

PRODUCT INFORMATION PACKET

Model No: E3AB3004351B50D41100

Catalog No: E3AB3004351B50D41100

Made in Italy E3AB30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 250,00kW,
3 phase, 1491 RPM, D400/Y690V 50Hz, 355M Frame B5, 4 Poles, IC411



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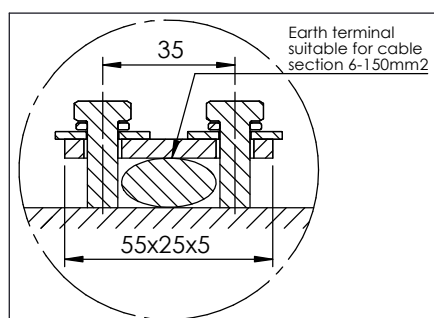
Nameplate Specifications

Output HP	335 Hp	Output KW	250.0 kW
Frequency	50 Hz	Voltage	400/690 V
Current	424.0 A	Speed	1491 rpm
Service Factor	1	Phase	3
Efficiency	96 %	Power Factor	0.89
Duty	S1	Insulation Class	F
Frame	355M	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	40 °C	Drive End Bearing Size	6322
Opp Drive End Bearing Size	6316	UL	No
CSA	No	CE	Yes
IP Code	IP55	Number of Speeds	1

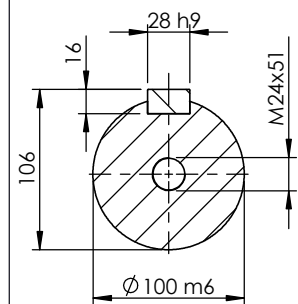
Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	4	Rotation	Bi-Directional
Mounting	B5	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	1844.00 mm	Frame Length	935.00 mm
Shaft Diameter	100.000 mm	Shaft Extension	210 mm
Assembly/Box Mounting	Top		
Outline Drawing	B5A048355021B01	Connection Drawing	SC-01-T-1v-1a

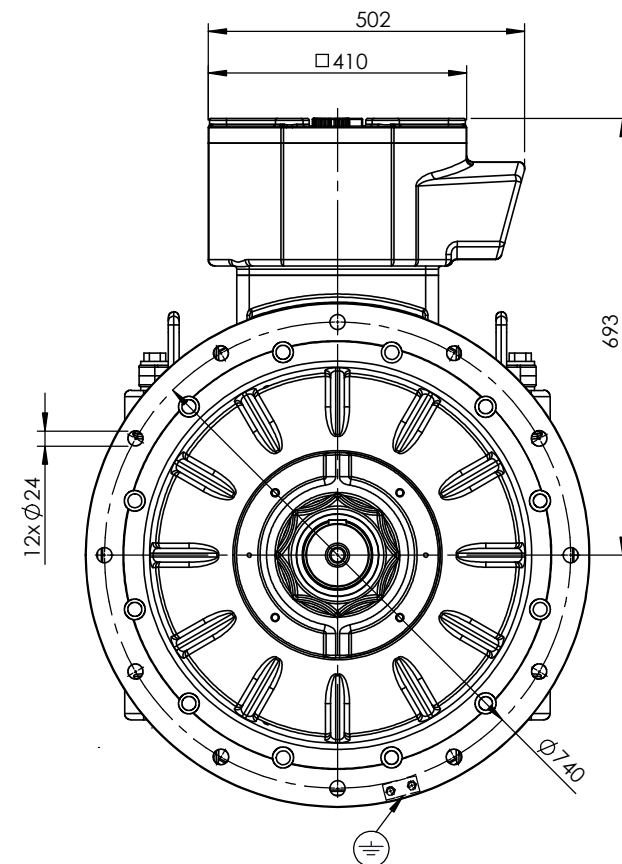
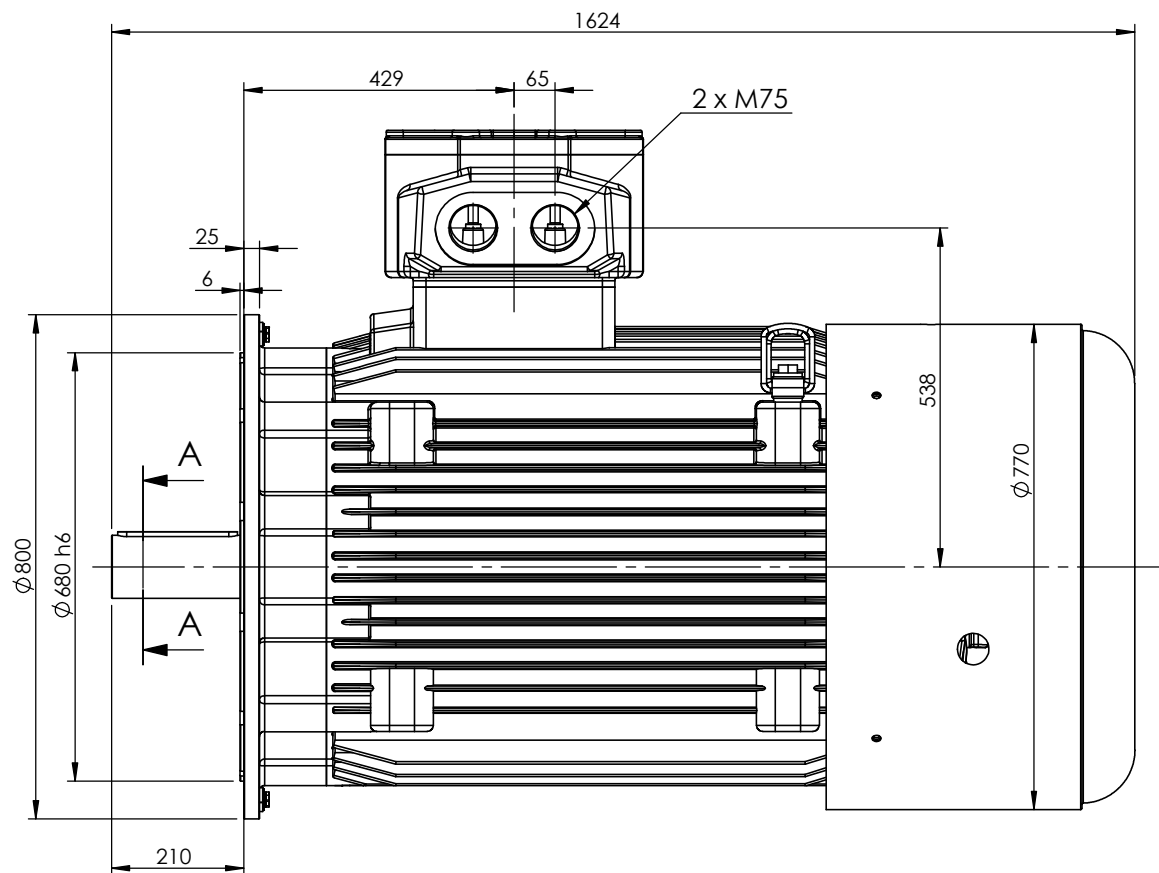
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DETAIL B
SCALE 1 : 1



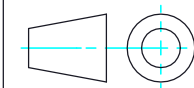
SECTION A-A
SCALA 1 : 5



Earth terminal: 1 in the terminal box, 2 on the Flange

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

Customer reference and additional information:



Dimensions in mm
Tolerances allowed

Frame size: **A 355 S-M 4-8 Poles**

Document N. **B5A048355021B01** - Date 18/02/2016

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

Cemp - Senago (Italy)

Rev.

0

Motor type and description

cemp
Flameproof
Motors

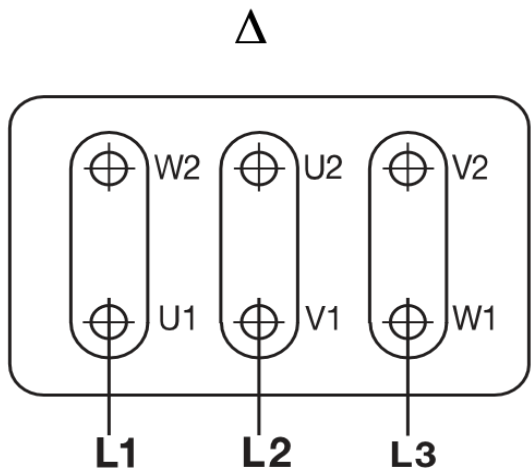
Schema di collegamento - *Connection diagram*
Schemas de branchement - *Schaltplan*
Esquemas de conexión



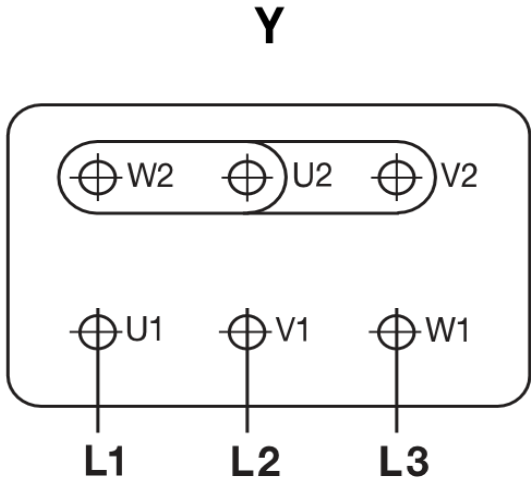
DTE 01/01/2004
SC - 01 - T - 1v.doc

**Motori trifase una velocità - *Single speed, three phase motors* - Moteurs triphasé une vitesse
Drehstrommotor Eine Drehzahlstufe - Motores trifásico una velocidad**

Collegamento - *Connection* - Connexion - *Schaltung* - Conexión



Collegamento - *Connection* - Connexion - *Schaltung* - Conexión



L1 - L2 - L3 = Linea - *Supply* - Reseau - *Netz* - Red

Per invertire la rotazione invertire due fasi - *To change the rotation reverse two phases* - Pour changer le sens de rotation inverser deux phases - *Zur Drehrichtungsänderung zwei Phasen vertauschen* - Para invertir el sentido de rotación invertir dos fases

Marcatura Morsetti Ausiliari - <i>Additional terminals marking (IEC60034-8)</i>		
Marcatura <i>Marking</i>	No. morsetti <i>terminals</i>	Morsetto ausiliare per: <i>Additional terminal for:</i>
TP1A - TP2A (allarme- <i>warning</i>)	2	Termistori PTC (alta velocità) - <i>Thermistor PTC (high speed)</i> [*]
TP1B - TP2B (allarme- <i>warning</i>)	2	Termistori PTC (bassa velocità) - <i>Thermistor PTC (low speed)</i> [*]
R1 - R2 - R3 (I sensore - <i>sensor</i>)	3	Termistore PT100 3 fili - <i>Thermistor PT 100 with 3 wires</i>
R4 - R5 - R6 (II sensore - <i>sensor</i>)	3	
R7 - R8 - R9 (III sensore - <i>sensor</i>)	3	
R11 - R12 - R13 (anteriore - <i>DE</i>)	3	Termistore PT100 su cuscinetto - <i>Thermistor PT 100 on bearing</i>
R21 - R22 - R23 (posteriore - <i>NDE</i>)	3	
TB1 - TB2 (allarme- <i>warning</i>)	2	Protettore bimetallico normalmente chiuso - <i>Normally closed bi-metallic switch</i> (**)
TB3 - TB4 (intervento- <i>switch off</i>)	2	Protettore bimetallico del freno normalmente chiuso - <i>NC brake bi-metallic switch</i> (**)
TB8 - TB9 (intervento- <i>switch off</i>)	2	
TM1 - TM2 (allarme- <i>warning</i>)	2	Protettore bimetallico normalmente aperto - <i>Normally open bi-metallic switch</i> (**)
TM3 - TM4 (intervento- <i>switch off</i>)	2	
HE1- HE2	2	Resistenze riscaldanti - <i>Space heaters</i>
U1 - U2	2	Ventilazione ausiliaria monofase - <i>Single phase forced ventilation</i>
U - V - W	2	Ventilazione ausiliaria trifase - <i>Three phase forced ventilation</i>
colori secondo schema del produttore - <i>colours according manufacturer</i>	9	Encoder
CA1 - CA2	2	Condensatore - <i>Capacitor</i>
PE	1	Conduttore di terra - <i>Earth cable</i>

[*] U nominale - *U rated* = 6V - max 30V

(**) U nominale - *U rated* = 250V

FOGLIO DATI PER MOTORI ELETTRICI ASINCRONI TRIFASI : SERIE IEC
DATA SHEET FOR ASYNCHRONOUS THREEPHASE INDUCTION MOTORS: IEC SERIES

Cliente / Customer	-
Ordine cliente / Customer order	-
Item	-

Conferma ordine / Acknowledgment	N° -
Impianto / Plant	-

DATI DI PROGETTO - DESIGN DATA

Modo di protezione	II2G	Motore / Frame
Type of protection		Scatola morsetti / Terminal box
Tem. Amb. Min. / Min Amb. Temp.	-20	°C
Umidità relativa / Relative humidity	90%	
Tensione nominale / Rated Voltage	400 V ± 5%	

Ex-db IIB T4 Gb	IP55
Ex-db IIB Gb	IP55
Tem. Amb. Max. / Max Amb. Temp.	40 °C
Altitudine / Altitude	< 1000 mslm / masl
Frequenza / Frequency	50 Hz ± 2%

DATI FUNZIONALI E COSTRUTTIVI - PERFORMANCE AND CONSTRUCTION DATA

1	Quantità / Quantity				01
2	Motore tipo / Motor type				AB30 355M 4
3	Numero di serie / Serial Number				-
4	Forma costruttiva / Shape				B5
5	Certificato / Certificate			TÜV IT	15 ATEX 040 X
6	Altro certificato / Other certificate				
Dati nominali / Rated data					
7	Poli / Pole			n°	4
8	Potenza nominale / Rated power			kW	250,00
9	Corrente nominale / Rated current			A	428,16
10	Velocità nominale / Full Load speed			1/min	1491
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	Classe di rendimento / Efficiency level			IEC 34-30	IE3
Performances elettriche / Electrical performances					
Carico / Load			4/4	3/4	2/4
18	Giri / Speed	1/min	1491	1494	1496
19	Corr. / Curr.	A	428,16	329,98	237,92
20	Rend / Eff	%	96,0	95,5	94,7
21	cos φ	-	0,88	0,86	0,80
Performances all'avviamento / Starting performances					
22	Ia/In - LRC/FLC			%	740
23	Cosphi a rotore bloccato / LR power factor				0,31
	Tempo a rotore bloccato / LRWT				
24	100% Un (A caldo / Warm)			sec	3
25	(A freddo / Cold)			sec	21
26	80% Un (A caldo / Warm)			sec	5
27	(A freddo / Cold)			sec	33
	Tempo di avviamento ammissibile / ART				
28	100% Un			sec	18
29	80% Un			sec	29
Curva di coppia / Speed-torque values					
30	Coppia nominale / Rated Torque			Nm	1601,27
31	Ca/Cn - LRT/FLT			%	220
32	Cmax/Cn - BDT/FLT			%	0
33					
34					
35					
Varie / Other					
36					
37					
38					
39					

Servizio / Duty			
40	Servizio / Duty type	-	S1
41	Intermittenza / Cyclic duration factor	-	-
42	Avviamenti-ora / Starting-hour	-	-
43	Tempo ciclo / Time		-
Cuscinetti / Bearings			
44	Cuscinetto ant / DE bearing	-	6322 C3
45	Cuscinetto post / NDE bearing	-	6316 C3
46	Carico radiale max / Max radial load in X1	N	-
47	Carico assiale max / Max axial load	N	-
48	Tipo grasso / Grease type	LGHP2 SKF or equivalent	
49	Intervallo lubrificazione / Lubrication	h	-
50	Quantità grasso / Quantity grease	gr	-
Caratteristiche meccaniche / mechanical specification			
51	Massa / Mass	kg	2120
52	Momento d'inerzia / Moment of inertia	kgm2	9,3060
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	82
54	Vibrazioni / Vibration level	IEC 34-14	A
55	Limite norma / Vibration limit	mm/sec	2,80
56			
57			
Dati entrata cavi - verniciatura / Cable entry and painting			
63	Entrata cavi / Cable entry		2xM75
64	Ciclo verniciatura / Painting cycle		STD
65	Colore finale / Final colour	RAL	5010
66			
67			
68			
69			
70			
71			
Ausiliari - Auxiliaries			
72	Sonde termiche / Temperature detector	winding	-
73	Sonde termiche / Temperature detector	bearing	-
74	Scaldiglie / Heaters	V / W	-
75	Preparation for SPM sensor		-
76	Pressacavi / Cable glands		NO
77			

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

Cliente / Customer CEMP

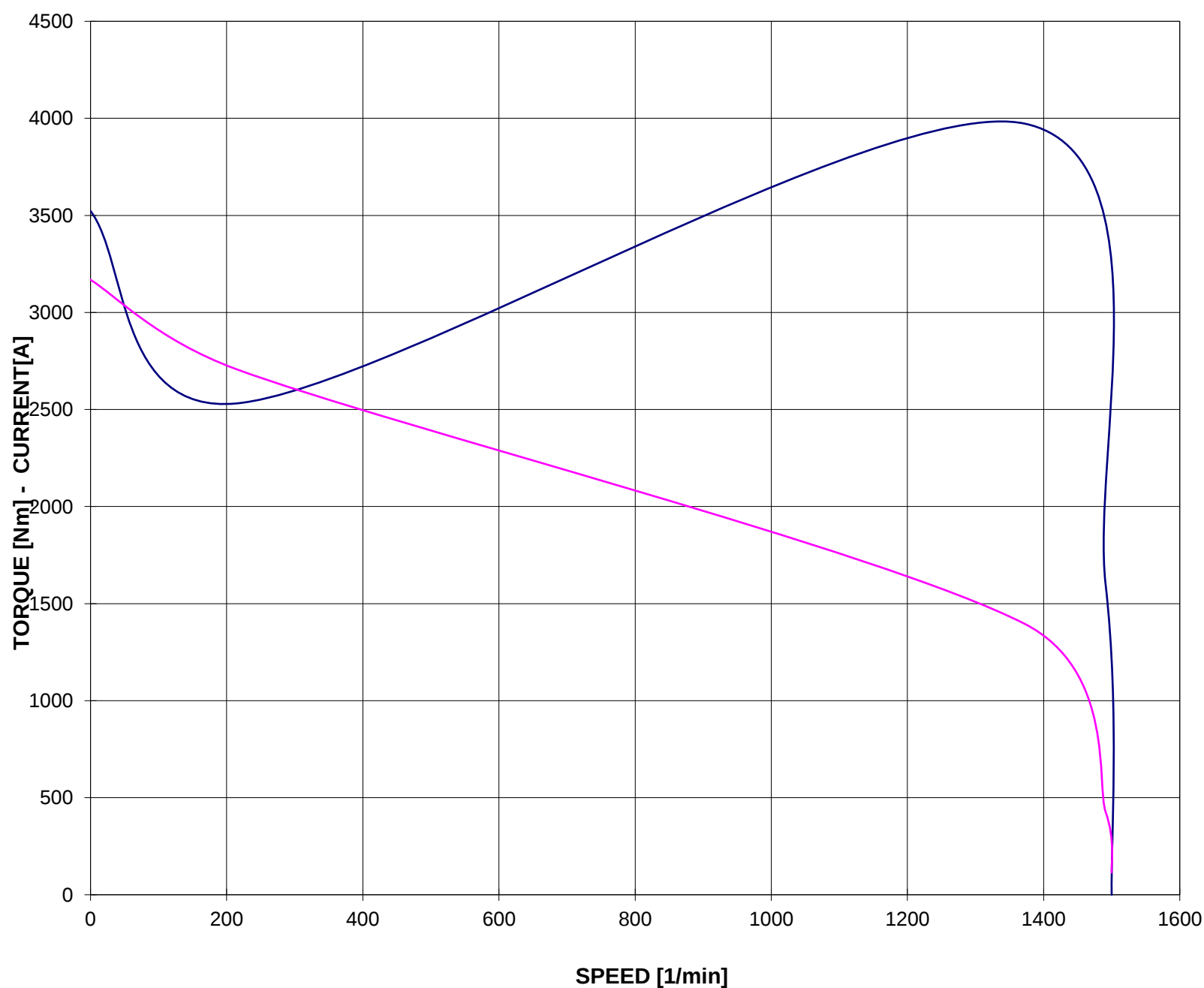
Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number 2021.
-

Motore / Motor AB30 355M 4

Potenza nominale / Rated power	250,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	428,16	A
Velocità / Speed	1491	rpm
Coppia / Torque	1601,27	Nm

— COPPIA - TORQUE — CORRENTE - CURRENT



Valori calcolati - Data obtained by calculation method

CURVA COPPIA/CORRENTE-GIRI (Tensione ridotta)
TORQUE/CURRENT-SPEED DIAGRAM (Reduced voltage)

Cliente / Customer CEMP

Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number 2021.
-

Motore / Motor AB30 355M 4

Potenza nominale / Rated power 250,00 kW

Poli / Pole 4

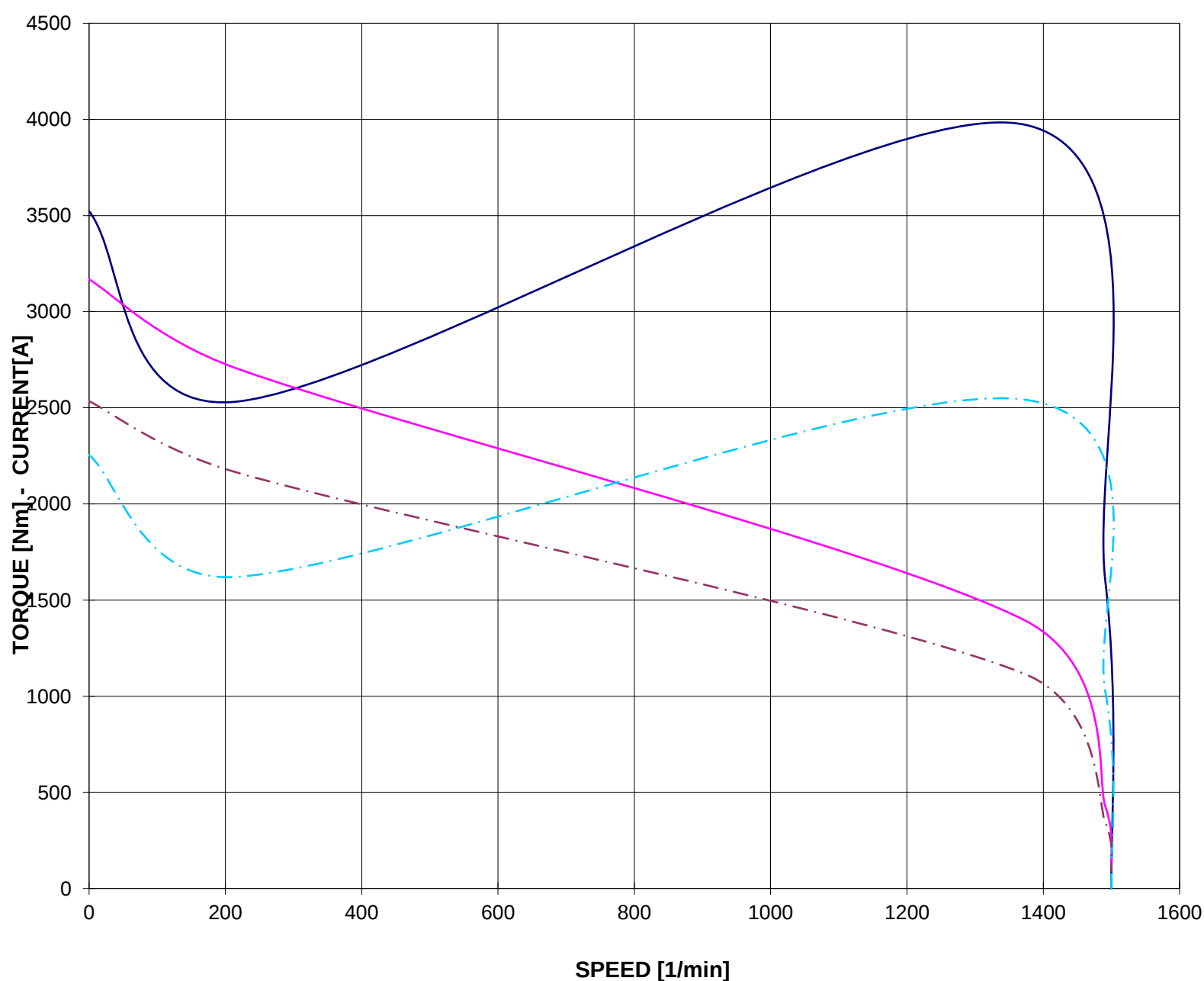
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz

Corrente / Rated current 428,16 A

Velocità / Speed 1491 rpm

Coppia / Torque 1601,27 Nm

— COPPIA - TORQUE — CORRENTE - CURRENT
- - - COPPIA - TORQUE 80% Un - - - CORRENTE - CURRENT 80% Un

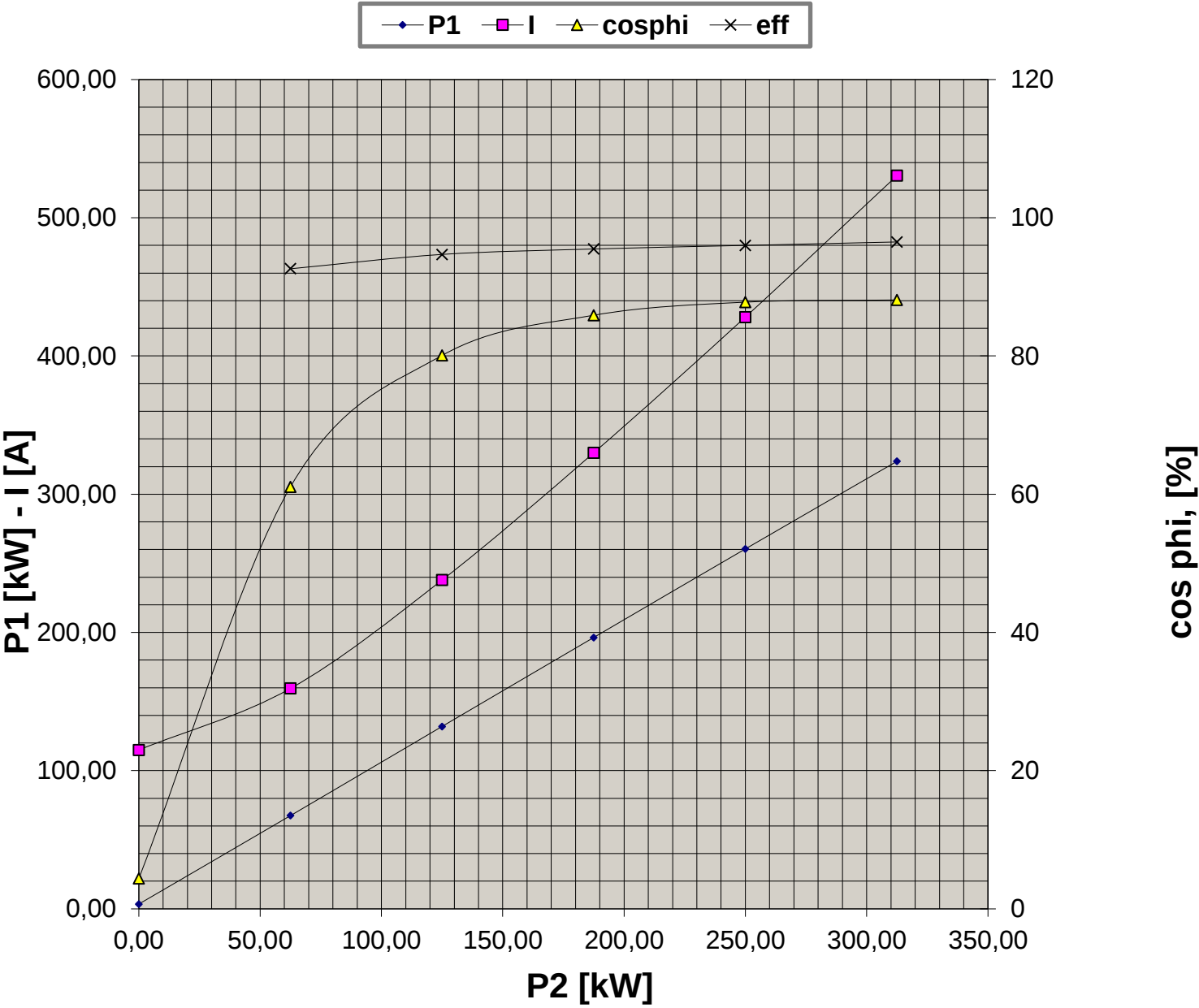


Valori calcolati - Data obtained by calculation method

CURVE CARATTERISTICHE
PERFORMANCE CURVES

Cliente / Customer	CEMP
Impianto / Plant	-
ITEM	-
Numero d'offerta / Offer Number	2021.
	-

Motore / Motor	AB30 355M 4	
Potenza nominale / Rated power	250,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	428,16	A
Velocità / Speed	1491	rpm
Coppia / Torque	1601,27	Nm



Valori calcolati - Data obtained by calculation method

CURVA LIMITE CORRENTE TEMPO
THERMAL WITHSTAND CURVE

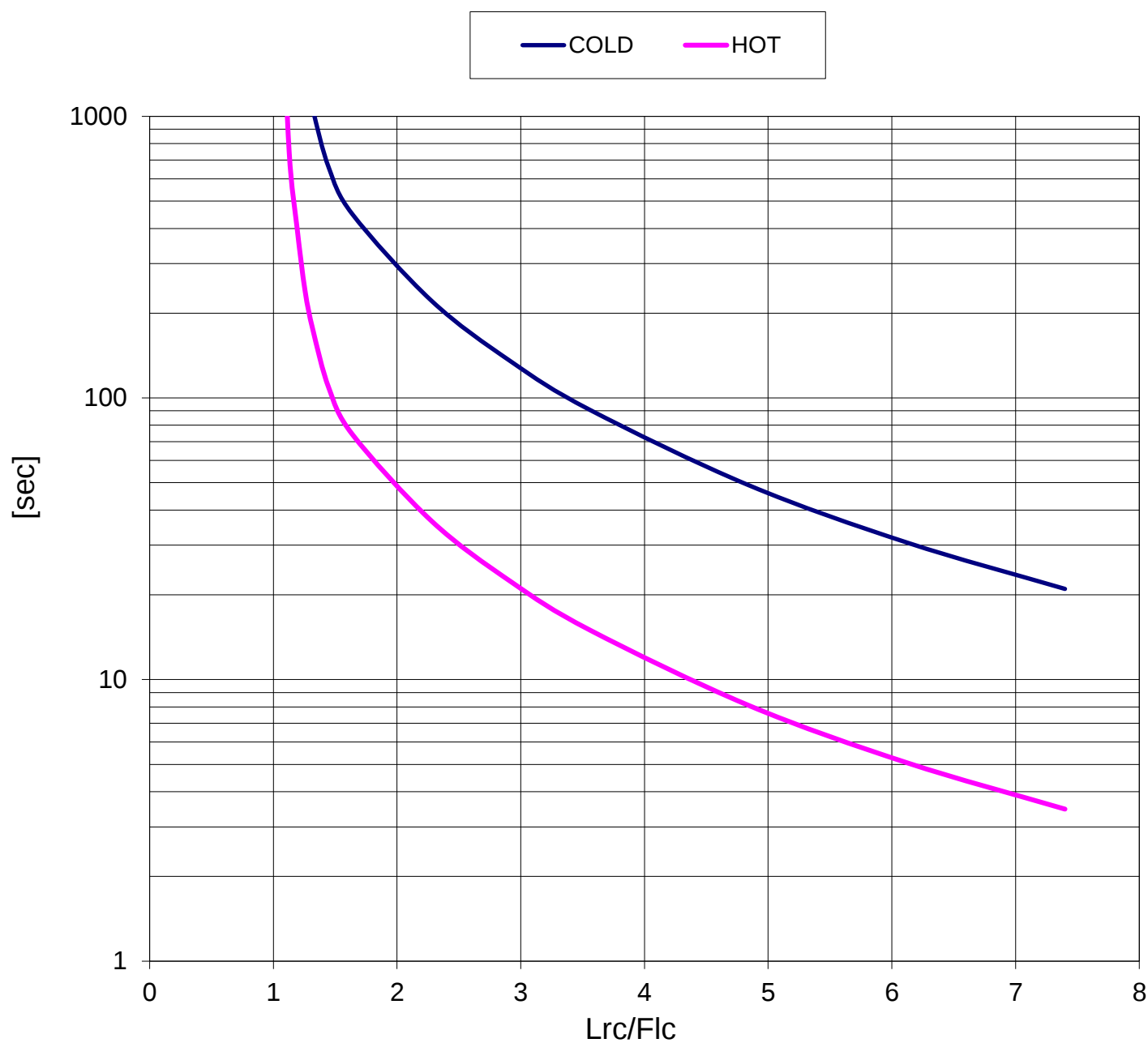
Cliente / Customer CEMP

Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number 2021.
-

Motore / Motor AB30 355M 4

Potenza nominale / Rated power	250,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	428,16	A
Velocità / Speed	1491	rpm
Coppia / Torque	1601,27	Nm



Valori calcolati - Data obtained by calculation method

CURVA LIMITE CORRENTE TEMPO (Tensione ridotta)
THERMAL WITHSTAND CURVE (Reduced voltage)

Cliente / Customer CEMP

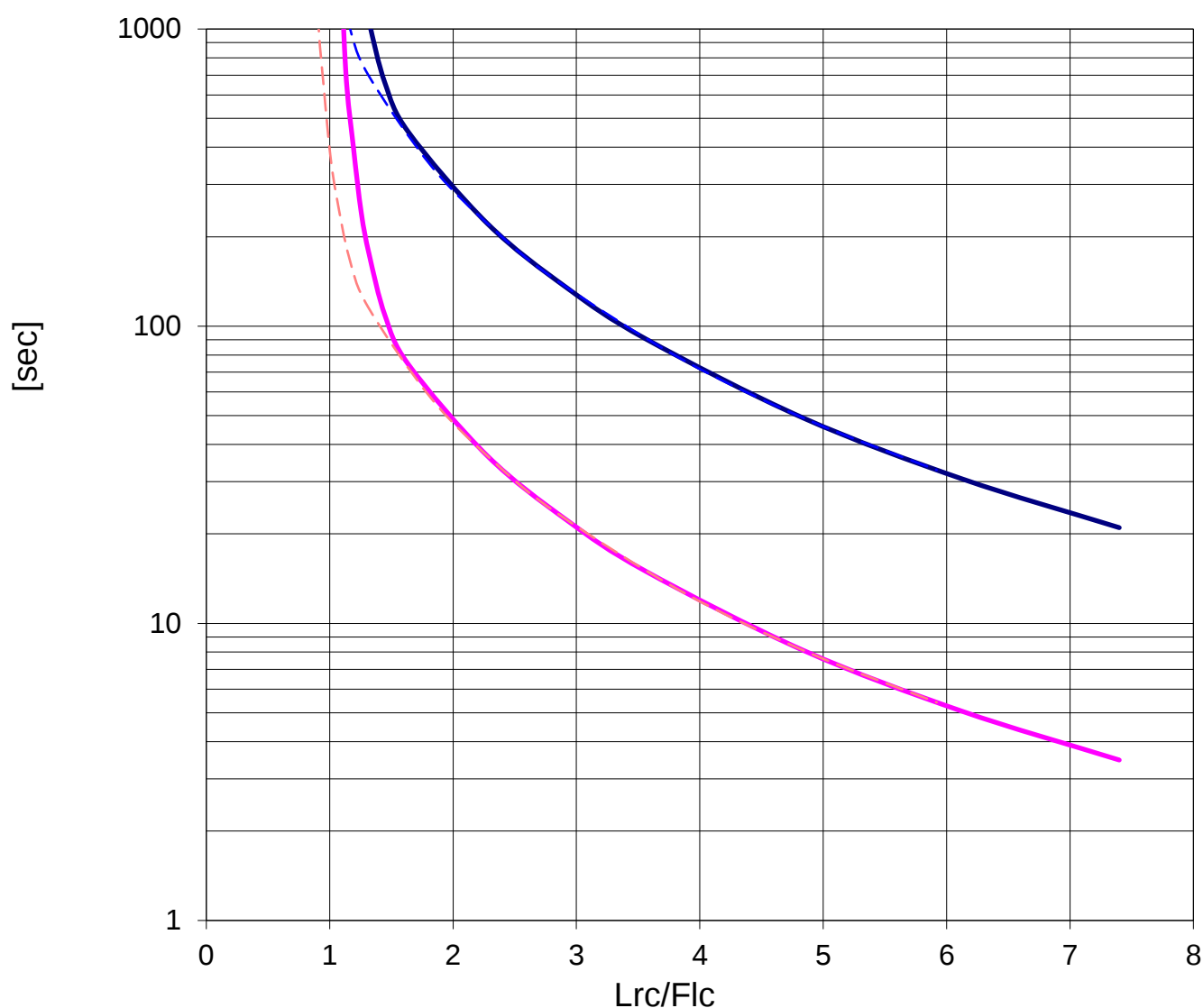
Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number 2021.
-

Motore / Motor AB30 355M 4

Potenza nominale / Rated power	250,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	428,16	A
Velocità / Speed	1491	rpm
Coppia / Torque	1601,27	Nm

— COLD (100% Un) — HOT (100% Un) - - COLD (80% Un) - - HOT (80% Un)



Valori calcolati - Data obtained by calculation method