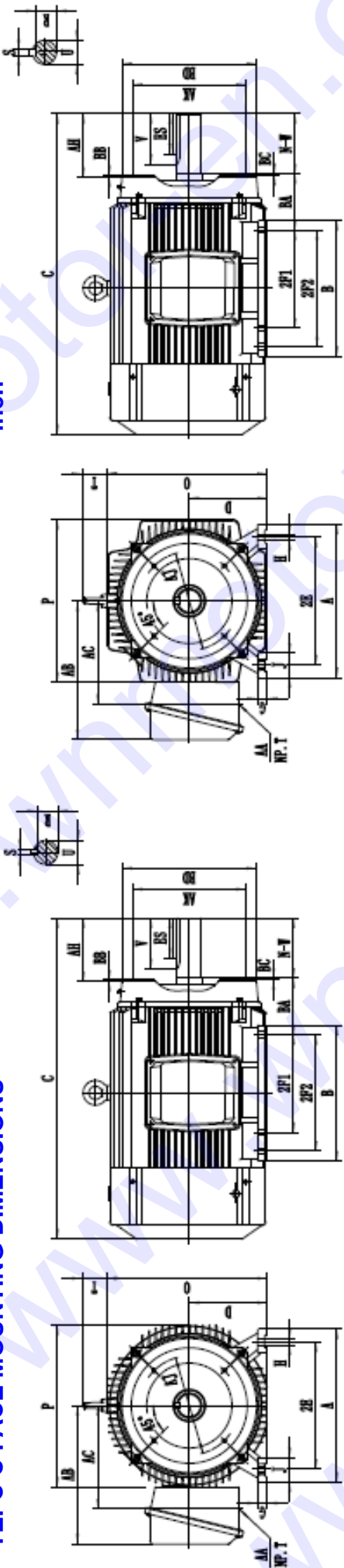
FOOT MOUNTING DIMENSION



Frame	MOUNTING					A	B	C	D	G	J	O	P	R	S	T	AB	AC	AA	SHAFT EXTENSION			BEARINGS	
	2E	2F1	2F2	H	BA															NW	U	V	DN	NDE
143T	5.5	4.0	—	0.34	2.25	6.8	6.0	13.5	3.5	0.512	1.45	7.3	7.2	0.771	0.188	0	6.7	5	3/4	2.25	0.875	2.0	6205-2RS	6205-2RS
145T	5.5	4.0	5.0	0.34	2.25	7.0	6.8	14.5	3.5	0.51	1.45	7.3	7.2	0.771	0.188	0	6.7	5	3/4	2.25	0.875	2.0	6205-2RS	6205-2RS
182T	7.5	4.5	—	0.41	2.75	9	7.7	16.2	4.5	0.6	1.77	9.1	9.37	0.986	0.250	1.58	7.8	6.1	3/4	2.75	1.125	2.5	6206-2RS	6206-2RS
184T	7.5	4.5	5.5	0.41	2.75	9	8.7	17.1	4.5	0.6	1.77	9.1	9.37	0.986	0.250	1.58	7.8	6.1	3/4	2.75	1.125	2.5	6206-2RS	6206-2RS
213T	8.5	5.5	—	0.41	3.5	10.5	7.1	18	5.25	0.71	1.97	10.9	10.9	1.201	0.312	1.97	10	7.09	1	3.38	1.375	3.12	6208-2RS	6208-2RS
215T	8.5	5.5	7.0	0.41	3.5	10.5	8.5	20	5.25	0.71	1.97	10.9	10.9	1.201	0.312	1.97	10	7.09	1	3.38	1.375	3.12	6208-2RS	6208-2RS
254T	10	8.25	—	0.53	4.25	12.5	10.1	23.55	6.25	0.83	2.56	13	13.2	1.416	0.375	2.35	11	8.6	1-1/4	4.0	1.625	3.75	6309	6309
256T	10	8.25	10.0	0.53	4.25	12.5	12.76	25.2	6.25	0.83	2.56	13	13.6	1.416	0.375	2.35	11	8.6	1-1/4	4.0	1.625	3.75	6309	6309
284T	11	9.5	—	0.53	4.75	14.0	12.3	26.6	7	0.94	2.76	14.6	15.1	1.591	0.5	2.35	14.2	10	1-1/2	4.62	1.875	4.38	6311	6311
284TS	11	9.5	—	0.53	4.75	14.0	12.3	25.2	7	0.94	2.76	14.6	15.1	1.416	0.375	2.35	14.2	10	1-1/2	3.25	1.625	3	6311	6311
286T	11	9.5	11.0	0.53	4.75	14.0	12.3	28.1	7	0.94	2.76	14.6	15.1	1.591	0.5	2.35	14.2	10	1-1/2	4.62	1.875	4.38	6311	6311
286TS	11	9.5	11.0	0.53	4.75	14.0	13.8	26.7	7	0.94	2.76	14.6	15.1	1.416	0.375	2.35	14.2	10	1-1/2	3.25	1.625	3	6311	6311
324T	12.5	10.5	—	0.66	5.25	16.0	14.8	31.7	8	0.98	2.76	16.4	16.7	1.845	0.5	2.5	15	10.9	2	5.25	2.125	5	6312	6312
324TS	12.5	10.5	—	0.66	5.25	16.0	14.8	30.2	8	0.98	2.76	16.4	16.7	1.591	0.5	2.5	15	10.9	2	3.75	1.875	3.5	6312	6312
326T	12.5	10.5	12.0	0.66	5.25	16.0	16.3	33.3	8	0.98	2.76	16.4	16.7	1.845	0.5	2.5	15	10.9	2	5.25	2.125	5	6312	6312
326TS	12.5	10.5	12.0	0.66	5.25	16.0	16.3	31.7	8	0.98	2.76	16.4	16.7	1.591	0.5	2.5	15	10.9	2	3.75	1.875	3.5	6312	6312
364T	14	11.2	—	0.66	5.88	17.1	15	33.7	9	0.94	3.11	18.31	18.1	2.021	0.625	2.5	17.5	12.85	3	5.88	2.375	5.62	6314	6314
364TS	14	11.2	—	0.66	5.88	17.0	15	31.5	9	0.94	3.11	18.31	18.1	1.591	0.5	2.5	17.5	12.85	3	3.75	1.875	3.5	6314	6314
365T	14	11.2	12.2	0.66	5.88	17.1	17.4	37.1	9	0.94	3.11	18.31	18.1	2.021	0.625	2.5	17.5	12.85	3	5.88	2.375	5.62	6314	6314
365TS	14	11.2	12.2	0.66	5.88	17.0	16.2	34.65	9	0.94	3.11	18.31	18.1	1.591	0.5	2.5	17.5	12.85	3	3.75	1.875	3.5	6314	6314
404T	16	12.2	—	0.81	6.62	20	19	39	10	1.18	3.15	20.12	20.3	2.45	0.75	2.5	18.8	12.2	3	7.25	2.875	7	6316	6316
404TS	16	12.2	—	0.81	6.62	20	19	36.5	10	1.18	3.15	20.12	20.3	1.845	0.5	2.5	18.8	12.2	3	4.25	2.125	4	6316	6316
405T	16	12.2	13.7	0.81	6.62	20	19	39	10	1.18	3.15	20.12	20.3	2.45	0.75	2.5	18.8	12.2	3	7.25	2.875	7	6316	6316
405TS	16	12.2	13.7	0.81	6.62	20	19	36.5	10	1.18	3.15	20.12	20.3	1.845	0.5	2.5	18.8	12.2	3	4.25	2.125	4	6316	6316
444T	18	14.5	—	0.81	7.5	22	20	45.1	11	1.38	3.46	22.5	23.1	2.88	0.875	3.7	19.7	14.76	3	8.5	3.375	8.25	NU318	6318
444TS	18	14.5	—	0.81	7.5	22	20	41.4	11	1.38	3.46	22.5	23.1	2.021	0.625	3.7	19.7	14.76	3	4.75	2.375	4.5	6316	6316
445T	18	14.5	16.5	0.81	7.5	22	20	45.1	11	1.38	3.46	22.5	23.1	2.88	0.875	3.7	19.7	14.76	3	8.5	3.375	8.25	NU318	6318
445TS	18	14.5	16.5	0.81	7.5	22.0	20	41.4	11	1.38	3.46	22.5	23.1	2.021	0.625	3.7	19.7	14.76	3	4.75	2.375	4.5	6316	6316
447T	18	20	—	0.81	7.5	22.0	28	53.6	11	1.38	3.46	22.5	23.1	2.88	0.875	3.7	19.7	14.76	3	8.5	3.375	8.25	NU320	6320
447TS	18	20	—	0.81	7.5	22.0	28	50	11	1.38	3.46	22.5	23.1	2.021	0.625	3.7	19.7	14.76	3	4.75	2.375	4.5	6316	6316
449T	18	20	25	0.81	7.5	22.0	28	53.6	11	1.38	3.46	22.5	23.1	2.88	0.875	3.7	19.7	14.76	3	8.5	3.375	8.25	NU320	6320
449TS	18	20	25	0.81	7.5	22.0	28	50	11	1.38	3.46	22.5	23.1	2.021	0.625	3.7	19.7	14.76	3	4.75	2.375	4.5	6316	6316

TEFC C-FACE MOUNTING DIMENSIONS

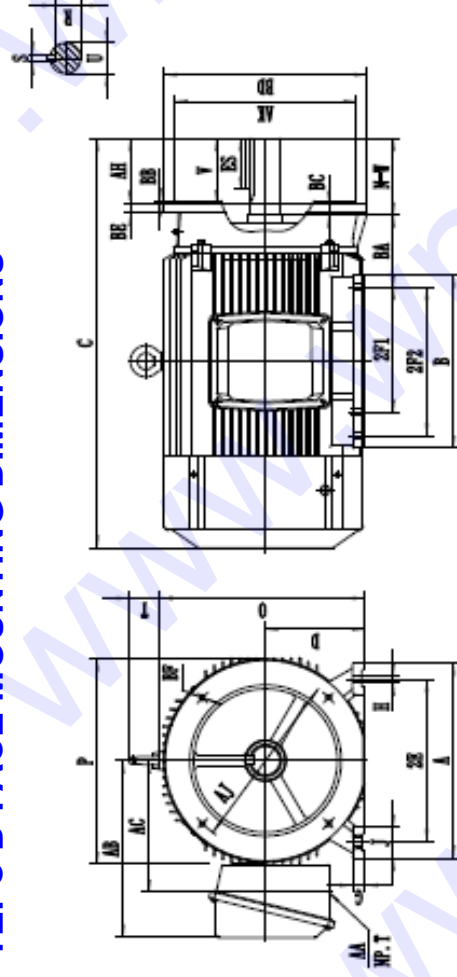
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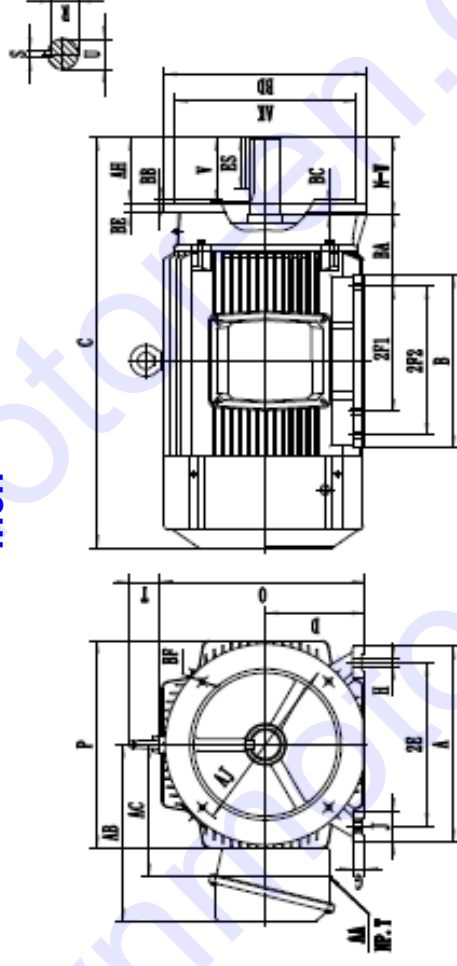
FRAME	AJ	AK	BA	MIN BB	BC	MAX BD	NUMBER OF HOLE	SCREW	DEPTH OF HOLE	U	AH	R	ES	S
143TC, 145TC	5.875	4.500	2.25	0.16	0.12	6.50	4	3/8-16	0.56	0.875	2.12	0.771	1.41	0.188
182TC, 184TC	7.25	8.500	2.75	0.25	0.12	9	4	1/2-13	0.75	1.125	2.62	0.986	1.78	0.250
213TC, 215TC	7.25	8.500	3.75	0.25	0.25	9	4	1/2-13	0.75	1.375	3.12	1.201	2.41	0.312
254TC, 256TC	7.25	8.500	4.25	0.25	0.25	10	4	1/2-13	0.75	1.625	3.75	1.416	2.91	0.375
284TC, 286TC	9.000	10.500	4.75	0.25	0.25	11.25	4	1/2-13	0.75	1.875	4.38	1.591	3.28	0.500
284TSC, 286TSC	9.000	10.500	4.75	0.25	0.25	11.25	4	1/2-13	0.75	1.625	3.00	1.416	1.91	0.375
324TC, 326TC	11.000	12.500	5.25	0.25	0.25	14.00	4	5/8-11	0.94	2.125	5.00	1.845	3.91	0.500
324TSC, 326TSC	11.000	12.500	5.25	0.25	0.25	14.00	4	5/8-11	0.94	1.875	3.50	1.591	2.03	0.500
364TC, 365TC	11.000	12.500	5.88	0.25	0.25	14.00	8	5/8-11	0.94	2.375	5.62	2.021	4.28	0.625
364TSC, 365TSC	11.000	12.500	5.88	0.25	0.25	14.00	8	5/8-11	0.94	1.875	3.50	1.591	2.03	0.500
404TC, 405TC	11.000	12.500	6.62	0.25	0.25	15.50	8	5/8-11	0.94	2.875	7.00	2.45	5.65	0.750
404TSC, 405TSC	11.000	12.500	6.62	0.25	0.25	15.50	8	5/8-11	0.94	2.125	4.00	1.845	2.78	0.500
444TC, 445TC	14.000	16.000	7.5	0.25	0.25	18.00	8	5/8-11	0.94	3.375	8.25	2.88	6.91	0.875
444TSC, 445TSC	14.000	16.000	7.5	0.25	0.25	18.00	8	5/8-11	0.94	2.375	4.50	2.021	3.03	0.625
447TC, 449TC	14.000	16.000	7.5	0.25	0.25	18.00	8	5/8-11	0.94	3.375	8.25	2.88	6.91	0.875
447TSC, 449TSC	14.000	16.000	7.5	0.25	0.25	18.00	8	5/8-11	0.94	2.375	4.50	2.021	3.03	0.625

TEFC D-FACE MOUNTING DIMENSIONS

inch



140T-360T



400T-440T

FRAME	AJ	AK	BA	MIN BB	BC	MAX BD	BE	NUMBER OF HOLE	SCREW	DEPTH OF HOLE	U	AH	R	ES	S
143TD,145TD	10.00	9.000	2.75	0.25	0.00	11.00	0.5	4	0.53	1.25	0.875	2.25	0.771	1.41	0.188
182TD,184TD	10.00	9.000	3.5	0.25	0.00	11.00	0.5	4	0.53	1.25	1.125	2.75	0.986	1.78	0.250
213TD,215TD	10.00	9.000	3.5	0.25	0.00	11.00	0.5	4	0.53	1.25	1.375	3.38	1.201	2.41	0.312
254TD,256TD	12.50	11.000	4.75	0.25	0.00	14.00	0.75	4	0.81	2.00	1.625	4.00	1.416	2.91	0.375
284TD,286TD	12.50	11.000	4.75	0.25	0.00	14.00	0.75	4	0.81	2.00	1.875	4.62	1.591	3.28	0.500
284TSD,286TSD	12.50	11.000	4.75	0.25	0.00	14.00	0.75	4	0.81	2.00	1.625	3.25	1.416	1.91	0.375
324TD,326TD	16.00	14.000	5.25	0.25	0.00	18.00	0.75	4	0.81	2.00	2.125	5.25	1.845	3.91	0.500
324TSD,326TSD	16.00	14.000	5.25	0.25	0.00	18.00	0.75	4	0.81	2.00	1.875	3.75	1.591	2.03	0.500
364TD,365TD	16.00	14.000	5.88	0.25	0.00	18.00	0.75	4	0.81	2.00	2.375	5.88	2.021	4.28	0.625
364TSD,365TSD	16.00	14.000	5.88	0.25	0.00	18.00	0.75	4	0.81	2.00	1.875	3.75	1.591	2.03	0.500
404TD,405TD	20.00	18.000	6.62	0.25	0.00	22.00	1.00	8	0.81	2.25	2.875	7.25	2.45	5.65	0.750
404TSD,405TSD	20.00	18.000	6.62	0.25	0.00	22.00	1.00	8	0.81	2.25	2.125	4.25	1.845	2.78	0.500
444TD,445TD	20.00	18.000	7.5	0.25	0.00	22.00	1.00	8	0.81	2.25	3.375	8.50	2.88	6.91	0.875
444TSD,445TSD	20.00	18.000	7.5	0.25	0.00	22.00	1.00	8	0.81	2.25	2.375	4.75	2.021	3.03	0.625
447TD,449TD	20.00	18.000	7.5	0.25	0.00	22.00	1.00	8	0.81	2.25	3.375	8.50	2.88	6.91	0.875
447TSD,449TSD	20.00	18.000	7.5	0.25	0.00	22.00	1.00	8	0.81	2.25	2.375	4.75	2.021	3.03	0.625

NOTE: 1. Tolerance on dimension D: +0.00inch, -1/32 inch for frame 143~326; +0.00 inch -1/16 inch for frames 364~449.

2. Tolerance on shaft diameter U: +0.0000 inch, -0.0005 inch for frames 143~215; +0.000 inch, 0.001 inch for frame 254~449.

3. Tolerance on dimension R: +0.000 inch, -0.015 inch.

USE ONLY CERTIFIED DATA FOR CONSTRUCTION PURCHASES.

4. Dimension V is length of straight part shaft.

5. The last letter "Z" designated suitability for belt drive application.

6. The conduit box can be received from any direction. Conduit box can be located on either side of the motor.