

### Motor Data sheets

1. Name of motor	-	LFO Unloading Motor (Tank Area)
2. Manufacturer	-	Wuxi TECO
3. Country of origin	-	China
4. Type/machine code	-	TEBY-225M-4P(AFBY)
5. Applied standard (characteristics)		IEC
6. Ratings		
(1) Rated output	kW	37
(2) Service factor	-	1.0
(3) Number of pole	-	4
(4) Rated speed	rpm	1480
(5) Rated voltage	V	380
(6) Number of phases		3
(7) Rated frequency	Hz	50
(8) Insulation class	-	F
(9) Temperature rise	-	B
(10) Rated duty	-	S1
7. Service Conditions		
(1) Starting method	-	Direct On Line
(2) Direction of rotation (viewed from DE)	-	CW(Clockwise)
(3) Reverse rotation (Yes / No)	-	NO
(4) Location (Indoor / Outdoor)	-	Outdoor
(5) Enclosure IP rating		
(a) Motor frame	-	IP55
(b) Terminal boxes	-	IP55
(6) Installation (Horizontal / Vertical)	-	Horizontal
(7) Design ambient temperature	°C	40
(8) Explosion proof (Required / Not required)	-	Required
(9) Noise level (at full-load condition)	dB (A)	81dB(A)

**Tanjung Jati B Expansion (Jawa-4) Coal Fired Steam Power Plant 2 x 1,000 MW  
General Requirements for Motors**

8.	Characteristics		
	(1) Current		
	(a) Normal current	A	70.0
	(b) No-load current	A	24.7
	(c) Starting current	A	532
	(2) Torque		
	(a) Starting torque	%	210
	(b) Maximum torque	%	300
	(3) Slip at rated output	%	0.013
	(4) Efficiencies		
	(a) At 100% load	%	93.9
	(b) At 75% load	%	94.5
	(c) At 50% load	%	94.0
	(d) At 25% load	%	94.0
	(5) Power factor		
	(a) At rated load	%	85.5
	(b) At starting load	%	29.0
	(6) GD2 coupled with driven equipment	kg-m <sup>2</sup>	1.896
	(7) Starting time with driven equipment	s	10
	(8) Consecutive number of starts		
	(a) From cold condition	-	3
	(b) From hot condition	-	2
	(c) Minimum time between 2 starts (running state)	min	-
	(d) Minimum time between 2 starts (stop state)	min	-
	(9) Allowable locked-rotor time		
	(a) At cold condition	s	10
	(b) At hot condition	s	10
9.	Constructions		
	(1) Stator winding connection (Wye / Delta)	-	Delta
	(2) Type of bearing (DE / NDE)	-	Rolling Bearings
	(3) Lubricants		
	(a) Recommended lubricant and brand name	-	Shell Alvania RL3
	(b) Pouring method	-	Oil filling

**Tanjung Jati B Expansion (Jawa-4) Coal Fired Steam Power Plant 2 x 1,000 MW  
General Requirements for Motors**

(c) Quantity of lubricant for initial filling	-	80~100g
(d) Recommended interval for recharging	hours	2000
(e) Recharging quantity	-	50g
(f) Location of pouring (indicated in the outline drawing)	-	Indicated in the outline drawing
(4) Bearing cooling water requirement (if required)		
(a) Quantity	m <sup>3</sup> /h	N/A
(b) Inlet water temperature	°C	N/A
(c) Required cooling water pressure	kPa	N/A
(d) Type of cooling water	-	N/A
(5) Water to air heat exchanger (if applied)		
(a) Quantity of cooling water	m <sup>3</sup> /h	N/A
(b) Inlet water temperature	°C	N/A
(c) Required cooling water pressure	kPa	N/A
(d) Type of cooling water	-	N/A
(6) Space heater (AC 220V 1 phase)	W	60
(7) Weight	kg	357
10. Attached document numbers		
(1) Motor outline drawing	-	33049Z976080
(2) Terminal box drawings		
(a) For main power	-	3W061D065
(b) For instruments	-	N/A
(c) For space heater	-	3A061H676
(3) Current transformers		
(a) Characteristics curves	-	N/A
(b) Outline drawing	-	N/A
(4) Efficiency curves	-	TECO CHINA 20171010041CVEP
(5) Thermal capability curves		
(a) At cold condition	-	N/A
(b) At hot condition	-	N/A
(6) Starting and speed torque characteristics at 80%,90% and 100% voltage	-	TECO CHINA 20171010041CVIP

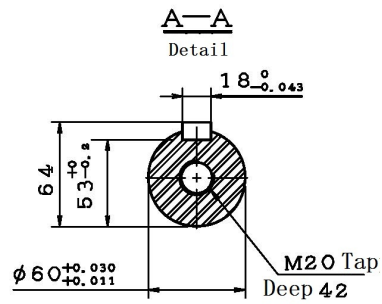
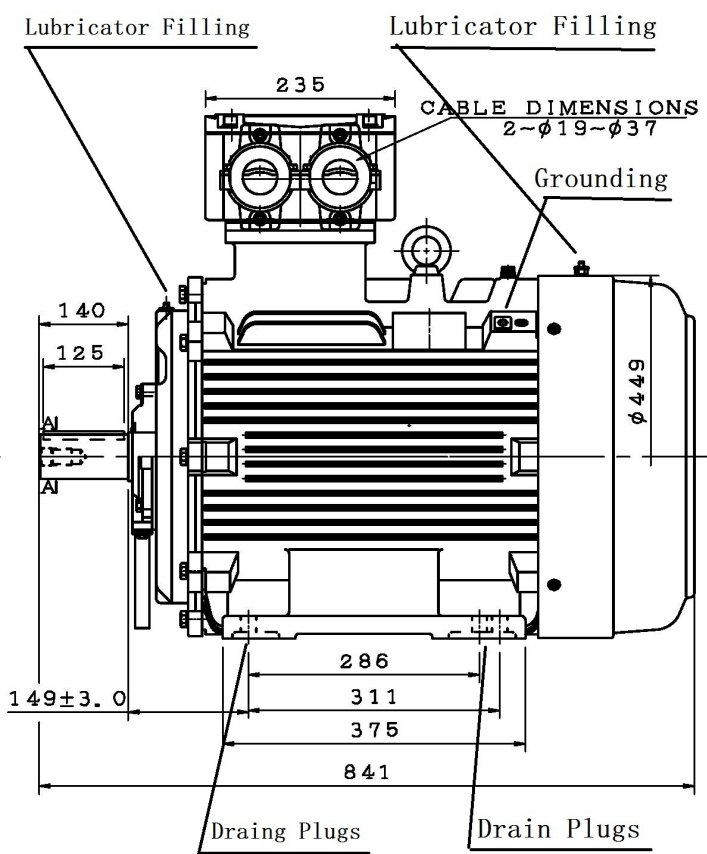
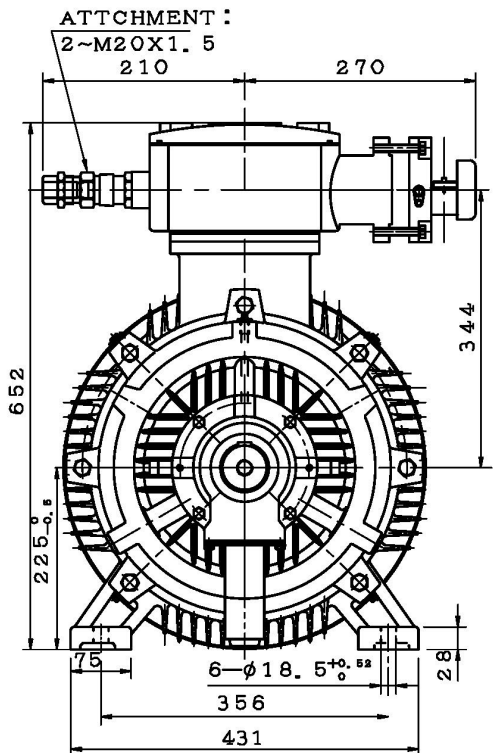


<b>TECO</b>	OUTLINE DIMENSIONS	MOTOR TYPE: AFBYX9-TK3
	3-PHASE INDUCTION MOTOR	FRAME NO. 225M
DATE		

Pole	HP	kW	Hz	VOLT	r/min
4	50	37	50	380/(660)	1500
Ins	Rating	Dimension in	Approx Weight	Bearings	
F	CONT.	mm		DE: 6312C3 NDE: 6212C3	

**10.1 Motor Outline Drawing**

Totally Enclosed Fan Cooled Type. Squirrel-Cage Rotor.



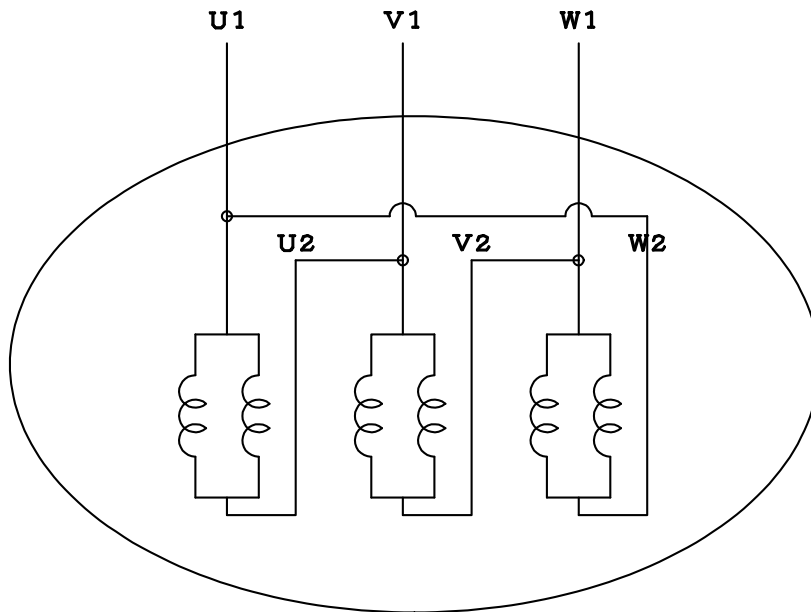
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Rotor Weight : 92kg  
 Rotor Conductor : AI-Die Cast  
 Shaft : S45C  
 Insulation Class : F  
 Enclosure : IP55



DWN.	王敏	04-18-18	<b>東元電機股份有限公司</b> TECO Electric & Machinery Co., Ltd.	DWG NO.
CHKD.	華強	04-24-18		33049Z976080
APPD.	郭耿良	04-24-18		
			18/40 WUX1	

10.2a Terminal Box Drawing for Main Power



SCHEMATIC DIAGRAM — 6 LEADS

00EGA11AP001/00EGA12AP001

00EGA31AP001/00EGA32AP001

00EGC13AP001/00EGC14AP001

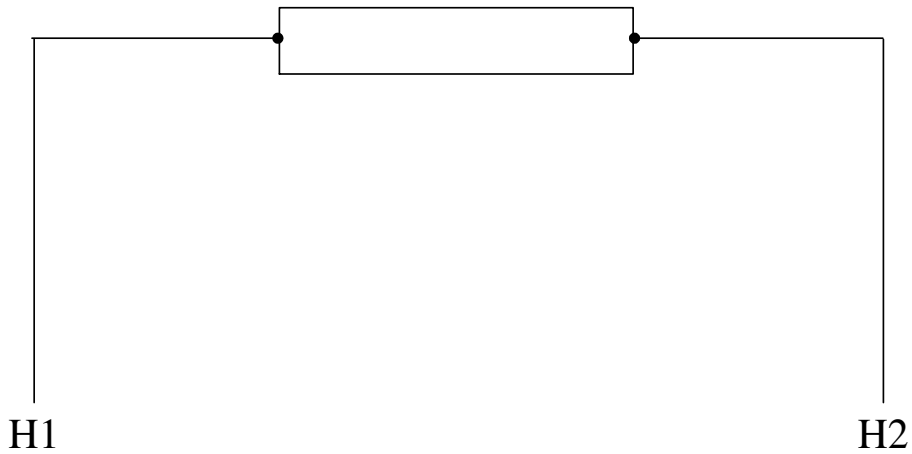
VOLTAGE	CONNECTION	ROTATION (VIEWED FROM DRIVE END)
LOW (RUN, Δ)		

With Winding RTD:PT 100 Ω/0 °C 3pcs Range: -40 to 180 °C

DWN. L.J. L	MAR 14 2011	<b>TECO Electric &amp; Machinery Co., Ltd.</b>	DWG NO.	REV:00
CHKD. ALEI. HU	MAR 14 2011		3W061D065	
APPD. F. YANG	MAR 14 2011			

DATE	<b>SCHEMATIC SPACE HEATER</b>	MODEL

10.2c Terminal Box Drawing for Space Heater



( FOR SLIP RING COMPARTMENT )

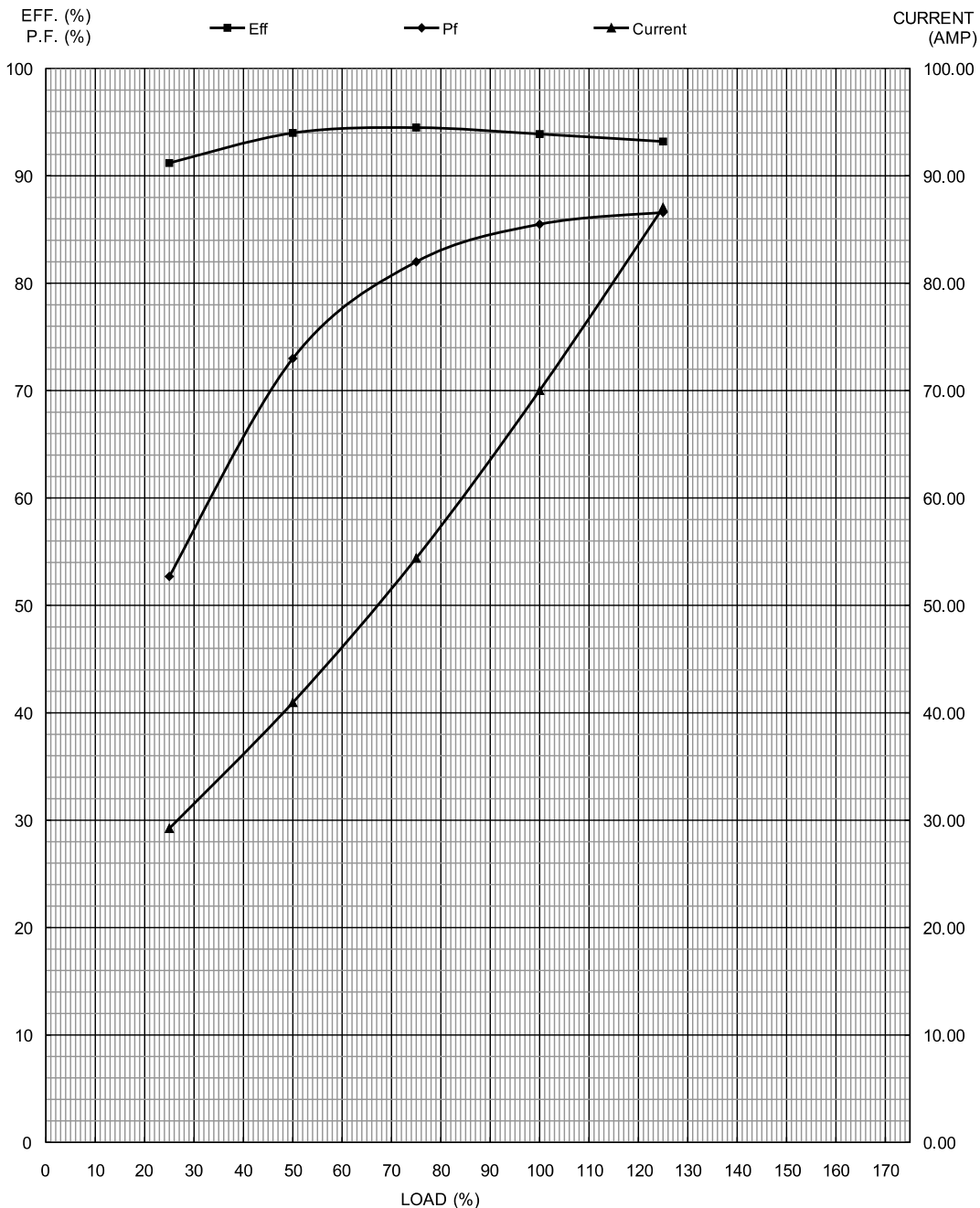
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00EGA31AP001/00EGA32AP001  
00EGC13AP001/00EGC14AP001

DWN.	STEVE	MAY · 08 · 2014	<b>TECO ELEC. &amp; MACH. CO., LTD.</b>	DWG NO.	REV: 00
CHKD.	ERIC	MAY · 08 · 2014		<b>3 A 0 6 1 H 6 7 6</b>	
APPD.	HHANDSOME	MAY · 08 · 2014			

10.4 Efficiency Curve

THREE PHASE INDUCTION MOTOR  
LOAD CHARACTERISTIC CURVE

POLE : 4  
HZ : 50  
TYPE : AFBY  
kW : 37  
VOLT. : 380



APPD.	lizhi	2017/10/10
CHKD.	lizhi	2017/10/10
DWN.	lizhi	2017/10/10

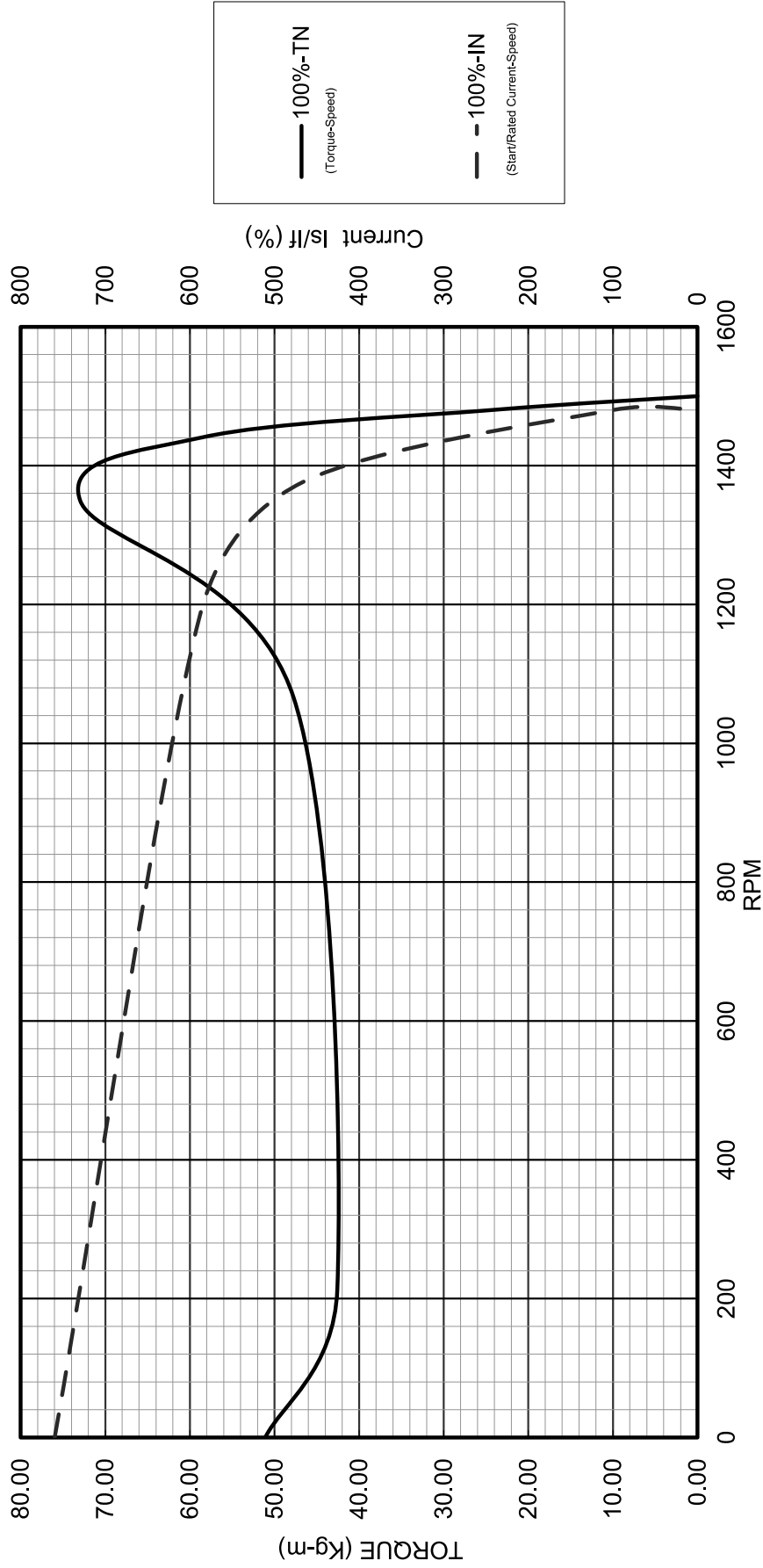
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TECO CHINA20171010041CVEP

# T-N & I-N CURVE

## 10.6 Starting and Speed Torque Characteristics

TYPE: AFBY      POLE: 4      kW: 37  
 HZ: 50            VOLT.: 380



APPD.	lizhi	2017/10/10
CHKD.	lizhi	2017/10/10
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