



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 (EGV) 5007~5810



DWG NO.

3A057M062E

REV. 04

		SPECIFICATION TABLE	MODEL AEEHED
		HIGH THRUST SOLIDSHAFT PUMP MOTORS LOW VOLTAGE SQUIRREL CAGE	
ITEM		STANDARD SPECIFICATION	
R A T I N G	KIND OF MOTOR	SQUIRREL-CAGE INDUCTION MOTOR (SCIM)	
	DESIGN STANDARD	NEMA MG-1	
	VOLTAGE	460V, 575V	
	FREQUENCY	60HZ	
	OUTPUT RANGE	200 ~ 800HP	
	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 SIZE (EGV)	5007~5810	
	PROTECTION ENCLOSURE	TOTALLY ENCLOSED (IP55)	
	COOLING METHOD	SELF EXTERNAL FAN, SURFACE COOLING (IC 411)	
	MOUNTING	FLANGE MOUNTING (IM3011)	
	HIGH THRUST LOAD	AS DWG NO. 3A057M064E	
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. 3A057M064E	
	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
AEEHED

HIGH THRUST SOLIDSHAFT PUMP MOTORS LOW VOLTAGE SQUIRREL CAGE



TEFC, NEMA DESIGN B, CODE G, CLASS F, 40°C AMBIENT,
CONTINUOUS DUTY, 1.15 S.F. 460V, 575V 60HZ

TYPICAL PERFORMANCE

(460V)

HP	FULL LOAD RPM	FRAME SIZE (EGV)	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 NOM.	1/2 LOAD NOM.	FULL LOAD %	3/4 LOAD %	1/2 LOAD %	FULL LOAD A	LOCKED ROTOR A	FULL LOAD lb-ft	LOCKED ROTOR %FLT						BREAK- DOWN %FLT
			NOM.	MIN.															
			NOM.	MIN.	NOM.	NOM.	%	%	%	A	A	lb-ft	%FLT						%FLT
200	889	5007	94.5	93.6	94.5	94.2	80.0	75.0	65.0	247	1450	1181.8	90	200	200	13500	1120	3700	37
250	889	5009	95.0	94.1	95.0	94.7	81.0	76.0	66.0	303	1825	1477.3	90	200	262	13500	1380	4540	33
300	1190	5009	95.8	95.0	95.7	95.3	84.8	79.8	69.8	345	2200	1324.3	120	200	252	12300	1220	4730	32
	889	5808	95.0	94.1	95.0	94.7	74.0	69.0	59.0	399	2200	1772.7	90	200	262	22400	1390	5290	49
350	1788	5009	96.2	95.4	96.1	95.7	86.3	81.3	71.3	394	2550	1028.3	120	200	165	10700	1090	4340	33
	1190	5808	95.8	95.0	95.7	95.3	80.6	75.6	65.6	424	2550	1545.1	120	200	285	20200	1410	5730	47
	889	5808	95.0	94.1	95.0	94.7	76.0	71.0	61.0	453	2550	2068.2	90	200	327	22400	1520	5830	47
400	1788	5009	96.2	95.4	96.1	95.7	86.6	81.6	71.6	449	2900	1175.2	120	200	182	10700	1150	4540	33
	1190	5808	95.8	95.0	95.7	95.3	80.9	75.9	65.9	482	2900	1765.8	120	200	307	20200	1460	6100	45
	889	5808	95.0	94.1	95.0	94.7	76.0	71.0	61.0	518	2900	2363.6	90	200	378	22400	1630	6020	46
450	1788	5808	96.2	95.4	96.1	95.7	84.0	79.0	69.0	521	3250	1322.1	110	200	226	9900	1260	5690	47
	1190	5808	95.8	95.0	95.7	95.3	80.2	75.2	65.2	547	3250	1986.5	120	200	329	20200	1510	6150	45
	889	5808	95.0	94.1	95.0	94.7	76.0	71.0	61.0	583	3250	2659.1	90	200	429	22400	1730	6660	44
500	1788	5808	96.2	95.4	96.1	95.7	84.0	79.0	69.0	578	3625	1469.0	110	200	249	9900	1320	5930	46
	1190	5808	95.8	95.0	95.7	95.3	81.2	76.2	66.2	601	3625	2207.2	120	200	365	20200	1590	6390	44
	889	5810	95.0	94.1	95.0	94.7	76.0	71.0	61.0	647	3625	2954.5	90	200	472	22400	1800	7020	43
600	1788	5810	96.2	95.4	96.1	95.7	84.0	79.0	69.0	694	4744	1762.8	120	210	291	9900	1490	6870	39
	1190	5810	95.8	95.0	95.7	95.3	81.7	76.7	66.7	717	4744	2648.7	120	200	438	20200	1860	7190	38
700	1788	5810	96.2	95.4	96.1	95.7	85.0	80.0	70.0	800	5535	2056.6	120	200	344	9900	1640	7410	38
	1190	5810	95.8	95.0	95.7	95.3	81.3	76.3	66.3	840	5535	3090.1	120	200	489	20200	1980	7580	37
800	1788	5810	96.2	95.4	96.1	95.7	86.0	81.0	71.0	904	6326	2350.4	120	200	385	9900	1750	7850	37

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
5007-5810	0.0208

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

ANGULAR CONTACT BALL BEARING	THRUST(%)	100	80	70	59	51
	BEARING LIFE(Hrs.)	8800	15000	20000	30000	40000
SPHERICAL ROLLER THRUST BEARING	THRUST(%)	100	84	75	64	57
	BEARING LIFE(Hrs.)	30000	50000	70000	110000	150000

8. DATA SUBJECT TO CHANGE WITHOUT NOTICE

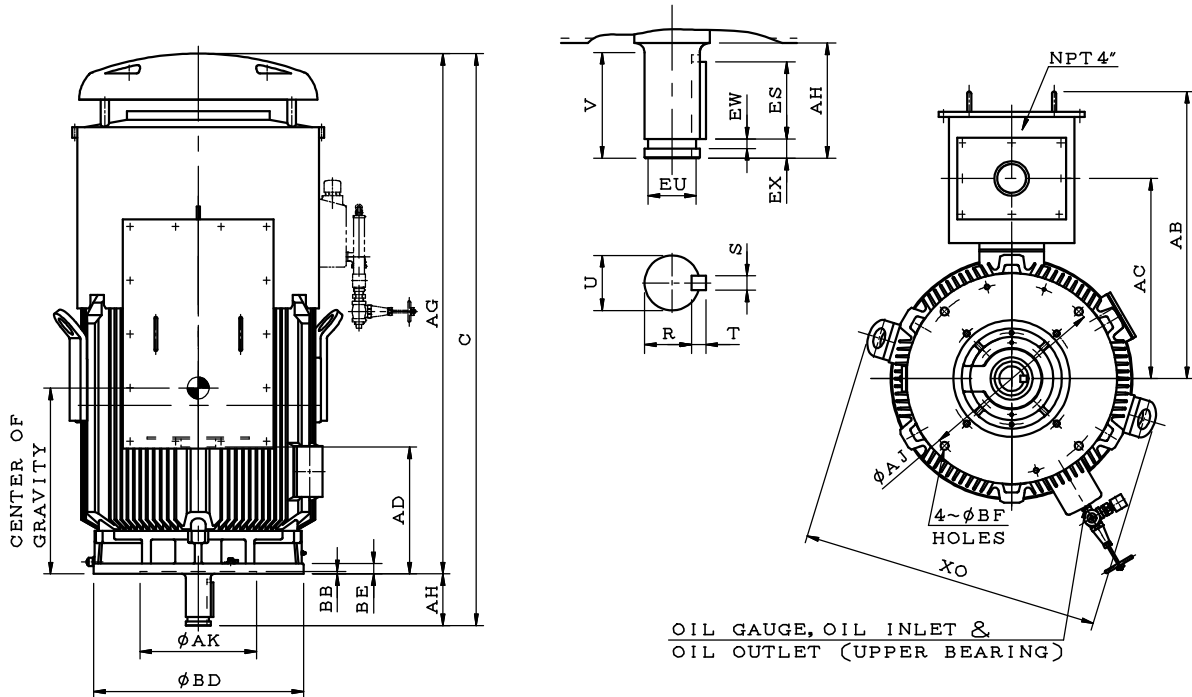
OUTLINE DIMENSIONS SHEET

MODEL

AEEHED

HIGH THRUST SOLIDSHAFT PUMP MOTORS
FRAME SIZE (EGV) 5007 ~ 5009

TOTALLY ENCLOSED FAN COOLED SQUIRREL CAGE



FRAME SIZE (EGV)	MOUNTING					
	BD	AK	AJ	BF	BB	BE
5000	20.00	13.50	14.75	0.69	0.25	1.18
	*24.50	13.50	14.75	0.69		
			22.00	0.94		
	30.50	22.00	26.00	0.81		

DIMENSIONS IN INCHES

BEARING	
UPPER END	LOWER END
7328B	6220C3

FRAME SIZE (EGV)	U	AH	V	R	EU	EW	EX	ES	S	T
5000	2.875	6.00	5.50	2.450	2.500	0.500	1.000	4.00	0.750	0.750

FRAME SIZE (EGV)	TERMINAL HOUSING			AG			C			XO	CENTER OF GRAVITY
	AB	AC	AD	4P	6P	8P	4P	6P	8P		
5007	33.30	23.20	14.70	60.08	60.47	60.47	66.08	66.47	66.47	34.65	21.5
5009			20.60	65.98	66.38	66.38	71.98	72.38	72.38		24.5

- NOTE:
1. DIMENSION AK TOLERANCE: +0.005 INCH, -0.000 INCH
 2. DIMENSION U TOLERANCE: +0.000 INCH, -0.001 INCH
 3. DIMENSION R TOLERANCE: +0.000 INCH, -0.015 INCH
 4. DIMENSION EU TOLERANCE: +0.000 INCH, -0.010 INCH
 5. DIMENSION AH TOLERANCE: +0.06 INCH, -0.06 INCH
 6. DIMENSION EW TOLERANCE: +0.003 INCH, -0.000 INCH
 7. DIMENSION EX TOLERANCE: +0.000 INCH, -0.010 INCH
 8. USABLE SHAFT LENGTH FOR V
 9. WITH BALL TYPE NON-REVERSE RATCHET MECHANISM
 10. * MARKED TABLE APPLIED TO STANDARD SIZE (BD=24.50, AK=13.50, AJ=14.75 & 22.00, BF=0.69 & 0.94), FOR REED FREQUENCY AS DWG NO. 3A057M064E

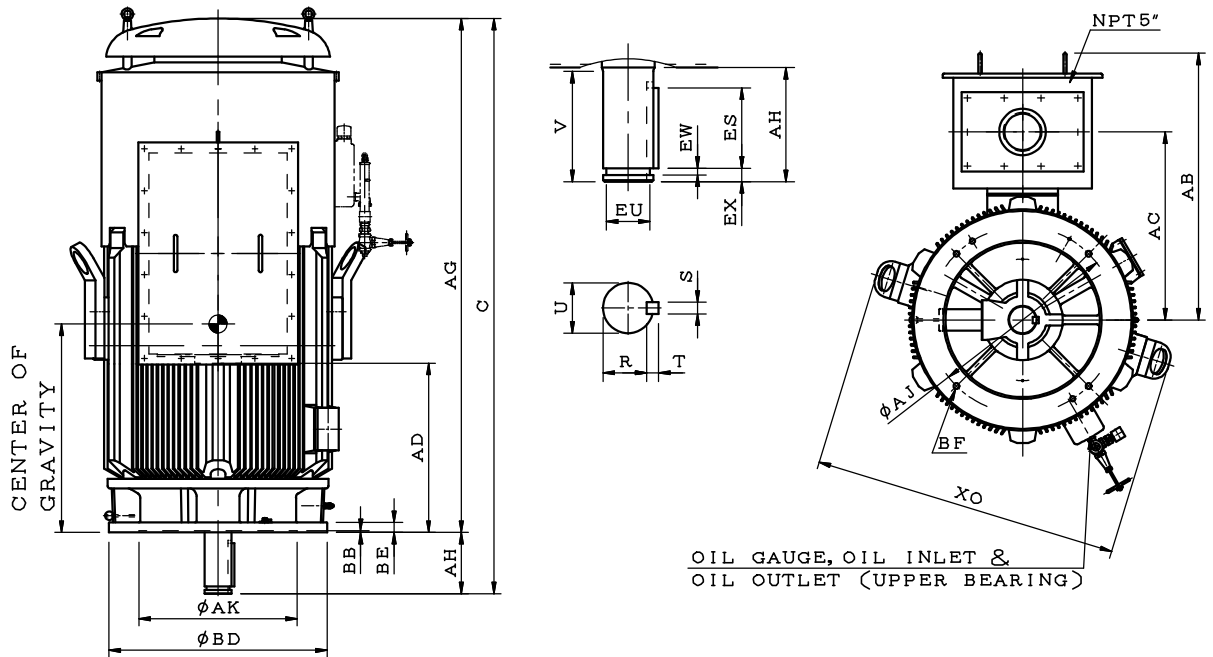
OUTLINE DIMENSIONS SHEET

MODEL

AEEHED

HIGH THRUST SOLIDSHAFT PUMP MOTORS
FRAME SIZE (EGV) 5808 ~ 5810

TOTALLY ENCLOSED FAN COOLED SQUIRREL CAGE



FRAME SIZE (EGV)	MOUNTING					
	BD	AK	AJ	BF	QTY. OF BF HOLES	BE
5800	24.50	13.50	14.75	0.69	4	0.25
			22.00	0.94	4	
	*30.50	22.00	26.00	0.81	4	
	36.00	26.00	32.00	1.00	8	

DIMENSIONS IN INCHES

UPPER BEARING		LOWER BEARING
4P	6&8P	
7328B	29330 +6028	6320C3

FRAME SIZE (EGV)	U	AH	V	R	EU	EW	EX	ES	S	T
5800	3.750	8.50	8.00	3.261	3.250	0.500	1.000	6.00	0.875	0.875

FRAME SIZE (EGV)	TERMINAL HOUSING			AG			C			XO	CENTER OF GRAVITY
	AB	AC	AD	4P	6P	8P	4P	6P	8P		
5808	37.10	26.15	23.55	70.87	70.67	70.87	79.37	79.17	79.37	42.52	29.0
5810			28.65	75.98	75.78	75.98	84.48	84.28	84.48		31.5

- NOTE: 1. TOLERANCE ON AK DIMENSION
13.50~22.00 INCHES: +0.005 INCH, -0.000 INCH
26.00 INCH: +0.007 INCH, -0.000 INCH
2. DIMENSION U TOLERANCE: +0.000 INCH, -0.001 INCH
3. DIMENSION R TOLERANCE: +0.000 INCH, -0.015 INCH
4. DIMENSION EU TOLERANCE: +0.000 INCH, -0.010 INCH
5. DIMENSION AH TOLERANCE: +0.06 INCH, -0.06 INCH
6. DIMENSION EW TOLERANCE: +0.003 INCH, -0.000 INCH
7. DIMENSION EX TOLERANCE: +0.000 INCH, -0.010 INCH
8. USABLE SHAFT LENGTH FOR V
9. WITH BALL TYPE NON-REVERSE RATCHET MECHANISM
10. * MARKED TABLE APPLIED TO STANDARD SIZE
(BD=30.50, AK=22.00, AJ=26.00, BF=0.81),
FOR REED FREQUENCY AS DWG NO. 3A057M064E