

低壓全密型TEFC泵浦用馬達(實心軸)

MODEL : AEEHED

HIGH THRUST SOLIDSHAFT PUMP MOTORS
LOW VOLTAGE SQUIRREL CAGE
FRAME SIZE (EHV) 444VP ~ 449VP



		SPECIFICATION TABLE	MODEL
		3-PHASE HIGH EFFICIENCY INDUCTION MOTORS LOW VOLTAGE SQUIRREL CAGE	AEEHED
ITEM		STANDARD SPECIFICATION	
R A T I N G	KIND OF MOTOR	SQUIRREL-CAGE INDUCTION MOTOR (SCIM)	
	DESIGN STANDARD	NEMA MG-1	
	VOLTAGE	230 / 460 V (208V DE-RATING OPERATION), 460V, 575V	
	FREQUENCY	60HZ	
	OUTPUT RANGE	100 ~ 250HP	
	R.P.M. (SYN.)	1800 ~ 900R.P.M. (4 ~ 8 POLE)	
	TIME DUTY	CONTINUOUS S.F. 1.15 OR S.F. 1.0 (S1, MCR)	
	FRAME NO. (EHV)	444VP ~ 449VP	
	PROTECTION ENCLOSURE	TOTALLY ENCLOSED (IP55)	
	COOLING METHOD	SELF EXTERNAL FAN, SURFACE COOLING (IC 411)	
	MOUNTING	FLANGE MOUNTING (IM3011)	
HIGH THRUST LOAD	AS DWG NO. 3A057M071E		
A P P L I C A T I O N	POWER CONDITION	VOLTAGE : $\pm 10\%$, FREQUENCY : $\pm 5\%$, AND $\pm 10\%$ MAX. OF COMBINED VOLTAGE AND FREQUENCY, BUT FREQUENCY VARIATION DOES NOT EXCEED $\pm 5\%$	
	DESIGNED PRIMARILY	FOR DEEP WELL TURBINE PUMP	
	ENVIRONMENT CONDITIONS	PLACE : OUTDOOR, NON-HAZARDOUS, AMBIENT TEMPERATURE : $-15^{\circ}\text{C} \sim 40^{\circ}\text{C}$, RELATIVE HUMIDITY : LESS THAN 90% RH (NON-CONDENSATION), ALTITUDE : LESS THAN 3,300 ft CSA Class I, Div. 2, Group B, C & D, T3	
	DRIVE METHOD	DIRECT COUPLING	
	DIRECTION OF ROTATION	COUNTER-CLOCK-WISE VIEW FROM TOP	
METHOD OF STARTING	FULL VOLTAGE DIRECT-ON-LINE OR Y - Δ STARTING		
P E R F O R M A N C E	TEST PROCEDURE	IEEE-112 METHOD-B AND FULL VOLTAGE MEASURING STARTING PERFORMANCE	
	TYPICAL PERFORMANCE	AS DWG NO. 3A057M071E	
	TEMPERATURE RISE	NOT TO EXCEED 105°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. (4 POLE) , 150% SYN. R.P.M. FOR TWO MIN. (6~8 POLE)	
	OVER TORQUE	160% RATED TORQUE FOR 15 SEC	

	PERFORMANCE DATA	MODEL
	HIGH THRUST SOLID SHAFT PUMP MOTORS LOW VOLTAGE SQUIRREL CAGE	AEEHED

NEMA Premium	TEFC, NEMA T-FRAME DESIGN B, CODE G, CLASS F, 40°C AMBIENT, CONTINUOUS DUTY, 1.15 S.F. 230/460V 60HZ	CC002A
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TYPICAL PERFORMANCE (460V)

HP	FULL LOAD RPM	FRAME SIZE (EHV)	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE			ROTOR WR ² lb-ft ²	DOWN THRUST LBS	APPROX. ROTOR WEIGHT LBS	APPROX. WEIGHT LBS	REED FREQ. Hz	
			FULL LOAD %		3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	LOCKED ROTOR	FULL LOAD	LOCKED ROTOR						BREAK- DOWN
			NOM.	MIN.	NOM.	NOM.	%	%	%	A	A	lb-ft	%FLT						%FLT
100	1186	444VP	95.0	94.1	94.9	94.5	79.8	74.8	64.8	123	791	442.9	100	220	56.8	10000	550	1980	43
	890	447VP	94.5	93.6	94.4	94.0	76.0	71.0	61.0	130	791	590.2	100	220	119.6	12500	770	2450	44
125	1781	444VP	95.4	94.5	95.3	94.9	85.6	80.6	70.6	143	988	368.7	100	210	36.1	8800	460	1990	43
	1186	445VP	95.0	94.1	94.9	94.5	79.0	74.0	64.0	155	988	553.7	100	220	66.9	10000	610	2090	40
	889	447VP	95.0	94.1	94.9	94.5	76.2	71.2	61.2	161	988	738.6	100	220	140.4	12500	850	2640	42
150	1781	445VP	95.8	95.0	95.7	95.3	88.0	83.0	73.0	166	1186	442.4	100	210	47.9	8800	530	2050	40
	1188	447VP	95.8	95.0	95.7	95.3	77.2	72.2	62.2	189	1186	663.3	100	210	97.7	11400	720	2500	43
	890	449VP	95.0	94.1	94.9	94.5	76.6	71.6	61.6	192	1186	885.4	100	220	189.6	12500	1070	3060	35
200	1781	447VP	96.2	95.4	96.1	95.7	82.5	77.5	67.5	235	1581	589.9	100	200	62.2	10000	610	2480	44
	1188	449VP	95.8	95.0	95.7	95.3	76.6	71.6	61.6	254	1581	884.4	100	210	123.2	11400	850	2920	35
250	1783	449VP	96.2	95.4	96.1	95.7	83.1	78.1	68.1	292	1977	736.6	100	210	79.3	10000	730	2910	35
	1188	449VP	95.8	95.0	95.7	95.3	74.3	69.3	59.3	328	1977	1105.5	100	210	145.1	11400	940	3180	34
300	1783	449VP	96.2	95.4	96.1	95.7	83.1	78.1	68.1	351	2372	883.9	100	220	93.0	10000	790	3140	34

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. DECLARED EFFICIENCY HAVN'T TAKEN INTO ACCOUNT OF THRUST LOAD LOSSES

5. TOLERANCE ACCORDING TO NEMA MG1-12& IEC 34-1

6. THRUST LOAD LOSSES ESTIMATED OF ANGULAR CONTACT BALL BEARING AS FOLLOWS : (ACCORDING TO NEMA STANDARD MG1-12.7)

FRAME SIZE	LOSS HP /100 RPM RPM/1000 LB THRUST
444VP~445VP	0.0180
447VP~449VP	0.0194

7. REDUCING THE THRUST LOAD WILL INCREASE BEARING LIFE AS FOLLOWS :

THRUST(%)	100	82	73	62	56	51
BEARING LIFE(Hrs.)	8800	15000	20000	30000	40000	50000

8. DATA SUBJECT TO CHANGE WITHOUT NOTICE

9. CC002A IS SUITABLE FOR 4, 6 POLE UP TO 200HP.

10. 230/460 V UP TO 125HP, 150HP AND ABOVE, APPLY 460/(800) V ONLY

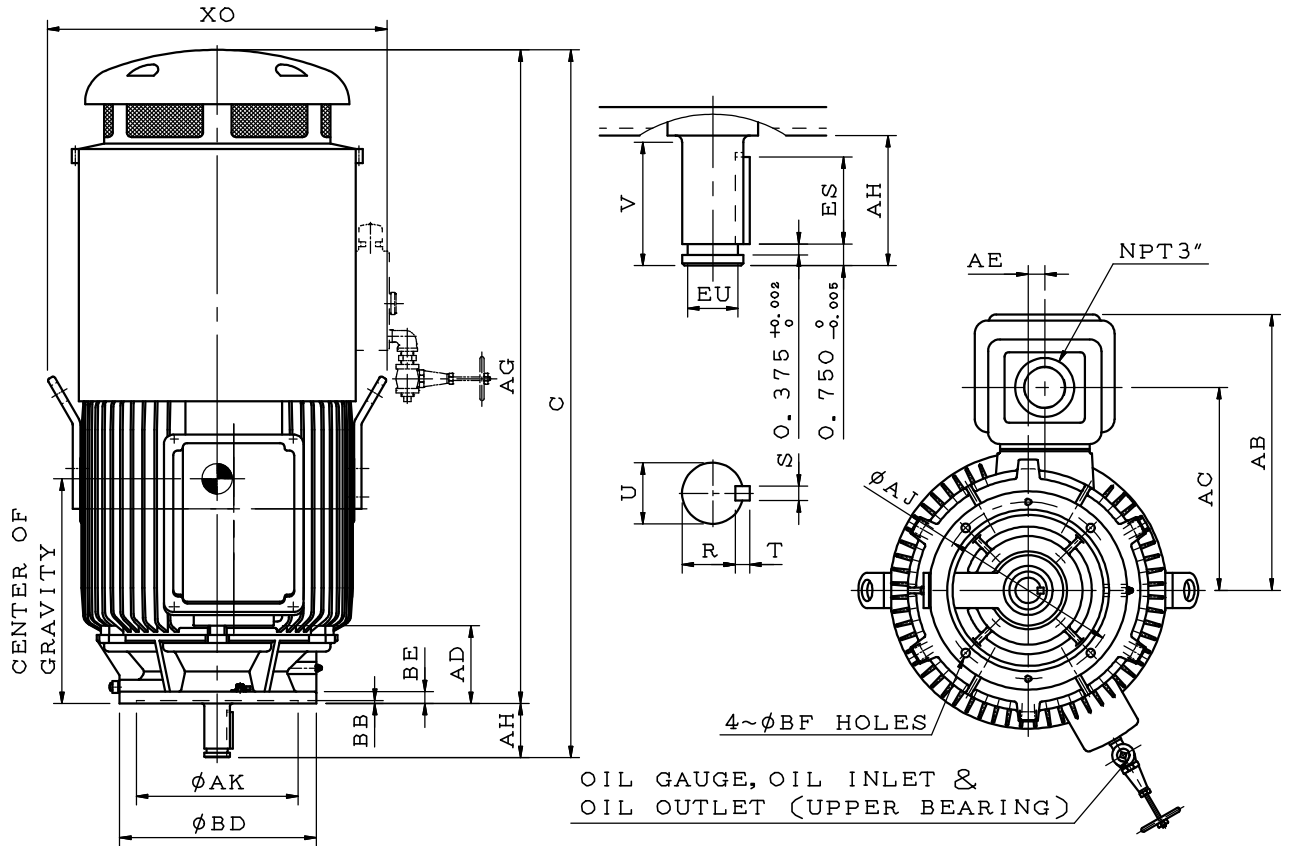
OUTLINE DIMENSIONS SHEET

MODEL

AEEHED

HIGH THRUST SOLIDSHAFT PUMP MOTORS
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TOTALLY ENCLOSED FAN COOLED SQUIRREL CAGE



DIMENSIONS IN INCHES

FRAME SIZE (EHV)	MOUNTING						C	AG	XO	U	AH	V	EU	R
	AK	AJ	BD	BF	BB	BE								
444VP	13.50	14.75	16.50	0.69	0.25	1.00	57.06	52.56	28.35	2.125	4.50	4.25	1.750	1.845
445VP	13.50	14.75	16.50	0.69	0.25	1.00	59.03	54.53	28.35	2.125	4.50	4.25	1.750	1.845
447VP	13.50	14.75	20.00	0.69	0.25	1.20	61.06	56.06	30.55	2.625	5.00	4.75	2.250	2.275
449VP	13.50	14.75	20.00	0.69	0.25	1.20	69.06	64.06	30.55	2.625	5.00	4.75	2.250	2.275

FRAME SIZE (EHV)	ES	S	T	TERMINAL HOUSING				CENTER OF GRAVITY	BEARINGS	
				AB	AC	AD	AE		UPPER END	LOWER END
444VP	3.03	0.500	0.500	23.05	16.95	5.50	1.40	18.3	7324B	6316C3
445VP	3.03	0.500	0.500	23.05	16.95	6.50	1.40	19.2	7324B	6316C3
447VP	3.50	0.625	0.625	24.00	17.90	7.85	1.20	19.1	7326B	6318C3
449VP	3.50	0.625	0.625	24.00	17.90	11.35	1.20	22.6	7326B	6318C3

- NOTE: 1. DIMENSION AK TOLERANCE: +0.005INCH, -0.000INCH
 2. DIMENSION U TOLERANCE: +0.000INCH, -0.001INCH
 3. DIMENSION R TOLERANCE: +0.000INCH, -0.015INCH
 4. DIMENSION EU TOLERANCE: +0.000INCH, -0.005INCH
 5. DIMENSION AH TOLERANCE: +0.06INCH, -0.06INCH
 6. FACE RUNOUT AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBET 0.007INCH INDICATOR READING
 7. PERMISSIBLE SHAFT RUNOUT 0.003INCH INDICATOR READING
 8. USABLE SHAFT LENGTH FOR V