

# 東元全密型油井泵浦馬達 (TEFC)

MODEL : AEEAFP—□□□

OIL WELL PUMP MOTOR  
LOW VOLTAGE SQUIRREL CAGE  
FRAME SIZE : 215T~447T



DWG NO.

**31057H609**

REV. 03

# SPECIFICATION TABLE

OIL WELL PUMP MOTOR  
LOW VOLTAGE SQUIRREL CAGE

MODEL

**AEEAFP**—□□□

ITEM		STANDARD SPECIFICATION
R A T I N G	Kind of Motor	Squirrel Cage Induction Motor ( SCIM ) for Oil Well Pump.
	Design Standards	NEMA MG-1, MG-13.
	Voltage	460V , 575V.
	Frequency	60Hz
	Output Range	5HP ~ 125HP (TRIPLE RATED : 7.5~50HP)
	R.P.M. (Syn.)	1200 R.P.M.( 6 Poles )
	Time Duty	Continuous, S.F. 1.15 or S.F.1.10 for Beam Pump Application.
	Frame Size	215T ~ 447T
	Protection Enclosure	Totally Enclosed ( IP 54 )
	Cooling Method	Self External Fan, Surface Cooling ( IC 411 ).
Mounting	Horizontal Foot Mounting F-2 ( IM 1001 ) . F-1 Interchangeable.	
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	Place : Non - Hazardous. Ambient Temperature : $-15^{\circ}\text{C} \sim 40^{\circ}\text{C}$ Relative Humidity : Less Than 90%RH ( Non - Condensation ). Altitude : Less Than 3,300ft
	Drive Method	Belt Service and Coupling Service is The Way.
	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	IEEE-112 Method B and Full Voltage Measuring Starting Performance.
	Temperature Rise	Not to Exceed B Rise ( $80^{\circ}\text{C}$ ) at S.F.1.0 , F Rise ( $115^{\circ}\text{C}$ ) at S.F.1.15 or S.F.1.10 by Resistance Method.
	Over Speed	150% Syn. R.P.M. for 2 Minutes.
	Over Torque	160% Rated Torque for 15 Sec.

# PERFORMANCE DATA

MODEL  
**AEEAFP**—□□□

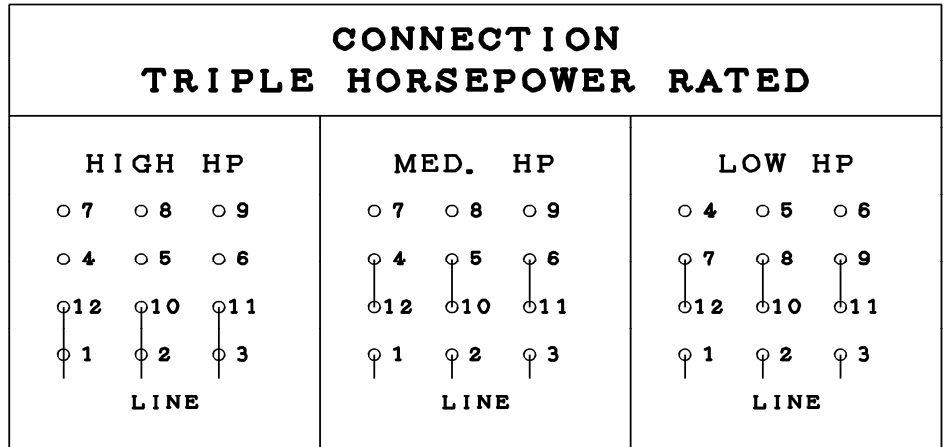
OIL WELL PUMP MOTOR  
LOW VOLTAGE SQUIRREL CAGE

TEFC, NEMA T-FRAME, DESIGN - D,  
CLASS F, 40°C AMBIENT, CONTINUOUS DUTY,  
3-PHASE 60Hz

## TYPICAL PERFORMANCE ( 460V )

TYPE	FRAME SIZE	HORSE POWER	FULL LOAD RPM	EFFICIENCY(%)			POWER FACTOR			CURRENT		TORQUE			Wk <sup>2</sup>		NEMA CODE LETTER	S.F.		
				FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)	LOCKED ROTOR (A)	FULL LOAD lb-ft	LOCKED ROTOR %FLT	BREAK DOWN %FLT	ROTOR LB-FT <sup>2</sup>	MAX LOAD LB-FT <sup>2</sup>				
067R50	254T	7.5	1110	83.5	84.5	84.5	83.0	76.5	65.0	10.0	63.5	35.4	300	300	1.65	104	H	1.15		
		5	1135	83.0	83.0	82.0	78.5	71.0	58.0	7.2	46.0	23.1	330	340					J	1.15
		3.5	1140	82.5	82.5	81.5	80.0	72.0	60.0	5.0	37.5	16.1	310	330					K	1.15
060010	256T	10	1110	84.0	85.5	86.0	84.0	78.0	67.0	13.3	81.0	47.2	300	300	2.03	137	H	1.15		
		7.5	1125	83.0	84.5	84.5	82.0	75.5	64.0	10.3	63.5	34.9	290	300					H	1.15
		5	1135	83.5	84.0	84.0	82.0	75.0	64.0	6.8	46.0	23.1	290	300					J	1.15
060015	284T	15	1110	85.5	87.0	88.0	88.0	83.5	74.5	18.7	116	70.8	320	320	5.37	200	G	1.15		
		10	1140	86.0	86.5	86.0	85.0	79.0	68.0	12.8	92.0	45.9	360	360					J	1.15
		7.5	1130	85.0	86.0	86.0	87.0	81.5	72.0	9.5	63.5	34.8	290	310					H	1.15
060020	286T	20	1110	86.5	88.0	88.5	89.0	85.5	77.0	24.5	145	94.3	360	330	7.89	262	G	1.15		
		15	1130	87.0	88.0	87.5	87.5	83.0	73.0	18.5	130	69.5	360	340					H	1.15
		10	1135	87.0	87.5	87.5	87.0	83.0	73.0	12.5	92.0	46.1	340	340					J	1.15
060025	324T	25	1120	87.0	89.0	89.5	88.0	84.0	75.5	30.5	183	117	300	310	8.82	324	G	1.10		
		20	1130	87.0	88.5	89.0	87.0	84.0	75.0	24.5	160	92.7	280	300					H	1.15
		15	1125	87.0	88.0	89.0	88.5	85.0	78.0	18.5	116	69.8	240	270					G	1.15
060030	326T	30	1115	87.5	89.5	90.0	90.5	87.5	80.0	35.5	218	141	300	300	12.2	384	G	1.10		
		25	1120	86.5	88.5	88.0	88.0	86.0	79.0	31.0	190	117	275	280					G	1.15
		20	1100	85.0	87.5	89.0	89.0	87.5	82.0	25.0	145	95	220	250					G	1.15
060040	365T	40	1125	88.5	90.0	90.5	89.0	87.0	80.0	47.5	290	186	275	290	17.8	503	G	1.15		
		30	1140	88.5	89.5	89.5	88.5	84.5	76.0	36.0	250	138	275	320					H	1.15
		25	1120	87.0	88.5	89.5	90.0	87.5	81.5	30.0	183	117	220	270					G	1.15
060050	404T	50	1140	89.5	90.5	91.0	92.0	90.0	84.0	57.0	363	230	275	330	29.1	620	G	1.15		
		40	1150	88.5	90.0	89.5	91.5	89.0	82.5	46.5	330	182	260	310					H	1.15
		30	1140	87.5	89.0	89.5	91.5	90.0	85.0	35.0	218	138	200	280					G	1.15

- 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. Tolerance according to NAMA MG1-12 & IEC 60034-1.
  5. Data subject to change without notice.
  6. Connection diagram :



# PERFORMANCE DATA

MODEL  
**AEEAFP**—□□□

OIL WELL PUMP MOTOR  
LOW VOLTAGE SQUIRREL CAGE

TEFC, NEMA T-FRAME, DESIGN - D ,  
CLASS F, 40°C AMBIENT, CONTINUOUS DUTY,  
3-PHASE 60Hz

## TYPICAL PERFORMANCE ( 460V )

TYPE AEEAFP	FRAME SIZE	HORSE POWER	FULL LOAD RPM	EFFICIENCY(%)			POWER FACTOR			CURRENT		TORQUE			WK <sup>2</sup>		NEMA CODE LETTER	S.F.
				FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)	LOCKED ROTOR (A)	FULL LOAD lb-ft	LOCKED ROTOR %FLT	BREAK DOWN %FLT	ROTOR LB-FT <sup>2</sup>	MAX LOAD LB-FT <sup>2</sup>		
060005	215T	5	1120	83.5	84.5	84.5	81.5	75.0	62.5	6.88	46	23.4	300	300	0.90	71	J	1.15
067R50	254T	7.5	1110	83.5	84.5	84.5	83.0	76.5	65.0	10.1	63.5	35.4	300	300	1.65	104	H	1.15
060010	256T	10	1110	84.0	85.5	86.0	84.0	78.0	67.0	13.3	81	47.2	300	300	2.03	137	H	1.15
060015	284T	15	1110	85.5	87.0	88.0	88.0	83.5	74.5	18.7	116	70.8	320	320	5.37	200	G	1.15
060020	286T	20	1110	86.5	88.0	88.5	89.0	85.5	77.0	24.3	145	94.3	360	330	7.89	262	G	1.15
060025	324T	25	1120	87.0	89.0	89.5	88.0	84.0	75.5	30.6	183	117	300	310	8.82	324	G	1.10
060030	326T	30	1115	87.5	89.5	90.0	90.5	87.5	80.0	35.5	218	141	300	300	12.2	384	G	1.10
060040	365T	40	1125	88.5	90.0	90.5	89.0	87.0	80.0	47.5	290	186	275	290	17.8	503	G	1.15
060050	404T	50	1140	89.5	90.5	91.0	92.0	90.0	84.0	56.9	363	230	275	330	29.1	620	G	1.15
060060	405T	60	1140	90.0	91.0	91.0	92.0	90.0	84.0	67.8	475	276	275	350	33.5	735	G	1.15
060075	444T	75	1140	90.0	90.5	90.0	88.5	88.5	85.0	88.2	543	345	275	275	73.8	904	G	1.15
060100	445T	100	1140	90.5	91.0	90.5	89.0	88.0	84.5	116	725	460	280	280	94.9	1181	G	1.15
060125	447T	125	1140	91.5	92.0	92.5	89.0	88.0	84.0	144	908	576	280	280	108	1452	G	1.15

- 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. Tolerance according to NAMA MG1-12 & IEC 60034-1.
  5. Data subject to change without notice.

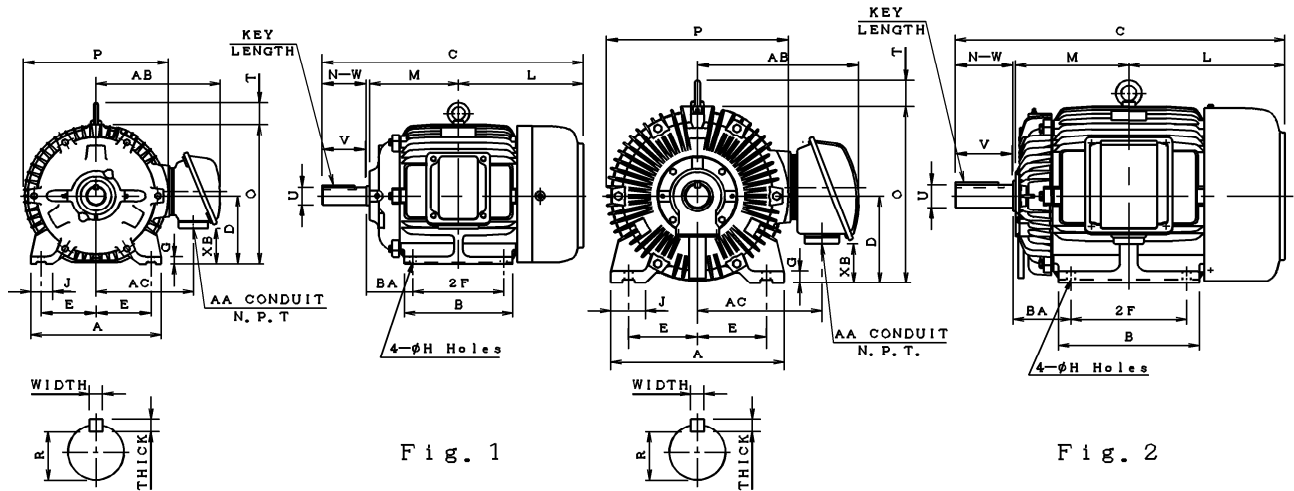
# OUTLINE DIMENSION SHEET

MODEL

AAA AFP—□□□

OIL WELL PUMP MOTOR  
FRAME SIZE 215T~405T

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	P
2P	4P	6P			E	2F	H	BA										
—	—	5	215T	1	4.25	7.00	0.43	3.50	9.85	8.35	19.75	5.25	0.70	1.77	9.37	6.81	10.63	11.10
—	—	7.5	254T		5.00	8.25	0.53	4.25	11.81	9.85	23.70	6.25	0.66	1.97	11.33	8.06	12.83	13.15
—	—	10	256T		5.00	10.00	0.53	4.25	11.81	11.81	25.44	6.25	0.66	1.97	12.19	8.94	12.83	13.15
—	—	15	284T		5.50	9.50	0.53	4.75	13.98	11.69	26.80	7.00	0.70	2.95	12.68	9.23	14.52	15.04
—	—	20	286T		5.50	11.00	0.53	4.75	13.98	13.19	28.30	7.00	0.70	2.95	13.43	9.98	14.52	15.04
—	—	25	324T	2	6.25	10.50	0.66	5.25	15.75	12.80	29.93	8.00	1.11	3.15	14.18	10.29	16.27	16.54
—	—	30	326T		6.25	12.00	0.66	5.25	15.75	14.37	31.42	8.00	1.11	3.15	14.92	11.04	16.27	16.54
—	—	40	365T		7.00	12.25	0.66	5.88	17.72	14.76	33.55	9.00	1.32	3.54	15.67	11.79	18.02	18.03
—	—	50	404T		8.00	12.25	0.81	6.62	19.69	15.16	36.49	10.00	1.57	3.94	16.49	12.52	20.04	20.08
—	—	60	405T		8.00	13.75	0.81	6.62	19.69	16.73	37.79	10.00	1.57	3.94	17.05	13.27	20.04	20.08

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	
215T	1.65	0.312	0.312	2.41	1.201	3.38	1.375	3.30	1	9.78	7.34	2.34	6308ZZ	6306ZZ	165
254T	2.01	0.375	0.375	2.91	1.416	4.00	1.625	3.90	1	11.30	8.56	3.22	6309ZZ	6307ZZ	276
256T	2.01	0.375	0.375	2.91	1.416	4.00	1.625	3.90	1	11.30	8.56	3.22	6309ZZ	6307ZZ	314
284T	2.36	0.500	0.500	3.28	1.591	4.62	1.875	4.50	1	12.28	9.84	3.97	6311ZZ	6310ZZ	420
286T	2.36	0.500	0.500	3.28	1.591	4.62	1.875	4.50	1	12.28	9.84	3.97	6311ZZ	6310ZZ	468
324T	2.36	0.500	0.500	3.91	1.845	5.25	2.125	5.15	2	14.65	11.30	3.59	6312	6212	635
326T	2.36	0.500	0.500	3.91	1.845	5.25	2.125	5.15	2	14.65	11.30	3.59	6312	6212	705
365T	2.76	0.625	0.625	4.28	2.021	5.88	2.375	5.75	3	16.81	13.00	2.39	6313	6213	906
404T	2.76	0.750	0.750	5.65	2.450	7.25	2.875	7.16	3	19.33	14.76	1.81	6317	6313	1166
405T	3.54	0.750	0.750	5.65	2.450	7.25	2.875	7.16	3	19.33	14.76	1.81	6317	6313	1320

- 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

OIL WELL PUMP MOTOR  
FRAME SIZE 444T~447T

MODEL

AAEAFP-□□□

PAGE

Totally Enclosed Fan - Cooled Type, Squirrel - Cage Rotor

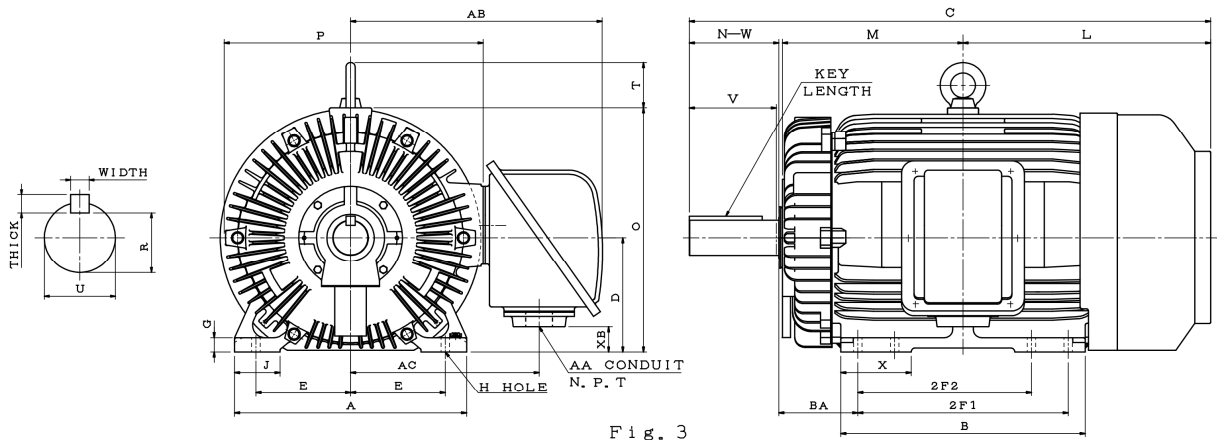


Fig. 3

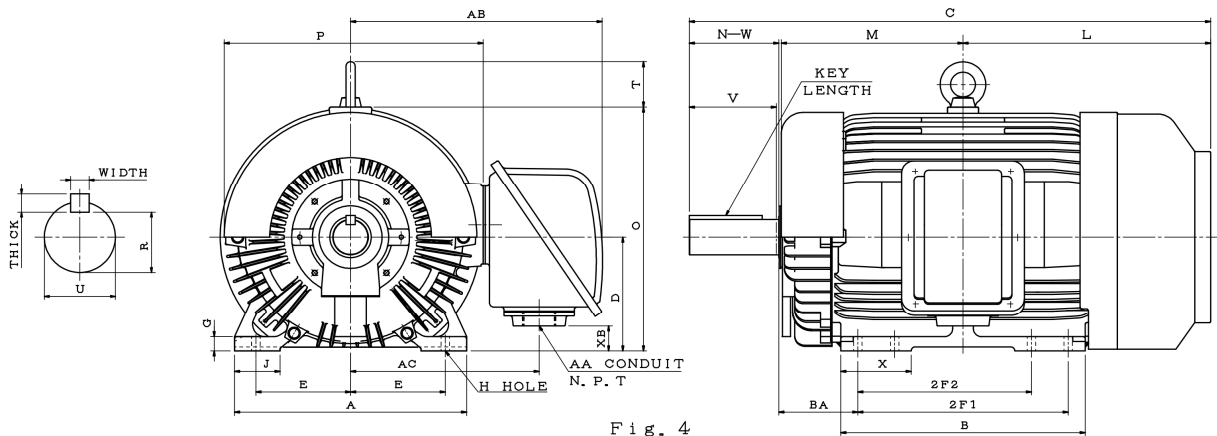


Fig. 4

Dimension in inches

Output (HP)			FRAME SIZE	FIG. No.	Mounting					A	B	C	D	G	J	L	M	O	P
2P	4P	6P			E	2F1	2F2	H	BA										
—	—	75	444T	3	9.00	14.50	-	0.81	7.50	22.05	17.50	44.41	11.00	1.40	4.35	21.15	14.40	23.55	24.75
—	—	100	445T		9.00	16.50	14.50	0.81	7.50	22.05	19.50	46.39	11.00	1.40	4.35	22.15	15.40	23.55	24.75
—	—	125	447T	4	9.00	20.00	16.50	0.81	7.50	22.05	23.25	49.90	11.00	1.40	4.35	23.90	19.65	23.55	24.75

FRAME SIZE	T	Key			Keyseat	Shaft Extension			Terminal Housing				Bearings		APPROX. WEIGHT LBS
		WIDTH	THICK	LENGTH	R	N-W	U	V	AA	AB	AC	XB	DRIVE END	OPPOSITE DRIVE END	
444T	4.35	0.875	0.875	6.91	2.880	8.50	3.375	8.00	3	24.00	17.90	2.40	6318	6316	1840
445T	4.35	0.875	0.875	6.91	2.880	8.50	3.375	8.00	3	24.00	17.90	2.40	6318	6316	2030
447T	4.35	0.875	0.875	6.91	2.880	8.50	3.375	8.00	3	24.00	17.90	2.40	6320	6316	2380

- 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.