

低壓全密型TEFC泵浦用馬達(空心軸)

MODEL : AEEHNH

HIGH THRUST HOLLOWSHAFT PUMP MOTORS

LOW VOLTAGE SQUIRREL CAGE

FRAME SIZE (EGV) 5007~5810



DWG NO.

3A057M059E

REV. 04

SPECIFICATION TABLE

HIGH THRUST HOLLOWSHAFT PUMP MOTORS LOW VOLTAGE SQUIRREL CAGE

MODEL

AEEHNH

ITEM		STANDARD SPECIFICATION
RATING	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. 3A057M061E	
APPLICATION	POWER CONDITION	VOLTAGE : ±10%, FREQUENCY : ±5%, AND ±10% MAX. OF COMBINED VOLTAGE AND FREQUENCY, BUT FREQUENCY VARIATION DOES NOT EXCEED ±5%
	DESIGNED PRIMARILY	FOR DEEP WELL TURBINE PUMP
	ENVIRONMENT CONDITIONS	PLACE : OUTDOOR, NON-HAZARDOUS, AMBIENT TEMPERATURE : -15°C ~ 40°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 FACING THE COUPLING END
	METHOD OF STARTING	FULL VOLTAGE DIRECT-ON-LINE OR Y - Δ STARTING
PERFORMANCE	TEST PROCEDURE	IEEE-112 METHOD-B AND FULL VOLTAGE MEASURING STARTING PERFORMANCE
	TYPICAL PERFORMANCE	AS DWG NO. 3A057M061E
	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
OPTIONAL	STEADY BUSH AS DWG NO. 4B049R491E	

PERFORMANCE DATA

MODEL
AEEHNNH

HIGH THRUST HOLLOWSHAFT 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	1/2 LOAD	FULL	3/4	1/2	FULL	LOCKED	FULL	LOCKED						BREAK-
			NOM.	MIN.	NOM.	NOM.	%	%	%	A	A	LOAD	ROTOR						DOWN
200	889	5007	94.5	93.6	94.5	94.2	80.0	75.0	65.0	247	1450	1181.8	90	200	200	13600	1030	3620	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	13600	1260	4410	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	12400	1120	4600	32
	889	5808	95.0	94.1	95.0	94.7	74.0	69.0	59.0	399	2200	1772.7	90	200	262	22500	1290	5070	50
350	1788	5009	96.2	95.4	96.1	95.7	86.3	81.3	71.3	394	2550	1028.3	120	200	165	10800	980	4210	34
	1190	5808	95.8	95.0	95.7	95.3	80.6	75.6	65.6	424	2550	1545.1	120	200	285	20400	1270	5510	48
	889	5808	95.0	94.1	95.0	94.7	76.0	71.0	61.0	453	2550	2068.2	90	200	327	22500	1430	5620	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	10800	1050	4410	33
	1190	5808	95.8	95.0	95.7	95.3	80.9	75.9	65.9	482	2900	1765.8	120	200	307	20400	1320	5890	46
	889	5808	95.0	94.1	95.0	94.7	76.0	71.0	61.0	518	2900	2363.6	90	200	378	22500	1540	5830	47
450	1788	5808	96.2	95.4	96.1	95.7	84.0	79.0	69.0	521	3250	1322.1	110	200	226	10100	1200	5660	47
	1190	5808	95.8	95.0	95.7	95.3	80.2	75.2	65.2	547	3250	1986.5	120	200	329	20400	1370	5930	46
	889	5808	95.0	94.1	95.0	94.7	76.0	71.0	61.0	583	3250	2659.1	90	200	429	22500	1640	6440	45
500	1788	5808	96.2	95.4	96.1	95.7	84.0	79.0	69.0	578	3625	1469.0	110	200	249	10100	1270	5900	46
	1190	5808	95.8	95.0	95.7	95.3	81.2	76.2	66.2	601	3625	2207.2	120	200	365	20400	1450	6020	46
	889	5810	95.0	94.1	95.0	94.7	76.0	71.0	61.0	647	3625	2954.5	90	200	472	22500	1710	6790	44
600	1788	5810	96.2	95.4	96.1	95.7	84.0	79.0	69.0	694	4744	1762.8	120	210	291	10100	1330	6680	40
	1190	5810	95.8	95.0	95.7	95.3	81.7	76.7	66.7	717	4744	2648.7	120	200	438	20400	1720	6810	39
700	1788	5810	96.2	95.4	96.1	95.7	85.0	80.0	70.0	800	5535	2056.6	120	200	344	10100	1470	7200	38
	1190	5810	95.8	95.0	95.7	95.3	81.3	76.3	66.3	840	5535	3090.1	120	200	489	20400	1840	7230	38
800	1788	5810	96.2	95.4	96.1	95.7	86.0	81.0	71.0	904	6326	2350.4	120	200	385	10100	1580	7620	37

NOTE : 1. THE ABOVE ARE TYPICAL VALUES BASED ON TEST ACCORDING TO ANSI/IEEE STANDARD 112

METHOD B.

- BREAKDOWN & LOCKED ROTOR TORQUES ARE SHOWN AS AVERAGE EXPECTED VALUES.
- EFFICIENCY, POWER FACTOR, SPEED AND TORQUE ARE THE SAME FOR OTHER VOLTAGES.
CURRENT VALUES VARY INVERSELY WITH VOLTAGE.
- DECLARED EFFICIENCY HAVN'T TAKEN INTO ACCOUNT OF THRUST LOAD LOSSES
- TOLERANCE ACCORDING TO NEMA MG1-12& IEC 34-1
- 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

- REDUCING THE THRUST LOAD WILL INCREASE BEARING LIFE AS FOLLOWS :

ANGULAR CONTACT BALL BEARING	THRUST(%)	100	80	71	60	52
	BEARING LIFE(Hrs.)		8800	15000	20000	30000
SPHERICAL ROLLER THRUST BEARING	THRUST(%)	100	84	75	64	58
	BEARING LIFE(Hrs.)		30000	50000	70000	110000

- DATA SUBJECT TO CHANGE WITHOUT NOTICE

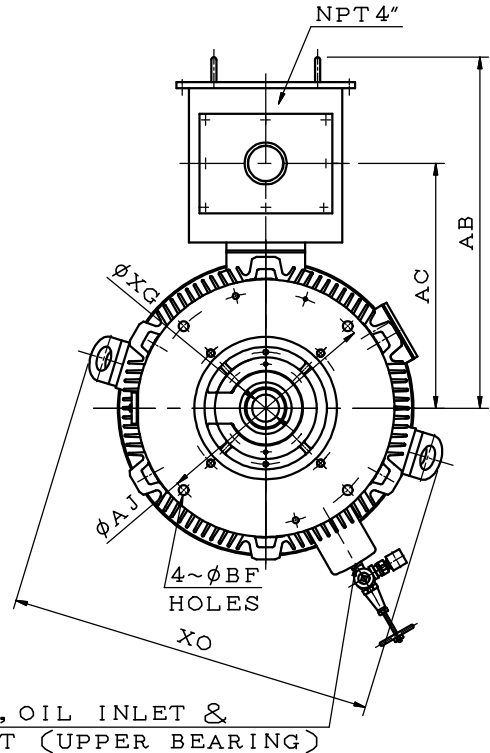
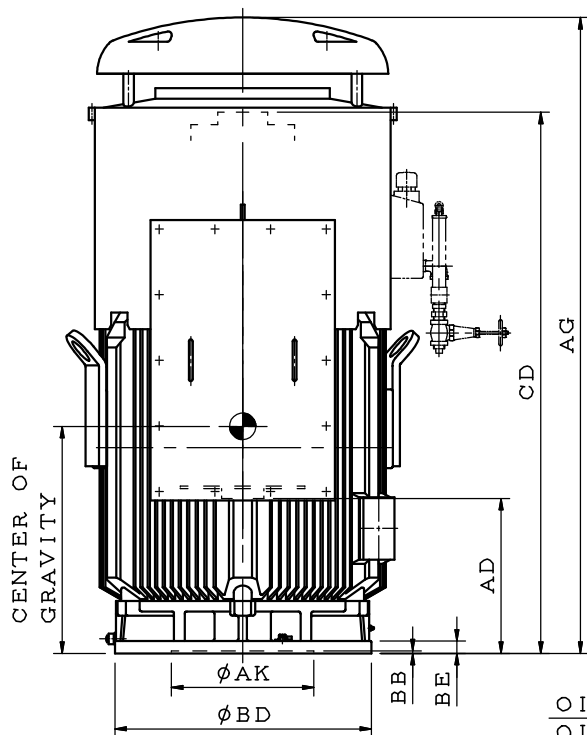
OUTLINE DIMENSIONS SHEET

MODEL

AEEHNNH

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

TOTALLY ENCLOSED FAN COOLED SQUIRREL CAGE



OIL GAUGE, OIL INLET &
OIL OUTLET (UPPER BEARING)

DIMENSIONS IN INCHES

FRAME SIZE (EGV)	MOUNTING						XG	XO
	BD	AK	AJ	BF	BB	BE		
5000	20.00	13.50	14.75	0.69	0.25	1.18	2.559	34.65
	*24.50	13.50	14.75	0.69				
	30.50	22.00	26.00	0.94				

FRAME SIZE (EGV)	CD	AG			TERMINAL HOUSING			CENTER OF GRAVITY	BEARING	
		4P	6P	8P	AB	AC	AD		UPPER END	LOWER END
5007	51.30	60.08	60.47	60.47	33.30	23.20	14.70	21.5	7328B	6220C3
5009	57.20	65.98	66.38	66.38			20.60	24.5		

- NOTE: 1. DIMENSION AK TOLERANCE: +0.005 INCH, -0.000 INCH
 2. FOR COUPLING AS DWG NO. 4B049R490E
 3. WITH BALL TYPE NON-REVERSE RATCHET MECHANISM
 4. ROTATING DIRECTION: COUNTER CLOCK-WISE (VIEW FROM COUPLING END)
 5. * 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. 3A057M061E

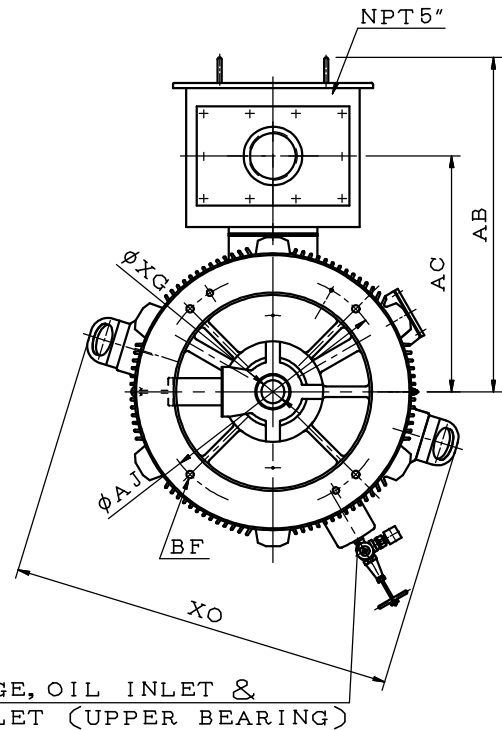
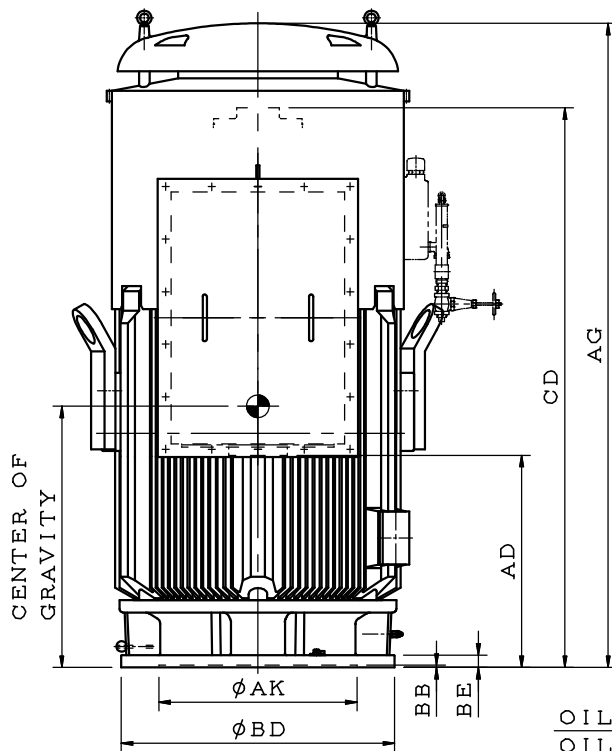
OUTLINE DIMENSIONS SHEET

MODEL

AEEHNNH

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

TOTALLY ENCLOSED FAN COOLED SQUIRREL CAGE



OIL GAUGE, OIL INLET &
OIL OUTLET (UPPER BEARING)

DIMENSIONS IN INCHES

FRAME SIZE (EGV)	MOUNTING							XG	XO
	BD	AK	AJ	BF	QTY. OF BF HOLES	BB	BE		
5800	24.50	13.50	14.75	0.69	4	0.25	1.38	2.559	42.52
			22.00	0.94	4				
	*30.50	22.00	26.00	0.81	4				
	36.00	26.00	32.00	1.00	8				

FRAME SIZE (EGV)	CD	AG			TERMINAL HOUSING			CENTER OF GRAVITY	UPPER BEARING		LOWER BEARING
		4P	6P	8P	AB	AC	AD		4P	6&8P	
5808	62.09	70.87	70.67	70.87	37.10	26.15	23.55	29.0	7328B	29330	6320C3
5810	67.20	75.98	75.78	75.98			28.65	31.5		+6028	

- 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. FOR COUPLING AS DWG NO. 4B049R490E
 3. WITH BALL TYPE NON-REVERSE RATCHET MECHANISM
 4. ROTATING DIRECTION: COUNTER CLOCK-WISE
 (VIEW FROM COUPLING END)
 5. * MARKED TABLE APPLIED TO STANDARD SIZE
 (BD=30.50, AK=22.00, AJ=26.00, BF=0.81),
 FOR REED FREQUENCY AS DWG NO. 3A057M061E

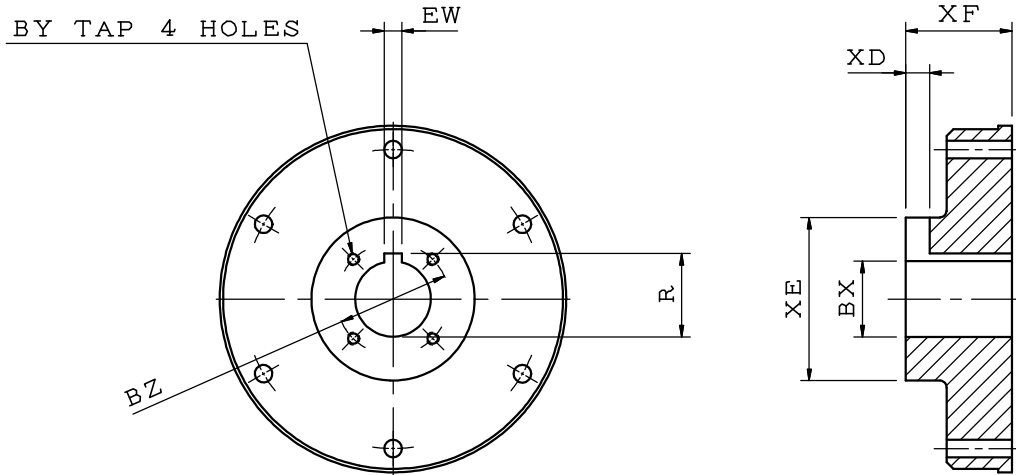
OUTLINE DIMENSIONS SHEET

MODEL

AEEHNNH

DRIVE COUPLING FOR HOLLOWSHAFT PUMP MOTOR

FRAME SIZE (EGV) 5007 ~ 5810



DIMENSIONS IN INCHES

FRAME SIZE	BX	BY	BZ	EW	R	XD	XE	XF
5007	1.501	1/4-20	2.125	0.375	1.669	0.531	4.724	3.071
	1.688	1/4-20	2.500	0.375	1.859	0.531		
5009	1.938	1/4-20	2.500	0.500	2.160	0.688		
	2.126	3/8-16	3.250	0.500	2.350	0.688		
5808	*2.188	3/8-16	3.250	0.500	2.414	0.688		
5810	*2.376	3/8-16	3.250	0.625	2.651	0.813		
	2.438	3/8-16	3.250	0.625	2.714	0.813		

NOTE: 1. DIMENSION BX TOLERANCE: +0.0015 INCH, -0.000 INCH
 2. DIMENSION EW TOLERANCE: +0.002 INCH, -0.000 INCH
 3. DIMENSION R TOLERANCE: +0.010 INCH, -0.000 INCH
 4. * MARKED TABLE APPLIED TO STANDARD SIZE
 5007~5009: BX=2.188, 5808~5810: BX=2.376

OUTLINE DIMENSIONS SHEET

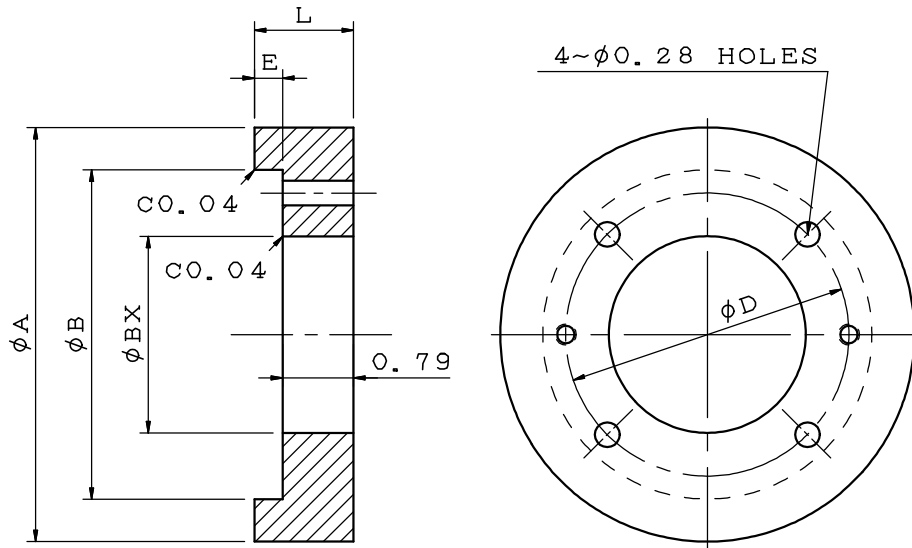
MODEL

AEEHNNH

STEADY BUSH FOR HOLLOW SHAFT PUMP MOTOR

FRAME SIZE (EGV) 5007 ~ 5810

OPTIONAL



DIMENSIONS IN INCHES

FRAME SIZE	BX	A	B	D	E	L
5007	1.501	4.61	3.66	3.15	0.31	1.10
	1.688					
5009	1.938					
	2.126					
5808	2.188					
	2.376					
5810	2.438					

NOTE: 1. DIMENSION BX TOLERANCE: +0.0015 INCH, -0.000 INCH