

Motor Data sheets

1. Name of motor	-	LFO Unloading Motor (Coal Yard Area)
2. Manufacturer	-	Wuxi TECO
3. Country of origin	-	China
4. Type/machine code	-	TEBY-112M-4P(AFBY)
5. Applied standard (characteristics)		IEC
6. Ratings		
(1) Rated output	kW	4
(2) Service factor	-	1.0
(3) Number of pole	-	4
(4) Rated speed	rpm	1445
(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


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

(9) Noise level (at full-load condition)	dB (A)	65dB(A)
8. Characteristics		
(1) Current		
(a) Normal current	A	8.37
(b) No-load current	A	4.51
(c) Starting current	A	60
(2) Torque		
(a) Starting torque	%	245
(b) Maximum torque	%	280
(3) Slip at rated output	%	0.037
(4) Efficiencies		
(a) At 100% load	%	88.6
(b) At 75% load	%	88.4
(c) At 50% load	%	87.9
(d) At 25% load	%	87.0
(5) Power factor		
(a) At rated load	%	82.0
(b) At starting load	%	30.0
(6) GD2 coupled with driven equipment	kg-m ²	0.083
(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

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

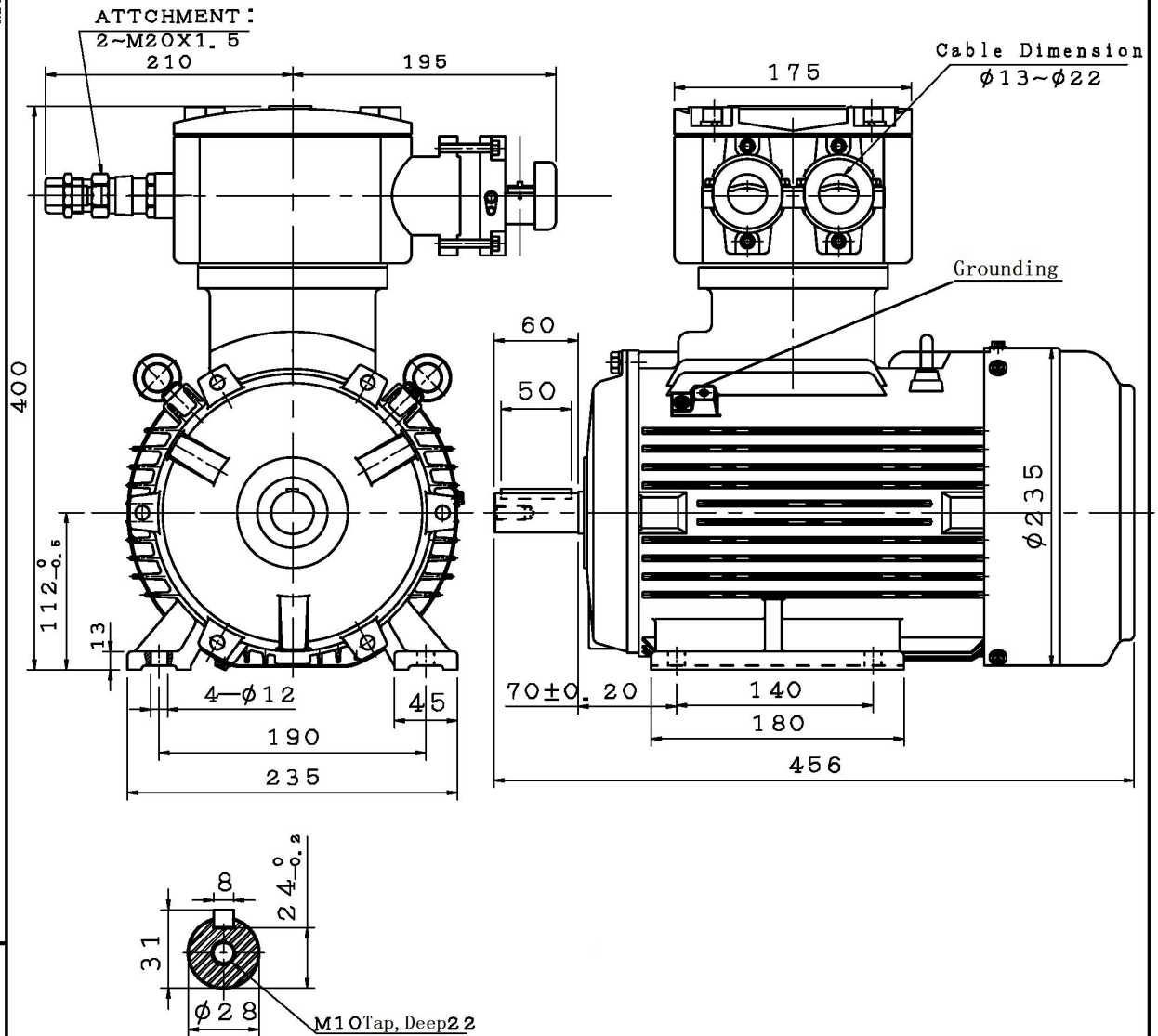
(b) Pouring method	-	N/A
(c) Quantity of lubricant for initial filling	-	N/A
(d) Recommended interval for recharging	hours	N/A
(e) Recharging quantity	-	N/A
(f) Location of pouring (indicated in the outline drawing)	-	N/A
(4) Bearing cooling water requirement (if required)		
(a) Quantity	m ³ /h	N/A
(b) 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 ³ /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	30
(7) Weight	kg	72
10. Attached document numbers		
(1) Motor outline drawing	-	33049Z923060
(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 20171010038CVEP
(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 20171010038CVIP

10.1 Motor Outline Drawing

	OUTLINE DIMENSIONS 3-PHASE INDUCTION MOTOR		MOTOR TYPE: AFBYX9-TK3
	DATE		FRAME NO. 112M

Pole	HP	kW	Hz	VOLT	r/min
4	5.5	4	50	380/(660)	1500
Ins	Rating	Dimension in	Approx Weight	Bearings	
F	CONT.	mm		DE:6306ZZC3 NDE:6306ZZC3	

Totally Enclosed Fan Cooled Type. Squirrel-Cage Rotor.

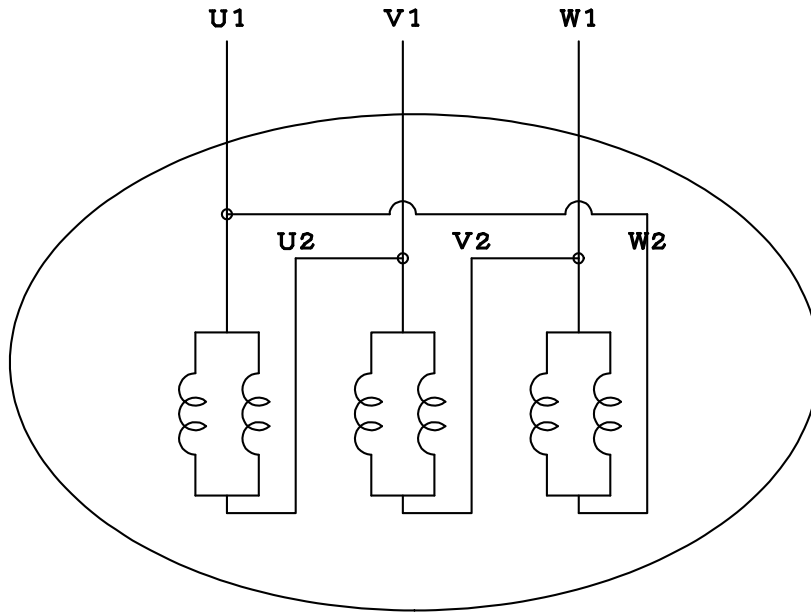


00EGA31AP001/00EGA32AP001

Rotor Weight : 13 kg
 Rotor Conductor : Al-Die Cast
 Shaft : S45C
 Insulation : F
 Enclosure : IP55

				
DWN.	王敏	04.18.18	東元電機股份有限公司 TECO Electric & Machinery Co., Ltd.	DWG NO.
CHKD.	華強	04.24.18		33049Z923060
APPD.	郭耿良	04.24.18		
				36/40 WUXI

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

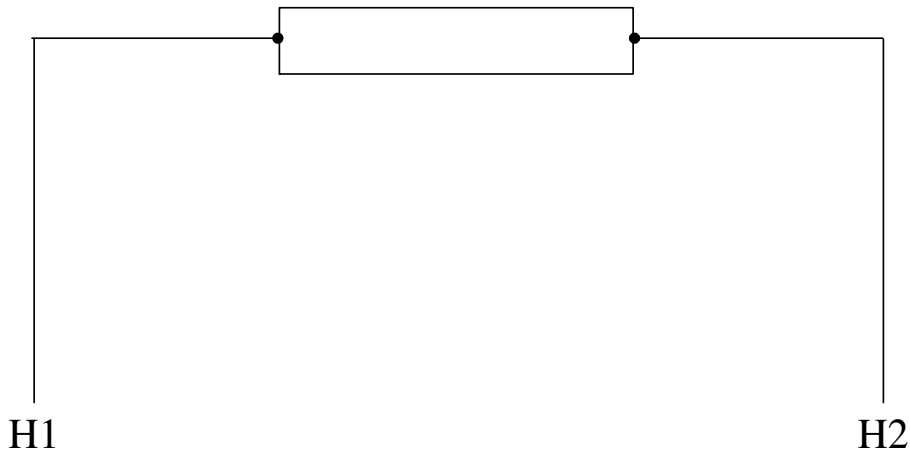
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3W061D065	

DATE	SCHEMATIC SPACE HEATER	MODEL

10.2c Terminal Box Drawing for Space Heater



(FOR SLIP RING COMPARTMENT)

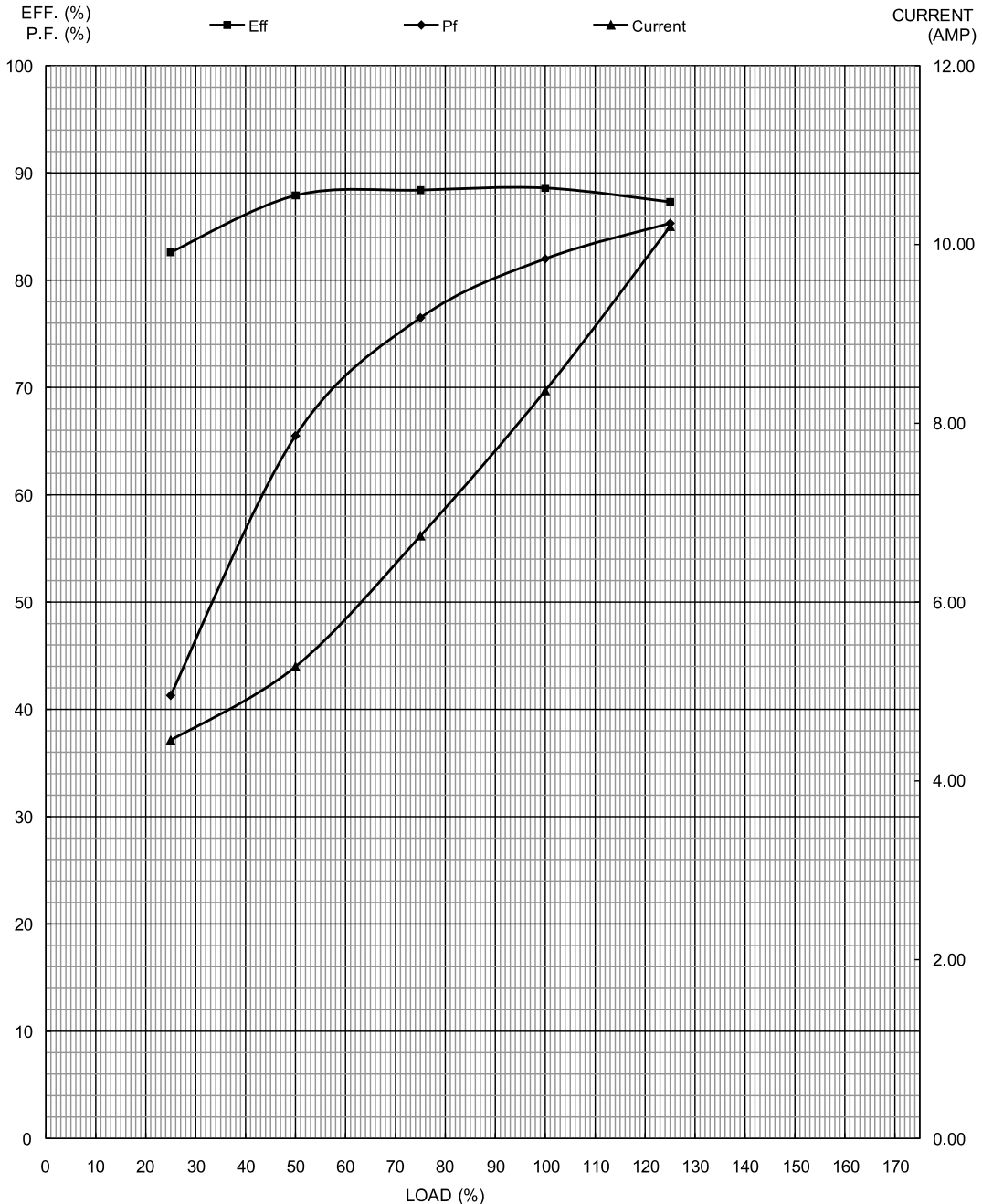
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CHKD.	ERIC	MAY · 08 · 2014		3 A 0 6 1 H 6 7 6		
APPD.	HHANDSOME	MAY · 08 · 2014				

10.4 Efficiency Curve

THREE PHASE INDUCTION MOTOR LOAD CHARACTERISTIC CURVE

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

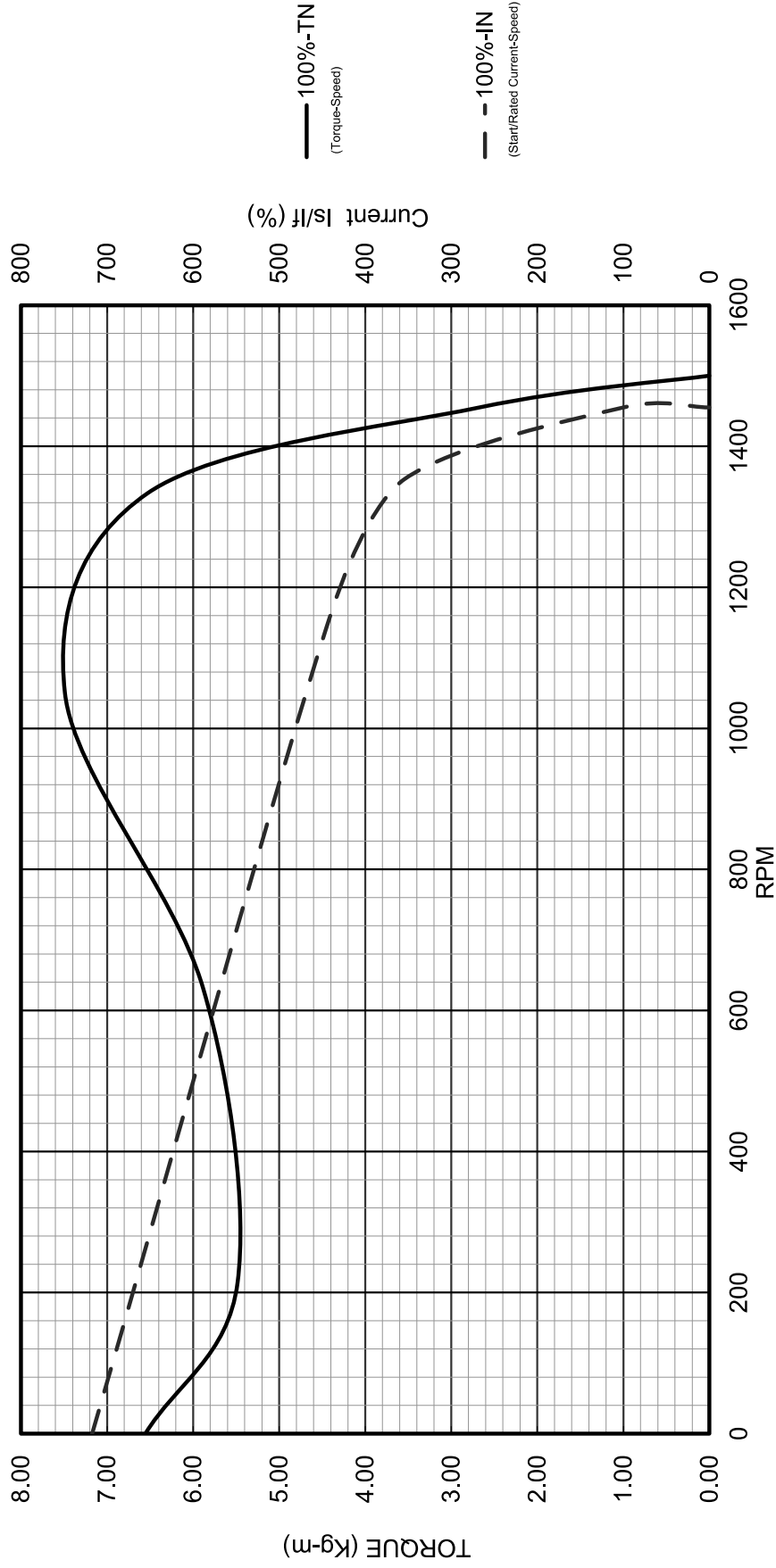


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CHKD.	lizhi	2017/10/10		TECO CHINA20171010038CVEP
DWN.	lizhi	2017/10/10		

T-N & I-N CURVE

10.6 Starting and Speed Torque Characteristics

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



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