

東元低壓**Class I Division 1**防爆馬達  
(NEMA)

**MODEL : AEHHXU**

EXPLOSION PROOF MOTORS  
LOW VOLTAGE SQUIRREL CAGE  
FRAME SIZE ( EX ) : 143T ~ 445TS



DWG NO.

**31057H101**

REV. 07

		<b>SPECIFICATION TABLE</b>				MODEL <b>AEHHXU</b>		
		EXPLOSION PROOF MOTORS LOW VOLTAGE SQUIRREL CAGE						
ITEM		STANDARD SPECIFICATION						
R A T I N G	Kind of Motors	Squirrel Cage Induction Motors ( SCIM ) .						
	Design Standards	UL674 ; NEMA MG-1 , MG-13 ; CSA 22.2 No.145 .						
	Voltages	230 / 460V ( 208V De - Rating Operation ) .						
	Frequency	60Hz ( Rated Sinusoidal or PWM Power Source ) .						
	Output Range	1HP ~ 150HP .						
	R.P.M. (Syn.)	3600 ~ 900 R.P.M. ( 2 ~ 8 Poles ) .						
	Time Duty	Continuous , S.F. 1.15 ( S1 , MCR ) .						
	Frame Size ( EX )	143T ~ 445TS .						
	Protection Enclosure	Totally Enclosed Fan Cooled , UL Explosion Proof , CSA22.2 No.145 .						
	Cooling Method	Self External Fan , Surface Cooling ( IC 411 ) .						
Mounting	Horizontal Foot Mounting F - 1 ( IM 1001 ) .							
A P P L I C A T I O N	Power Condition	Voltage : $\pm 10\%$ , Frequency : $\pm 5\%$ , and $\pm 10\%$ of Combined Voltage and Frequency , But Frequency Variation does not Exceed $\pm 5\%$ .						
	Environment Conditions	Ambient Temperature : $-15^{\circ}\text{C} \sim 40^{\circ}\text{C}$ Relative Humidity : Less Than 90%RH ( Non - Condensation ) . Altitude : Less Than 3,300ft						
	Hazardous Location	Suitable For Division 1 , Class I , Group D , Class II , Group E. F. G.						
	Drive Method	Belt Service, However, 2 Pole 25HP and up Coupling Service only.						
	Direction of Rotation	Bi - Directional .						
	Method of Starting	Full Voltage Direct On Line .						
P E R F O R M A N C E	Test Procedure for Explosion Proof	According to UL674.						
	Test Procedure	IEEE - 112 Method B and Full Voltage Measuring Starting Performance.						
	Temperature Rise	Not to Exceed $90^{\circ}\text{C}$ for S.F.1.15 ( B class ) by Resistance Method.						
	External Surface Temperature	Comply with Operating Temperature Code T3B, for Class I Group D, Class II Group E,F,G of Table 37.1 of UL674. Limited by Built in Normal Close Thermostat, One Per Phase.						
	Over Speed	125% Syn. R.P.M. for 2 Minutes. ( 2,4 Poles) 150% Syn. R.P.M. for 2 Minutes. ( the others)						
	Over Torque	160% Rated Torque for 15 Sec.						
	Inverter Duty Frequency Range	Certification List	Frame	HZ Range				T3B (165°C)
				VT	CT	CHP	Temp. code	
		CSA Certification	143T~184T	3~60	12~60	60~90	T3B (165°C)	
			213T~215T	3~60	6~60	60~90		
254T~326T			3~60	6~60	60~90			
364T~445T			3~60	6~60	60~90			
UL Certification		143T~215T	3~60	10~60	60~90	T3B (165°C)		
	254T~326T	3~60	13~60	60~90				
	364T~445T	3~60	16~60	60~90				



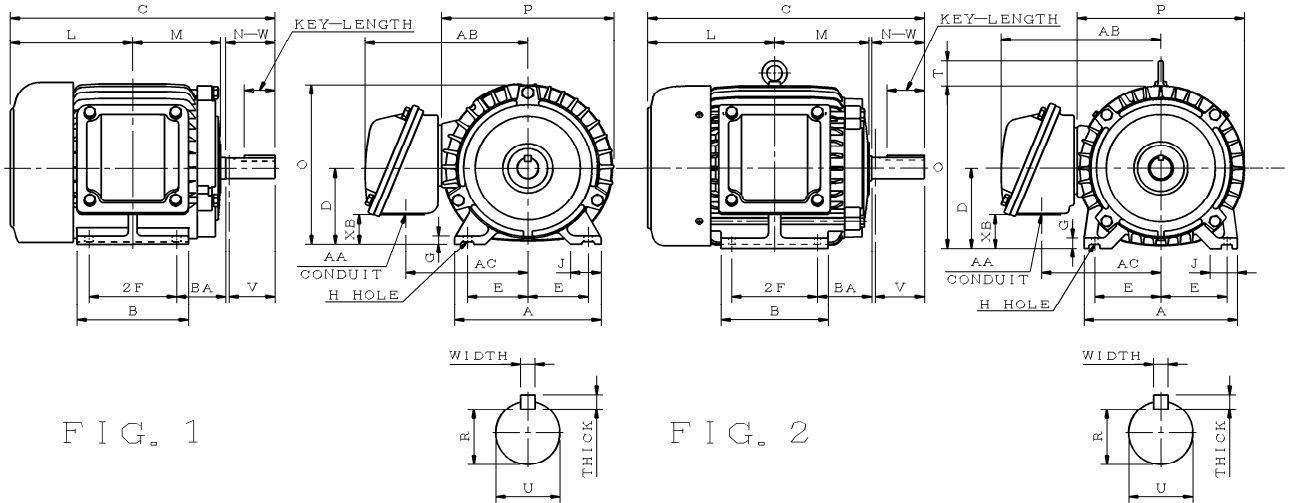
# OUTLINE DIMENSIONS SHEET

MODEL

**AEHHXU**

EXPLOSION PROOF MOTORS  
FRAME SIZE( EX ) 143T ~ 215T

Totally Enclosed Fan - Cooled Type, Squirrel - Cage Rotor.



Dimension in inches

Output (HP)				FRAME SIZE	FIG. NO.	Mounting				A	B	C	D	G	J	L	M	O
2P	4P	6P	8P			E	2F	H	BA									
1.5	1	0.75	—	143T	1	2.75	4.00	0.34	2.25	6.70	5.10	12.56	3.50	0.35	1.40	6.06	4.05	7.50
2	1.5 2	1	—	145T		2.75	5.00	0.34	2.25	6.70	5.90	13.54	3.50	0.35	1.40	6.54	4.55	7.50
3	3	1.5	1	182T	2	3.75	4.50	0.41	2.75	8.80	5.90	14.89	4.50	0.65	1.75	7.14	4.78	9.35
5	5	2	1.5	184T		3.75	5.50	0.41	2.75	8.80	6.90	15.91	4.50	0.65	1.75	7.66	5.41	9.35
7.5	7.5	3	2	213T		4.25	5.50	0.41	3.50	9.85	6.90	18.26	5.25	0.70	1.75	8.63	6.02	10.80
10	10	5	3	215T		4.25	7.00	0.41	3.50	9.85	8.35	19.76	5.25	0.70	1.75	9.38	6.77	10.80

FRAME SIZE	P	T	Key			Keyseat R	Shaft Extension			Terminal Housing				Bearings	
			WIDTH	THICK	LENGTH		N-W	U	V	AA	AB	AC	XB	DRIVE END	OPPOSITE DRIVE END
143T	7.97	—	0.188	0.188	1.41	0.771	2.25	0.875	2.20	3/4	8.03	5.70	1.33	6205ZZ	6205ZZ
145T	7.97	—	0.188	0.188	1.41	0.771	2.25	0.875	2.20	3/4	8.03	5.70	1.33	6205ZZ	6205ZZ
182T	9.60	1.15	0.250	0.250	1.78	0.986	2.75	1.125	2.70	3/4	8.78	6.45	2.33	6306ZZ	6306ZZ
184T	9.60	1.15	0.250	0.250	1.78	0.986	2.75	1.125	2.70	3/4	8.78	6.45	2.33	6306ZZ	6306ZZ
213T	11.10	1.45	0.312	0.312	2.41	1.201	3.38	1.375	3.30	1	10.73	7.45	1.94	6308ZZ	6306ZZ
215T	11.10	1.45	0.312	0.312	2.41	1.201	3.38	1.375	3.30	1	10.73	7.45	1.94	6308ZZ	6306ZZ

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

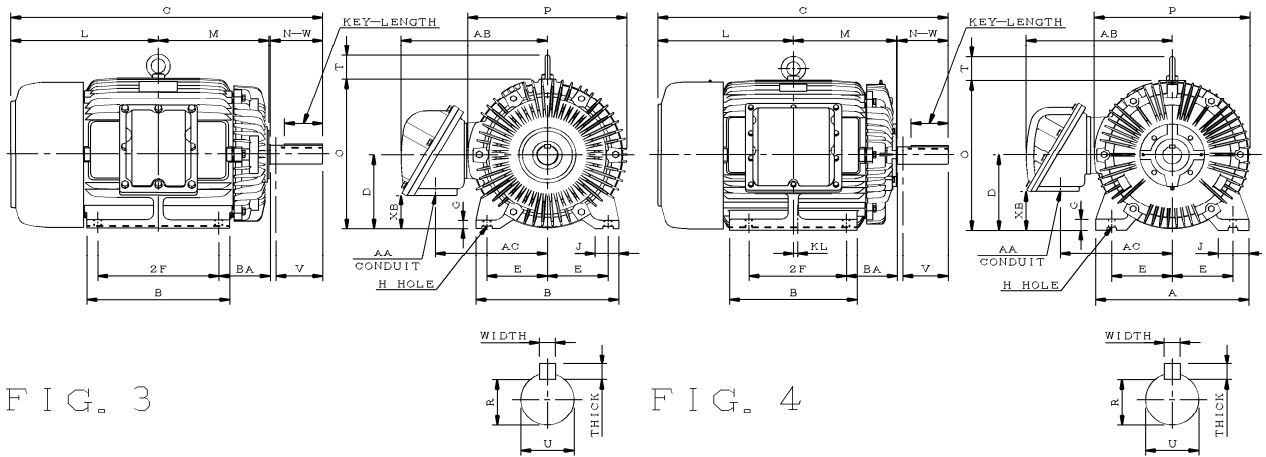
# OUTLINE DIMENSIONS SHEET

MODEL

**AEHHXU**

## EXPLOSION PROOF MOTORS FRAME SIZE( EX ) 254T ~ 405TS

Totally Enclosed Fan - Cooled Type, Squirrel - Cage Rotor.



Dimension in inches

Output (HP)				FRAME SIZE	FIG. NO.	Mounting				A	B	C	D	G	J	KL	L	M	O
2P	4P	6P	8P			E	2F	H	BA										
15	15	7.5	5	254T	3	5.00	8.25	0.53	4.25	11.80	9.85	23.70	6.25	0.65	1.95	—	11.33	8.26	12.80
20	20	10	7.5	256T		5.00	10.00	0.53	4.25	11.80	11.80	25.44	6.25	0.65	1.95	—	12.19	9.13	12.80
—	25	15	10	284T		5.50	9.50	0.53	4.75	14.00	11.70	26.80	7.00	0.70	2.95	—	12.68	9.39	14.52
25	—	—	—	284TS	4	5.50	9.50	0.53	4.75	14.00	11.70	25.43	7.00	0.70	2.95	—	12.68	9.43	14.52
—	30	20	15	286T		5.50	11.00	0.53	4.75	14.00	13.20	28.30	7.00	0.70	2.95	—	13.42	10.14	14.52
30	—	—	—	286TS	4	5.50	11.00	0.53	4.75	14.00	13.20	26.93	7.00	0.70	2.95	—	13.42	10.18	14.52
—	40	25	20	324T		6.25	10.50	0.66	5.25	15.75	12.80	29.92	8.00	1.10	3.15	—	14.17	10.37	16.22
40	—	—	—	324TS		6.25	10.50	0.66	5.25	15.75	12.80	28.42	8.00	1.10	3.15	—	14.17	10.37	16.22
—	50	30	25	326T		6.25	12.00	0.66	5.25	15.75	14.35	31.42	8.00	1.10	3.15	—	14.92	11.04	16.22
50	—	—	—	326TS		6.25	12.00	0.66	5.25	15.75	14.35	29.92	8.00	1.10	3.15	—	14.92	11.04	16.22
—	60	40	30	364T		7.00	11.25	0.66	5.88	17.70	14.75	33.55	9.00	1.30	3.55	0.50	15.67	11.87	18.00
60	—	—	—	364TS		7.00	11.25	0.66	5.88	17.70	14.75	31.42	9.00	1.30	3.55	0.50	15.67	11.87	18.00
—	75	50	40	365T		7.00	12.25	0.66	5.88	17.70	14.75	33.55	9.00	1.30	3.55	—	15.67	11.87	18.00
75	—	—	—	365TS		7.00	12.25	0.66	5.88	17.70	14.75	31.42	9.00	1.30	3.55	—	15.67	11.87	18.00
—	—	60	50	404T		8.00	12.25	0.81	6.62	19.69	15.16	36.69	10.00	1.58	3.94	—	16.69	12.44	20.05
—	100	75	60	405T	4	8.00	13.75	0.81	6.62	19.69	16.73	38.19	10.00	1.58	3.94	—	17.44	13.19	20.05
100	—	—	—	405TS		8.00	13.75	0.81	6.62	19.69	16.73	35.19	10.00	1.58	3.94	—	17.44	13.19	20.05

FRAME SIZE	P	T	Key			Keyseat		Shaft Extension			Terminal Housing				Bearings	
			WIDTH	THICK	LENGTH	R	N-W	U	V	AA	AB	AC	XB	DRIVE END	OPPOSITE DRIVE END	
254T	13.15	2.01	0.375	0.375	2.91	1.416	4.00	1.625	3.90	1 1/4	12.24	8.94	2.83	6309ZZ	6307ZZ	
256T	13.15	2.01	0.375	0.375	2.91	1.416	4.00	1.625	3.90	1 1/4	12.24	8.94	2.83	6309ZZ	6307ZZ	
284T	15.04	2.36	0.500	0.500	3.28	1.591	4.62	1.875	4.50	1 1/2	13.23	9.92	3.66	6311ZZ	6310ZZ	
284TS	15.04	2.36	0.375	0.375	1.93	1.416	3.25	1.625	3.20	1 1/2	13.23	9.92	3.66	6211C3	6211C3	
286T	15.04	2.36	0.500	0.500	3.28	1.591	4.62	1.875	4.50	1 1/2	13.23	9.92	3.66	6311ZZ	6310ZZ	
286TS	15.04	2.36	0.375	0.375	1.93	1.416	3.25	1.625	3.20	1 1/2	13.23	9.92	3.66	6211C3	6211C3	
324T	16.54	2.36	0.500	0.500	3.91	1.845	5.25	2.125	5.15	2	16.18	12.17	3.31	6312	6212	
324TS	16.54	2.36	0.500	0.500	2.03	1.591	3.75	1.875	3.65	2	16.18	12.17	3.31	6312C3	6212C3	
326T	16.54	2.36	0.500	0.500	3.91	1.845	5.25	2.125	5.15	2	16.18	12.17	3.31	6312	6212	
326TS	16.54	2.36	0.500	0.500	2.03	1.591	3.75	1.875	3.65	2	16.18	12.17	3.31	6312C3	6212C3	
364T	18.03	2.76	0.625	0.625	4.28	2.021	5.88	2.375	5.75	3	16.97	12.95	4.69	6313	6213	
364TS	18.03	2.76	0.500	0.500	2.03	1.591	3.75	1.875	3.65	3	16.97	12.95	4.69	6312C3	6212C3	
365T	18.03	2.76	0.625	0.625	4.28	2.021	5.88	2.375	5.75	3	16.97	12.95	4.69	6313	6213	
365TS	18.03	2.76	0.500	0.500	2.03	1.591	3.75	1.875	3.65	3	16.97	12.95	4.69	6312C3	6212C3	
404T	20.08	3.54	0.750	0.750	5.65	2.450	7.25	2.875	6.50	3	20.47	15.43	4.33	6317	6313	
405T	20.08	3.54	0.750	0.750	5.65	2.450	7.25	2.875	6.50	3	20.47	15.43	4.33	6317	6313	
405TS	20.08	3.54	0.500	0.500	2.78	1.845	4.25	2.125	3.30	3	20.47	15.43	4.33	6313C3	6313C3	

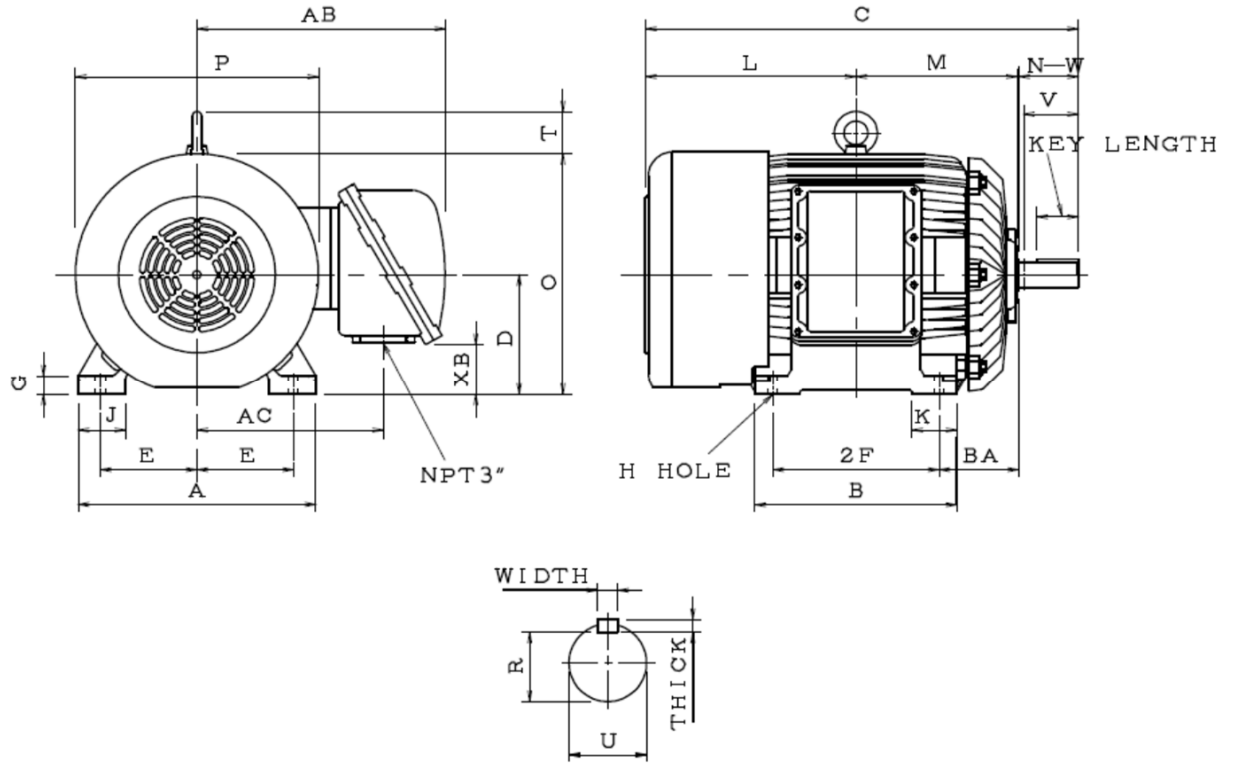
- Note :
1. Dimension D tolerance : +0.00 inch, -0.03 inch.
  2. Dimension U tolerance : +0.000 inch, -0.001 inch.
  3. Dimension R tolerance : +0.000 inch, -0.015 inch.
  4. Dimension V is length of straight part of shaft.

# OUTLINE DIMENSIONS SHEET

MODEL

**AEHHXU**

EXPLOSION PROOF MOTORS  
FRAME SIZE( EX ) 444T ~ 445T&TS



Dimension in inches

Output (HP)				FRAME SIZE (EX)	FIG.	Mounting				A	B	C	D	G	J	K	L	M	O
2P	4P	6P	8P			E	2F	H	BA										
—	125	100	75	444T	5	9.00	14.50	0.81	7.50	22.05	17.50	42.05	11.00	1.55	4.35	4.35	18.80	14.45	22.25
125	—	—	—	444TS		9.00	14.50	0.81	7.50	22.05	17.50	38.30	11.00	1.55	4.35	4.35	18.80	14.45	22.25
—	150	125	100	445T		9.00	16.50	0.81	7.50	22.05	19.50	44.05	11.00	1.55	4.35	4.35	19.80	15.45	22.25
150	—	—	—	445TS		9.00	16.50	0.81	7.50	22.05	19.50	40.30	11.00	1.55	4.35	4.35	19.80	15.45	22.25

FRAME SIZE (EX)	P	T	Key			Keyseat	Shaft Extension			Terminal Housing			Bearings	
			WIDTH	THICK	LENGTH	R	N-W	U	V	AB	AC	XB	DRIVE END	OPP. DRIVE END
444T	23.30	3.55	0.875	0.875	6.91	2.880	8.50	3.375	8.00	21.65	16.60	5.10	NU318	6318
444TS	23.30	3.55	0.625	0.625	3.03	2.021	4.75	2.375	4.50	21.65	16.60	5.10	6313C3	6313C3
445T	23.30	3.55	0.875	0.875	6.91	2.880	8.50	3.375	8.00	21.65	16.60	5.10	NU318	6318
445TS	23.30	3.55	0.625	0.625	3.03	2.021	4.75	2.375	4.50	21.65	16.60	5.10	6313C3	6313C3

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