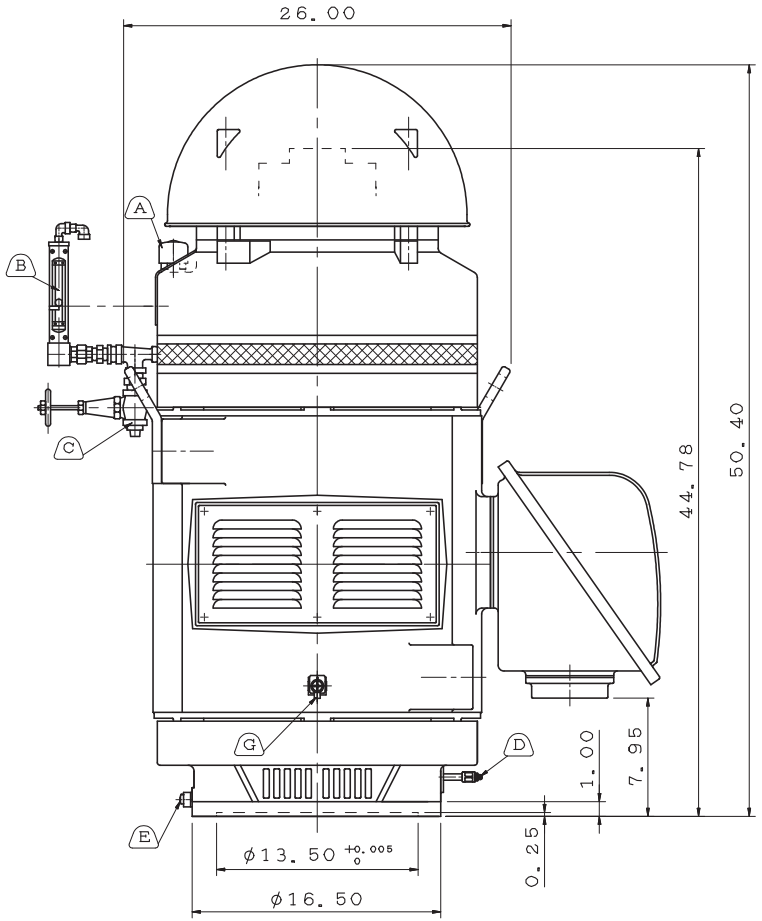
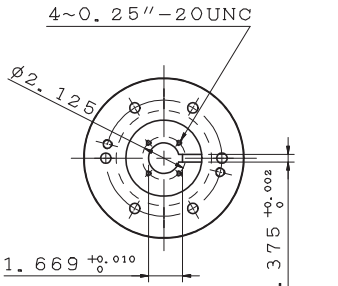
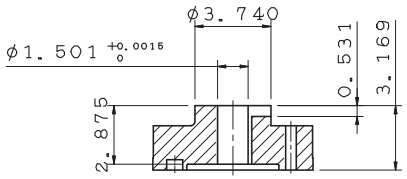
TYPE	OUTPUT		POLE	TIME RATING	VOLTAGE V	Hz	SYN. SPEED R. P. M
	HP.	kW.					
AMRC—NH			6	CONT		60	1200

ENCLOSED VENTILATED VERTICAL HOLLOW SHAFT TYPE, SQUIRREL CAGE ROTOR
NEMA WEATHER PROTECTED TYPE I

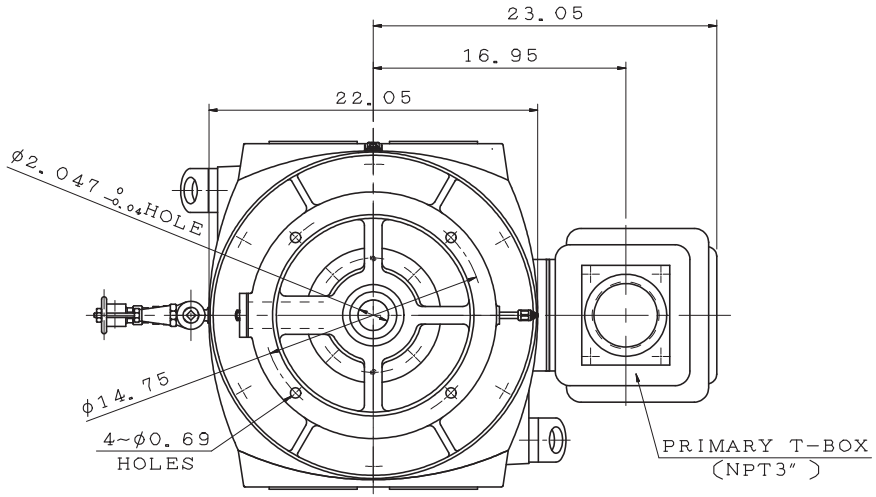
NOTE:
1. DIMENSIONS IN INCH
2. FRAME NO. 445TP
3. F CLASS INSULATION, S.F. 1.15
4. FOR DIRECT COUPLING.
5. BEARING SIZE:
   UPPER BEARING: 7324B (UNINSULATED)
   LOWER BEARING: 6316C3 (UNINSULATED)
6. LUBRICATION:
   UPPER BEARING USE OIL.
   OIL VISCOSITY: ISO VG68(300 SSU/100°F)
   OIL QUANTITY: 2.6GAL.
   LOWER BEARING USE MOBIL POLYREX EM GREASE.
7. ROTATION:COUNTER—CLOCKWISE(VIEWED FROM TOP).
8. WITH NON—REVERSE RATCHET MECHANISM.
9. WITH GIB KEY:0.375×0.375×2.874, 1PCS







COUPLING
(ENLARGED VIEW)



Ⓐ OIL FILLER (UPPER BEARING)
Ⓑ OIL GAUGE (UPPER BEARING)
Ⓒ OIL DRAIN (UPPER BEARING)
Ⓓ GREASE INLET NIPPLE (LOWER BEARING)
Ⓔ GREASE OUTLET (LOWER BEARING)
Ⓖ M10 TAPPED GROUNDING ON FRAME, WITH ONE GROUNDING STUDS & (R38—10) TERMINAL LOCATED AS SHOWN.

DWN.	C. FU	APR•20•2015
CHKD.	R. LEE	APR•20•2015
APPD.	C. LIU	APR•20•2015

DATE

OUTLINE DIMENSIONS

3—PHASE INDUCTION MOTOR

TECO Westinghouse

DWG NO. 4B040L143 REV:00

ISSUED	PERFORMANCE DATA	MODEL
JAN. 16 2010	HIGH THRUST HOLLOWSHAFT PUMP MOTORS	AMRCNH
REVISED	LOW VOLTAGE SQUIRREL CAGE	
OCT. 27 2016		

NEMA Premium™

DP, NEMA , DESIGN B , CODE G, CLASS F, 40℃ AMBIENT,
CONTINUOUS DUTY, 1.15 S.F. 230/460V 60HZ

TYPICAL PERFORMANCE (460V)

HP	FULL LOAD RPM	FRAME SIZE (SSV)	EFFICIENCY (%) FULL LOAD NOM.	EFFICIENCY (%) FULL LOAD MIN.	EFFICIENCY (%) 3/4 LOAD NOM.	EFFICIENCY (%) 1/2 LOAD NOM.	POWER FACTOR FULL LOAD %	POWER FACTOR 3/4 LOAD %	POWER FACTOR 1/2 LOAD %	CURRENT FULL LOAD A	CURRENT LOCKED ROTOR A	TORQUE FULL LOAD lb-ft	TORQUE LOCKED ROTOR %FLT	TORQUE BREAK-DOWN %FLT	ROTOR WR^2 lb-ft^2	DOWN THRUST LBS	APPROX. ROTOR WEIGHT LBS	APPROX. WEIGHT LBS	REED FREQ. HZ	DEFL. IN
100	1181	444TP	95.0	94.1	94.5	93.3	82.0	78.9	75.0	120	725	445	120	210	47	12000	410	1800	42	0.0055
	882	444TP	94.1	93.0	93.6	92.4	78.3	74.3	64.6	127	725	595	100	205	55	10700	480	1900	41	0.0058
125	1181	445TP	95.0	94.1	93.6	92.4	82.0	79.2	75.4	150	907.5	444	120	210	51	11900	460	1840	41.5	0.0057
	882	445TP	94.1	93.0	92.7	91.5	77.3	73.3	62.9	161	907.5	744	100	205	61	10600	520	1970	41	0.0058
150	1779	444TP	95.8	95.0	95.3	94.4	86.0	83.0	78.5	170	1085	443	120	210	46	10700	460	1830	42	0.0055
	1181	445TP	95.4	94.5	95.0	93.9	82.5	78.5	74.8	178	1085	667	120	205	58	11800	520	1970	40	0.0061
	886	447TP	94.1	93.0	93.7	92.6	77.0	73.0	62.9	194	1085	889	100	205	129	13300	740	3030	43	0.0053
200	1780	445TP	95.8	95.0	95.4	94.5	86.5	83.0	80.0	226	1450	590	120	205	57	10700	500	1980	41	0.0058
	1185	447TP	95.4	94.5	95.0	94.1	80.0	75.9	65.9	245	1450	889	118	205	119	14900	660	2730	45.5	0.0047
	888	449TP	94.1	93.0	93.7	92.8	78.0	73.0	62.0	255	1450	1183	100	205	190	10000	990	3360	34	0.0085
250	1780	445TP20	95.8	95.0	95.4	94.5	86.5	83.0	80.0	282	1825	737	120	205	65	13400	500	2440	47	0.0044
	1185	449TP	95.8	95.0	95.2	94.9	80.2	76.1	66.1	305	1825	1109	110	205	130	11300	820	3190	33	0.0089
300	1780	447TP	95.8	95.0	95.4	94.5	87.5	84.0	81.0	335	2200	884	120	205	73	13400	570	2670	46.5	0.0045
	1184	449TP	95.8	95.0	95.4	94.5	79.0	75.0	62.3	371	2200	1331	120	205	151	11200	890	3260	35	0.0080
350	1780	447TP	95.8	95.0	95.4	94.5	88.0	84.5	81.5	389	2550	1030	120	205	82	13300	630	2800	45	0.0048
400	1780	449TP	95.8	95.0	95.4	94.5	88.5	85.0	82.0	442	2900	1176	120	205	92	13200	710	3070	36	0.0075

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

2. BREAKDOWN & LOCKED ROTOR TORQUES ARE SHOWN AS AVERAGE EXPECTED VALUES.

3. DECLARED EFFICIENCY HAVEN`T TAKEN INTO ACCOUNT OF THRUST LOAD LOSSES

4. THRUST LOAD LOSSES ESTIMATED AS FOLLOWS：（ACCORDING TO NEMA STANDARD MG1-12.08）

FRAME SIZE	LOSS HP /100 RPM RPM/1000 LB THRUST
444TP - 445TP	0.0134
445TP20 - 447TP - 449TP	0.0145

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

THUST(%)	100	85	77	67	61	57
MIN. LIFE(Hrs)	8800	15000	20000	30000	40000	50000

6. DATA SUBJECT TO CHANGE WITHOUT NOTICE

7.ACCRODING TO NEMA MG 1-2003 (PART 20, PAGE13),
THE DEFLECTION(DEFL.) IS CALCULATED AS FOLLOWS:

$$\Delta_s = \frac{g}{(2\pi \cdot f_n)^2}$$

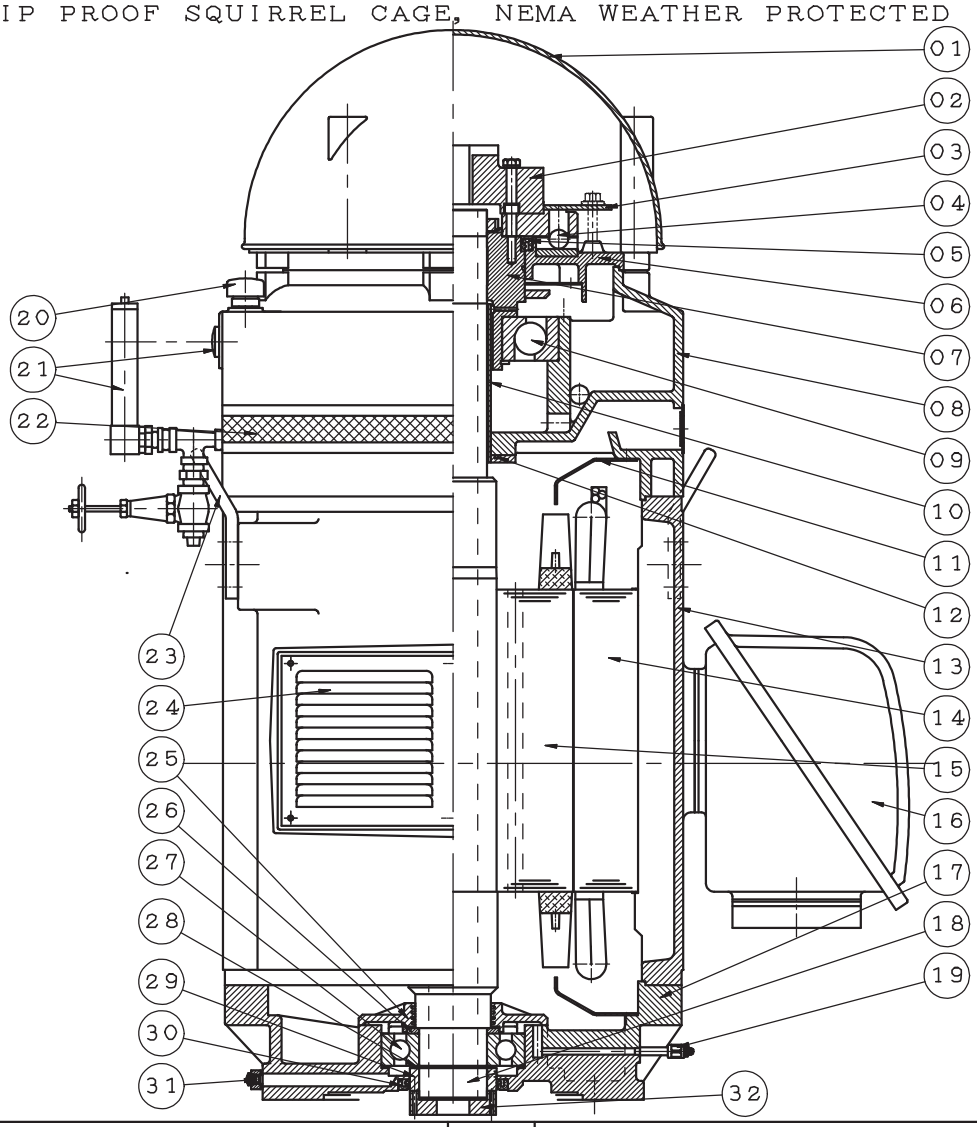
WHERE: g=1389600 in/min^2
fn=cycles per minute

8. 230/460V UP TO 125HP, 150HP AND ABOVE, APPLY 460/(800)V ONLY

APPD.	M.Y.HSU	OCT. 27 2016	TECO Electric & Machinery Co., Ltd.	DWG NO. 3A057H658E
CHKD.	R.LEE	OCT. 27 2016		REV.02
DWN.	LFHONG	OCT. 27 2016		1/1

ISSUED	SCHEMATIC DRAWING	MODEL
JAN. 16 2010	HIGH THRUST HOLLOWSHAFT PUMP MOTORS	AMRCNH
REVISED	FRAME SIZE (SSV) 444TP~449TP	BALL TYPE NRR
AUG. 04 2016		

DRIP PROOF SQUIRREL CAGE, NEMA WEATHER PROTECTED I



ITEM	NAME	ITEM	NAME
01	VERTICAL SPLASH COVER	17	FLANGE BRACKET
02	COUPLING	18	SHAFT
03	COVER	19	GREASE NIPPLE
04	RATCHET BALL	20	PLUG
05	OIL SEAL	21	OIL GAUGE
06	RATCHET	22	WINDOW COVER
07	BEARING SEAT	23	HOOK
08	BRACKET	24	WINDOW
09	BEARING	25	BEARING COVER—INNER
10	OIL SEPARATOR	26	STOP RING—BEARING
11	AIR GUIDE	27	BEARING
12	O RING	28	RETAINING RING
13	FRAME	29	SHAFT SLEEVE
14	STATOR	30	OIL SEAL
15	ROTOR	31	PLUG(GREASE OUTLET)
16	TERMINAL BOX ASSY	32	STEADY BUSH

APPD.	M. HSU	AUG. 04. 2016	TECO Electric & Machinery Co., Ltd.	DWG NO. 4B049M682E REV.03
CHKD.	C. SHIH	AUG. 04. 2016		
DWN.	J. HSIAO	AUG. 04. 2016		