



**OIL & GAS DEVELOPMENT COMPANY LIMITED**  
**PROCUREMENT DEPARTMENT (LOCAL), ISLAMABAD**  
**SCHEDULE OF REQUIREMENT**

Material : **PROCUREMENT OF MOTORS FOR AMINE COOLER FAN & COOLING TOWER OF UCH-II PLANT**

**Due Date:**

Tender Enquiry No: **PROC-LE/17461/18**

Bid Bond Value : RS. 80000/-

Attachment(if any) : YES

EVALUATION WILL BE CARRIED OUT ON FULL

Sr No	Description	Quantity	Make/Brand offered	Unit	Unit Price (PKR) Inclusive Of All Taxes Except GST	Unit Price (PKR) Inclusive of GST	Total Price (PKR) Inclusive of GST	Delivery Period Offered	deviation from Tender Spec. If Any
1	Amine Cooler Fan Motor, 37 KW, 400 V, 70.78 Amp, 50 HZ,1484 RPM, Part No: AB70 225M 4, Serial No: 0722 CESI 06ATEX074Xn1305646002y13, Exd IIB T4Gb IP55/65, Make: CEMP OR EQUIVALENT( DATA SHEET ATTACHED)	1		Number					
2	Cooling Tower Fan Motor 11 KW, 400 V, 23 Amp, 50 HZ,720 RPM, Part No: AB70 180L 8, Serial No: 0722 CESI 06ATEX074Xn1217257004y12, Exd IIB T3 Gb IP55, Make: CEMP OR EQUIVALENT ( DATA SHEET ATTACHED)	1		Number					
3	MOTOR FOR HOT OIL FORCED DRAFT BLOWER, RATING: 3-PHASE, 30 kW, 50Hz,400V,53A,CONN:DELTA,P.F 0.86, RPM 1469,TYPE: YB3 200L-4W, FLAME PROOF CERT. CJEx 10.514, MAKE: JIAMUSI ELECTRIC MACHINE CO., LTD, CHINA OR EQUIVALENT ( DATA SHEET ATTACHED)	1		Number					

**Special Note:-** The prospective bidders also download the master set of Tender Document

- The prospective bidders may keep in touch with OGDCL web site for downloading the clarifications/amendments (if any) issued by OGDCL.
- I. DELIVERY PERIOD: 120 DAYS AFTER ISSUANCE OF LPO. II. DELIVERY LOCATION: KORANGI BASE STORE. III. PAYMENT TERM IS PAYMENT AFTER DELIVERY

Discount (if any) shall only be entertained on Schedule of Requirement of Bidding Document (Financial Proposal). If the discount is mentioned elsewhere in the bid, the same shall not be entertained.





**OIL & GAS DEVELOPMENT COMPANY LIMITED**  
**PROCUREMENT DEPARTMENT (LOCAL), ISLAMABAD**  
**SCHEDULE OF REQUIREMENT**

**Mandatory Checklist**

Please confirm the compliance of the following mandatory information along with the bid(s) (failing which bids(s) will not be accepted)

Documents	To be Attached with the Technical/Financial Bids	Compliance	
		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Original Bid Bond	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Copy of NTN Certificate	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Copy of GST Certificate	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Confirmation that the Firm is appearing on FBR's Active Taxpayer List	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly signed and stamped <b>Annexure-A (Un-priced)</b>	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped <b>Annexure-B</b>	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped <b>Annexure-D</b>	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped <b>Annexure-L</b> on Company's Letterhead	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly signed and stamped <b>Annexure-M</b> on Company's Letterhead	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly signed and stamped <b>Annexure-N</b> on Non-Judicial Stamp Paper duly attested by Notary Public	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped <b>Annexure-A (Priced)</b>	Financial Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped <b>Annexure-C</b>	Financial Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped <b>Annexure-E</b>	Financial Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>



ATTACHMENT FOR INDENT #UCH-1815

FOR ALL THE ITEMS( 01-03 No's)

1. ALL ITEMS SHALL BE BRAND NEW WITH STANDARD WARANTTEE/GUARATTEE. *of Manufactures.*

2. THE ITEMS SHOULD BE IN STANDARD PACKING.

3. ~~EQUIVALENT WILL NOT BE ACCDEPTABLE.~~ EQUIVALENT WILL BE ACCEPTABLE ONLY IF THE SUPPLIED MOTORS ARE IN EXACT DESIGN/FRAME SIZE /BASE/CONFIGURATION ETC.

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1217257004

Ia/In 500%  
Ca/Cn 220%  
Efficiency 87%  
TYPE BEARINGS SKF  
DE 63102RS ZZ C3  
NDE 63102RS ZZ C3

CE Ex II2G **cemp**

0722 CESI 06ATEX074Xn1217257004y12  
Electric Motor AB70 180L 8 3~  
Exd B T3 Gb IP55

	A	Hz	1/min	cos	kW
230	39.84	50	720	0.79	11.0
400	23.00				

IC411 CLFΔT80K Tc45°C S1

Item/Tag 300-C101-2B kg 245





Manufacturer Cemp S.r.l. - 12010 MAGGIO (Milan) - ITALY  
grease joints after any dismounting - fasteners quality 8.8-EN898

*Mazhar*  
**MAZHAR ABBAS**  
Dy. Chief Engineer (Inst.)-C/A  
Process & Plants Deptt. O.G.D.C.L  
Ext: 2367

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For Item # 1

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  	 <p>UCH-II Development Project AMINE GAS SWEETENING UNIT &amp; INCINERATOR Package</p> <p>PROJECT No. 14-4985 OGDCL- Oil &amp; Gas Development Company Limited</p>	Job No: 1896-12	Unit: 300/310
		BELLELLI ENGINEERING S.p.A. Doc. No:	
Originator Company		3-CT101-PR-DS-019	
		Sheet / of 1 / 6	
		BELLELLI ENGINEERING S.p.A.	

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**ELECTRICAL MOTORS FOR PACKAGE COOLING TOWERS**  
**DATA SHEET, PERFORMANCE CURVES**

3







CLIENTE <i>Customer</i>	BELLELLI ENGINEERING	Document N°	3-CT101-PR-DS-019			
IMPIANTO <i>Plant</i>	COOLING TOWER TG/Q2/43/Ex/HT/S/CONT	FOGLIO <i>Sheet</i>	2	di of	6	Rev. 3
LOCALITA' <i>Plant location</i>	PAKISTAN	COMMESSA <i>Job</i>	12T5567			

### 1. SCOPE OF DOCUMENT&APPLICATION DESCRIPTION

Scope of this document is to specify main technical information for the selection and supply of electrical motors to be installed inside **package cooling towers**. Equipments will be located inside an Oil & Gas facility in the country of Pakistan.

The supplied motors will be directly connected to the equipment fans, without interposition of speed reducers. Motors will be installed in vertical position, with the shaft upwards.

### 2. APPLICABLE SPECIFICATIONS

- For environmental site conditions: 4985-A-1000 (Site,Environment & Utility Design Data) Rev 0
- Low voltage AC motors specification: 4985-ELA-6503 (Specification for Low Voltage AC Induction Motor) Rev 0
- Painting specification (as ref.ce): 4985-GS-8254 (Painting & Protective Coating) Rev 0

### 3. MOTOR DESIGN AND WORKING CONDITIONS


- *Maximum (dry) air cooling thermal design temperature:* 121°F (49,4°C)
- *Maximum air temperature for electrical design:* 131°F (55°C)
- *Minimum air temperature for fan design:* 30°F (-1,1°C)
- *Normal working condition of motor (cooling tower operation):*
  - Humidity:* Range: 95%...100%
  - Temperature:* Range: 32...113°F (0...+45°C)

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	CLIENTE Customer	BELLELLI ENGINEERING	Document N°	3-CT101-PR-DS-019			
	IMPIANTO Plant	COOLING TOWER TG/Q2/43/Ex/HT/S/CONT	FOGLIO Sheet	3	di of	6	Rev. 3
	LOCALITA' Plant location	PAKISTAN	COMMESSA Job	12T5567			
	<b>DATI DI PROGETTO - DESIGN DATA</b>	<b>VALORE RICHIESTO - REQUIRED VALUE</b>	<b>NOTE</b>				
1	<b>Dati di base del motore - Motor basic data</b>						
2	Normative di rif.to / Reference codes:	IEC (for design, manufacturing and test)					
3	Potenza nominale / Nominal power:	11 kW					
4	P. assorbita / Absorbed power:	9,1 kW					(1)
5	Servizio / Duty:	Continuous 24h					
6	Alimentazione da / Supply from:	NET or through FREQUENCY CONVERTER					
7	Tensione di alimentazione / Voltage supply:	400V±10% - 3 ph.					
8	Collegamento / Winding connection:	STELLA / STAR					
9	Frequenza / Frequency:	5...50Hz ±2%					
10	Avviamento / Starting:	Through FREQUENCY CONVERTER					1
11	N° di poli / N° of poles:	8					
12	Velocità di targa / Rated speed:	720					
13	Coppia nominale / Nominal torque:	146,4					
14	Grado di protezione / Degree of protection:	Case: IP55 - Junction box: IP65					
15	Classe di Isolamento / Insulation class:	F					
16	Innalzamento di temperatura / Temp. rise:	B					
17	Rendimento / Efficiency:	87% @100% LOAD					
18	Cos fi:	0,79 @100% LOAD					
19	Corrente nominale / Nominal current (Ia):	23 A					
20	Temperatura di installaz. / Install. Temperature:	See attached specifications					
21	Zona EX di installaz. / EX zone of inst.:	NEC: Class I, Div.2 Gas gr. C, D					(2)
22	Zona EX di installaz. / EX zone of inst.:	ATEX: zone 2 gas group IIB temp.re class T3					(2)
23	Modo protez. motore / Motor protection mode:	Ex-d IIB T3					
							A T E X

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	CLIENTE Customer	BELLELLI ENGINEERING	Document N°	3-CT101-PR-DS-019			
	IMPIANTO Plant	COOLING TOWER TG/Q2/43/Ex/HT/S/CONT	FOGLIO Sheet	4	di of	6	Rev. 3
	LOCALITA' Plant location	PAKISTAN	COMMESSA Job	12T5567			
	<b>DATI DI PROGETTO - DESIGN DATA</b>	<b>VALORE RICHIESTO - REQUIRED VALUE</b>	<b>NOTE</b>				
1	<i>Dati costruttivi ed accessori - Construction data and accessories</i>						
2	Forma costruttiva / Shape:	IM V6 (vertical, shaft upwards)					
3	Grandezza motore / Motor size:	180L 8 poles					
4	Materiale corpo / Frame material:	Cast iron					
5	Ventola motore / Fan motor:	Non sparking thermo-plastic material					
6	Materiale albero / Shaft material:	Carbon steel C45 <span style="border: 1px solid black; padding: 0 2px;">2</span>					
7	Avvolgimenti / Windings:	Copper					
8	Rotore / Rotor:	Squirrel cage made with aluminium bars					
9	Starting current / Nominal current (Ia/In):	5					
10	Starting torque / Nominal torque (Ma/Mn):	2,2					
11	Breakdown torque / Nom. torque (Mmax/Mn):	2,4					
12	Massa / Mass:	245 kg					
13	Momento di inerzia / Moment of Inertia:	0,2791 kgm <sup>2</sup>					
14	Ciclo verniciatura / Painting cycle:	Epoxy painting for hard environment				(1)	
15	Colore finale / Final colour:	RAL 5010					
16	Carichi sull'albero / Load on shaft:	Within Manufacturing design range					
17	Lunghezza albero / Shaft length:	According to Manufacturer's standard					
18	Cuscinetti / Bearings:	Manufacturer's standard					
19	Raffreddamento motore / Cooling of motor:	IEC 60034 IC 4A1A1 (TEFC)					
20	Entrata cavi / Cable entry:	2xM40 + 1xM20					
21	Posizione morsettiera / Term. Box position:	ON TOP					
22	Termistori o sonda Pt100 / PTC or Pt100 probe:	Required: 3xPTC					
23	Scaldiglie / Heaters:	Not required					

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	CLIENTE Customer	BELLELLI ENGINEERING	Document N°	3-CT101-PR-DS-019			
	IMPIANTO Plant	COOLING TOWER TG/Q2/43/Ex/HT/S/CONT	FOGLIO Sheet	5	di of	6	Rev. 3
	LOCALITA' Plant location	PAKISTAN	COMMESSA Job	12T5567			
1	<b>Further specifications:</b>						
2							
3	1) Additional nameplate (one each motor), to be delivered as detached item, to be fixed on cooling tower.						
4	The additional nameplate shall be similar to the ones fixed on motor, with main technical data and with						
5	the indication of motor identification tag:						
6	300-C101-1A; 300-C101-2A; 300-C101-1B; 300-C101-2B; ..... ; 300-C101-1H; 300-C101-2H.						
7	310-C101-1A; 310-C101-2A; 310-C101-1B; 310-C101-2B; ..... ; 310-C101-1H; 310-C101-2H.						
8							
9	2) ILMED Impianti specific requirement for package cooling towers: water shedding disk on shaft						
10	plus friction sealing ring on shaft opening for water / humidity protection.						
11							
12	3) Two external earthing points on motor frame will be foreseen. One earthing point inside motor JB.						
13							
14	4) Power factor correction capacitors (ref.ce par. 4.3.4 of ENAR specification on LV motors) not included						
15	in ILMED Impianti scope of supply. <span style="border: 1px solid black; padding: 0 2px;">1</span>						
16							
17	5) Alarm and control device for motor protection (ref.ce par. 4.3.5 of ENAR specification on LV motors) will						
18	be foreseen by End User.						
19							
20	6) Routine test on every motor: acc.ing to par. 4.4 of ENAR specification: from points (a) to (d).						
21							
22							
23							

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MOD-700

**cemp**

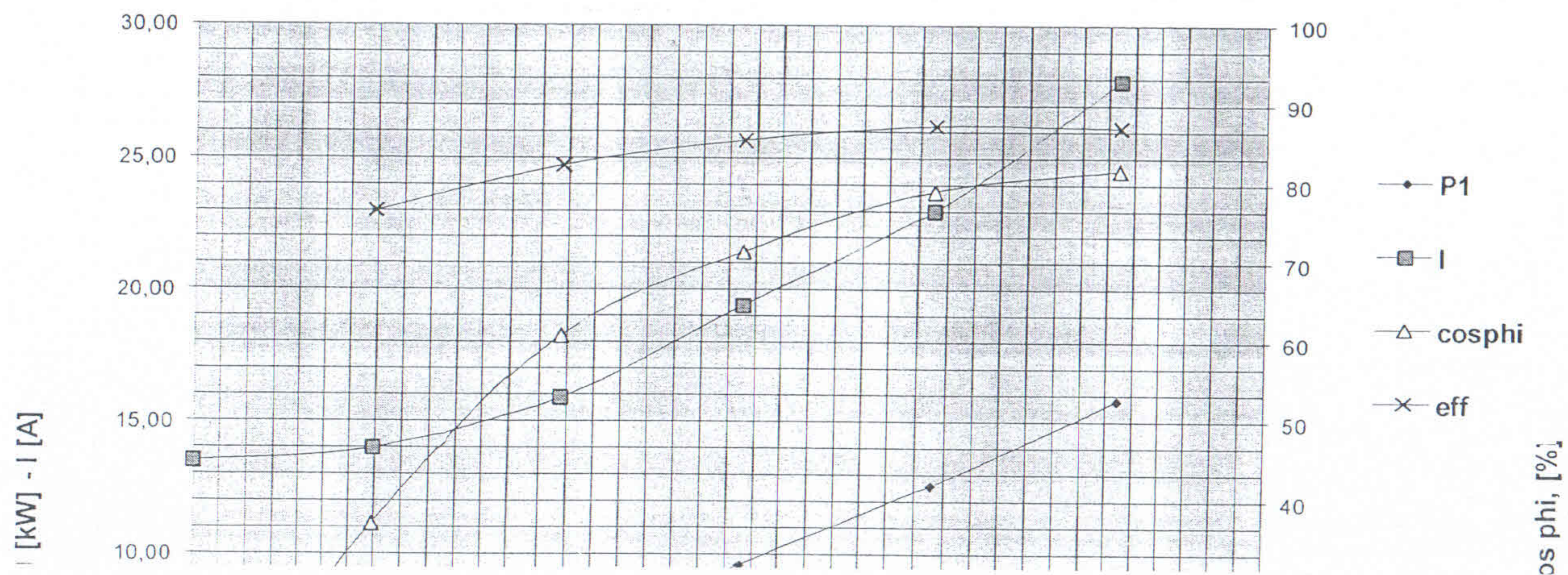
Flameproof  
Motors

**CURVE CARATTERISTICHE  
PERFORMANCE CURVES**

Cliente / Customer      ILMED IMPIANTI S.R.L.  
Ordine / Order          Offer  
Impianto / Plant        -  
Cemp Ref                2012.5391

ITEM                    -

**Motor**                    **AB70 180L 8**  
Rated power            11,00 kW  
Pole                        8  
Voltage                  400 V  
Frequency               50 Hz  
Rated Current          23,00 A  
Speed                    720 rpm  
Torque                    146,4 Nm



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 	 	<p align="center"><b>UCH-II Development Project AMINE GAS SWEETENING UNIT &amp; INCINERATOR Package</b></p> <p align="center">PROJECT No. 14-4985 OGDCL- Oil &amp; Gas Development Company Limited</p>	Job No: 1896-12	Unit: 300/310
			<p align="center">BELLELLI ENGINEERING S.p.A. Doc. No:</p>	
			3-EA103-EL-DS-010	02
			Sheet / of	
			1 / 5	
Originator Company		BELLELLI ENGINEERING S.p.A.		

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**ELECTRIC MOTOR DATA SHEET (300/310 EA103)**

**BOLDROCCHI DOC. No.: SQ83694/MDS**

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MOD. 803

*For item # 2***celnp**Flameproof  
Motors*11/20*FOGLIO DATI PER MOTORI ELETTRICI ASINCRONI TRIFASI : SERIE IEC  
DATA SHEET FOR ASYNCHRONOUS THREEPHASE INDUCTION MOTORS: IEC SERIES

Cliente / Customer	BOLDROCCHI S.R.L.	Conferma ordine / Acknowledgment : N° 2013.3676
Ordine cliente / Customer order : 02775		Impianto / Plant -
Item : 300-C 103A/B/C/D, 310-C 103A/B/C/D		

## DATI DI PROGETTO - DESIGN DATA

Modo di protezione	II2G	Motore / Frame	Exd IIB T4 Gb	IP55
Type of protection		Scatola morsetti / Terminal box	Exd IIB Gb	IP65
Tem. Amb. Min. / Min Amb. Temp.	-20 °C		Tem. Amb. Max. / Max Amb. Temp.	55 °C
Umidità relativa / Relative humidity	90%		Altitudine / Altitude	< 1000 mslm / masl
Tensione nominale / Rated Voltage	400 V +/-10%		Frequenza / Frequency	50 Hz +/- 2%

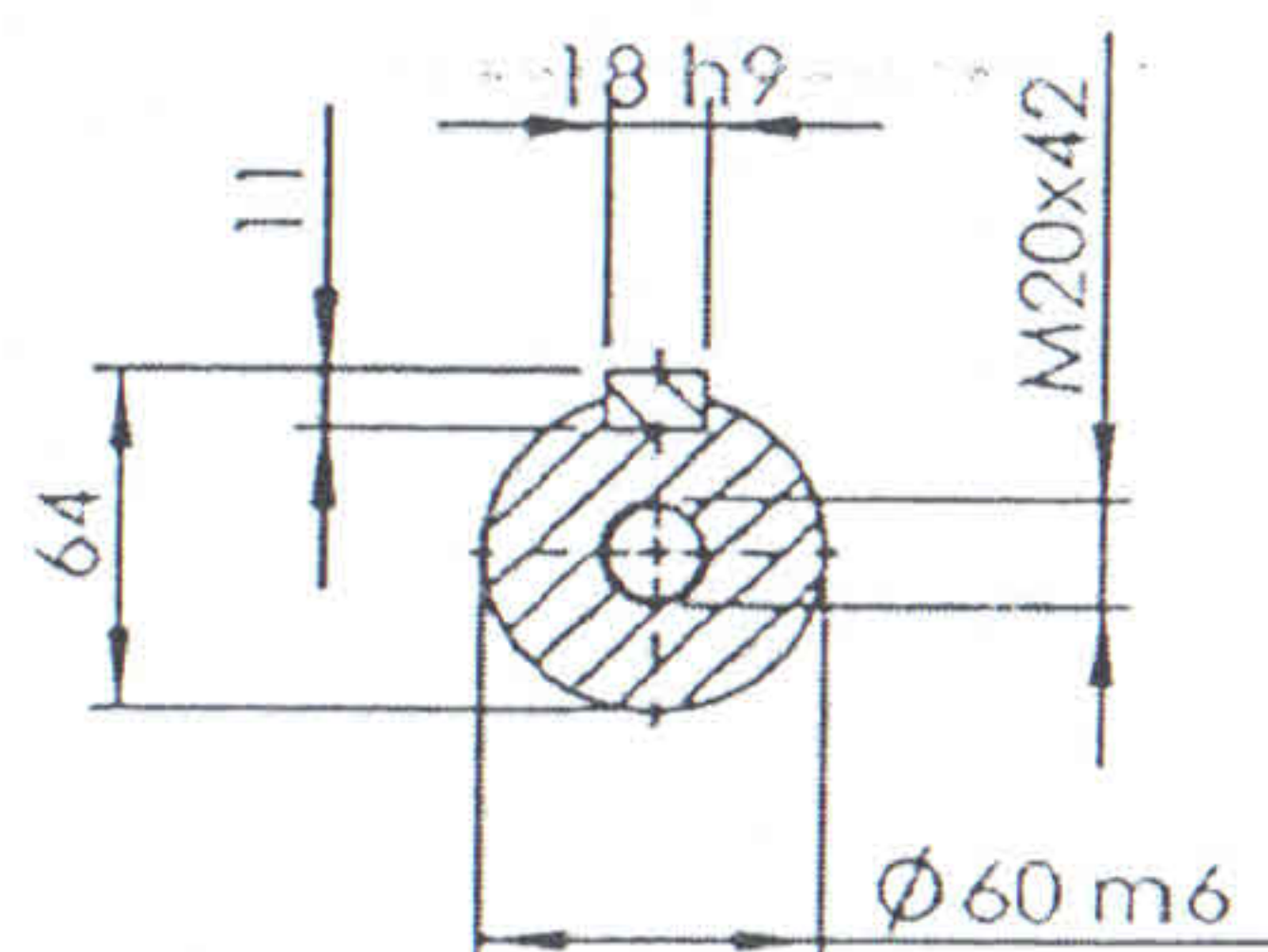
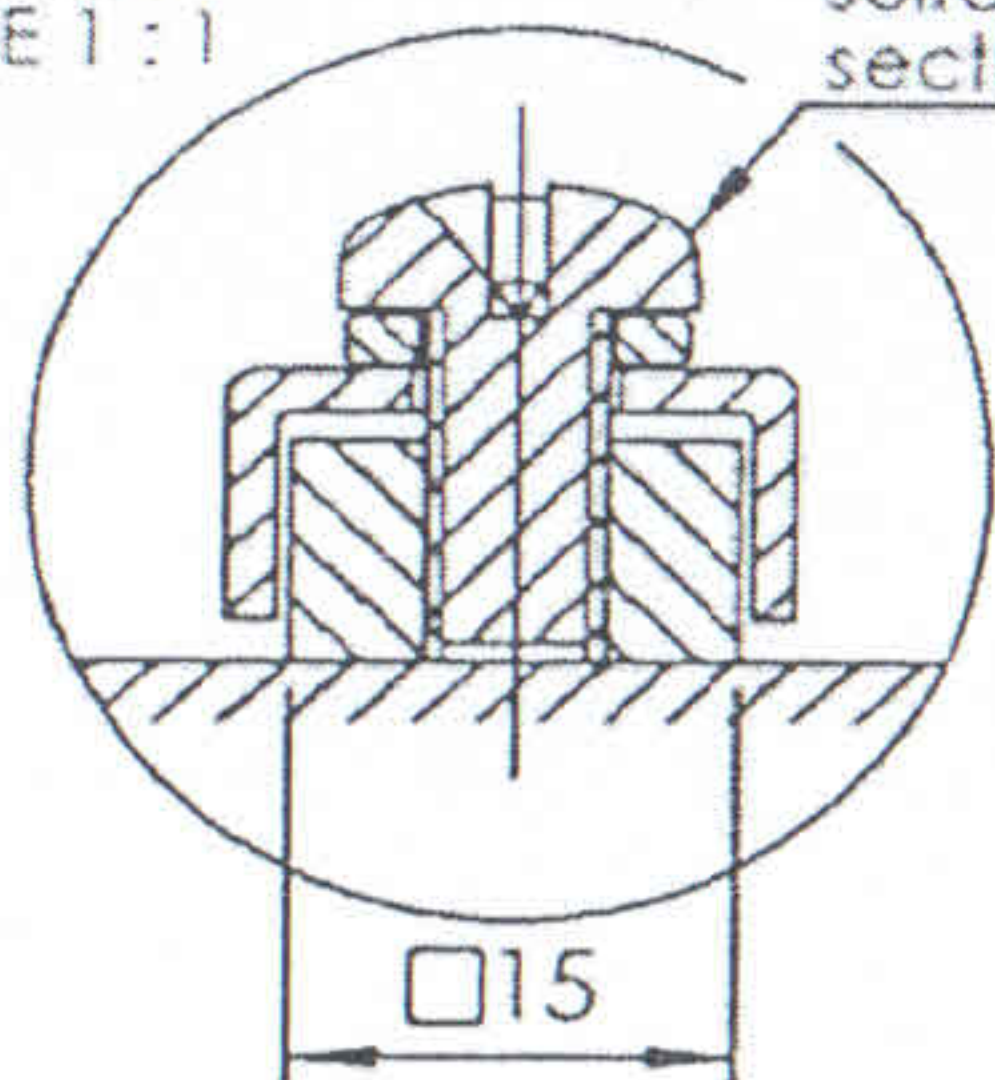
## DATI FUNZIONALI E COSTRUTTIVI - PERFORMANCE AND CONSTRUCTION DATA

1	Quantità / Quantity	08		
2	Motore tipo / Motor type	AB70 225M 4		
3	Numero di serie / Serial Number	130564600 1-08		
4	Forma costruttiva / Shape	V6		
5	Certificato / Certificate	CESI	06ATEX074X	
6	Altro certificato / Other certificate			
Dati nominali / Rated data				
7	Poli / Pole	n°	4	
8	Potenza nominale / Rated power	kW	37,00	
9	Corrente nominale / Rated current	A	70,78	
10	Velocità nominale / Full Load speed	1/min	1484	
11	Collegamento / Winding connection	D		
12	Isolamento / Insulation class	F		
13	Sovratemperatura / Temperature rise	80K		
14	Raffreddamento / Cooling type	IC411		
15	Fattore di servizio / Service factor	1		
16				
17				
Performances elettriche / Electrical performances				
Carico / Load		4/4	3/4	2/4
18	Giri / Speed	1/min	1484	1488
19	Corr. / Curr.	A	70,78	55,84
20	Rend / Eff	%	92,3	91,7
21	cos φ	-	0,82	0,78
Performances all'avviamento / Starting performances				
22	Ia/In - LRC/FLC	%	745	
23	Cosphi a rotore bloccato / LR power factor		0,44	
	Tempo a rotore bloccato / LRWT			
24	100% Un (A caldo / Warm)	sec	11	
25	(A freddo / Cold)	sec	32	
26	100% Un (A caldo / Warm)	sec	17	
Servizio / Duty				
40	Servizio / Duty type	-	S1-S9	
41	Intermittenza / Cyclic duration factor	-	-	
42	Avviamenti-ora / Starting-hour	-	-	
43	Tempo ciclo / Time	-	-	
Cuscinetti / Bearings				
44	Cuscinetto ant / DE bearing	-	6313 C3	
45	Cuscinetto post / NDE bearing	-	6313 C3/VL	
46	Carico radiale max / Max radial load in X1	N	4900	
47	Carico assiale max / Max axial load	N	1350	
48	Tipo grasso / Grease type	LGHP2 SKF or equivalent		
49	Intervallo lubrificazione / Lubrication	h	4500	
50	Quantità grasso / Quantity grease	gr	18	
Caratteristiche meccaniche / mechanical specification				
51	Massa / Mass	kg	380	
52	Momento d'inerzia / Moment of inertia	kgm2	0,4479	
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	73	
54	Vibrazioni / Vibration level	IEC 34-14	A	
55	Limite norma / Vibration limit	mm/sec	2,20	
56				
57				
58				
59				
60				
61				
62				
Dati entrata cavi - verniciatura / Cable entry and painting				
63	Entrata cavi / Cable entry	IEC 60423	2xM50+2xM20	
64	Ciclo verniciatura / Painting cycle		EPOXY	

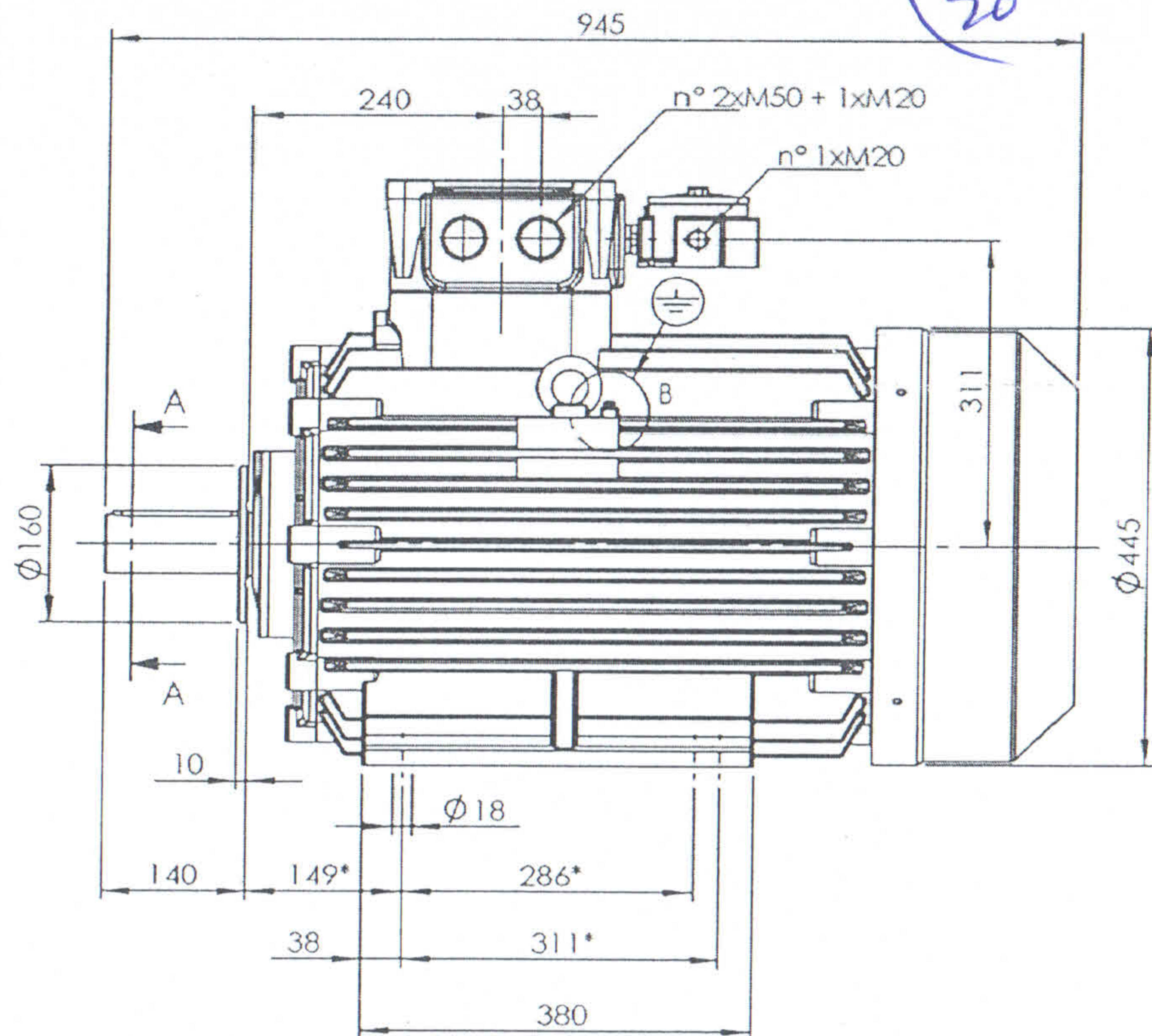
*For item # 2**12*



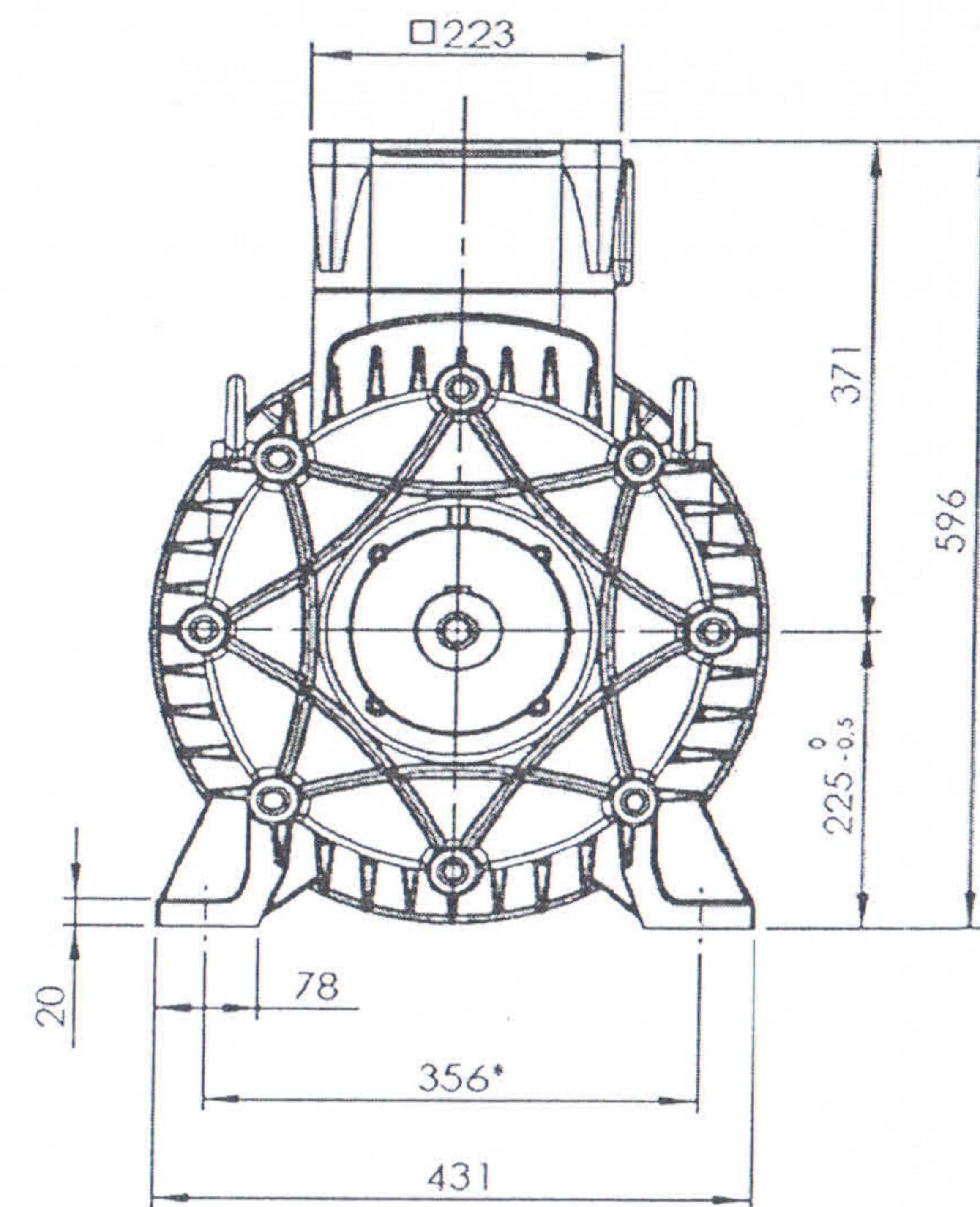
DETAIL B  
SCALE 1 : 1




SECTION A-A  
SCALE 1 : 5



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N.B.  
Dimensions in mm. according to IEC 60072  
Tolerances where not differently marked  $\pm 2$ mm.  
\* Tolerances  $\pm 0.8$

 Earth terminal: 1 in the terminal box, 1 on the frame.

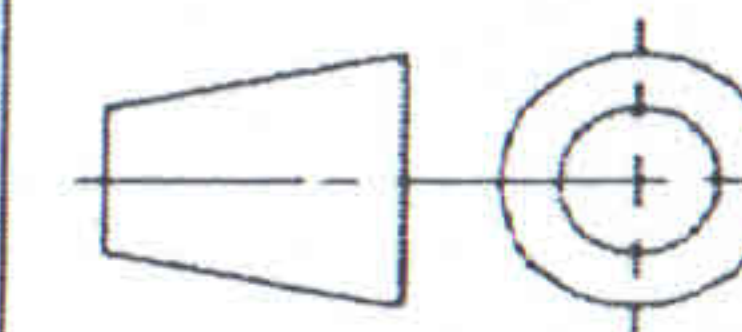
Customer reference and additional information:

**BOLDROCCHI S.R.L. - Purchase order n° : 02775**

**Serial Number : 1305646001-08**

**Acknowledgment : 2013.3676**

**ITEM : 300-C 103A/B/C/D, 310-C 103A/B/C/D**



Dimensions in mm  
Tolerances allowed

Frame size: **225**

Document N. **B3D048225021A02** - Date 01/07/2011

Issued by L.P. - Approved by D.P.

Cemp - Senago (Italy)

Rev.

0

Motor type and description

**AB70 225M 4 V6 - 400D/693YV50Hz - 37kW**

**Exd IIB T4 Gb IP55/65**

**cemp**

Flameproof  
Motors

**Net weight 380 kg**

*Handwritten mark*

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MOD-600



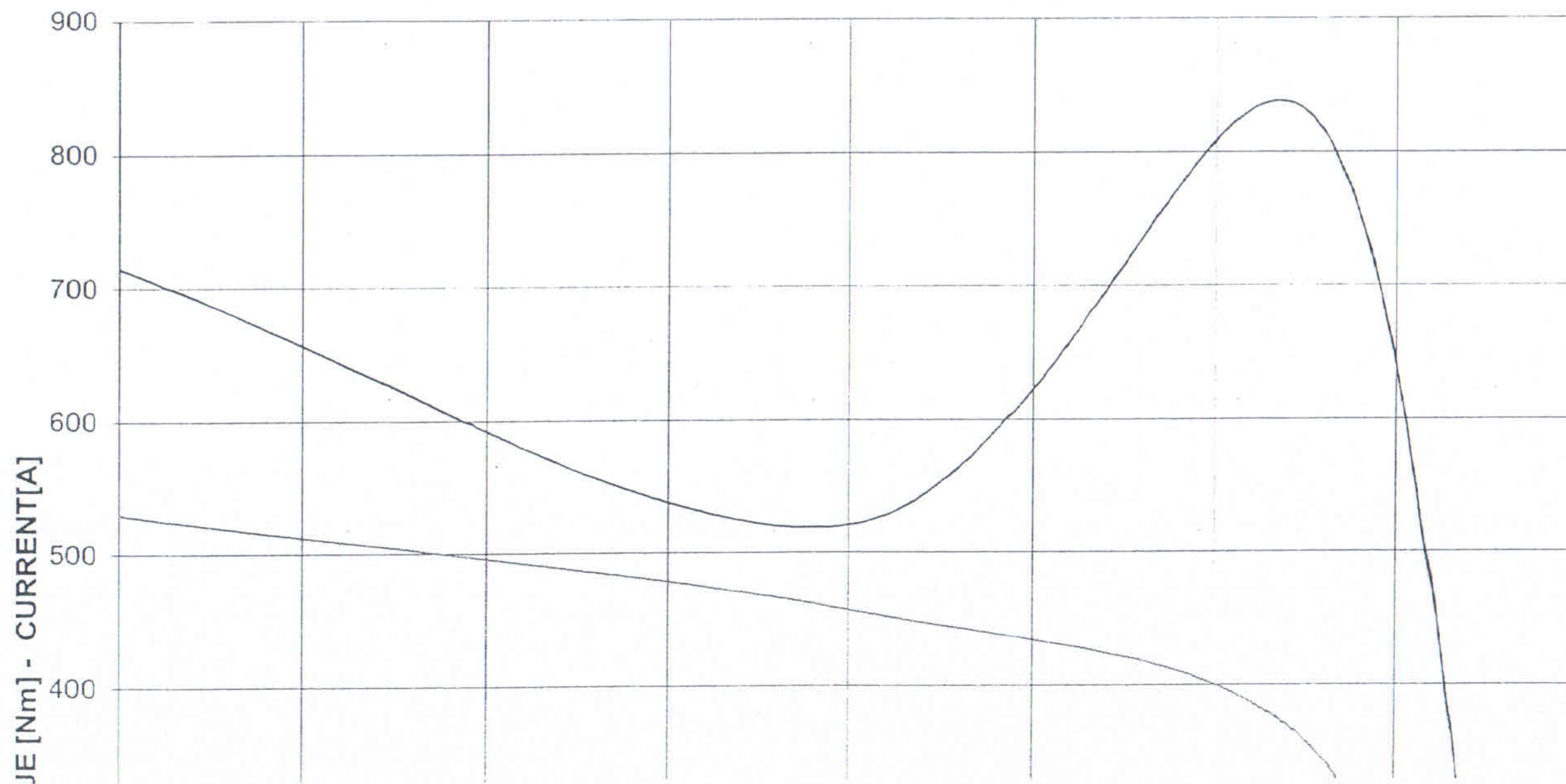
**CURVA COPPIA/CORRENTE-GIRI**  
**TORQUE/CURRENT-SPEED DIAGRAM**

Cliente / Customer: BOLDROCCHI S.R.L.  
Ordine cliente / Customer order: 02775  
Impianto / Plant: -  
ITEM: 300-C 103A/B/C/D, 310-C 103A/B/C/D

Conferma ordine / Acknowledgment: 2013.3676  
Numero di serie / Serial Number: 1305646001-08

**Motore / Motor: AB70 225M 4**  
Potenza nominale / Rated power: 37,00 kW  
Poli / Pole: 4  
Tensione - Frequenza / Voltage - Frequency: 400 - 50 V - Hz  
Corrente / Rated current: 70,78 A  
Velocità / Speed: 1484 rpm  
Coppia / Torque: 238,10 Nm

— COPPIA - TORQUE    — CORRENTE - CURRENT



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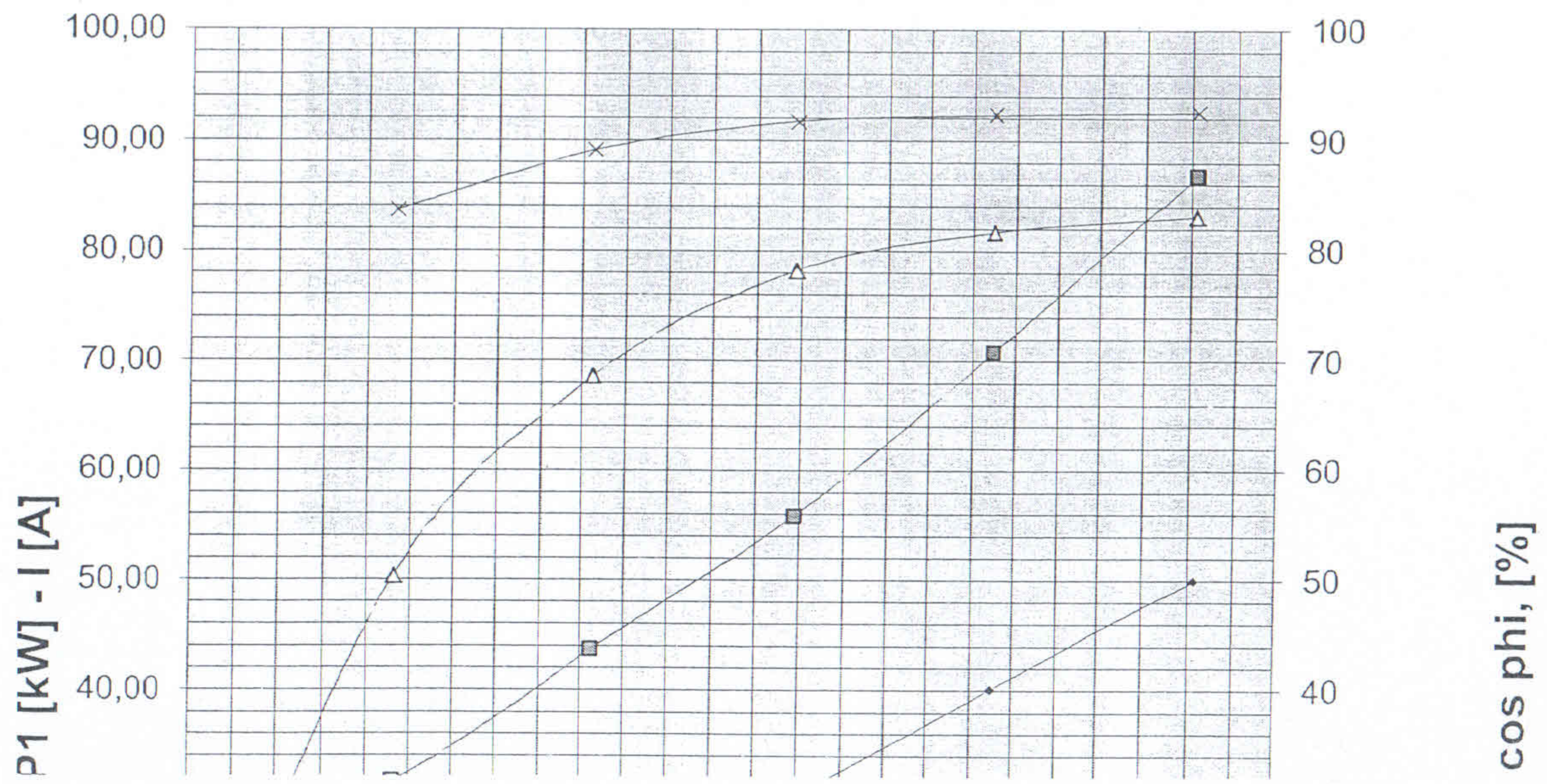
**CURVE CARATTERISTICHE**  
**PERFORMANCE CURVES**

Cliente / Customer **BOLDROCCHI S.R.L.**  
 Ordine cliente / Customer order **02775**  
 Impianto / Plant **-**  
**ITEM** **300-C 103A/B/C/D,310-C 103A/B/C/D**

Conferma ordine / Acknowledgment **2013.3676**  
 Numero di serie / Serial Number **1305646001-08**

**Motore / Motor** **AB70 225M 4**  
 Potenza nominale / Rated power **37,00** kW  
 Poli / Pole **4**  
 Tensione - Frequenza / Voltage - Frequency **400 - 50** V - Hz  
 Corrente / Rated current **70,78** A  
 Velocità / Speed **1484** rpm  
 Coppia / Torque **238,10** Nm

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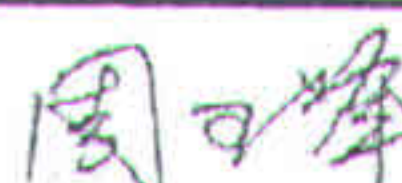
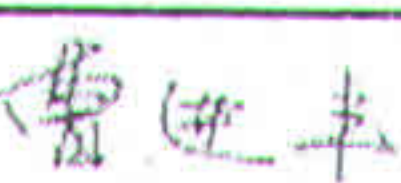


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 	<b>Gas Plant Facility Project</b> <b>Hot Oil Package</b>	BSS Job No.: BSS131041024	  BSS (Beijing) Petro- Chemical Equipment Co., Ltd
	Electrical Equipment Technical Details and Performances Curves	Design Stage : Detailed Design	
Discipline: EL	Doc.No.:13024-EL-TAB-TH0205	Page : 1 of 5	

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**Electrical Equipment Technical Details**  
**and Performances Curves**  
**(Fan Motor)**

Rev.	Date	Description	Prepared	Checked	Reviewed
0	2016/3/7	As-built			

3



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22

ITEM #

3

FLAMEPROOF THREE PHASE INDUCTION MOTOR

TYPE YB3 200L4W 30 KW IP 55 50 HZ

400 V 53 A CONN. Δ 1480 r/min

COSφ 0.88 η 92.3 % INSUL.CL. 155 LW79 dB(A)

EX DIRECT FLAMEPROOF CERT GIEEX 10.514

Q/OEE 217-2009A 320 kg

NO: 14H-0236-03 2014.09

BRAND OF BEARING 6312/C3 6312/C3

GREASE QUANTITY 40 g 8000 h

BRAND OF GREASE 2 lithium-based grease

JIAMUSI ELECTRIC MACHINE CO., LTD, P.R CHINA

型号 YB3  
标准编号  
出品编号  
轴承牌号  
注油量  
润滑脂牌号  
佳木

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佳木斯电机股份有限公司  
JIAMUSI ELECTRIC MACHINE COMPANY LIMITED

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## 2 TECHNICAL QUOTATION

### 2.1 MOTOR DATA SHEET

Client	NINGBO FAN CO., LTD
Client Ref.	Gas Plant Facility PJ
<b>General Information</b>	<b>DATA</b>
Motor Frame	YB3 200L-4WTH
Motor Type	Squirrel cage
Power (kW)	30
Voltage (kV)	0.4
Frequency	50 ± 2%
Ex Mark	ExdIICT4
Mechanical Protection	IP55 for motor enclosure/IP65 for main T/B
Cooling	IC411
Mounting	IMB3
Ambient Temperature (°C)	≤ 55
Altitude	≤ 1000m. a. s. l
Insulation Class	F
Temperature Rise	B
Service Duty	S1
Starting Method	D. O. L
Service Factor	1.0
Rotation Dirction	CW/CCW
Insulation	Outdoor
Final Color	TBA by customer
Ex Certificate	CNCCE (Chinese Ex certificate)
<b>Mechanical &amp; Accessories</b>	<b>DATA</b>
Bearing Type	Rolling Baering
Bearing Supplier	SKF or NSK
Bearing Mark DE	6312/C3
Bearing Mark NDE	6312/C3
Lubrication	Grease
Bearing Vibration Detector	Not Supply
Nr. Of Bearing Vibration Detector	N. A.
Stator Winding Temp. Detector	N. A.
Nr. Of Stator Winding Temp. Detecto	N. A.
Cable Glands	See details in drawings

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哈电集团  
HARBIN ELECTRIC CORPORATION

JIAMUSI ELECTRIC MACHINE COMPANY LIMITED

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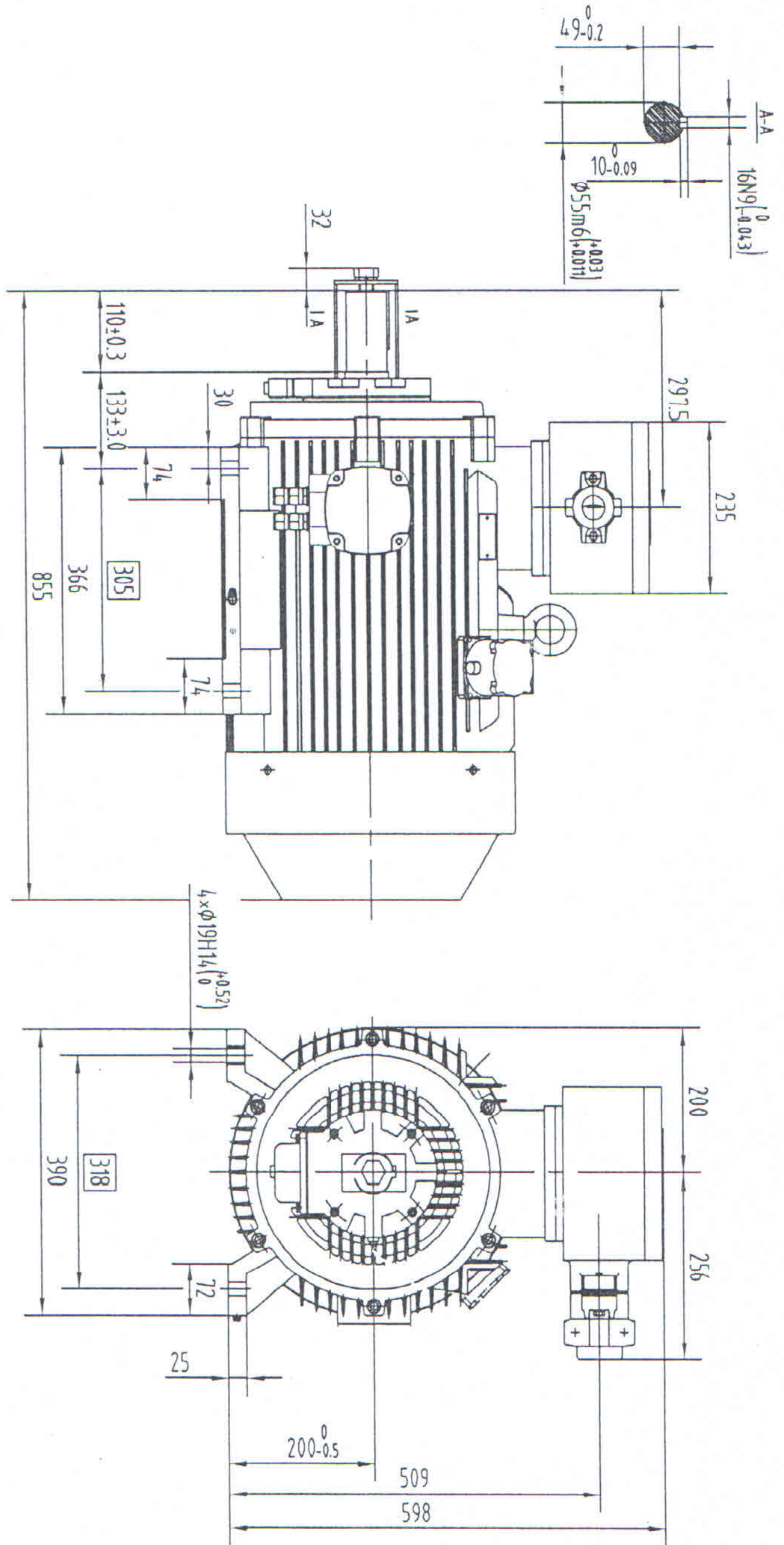
Gland Material	Nickel-plated copper
Motor jackscrews and shims	N. A.
Winding Alarm Temp. (°C)	N. A.
Winding Trip Temp. (°C)	N. A.
Bearing Temp. Detector	N. A.
Nr. Of Bearing Temp. Detector	N. A.
Bearing Alarm Temp. (°C)	N. A.
Bearing Trip Temp. (°C)	N. A.
Space Heater	50W
Type of terminal Box	Air insulated
Terminal Box Supplier	JEMLE
Terminal Box Position	Top right outlet
Static Load (kg)	94
Dynamic Load (kg)	108
Moment of Inertia (kgm <sup>2</sup> )	0.33
Total Weight (kg)	327
Appr. Packing Dimension L×W×H (m)	1060×650×770
<b>Electrical performance</b>	<b>DATA</b>
Rated Speed (rpm)	1488
Efficiency, 100%UN	93.2%
Power Factor, 100%UN	0.86
Rated Current, 100%UN(A)	54
Rated Torque(N. m)	192
Starting Current	720%
Starting Torque	220%
Maximum Torque	230%
Vibration Velocity (mm/s)	2.8%
Maximum Noise dBA(LP)	≤85dB(A) at no load at 1m
<b>Other</b>	
NOTE- The values marked with are guaranteed within the limits of tolerances specified in IEC60034-1	
Draft	xie zhenghui
Approve	wang dawei
Date	2014/2/8

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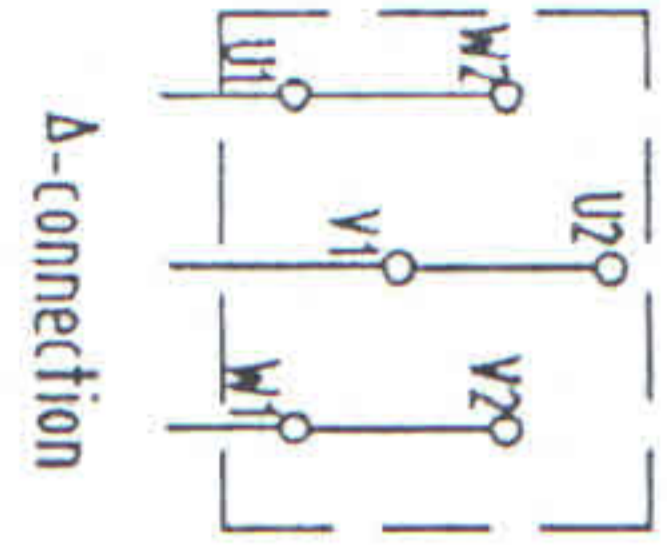


605L.00E.330

Technical Description



Connection drawing for main power supply of motor



Dimensions of rubber sealing rings inner diameter of Terminal box for main power supply

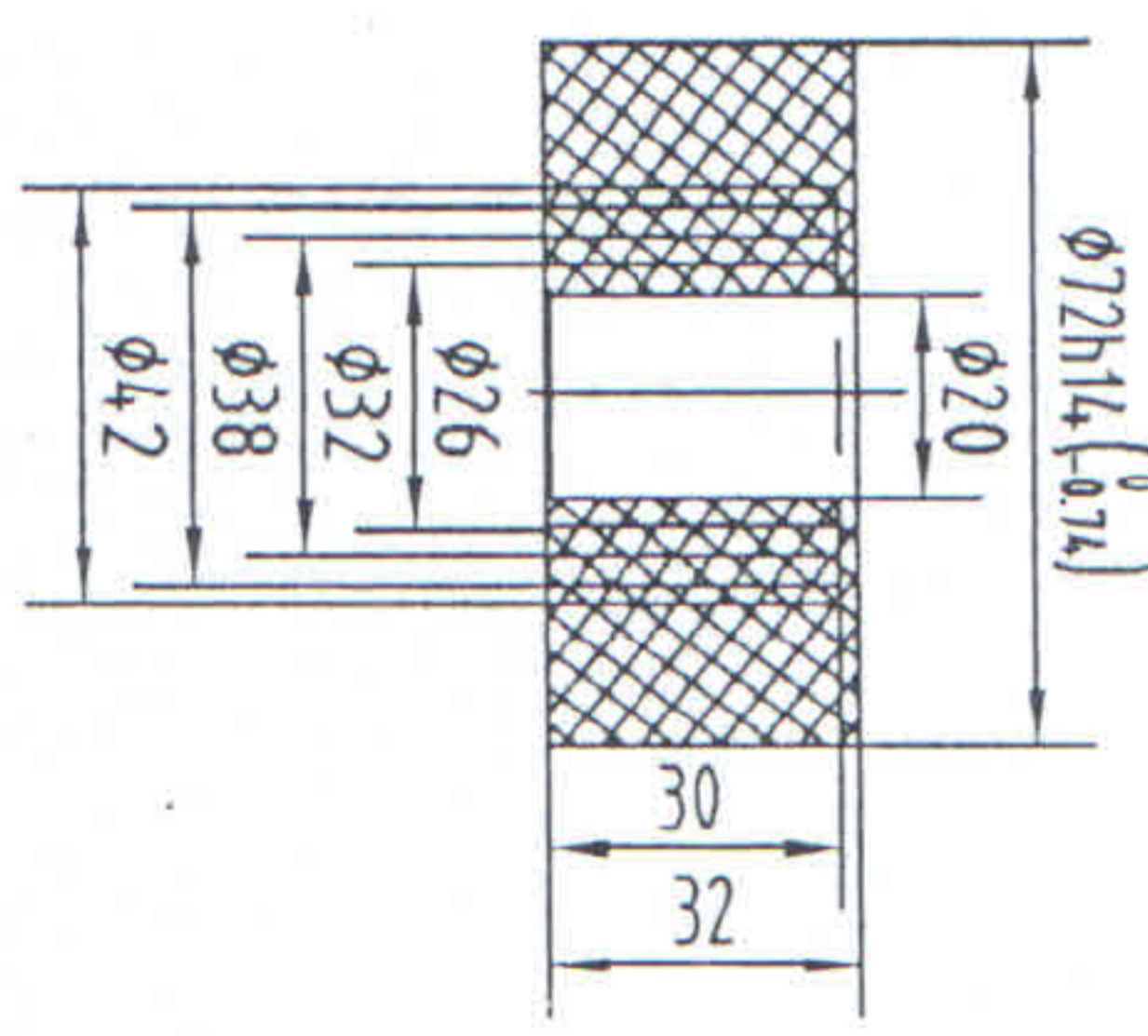


Table of motor performance parameters

Rated current A (400V)	54	Synchronous speed r/min	1500	Eff. %	93.2	Power factor (0.5φ)	0.86	Locked rotor torque Rated torque	2.2	Locked rotor current Rated current	7.2	Max. Torque Rated torque	2.3	Dynamic load kN	±1.08	Static load kN	0.94	motor load Moment of inertia (kg.m <sup>2</sup> )	0.33	Permissible load Moment of inertia (kg.m <sup>2</sup> )	12.44	YB3 200L-4 30kW	Motor type
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- Features of product
1. Rated voltage: 400V
  2. Rated frequency: 50Hz
  3. Mounting arrangement: IMB3
  4. Method of cooling: IC411
  5. Degree of protection: IP55
  6. Insulation class: F
  7. Duty type: S1
  8. Connection: Δ-connection
  9. Vibration severity: <1.8mm/s
  10. Sound power level (SPL): 111. Degree of explosion-proof: Exd IIC4
- Bearings and lubrication
- The motor is provided with rolling bearing, with filling and draining oil devices
1. Type of bearing: DE 6312/C3 NDE 6312/C3
  2. Brand of grease: MO3 lithium-based grease
  3. Method of lubrication: grease lubrication
- Position & number of Terminal box and dimensions of cable entry
1. The terminal box of main power supply for motor is on the top of motor.
  2. Terminal box of main power supply for heater is normally provided with the thread entry box. dimension of entry hole is M4.8X2, dimensions of rubber seal rings at cable entry are shown in drawing, and can be suitable for entry of the cable with different diameters.
- Explosion protection requirements
- Ex. Explosion protection requirements
1. The motors comply with <<GB3836.1-2000, Electrical apparatus for explosive gas atmospheres - part 1: General requirements>>.
  2. The motors comply with <<GB3836.2-2000, Electrical apparatus for explosive gas atmospheres - part 2: Flame-proof, Type "d">>.
- Matters needing attention
1. The direction of rotation of the motor can be CW or C.C.W. viewed from the shaft extension end, but is not allowed (Unless specially stated).
  2. The motor is fitted with shaft-extension key, specification of which is B5x10x80.
  3. Designation strip for earthing of the motor and H8 earthing bolt are normally situated on the right side of motor (viewed from DE).
  4. The motor is not subjected to the additional axial thrust, and not subjected to any radial force other than a radial force caused by coupling.
  5. For dynamic & static load values on each foot holes, see Table (Table 4) feet notes).
  6. Before mounting and operation of motor, operation instruction of motor must be read through to avoid unnecessary trouble.
  7. When connecting, carry out according to connection diagram.
  8. Before mounting and operation of motor, operation instruction of motor must be read through to avoid unnecessary troubles.

YB3 200L-4 30kW  
Flameproof Three Phase Induction Motor  
Overall and mounting dimensions drawing

0EE.300.7509

设计	审核	工艺	批准
设计	审核	工艺	批准
设计	审核	工艺	批准
设计	审核	工艺	批准

YB3 200L-4 30kW	图样标记	重量	比例
JIAMSI ELECTRIC MACHINE CO., LTD	共	张	314
佳木斯电机股份有限公司	共	张	1:8

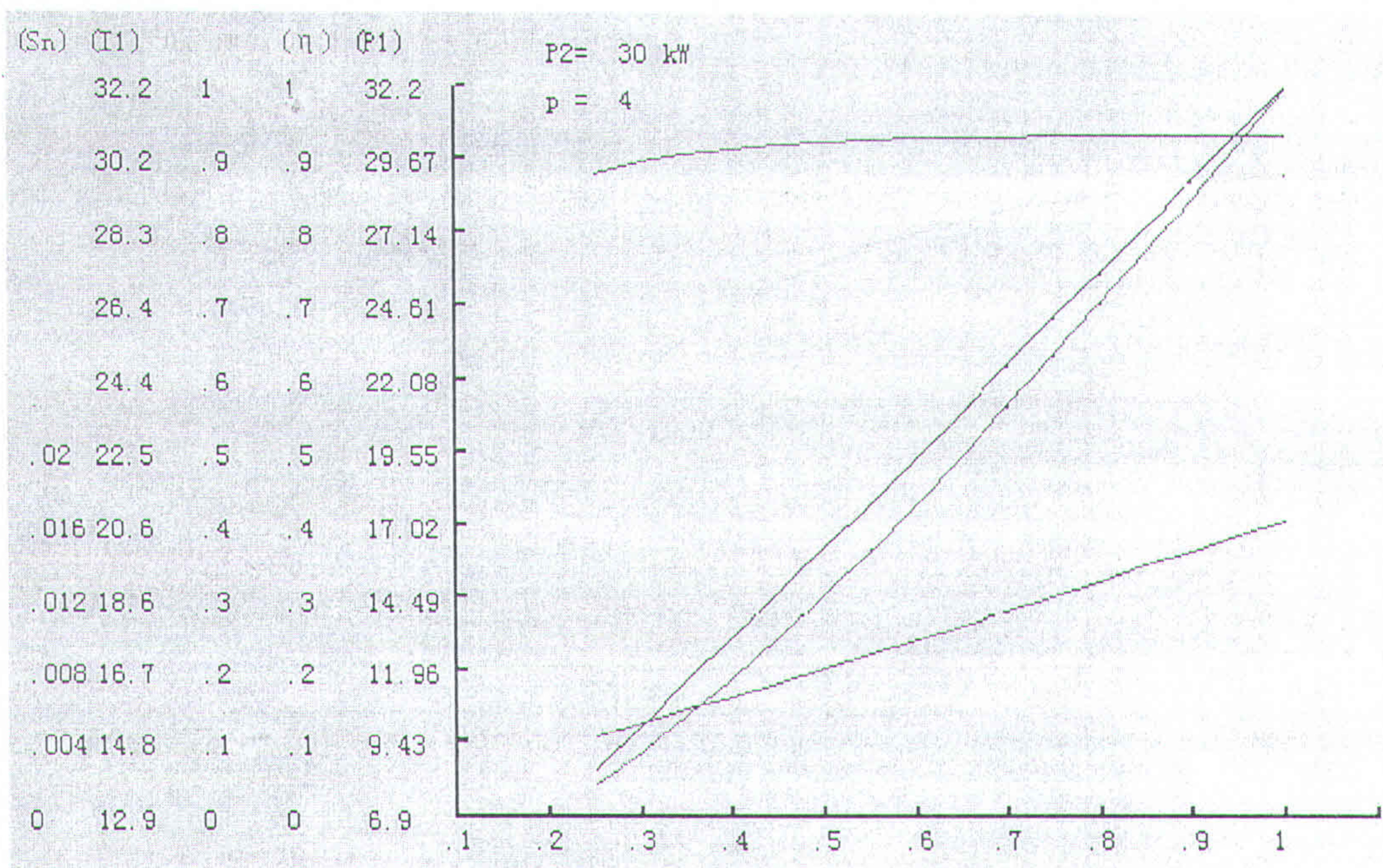
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### YB3 200L-4 30kW 400V 50Hz Performance Curve



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