





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

#### **Motor Data sheets**

1.	Name of motor	-	LFO Forwarding Motor for Auxiliary Equipment
2.	Manufacturer	-	Wuxi TECO
3.	Country of origin	- China	
4.	Type/machine code	-	TEBY-200L-4P(AFBY)
5.	Applied standard (characteristics)		IEC
6.	Ratings		
	(1) Rated output	kW	30
	(2) Service factor	-	1.0
	(3) Number of pole	-	4
	(4) Rated speed	rpm	1470
	(5) Rated voltage	V	380
	(6) Number of phases		3
	(7) Rated frequency		50
	(8) Insulation class	-	F
	(9) Temperature rise	-	В
	(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
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	(9) Noise level (at full-load condition)	dB (A)	79dB(A)
8.	Characteristics		
	(1) Current		
	(a) Normal current	Α	56.6
	(b) No-load current	Α	16.6
	(c) Starting current	Α	469
	(2) Torque		
	(a) Starting torque	%	250
	(b) Maximum torque	%	280
	(3) Slip at rated output	%	0.02
	(4) Efficiencies		
	(a) At 100% load	%	93.6
	(b) At 75% load	%	94.5
	(c) At 50% load	%	94.5
	(d) At 25% load	%	94.5
	(5) Power factor		
	(a) At rated load	%	86.0
	(b) At starting load	%	30.0
	(6) GD2 coupled with driven equipment	kg-m²	1.451
	(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	min	-
	state) (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





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	(b) Pouring method	-	Oil filling
	(c) Quantity of lubricant for initial filling	_	30~50g
	(d) Recommended interval for recharging	hours	2000
	(e) Recharging quantity	-	30g
	(f) Location of		_
	pouring (indicated in the outline drawing)	-	Indicated in the outline drawing
	(4) Bearing cooling water requirement (if required)		
	(a) Quantity	m³/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	m³/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	50
	(7) Weight	kg	328
10.	Attached document numbers		
	(1) Motor outline drawing	-	33049Z963080
	(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 20171010040CVEP
	(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 20171010040CVIP

## **TECO**

DATE

OUTLINE DIMENSIONS
3-PHASE INDUCTION MOTOR

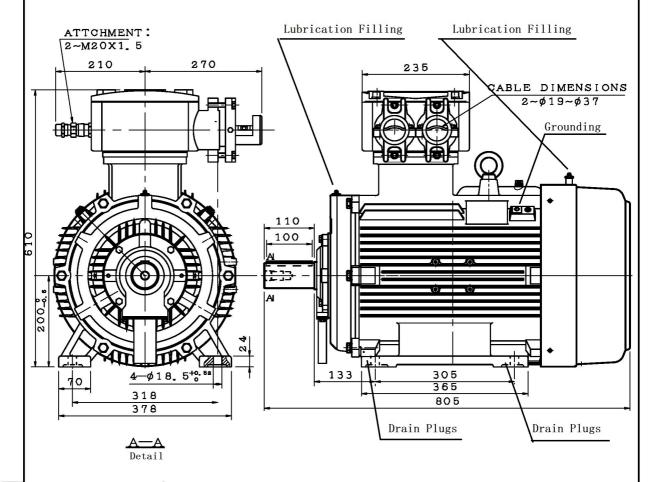
MOTOR TYPE:
AFBYX9—TK3

FRAME NO. 200L

Pole	HP	kW	Ηz	VOLT		r/min
4	40	30	50	380/(6	60)	1500
Ins	Rating	Dimens	lon in	Approx Weight	Веа	rings
F	CONT mm		1.		DE: 6312C3	NDE: 6212C3

#### 10.1 Motor Outline Drawing

Totally Enclosed Fan Cooled Type. Squirrel-Cage Rotor.



00EGC13AP001/00EGC14AP001

Rotor Weight: 79 kg

Rotor Conductor : AI-Die Cast

Shaft: S45C

Insulation Class : F Enclosure : IP55

DWN.	王敏	0 4•1 8•1 8
CHKD.	華強	0 4•2 4•1 8
APPD.	郭耿良	0 4•2 4•1 8

東元電機股份有限公司
TECO Electric & Machinery Co., Ltd.
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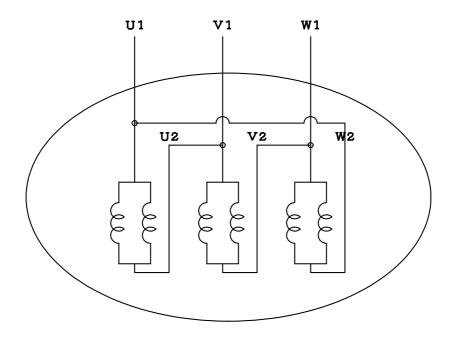
DWG NO. 33049Z963080



## SCHEMATIC 6 LEADS

MODEL		

## 10.2a Terminal Box Drawing for Main Power



SCHEMATIC DIAGRAM —6 LEADS 00EGA11AP001/00EGA12AP001 00EGA31AP001/00EGA32AP001

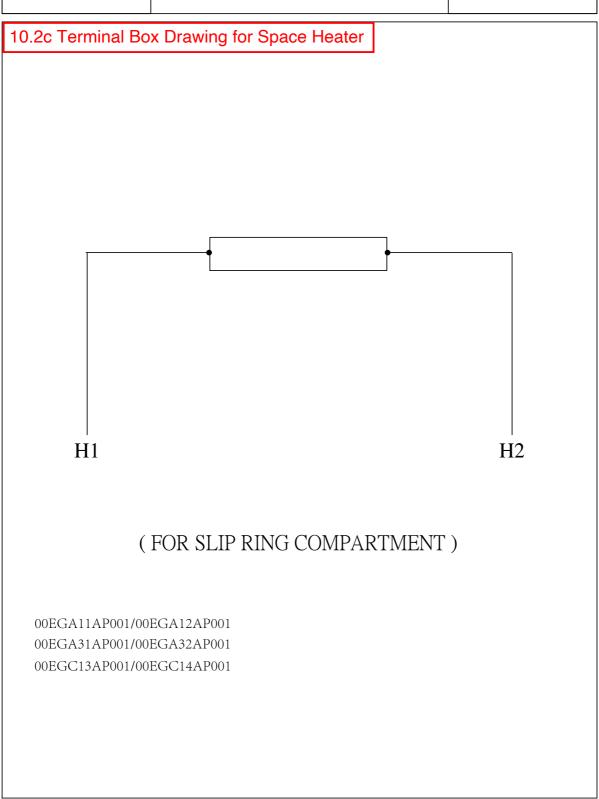
00EGC13AP001/00EGC14AP001

VOLTAGE	CONNECTION	ROTATION (VIEWED FORM )
LOW (RUN, A)	W2 U1 T U2 V1	

With Winding RTD:PT  $100\,\Omega$  /0 °C 3pcs Range: -40 to  $180\,$ °C

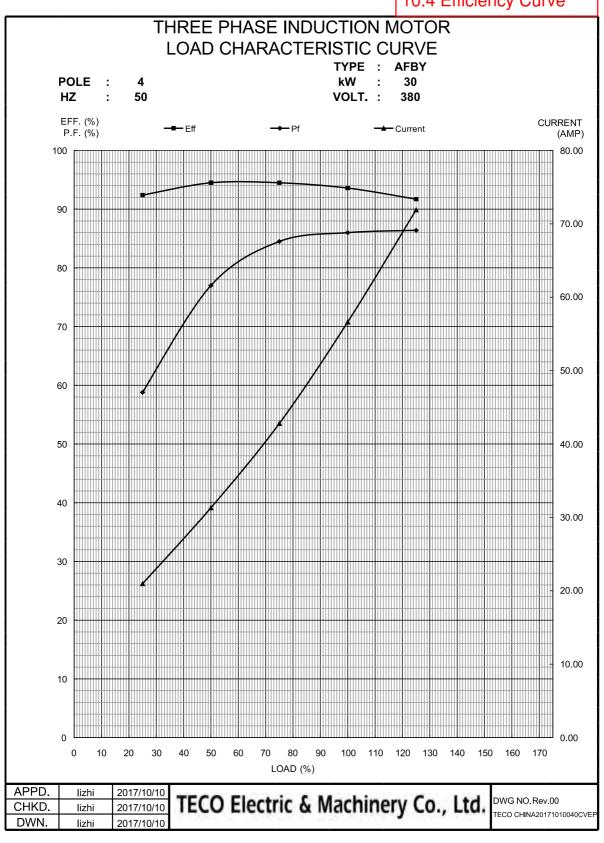
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APPD.		MAR 14 2011				

DATE	SCHEMATIC	MODEL
	SPACE HEATER	

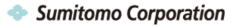


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## 10.4 Efficiency Curve



P179956.67.9281.06-C5011 P. 3/3 MM-00550







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# Motor Data Sheets (LFO Unloading Motor-Coal Yard Area)