

TECO

IE4

NEMA Super Premium Efficiency Motor

— AEHH4E SERIES



● Super Premium (IE4) efficiency

● Low Vibration ● Low Noise



SPECIFICATION TABLE

ITEM		STANDARD SPECIFICATION
R A T I N G	Kind of Motors	Squirrel Cage Induction Motors (SCIM) .
	Design Standards	NEMA MG-1, MG-13, IEC 60034-30.
	Voltages	230/460V (208V De-Rating Operation) .
	Frequency	60Hz .
	Output Range	1HP ~ 100HP .
	R.P.M. (Syn.)	3600, 1800 and 1200 R.P.M. (2, 4 and 6 Poles) .
	Time Duty	Continuous, S.F. 1.15 .
	Frame Size	143T ~ 405TS .
	Protection Enclosure	Totally Enclosed (IP44) .
	Cooling Method	Self External Fan, Surface Cooling (IC 411) .
	Mounting	Horizontal Foot Mounting F-1, F-1 and F-2 Interchangeable .
A P P L I C A T I O N	Power Condition	Voltage : ±10%, Frequency : ±5%, and ±10% of Combined Voltage and Frequency, But Frequency Variation Does Not Exceed ±5%.
	Environment Conditions	Place : Non-Hazardous. Ambient Temperature : -15°C ~ 40°C , Relative Humidity : Less Than 90%RH (Non-Condensation) , Altitude : Less Than 3,300ft .
	Drive Method	Belt Service, However for 2 Pole 25HP and Up (TS Frame) Direct-Coupling Service is the Way.
	Direction of Rotation	Bi-Directional .
	Method of Starting	Full Voltage Direct On Line , For 7.5HP & Up λ- Δ Be Available.
C O N S T R U C T I O N	Bearing	Bracket Mounting, Vacuum De-Gassed High Quality Open Bearing for Frame Size of 284TS and 286TS ~ 405TS , Grease Pre-Packed Shielded Rolling Bearings for the Others.
	Terminal BOX	Pressed Steel, Larger Size, Can be set 90° Apart, with Clearance Hole Cable Entrance, F-1 F-2 Interchangeable.
	Lead Terminal	12 Leads, With Solderless Lug Terminals for 7.5HP and Up, 9 Leads for the Others.
	Stator Insulation	Class F Insulation System.
	Painting	Phenolic Rust Proof Base Plus Lacquer Surface Finished Painting in Blue - Gray Color (Munsell 7.5B 3.5/0.5) .
	Hardware	Stainless Steel ISO Metric System.
P E R F O R M A N C E	Test Procedure	IEEE-112 Method B and Full Voltage Measuring Starting Performance.
	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	125% Syn. R.P.M. for Two Min. (2, 4 Poles); 150% Syn. R.P.M. for Two Min. (the others).
	Over Torque	160% Rated Torque for 15 Sec.

PERFORMANCE DATA

● TEFC, NEMA T-FRAME, DESIGN - B or C, CLASS F,

40°C AMBIENT TEMP., CONTINUOUS DUTY S.F. 1.15,

460V 60HZ

OUTPUT		FULL LOAD RPM	FRAMR NO.	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE				ROTOR Wk ² lb-ft ²
HP	kW			FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)	LOCKED ROTOR (A)	FULL LOAD kg-m	LOCKED ROTOR %FLT	PULL UP %FLT	BREAK DOWN %FLT	
1	0.75	3490	143T	85.0	85.0	82.0	83.0	77.0	65.0	1.33	15	1.504	495	435	480	0.045
		1750	143T	87.4	87.0	85.0	79.0	71.0	57.0	1.36	15	3.000	340	250	400	0.103
		1160	145T	84.7	84.0	81.0	64.5	55.5	43.0	1.71	15	4.526	265	210	320	0.136
1.5	1.1	3485	143T	87.0	87.5	86.0	86.5	81.0	71.0	1.87	20	2.260	445	390	450	0.059
		1745	145T	88.3	88.0	87.0	80.5	73.0	60.0	1.98	20	4.513	330	240	380	0.122
		1170	182T	89.2	88.0	85.0	62.0	54.0	41.5	2.54	20	6.731	230	230	435	0.349
2	1.5	3475	145T	87.5	88.0	87.0	87.0	82.0	71.5	2.46	25	3.022	405	355	410	0.064
		1745	145T	88.4	88.0	86.0	77.0	69.0	55.0	2.75	25	6.018	365	265	405	0.136
		1170	184T	90.1	89.0	87.0	65.0	57.0	45.0	3.20	25	8.975	210	210	400	0.460
3	2.2	3510	182T	89.5	90.0	90.0	89.5	86.5	78.5	3.51	32	4.488	290	275	375	0.190
		1755	182T	90.9	91.0	90.0	78.5	71.5	59.0	3.94	32	8.975	270	240	380	0.401
		1175	213T	90.9	90.0	88.0	77.5	70.5	58.0	3.99	32	13.41	215	185	380	0.918
5	3.7	3500	184T	90.5	91.5	92.0	91.0	89.0	83.0	5.68	46	7.501	255	240	340	0.272
		1755	184T	90.9	91.0	90.0	79.5	73.0	61.0	6.48	46	14.96	255	225	360	0.474
		1170	215T	91.0	91.0	90.0	80.0	74.0	63.0	6.43	46	22.44	200	160	330	1.224
7.5	5.5	3525	213T	91.5	92.0	91.5	86.0	83.5	76.5	8.92	64	11.17	195	150	270	0.412
		1765	213T	92.9	92.5	92.0	82.5	78.0	68.0	9.17	64	22.31	235	190	310	0.924
		1175	254T	92.2	91.5	91.0	79.0	74.0	64.0	9.64	64	33.51	285	240	275	2.657
10	7.5	3520	215T	92.0	93.0	92.5	86.5	84.0	78.0	11.8	81	14.92	200	150	260	0.512
		1765	215T	92.9	93.0	92.5	84.0	80.5	71.5	12.0	81	29.75	230	190	290	1.082
		1175	256T	92.5	92.0	91.5	80.5	75.5	65.5	12.6	81	44.69	280	240	270	3.487
15	11	3545	254T	92.6	93.0	92.5	91.0	89.0	84.0	16.7	116	22.22	200	150	275	1.141
		1770	254T	93.6	94.0	93.5	86.5	84.5	76.5	17.3	116	44.50	210	160	250	2.349
		1175	284T	92.9	93.0	92.5	82.0	78.5	69.0	18.4	116	67.03	250	200	250	6.824
20	15	3535	256T	92.2	93.0	93.0	91.0	90.0	86.0	22.3	145	29.71	200	150	240	1.407
		1770	256T	94.0	94.5	94.0	87.0	85.0	77.5	22.9	145	59.33	205	160	240	3.002
		1175	286T	92.9	93.0	93.0	83.0	79.0	70.0	24.3	145	89.37	245	195	240	8.340
25	18.5	3535	284TS	92.9	93.5	93.0	92.0	92.5	88.5	27.4	183	37.13	200	150	240	1.735
		1775	284T	94.5	94.0	94.0	86.0	81.5	77.0	28.8	183	73.95	215	165	245	4.586
		1185	324T	94.2	94.0	93.5	86.0	83.5	76.0	28.9	183	110.8	220	175	240	17.246
30	22	3535	286TS	93.0	94.0	93.5	92.0	93.0	89.0	32.8	218	44.56	200	150	230	1.959
		1775	286T	94.5	94.5	94.5	86.5	82.0	79.0	34.4	218	88.74	205	160	230	5.503
		1185	326T	94.5	94.5	94.0	86.0	83.5	76.0	34.6	218	132.9	230	180	245	18.626
40	30	3560	324TS	94.1	94.0	93.5	92.0	92.0	89.0	43.3	290	58.99	140	125	250	6.373
		1780	324T	95.1	95.5	95.0	87.0	84.0	77.5	45.3	290	118.0	205	180	260	10.272
		1185	364T	95.0	95.0	95.0	85.0	83.5	76.5	46.4	290	177.2	215	185	240	27.044
50	37	3560	326TS	94.5	94.5	94.0	92.0	92.0	89.0	53.8	363	73.74	140	125	250	7.044
		1780	326T	95.4	96.0	95.0	87.0	84.5	78.0	56.4	363	147.5	205	180	250	11.739
		1185	365T	95.1	95.0	95.0	85.5	84.0	76.5	57.6	363	221.5	220	190	240	31.371
60	45	3565	364TS	94.7	95.0	94.0	91.0	90.5	87.0	65.2	435	88.37	135	120	245	7.980
		1780	364T	95.7	95.5	95.0	89.0	87.0	81.0	66.0	435	177.0	200	185	255	21.481
		1185	404T	95.4	95.5	95.0	85.0	82.0	74.0	69.3	435	265.8	175	160	250	41.367
75	55	3570	365TS	95.0	95.0	95.0	91.0	90.5	87.0	81.2	543	110.3	155	135	260	9.178
		1780	365T	96.1	96.0	95.0	89.5	87.5	82.0	81.6	543	221.2	200	185	245	25.778
		1185	405T	95.6	95.5	95.0	85.0	82.0	73.5	86.4	543	332.3	175	160	250	45.647
100	75	3570	405TS	95.5	96.0	95.5	90.5	90.0	86.0	108	725	147.1	135	120	285	14.091
		1780	405T	96.1	96.0	95.0	88.0	85.5	79.0	111	725	295.0	160	150	260	34.124

NOTE :

- 1.The above are typical values based on test according to ANSI / 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.Efficiency according to IEC 60034-30.
- 5.Tolerance according to NEMA MG1-12 & IEC 60034-1.
- 6.Data subject to change without notice

Dimension

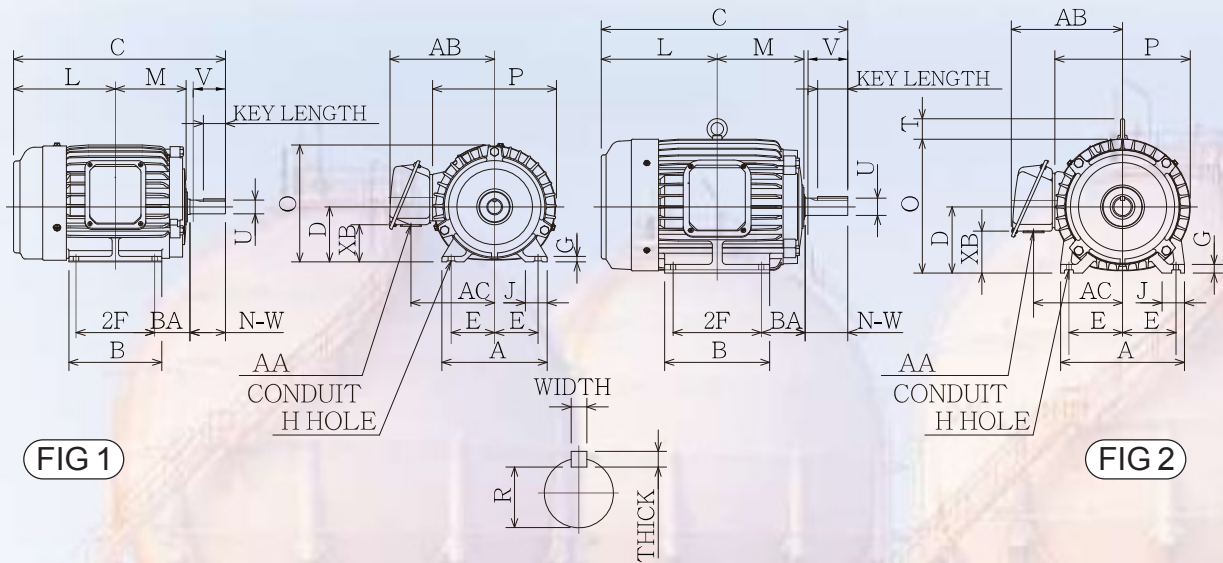


FIG 1

FIG 2

Dimension in inches

Output(HP)			FRAME	FIG.	Mounting				A	B	C	D	G	J	L	M	O	P
2P	4P	6P	SIZE	NO.	E	2F	H	BA										
15	1	—	143T	1	2.75	4.00	0.34	2.25	6.70	5.10	12.47	3.50	0.35	1.40	15.96	4.00	7.45	7.87
2	1.5 2	1	145T		2.75	5.00	0.34	2.25	6.70	5.90	13.46	3.50	0.35	1.40	6.46	4.50	7.45	7.87
3	3	1.5	182T	2	3.75	4.50	0.41	2.75	8.80	5.90	14.77	4.50	0.65	1.75	7.03	4.85	9.15	9.37
5	5	2	184T		3.75	5.50	0.41	2.75	8.80	6.90	15.79	4.50	0.65	1.75	7.54	5.35	9.15	9.37
7.5	7.5	3	213T		4.25	5.50	0.41	3.50	9.85	6.90	18.09	5.25	0.70	1.75	8.46	6.05	10.60	10.75
10	10	5	215T		4.25	7.00	0.41	3.50	9.85	8.35	19.59	5.25	0.70	1.75	9.21	6.80	10.60	10.75

FRAME	T	Key			Keyset	Shaft Extension			Terminal Housing				Bearing		APPROX.
		WIDTH	THICK	LENGTH	R	N-W	U	V	AA	AB	AC	XB	DRIVE END	OPPOSITE	WEIGHT
SIZE													DRIVE END	DRIVE END	LBS
143T	—	0.188	0.188	1.410	0.771	2.250	0.875	2.200	1.10	6.18	4.92	2.52	6205ZZ	6205ZZ	44
145T	—	0.188	0.188	1.410	0.771	2.250	0.875	2.200	1.10	6.18	4.92	2.52	6205ZZ	6205ZZ	53
182T	1.30	0.250	0.250	1.780	0.986	2.750	1.125	2.700	1.10	7.44	6.06	3.36	6306ZZ	6306ZZ	81
184T	1.30	0.250	0.250	1.780	0.986	2.750	1.125	2.700	1.10	7.44	6.06	3.36	6306ZZ	6306ZZ	95
213T	1.65	0.312	0.312	2.410	1.201	3.380	1.375	3.300	1.38	8.86	7.07	3.32	6308ZZ	6306ZZ	150
215T	1.65	0.312	0.312	2.410	1.201	3.380	1.375	3.300	1.38	8.86	7.07	3.32	6308ZZ	6306ZZ	176

- NOTE :
1. Dimension D tolerance : +0.00 inches, -0.03 inches.
 2. Dimension U tolerance : +0.000 inches, -0.0005 inches.
 3. Dimension R tolerance : +0.000 inches, -0.015 inches.
 4. Dimension V is length of straight part of shaft.

Dimension

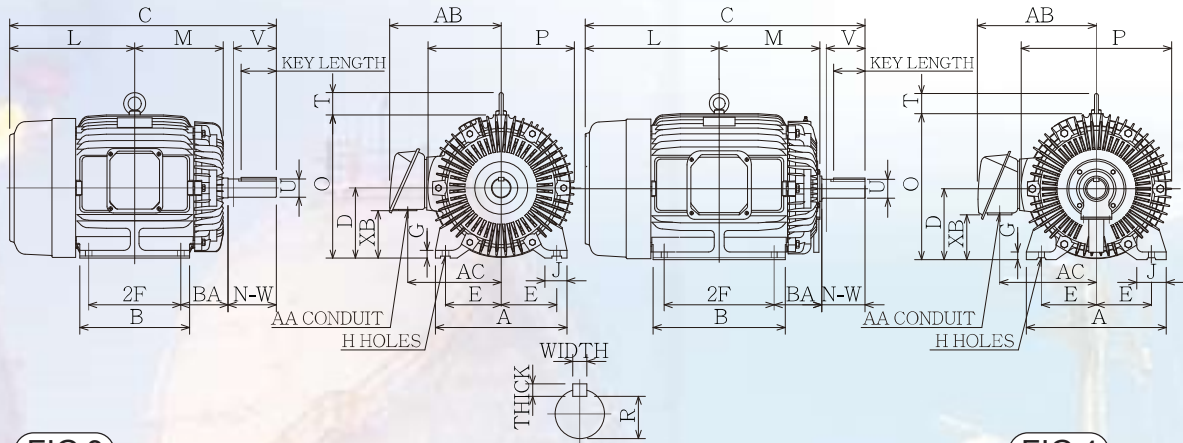


FIG 3

FIG 4

Dimension in inches

Output (HP)			FRAME SIZE	FIG. NO.	Mounting				A	B	C	D	G	J	L	M	O	P
2P	4P	6P			E	2F	H	BA										
15	15	7.5	254T	3	5.00	8.25	0.53	4.25	11.80	9.85	23.60	6.25	0.65	1.95	11.23	7.98	12.80	13.15
20	20	10	256T		5.00	10.00	0.53	4.25	11.80	11.80	25.34	6.25	0.65	1.95	12.09	8.86	12.80	13.15
—	25	15	284T		5.50	9.50	0.53	4.75	14.00	11.70	26.74	7.00	0.79	2.95	12.62	9.11	14.50	15.05
25	—	—	284TS	4	5.50	9.50	0.53	4.75	14.00	11.70	25.37	7.00	0.79	2.95	12.62	9.31	14.50	15.05
—	30	20	286T	3	5.50	11.00	0.53	4.75	14.00	13.20	28.24	7.00	0.79	2.95	13.37	9.86	14.50	15.05
30	—	—	286TS	4	5.50	11.00	0.53	4.75	14.00	13.20	26.87	7.00	0.79	2.95	13.37	10.06	14.50	15.05
—	40	25	324T		6.25	10.50	0.67	5.25	15.75	14.37	31.25	8.00	1.11	3.15	14.75	11.04	17.02	18.03
40	—	—	324TS		6.25	10.50	0.67	5.25	15.75	14.37	29.75	8.00	1.11	3.15	14.75	11.04	17.02	18.03
—	50	30	326T		6.25	12.00	0.67	5.25	15.75	15.75	32.62	8.00	1.11	3.15	15.43	11.73	17.02	18.03
50	—	—	326TS		6.25	12.00	0.67	5.25	15.75	15.75	31.12	8.00	1.11	3.15	15.43	11.73	17.02	18.03
—	60	40	364T		7.00	11.25	0.67	5.88	17.70	16.34	35.03	9.00	1.32	3.55	16.39	12.56	19.04	20.08
60	—	—	364TS		7.00	11.25	0.67	5.88	17.70	16.34	32.91	9.00	1.32	3.55	16.39	12.56	19.04	20.08
—	75	50	365T		7.00	12.25	0.67	5.88	17.70	16.34	35.03	9.00	1.32	3.55	16.39	12.56	19.04	20.08
75	—	—	365TS		7.00	12.25	0.67	5.88	17.70	16.34	32.91	9.00	1.32	3.55	16.39	12.56	19.04	20.08
—	—	60	404T		8.00	12.25	0.81	6.62	19.68	15.16	36.50	10.00	1.42	3.93	16.50	12.52	20.71	21.46
—	100	75	405T	8.00	13.75	0.81	6.62	19.68	18.90	40.23	10.00	1.42	3.93	18.36	14.39	20.71	21.46	
100	—	—	405TS	8.00	13.75	0.81	6.62	19.68	18.90	37.23	10.00	1.42	3.93	18.36	14.39	20.71	21.46	

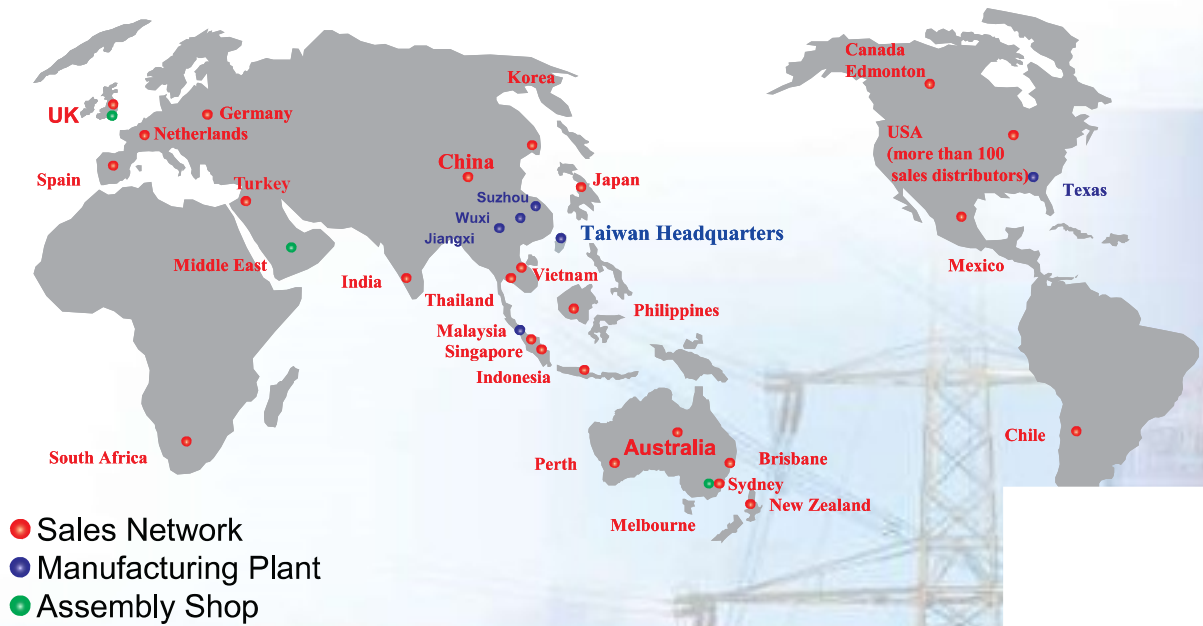
FRAME SIZE	T	Key			Keyseat R	Shaft Extension			Terminal Housing				Bearings		APPROX. WEIGHT LBS
		WIDTH	THICK	LENGTH		N-W	U	V	AA	AB	AC	XB	DRIVE END	OPPOSITE DRIVE END	
254T	2.01	0.375	0.375	2.910	1.416	4.000	1.625	3.900	1.38	10.24	8.58	4.37	6309ZZ	6307ZZ	267
256T	2.01	0.375	0.375	2.910	1.416	4.000	1.625	3.900	1.38	10.24	8.58	4.37	6309ZZ	6307ZZ	311
284T	2.36	0.500	0.500	3.280	1.591	4.620	1.875	4.500	2.05	12.13	9.84	4.59	6311ZZ	6310ZZ	399
284TS	2.36	0.375	0.375	1.930	1.416	3.250	1.625	3.200	2.05	12.13	9.84	4.59	6211C3	6211C3	381
286T	2.36	0.500	0.500	3.280	1.591	4.620	1.875	4.500	2.05	12.13	9.84	4.59	6311ZZ	6310ZZ	454
286TS	2.36	0.375	0.375	1.930	1.416	3.250	1.625	3.200	2.05	12.13	9.84	4.59	6211C3	6211C3	430
324T	2.76	0.500	0.500	3.910	1.845	5.250	2.125	5.150	2.56	14.25	11.77	5.19	6312	6212	728
324TS	2.76	0.500	0.500	2.030	1.591	3.750	1.875	3.650	2.56	14.25	11.77	5.19	6312C3	6212C3	706
326T	2.76	0.500	0.500	3.910	1.845	5.250	2.125	5.150	2.56	14.25	11.77	5.19	6312	6212	849
326TS	2.76	0.500	0.500	2.030	1.591	3.750	1.875	3.650	2.56	14.25	11.77	5.19	6312C3	6212C3	783
364T	2.76	0.625	0.625	4.280	2.021	5.880	2.375	5.750	3.62	16.18	13.27	6.18	6313	6213	1102
364TS	2.76	0.500	0.500	2.030	1.591	3.750	1.875	3.650	3.62	16.18	13.27	6.18	6312C3	6212C3	1036
365T	2.76	0.625	0.625	4.280	2.021	5.880	2.375	5.750	3.62	16.18	13.27	6.18	6313	6213	1175
365TS	2.76	0.500	0.500	2.030	1.591	3.750	1.875	3.650	3.62	16.18	13.27	6.18	6312C3	6212C3	1098
404T	3.54	0.750	0.750	5.650	2.450	7.250	2.875	7.150	3.62	19.65	15.12	5.63	6317	6313	1235
405T	3.54	0.750	0.750	5.650	2.450	7.250	2.875	7.150	3.62	19.65	15.12	5.63	6317	6313	1300
405TS	3.54	0.500	0.500	2.780	1.845	4.250	2.125	4.150	3.62	19.65	15.12	5.63	6313C3	6313C3	1410

- NOTE : 1. Dimension D tolerance : +0.00 inches, -0.03 inches.
 2. Dimension U tolerance : +0.000 inches, -0.001 inches.
 3. Dimension R tolerance : +0.000 inches, -0.015 inches.
 4. Dimension V is length of straight part of shaft.



<https://maybomteco.vn/>
HP: 0352183679

TECO



TECO Electric & Machinery Co. Ltd

10F No,3-1, Yuan Cyu St. Nan-Kang Taipei 115 Taiwan ROC
Tel : +886 2 6615 9111 Fax: +886 2 6616 2503 www.teco.com.tw/fa
<https://maybomteco.vn/>
HP: 0352183679

Distributor :