

PRODUCT INFORMATION PACKET

Model No: E3AC3004163B50D41100

Catalog No: E3AC3004163B50D41100

Made in Italy E3AC30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 11,00kW,
3 phase, 1476 RPM, D400/Y690V 50Hz, 160MB Frame B5, 4 Poles, IC411



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Nameplate Specifications

Phase	3	Output HP	15 Hp
Output KW	11.0 kW	Voltage	400/690 V
Speed	1476 rpm	Service Factor	1
Frame	160MB	Enclosure	Totally Enclosed Fan Cooled
Efficiency	91.4 %	Ambient Temperature	40 °C
Frequency	50 Hz	Current	20.7 A
Power Factor	0.84	Duty	S1
Insulation Class	F	Drive End Bearing Size	6309
Opp Drive End Bearing Size	6309	UL	No
CSA	Yes	CE	Yes
IP Code	IP55	Number of Speeds	1

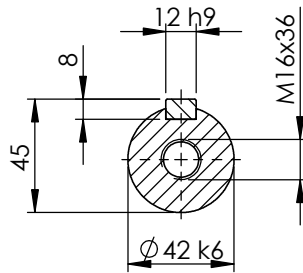
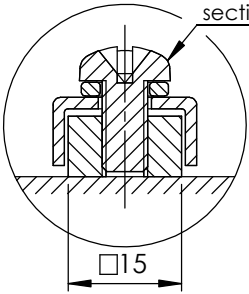
Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	4	Rotation	Bi-Directional
Mounting	B5	Motor Orientation	Horizontal
Drive End Bearing	Zz C3	Opp Drive End Bearing	Zz C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	853.00 mm	Frame Length	370.00 mm
Shaft Diameter	42.000 mm	Shaft Extension	110 mm
Assembly/Box Mounting	Top		
Outline Drawing	B5A04E8165001B01	Connection Drawing	SC-01-T-1v-1a

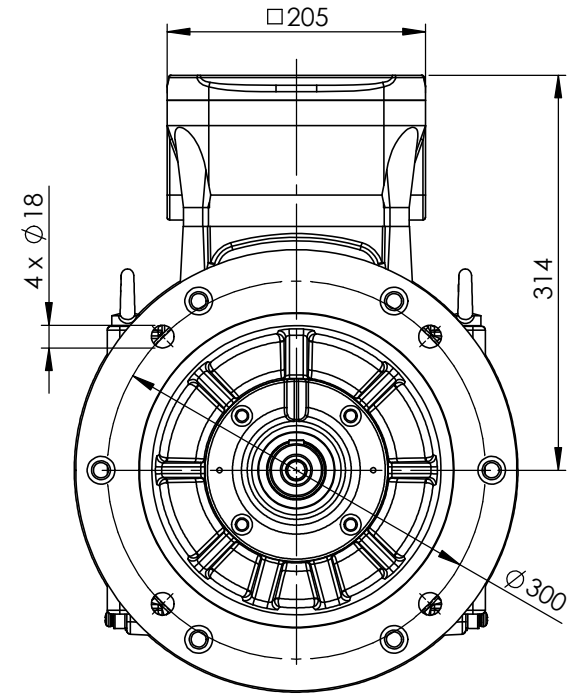
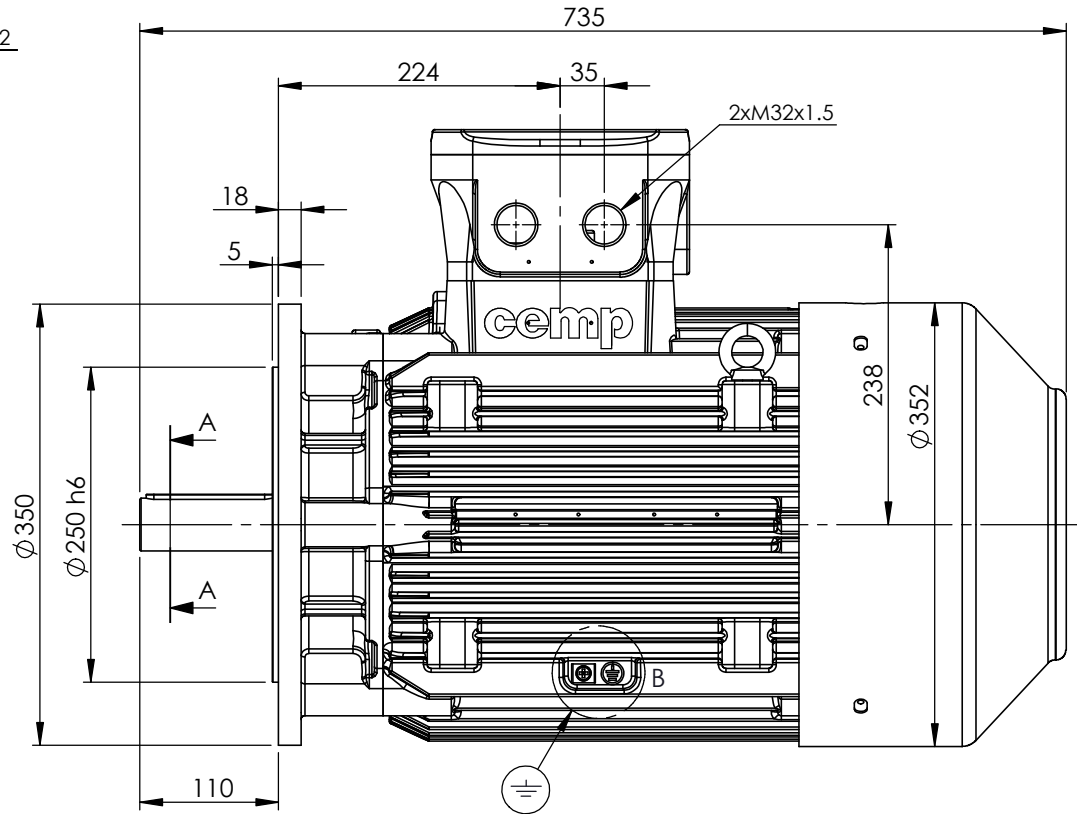
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DETAIL B
SCALE 1 : 1

Earth Terminal
suitable for cable
section 2.5-35mm²



SECTION A-A
SCALE 1 : 3



Earth terminal: 1 in the terminal box, 2 on the frame.

CUSTOMER REFERENCE AND ADDITIONAL INFORMATION:

MOTOR TYPE AND DESCRIPTION:

DRAWING REVISION	REVISION BY	DATE	TOLERANCES (EXCEPT AS NOTED) TOLERANCES: ±2 * TOLERANCES: ±0.8 DIMENSIONS ARE IN mm ACCORDING TO IEC 60072	DRAWN BY LP	REGAL™ cemp						
ECO	APPROVED BY	DATE		DATE 27/12/2016							
ECO DESCRIPTION				APPROVED BY DP	DESCRIPTION Motor A160 M/MB/MC (S) B5 IE3						
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			SERIAL NUMBER	REFERENCE	SIZE A4				DRAWING NUMBER B5A04E8165001B01		SHEET 1 OF 2
			FIRST ANGLE PROJECTION								

Schema di collegamento - *Connection diagram*
Schemas de branchement - *Schaltplän*
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 IIC T4 Gb	IP55
Ex-db IIC 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				E3AC30 160MB 4
3	Numero di serie / Serial Number				-
4	Forma costruttiva / Shape				B5
5	Certificato / Certificate			TÜV CY	17 ATEX 0205845 X
6	Altro certificato / Other certificate				
Dati nominali / Rated data					
7	Poli / Pole			n°	4
8	Potenza nominale / Rated power			kW	11,00
9	Corrente nominale / Rated current			A	20,66
10	Velocità nominale / Full Load speed			1/min	1476
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	1476	1484	1489
19	Corr. / Curr.	A	20,66	16,32	10,99
20	Rend / Eff	%	91,4	91,9	91,0
21	cos φ	-	0,84	0,79	0,79
Performances all'avviamento / Starting performances					
22	Ia/In - LRC/FLC			%	735
23	Cosphi a rotore bloccato / LR power factor				0,47
	Tempo a rotore bloccato / LRWT				
24	100% Un (A caldo / Warm)			sec	9
25	(A freddo / Cold)			sec	24
26	80% Un (A caldo / Warm)			sec	14
27	(A freddo / Cold)			sec	38
	Tempo di avviamento ammissibile / ART				
28	100% Un			sec	21
29	80% Un			sec	33
Curva di coppia / Speed-torque values					
30	Coppia nominale / Rated Torque			Nm	71,17
31	Ca/Cn - LRT/FLT			%	240
32	Cmax/Cn - BDT/FLT			%	320
33					
34					
35					
Varie / Other					
36					
37					
38					
39					

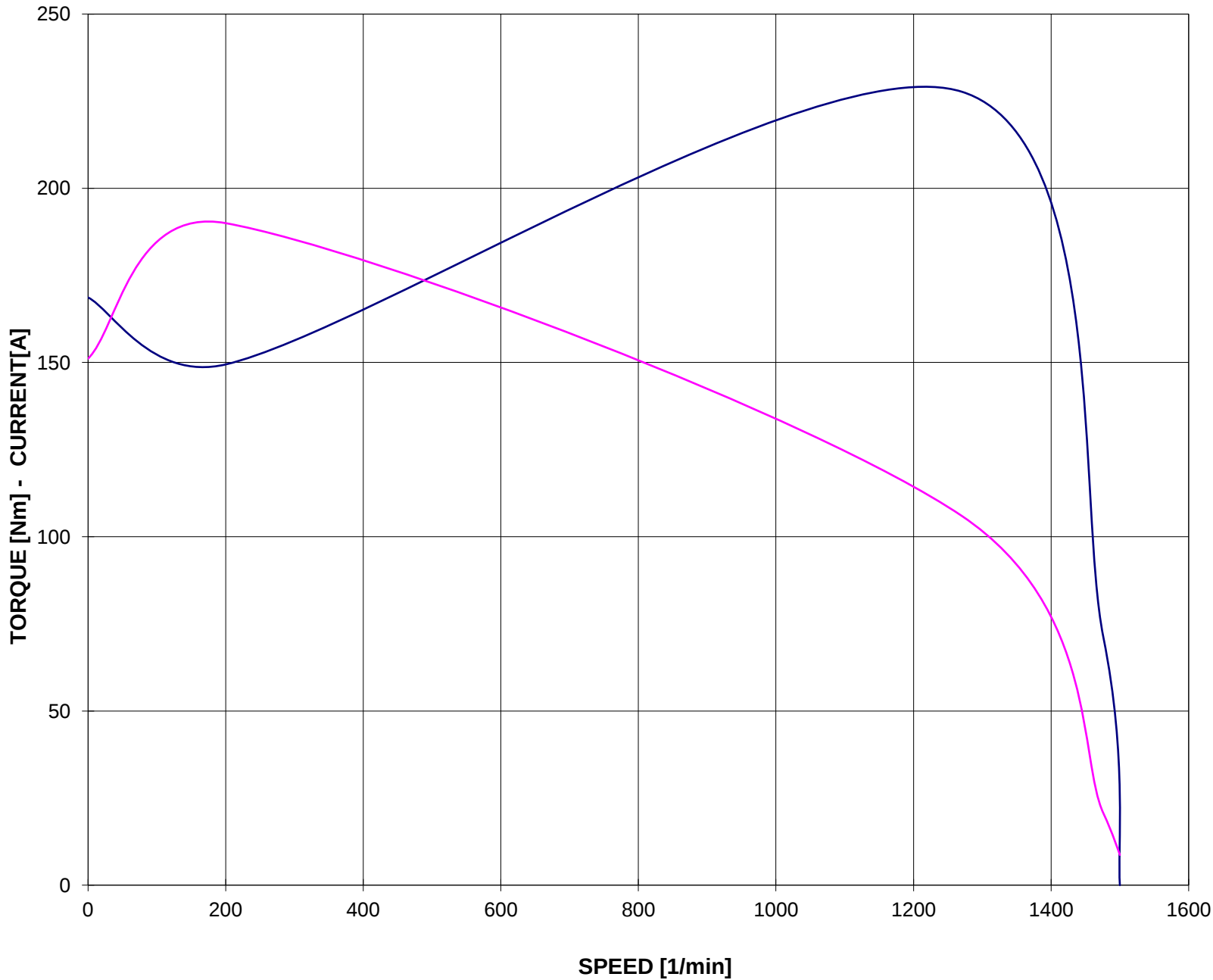
Servizio / Duty			
40	Servizio / Duty type	-	S1
41	Intermittenza / Cyclic duration factor	-	-
42	Avviamenti-ora / Starting-hour	-	-
43	Tempo ciclo / Time		-
Cuscinetti / Bearings			
44	Cuscinetto ant / DE bearing	-	6309 ZZ C3
45	Cuscinetto post / NDE bearing	-	6309 ZZ C3
46	Carico radiale max / Max radial load in X1	N	2450
47	Carico assiale max / Max axial load	N	750
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	216,1
52	Momento d'inerzia / Moment of inertia	kgm2	0,1080
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	66
54	Vibrazioni / Vibration level	IEC 34-14	A
55	Limite norma / Vibration limit	mm/sec	2,20
56			
57			
Dati entrata cavi - verniciatura / Cable entry and painting			
63	Entrata cavi / Cable entry		2xM32
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	-
Ordine cliente / Customer order	-
Impianto / Plant	-
ITEM	-
Conferma ordine / Acknowledgment	-
Numero di serie / Serial Number	-

Motore / Motor	E3AC30 160MB 4	
Potenza nominale / Rated power	11,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	20,66	A
Velocità / Speed	1476	rpm
Coppia / Torque	71,17	Nm

COPPIA - TORQUE CORRENTE - CURRENT



Valori calcolati - Data obtained by calculation method

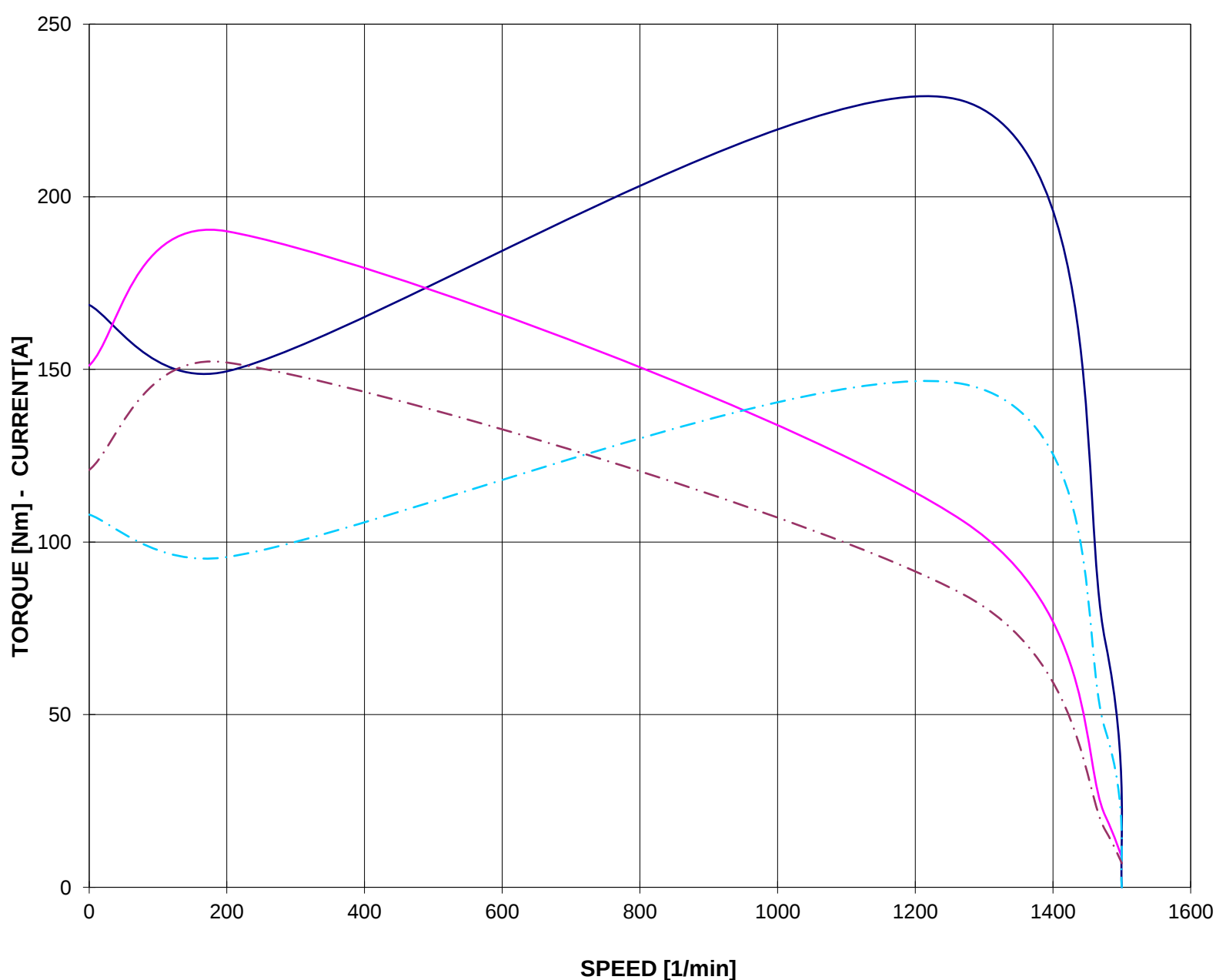
CURVA COPPIA/CORRENTE-GIRI (Tensione ridotta)
TORQUE/CURRENT-SPEED DIAGRAM (Reduced voltage)

Cliente / Customer -
Ordine cliente / Customer order -
Impianto / Plant -
ITEM -

Conferma ordine / Acknowledgment -
Numero di serie / Serial Number -

Motore / Motor **E3AC30 160MB 4**
Potenza nominale / Rated power 11,00 kW
Poli / Pole 4
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz
Corrente / Rated current 20,66 A
Velocità / Speed 1476 rpm
Coppia / Torque 71,17 Nm

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



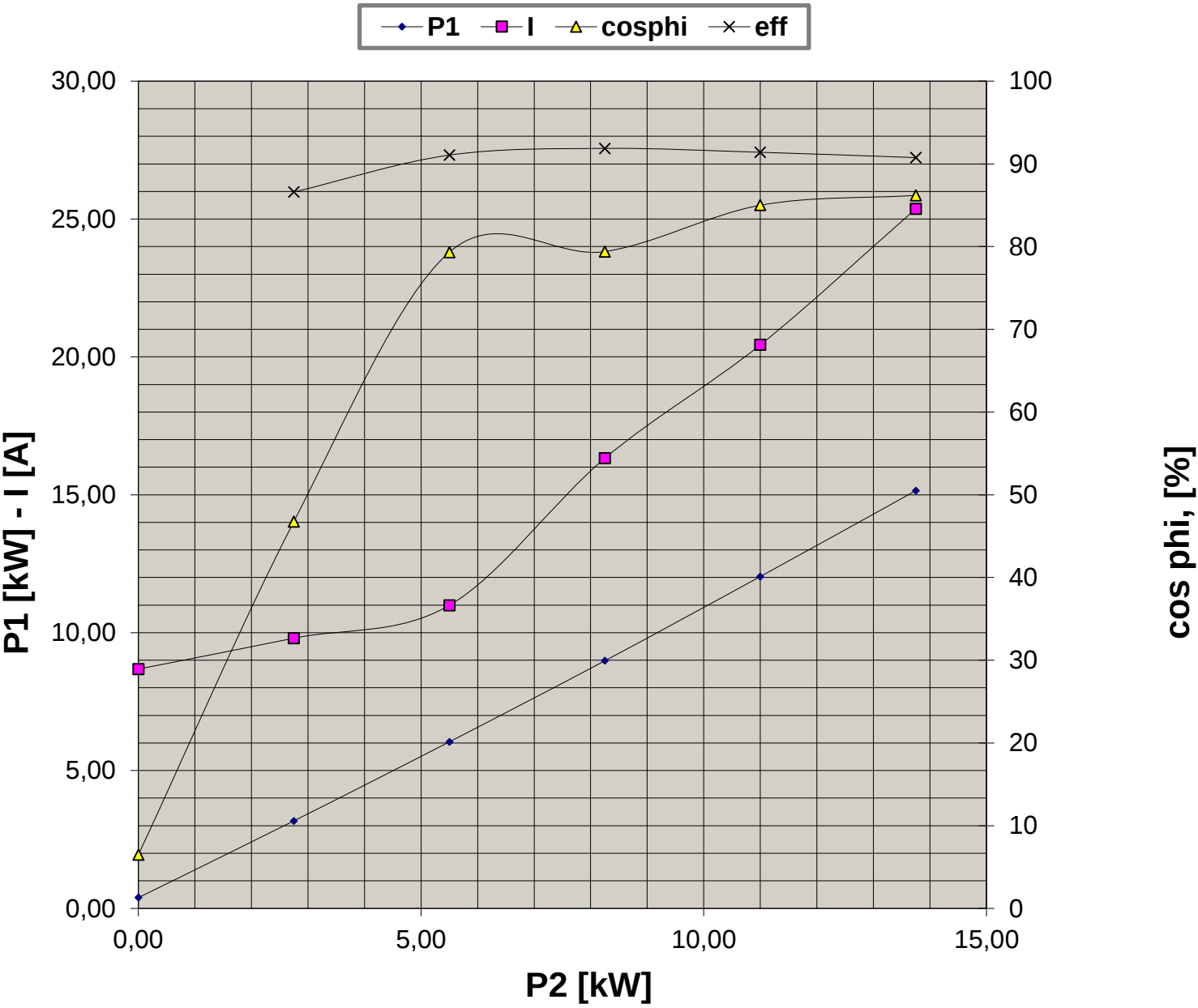
Valori calcolati - Data obtained by calculation method

CURVE CARATTERISTICHE
PERFORMANCE CURVES

Cliente / Customer -
Ordine cliente / Customer order -
Impianto / Plant -
ITEM -

Conferma ordine / Acknowledgment -
Numero di serie / Serial Number -

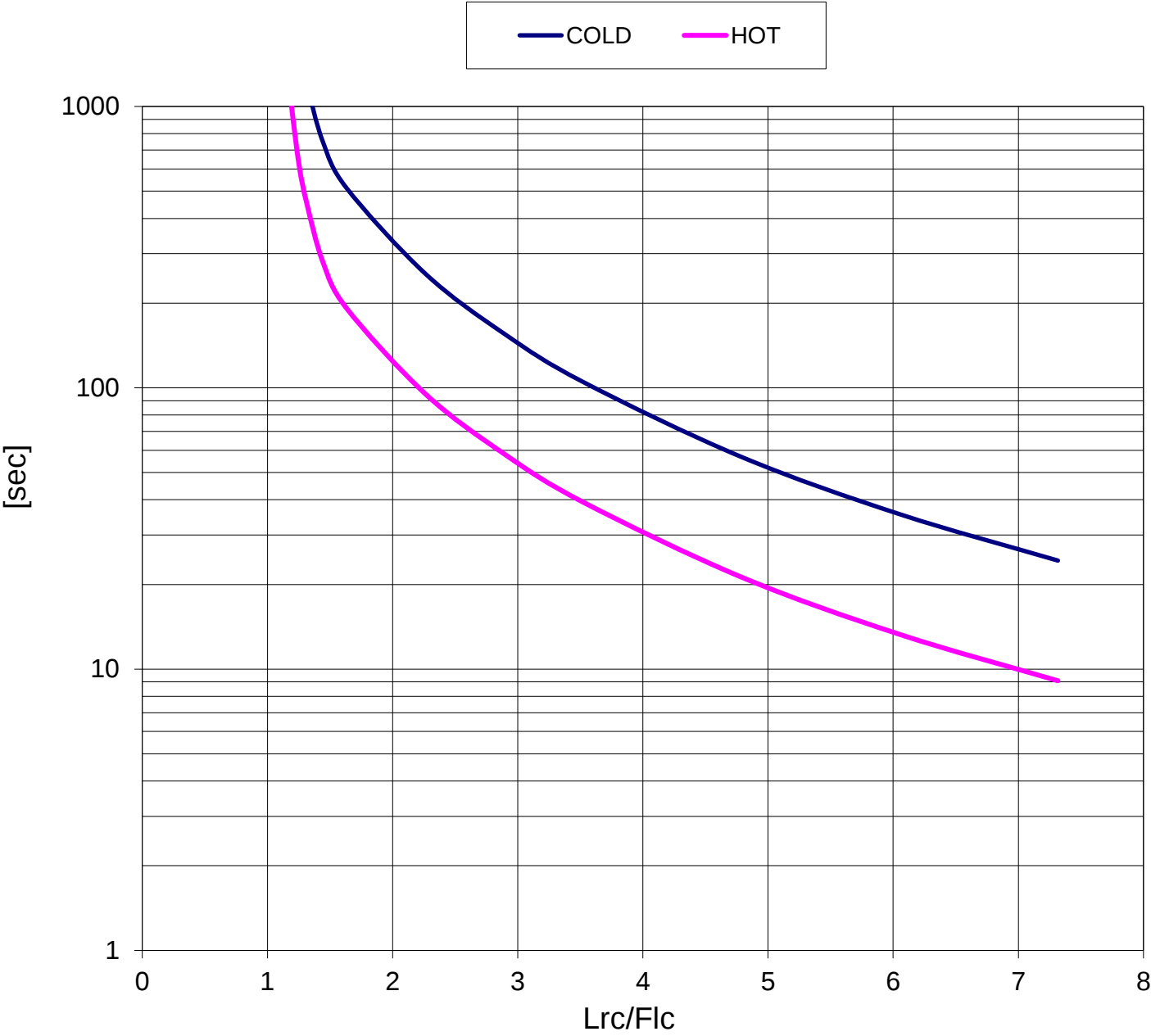
Motore / Motor	E3AC30 160MB 4	
Potenza nominale / Rated power	11,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	20,66	A
Velocità / Speed	1476	rpm
Coppia / Torque	71,17	Nm



Valori calcolati - Data obtained by calculation method

CURVA LIMITE CORRENTE TEMPO
THERMAL WITHSTAND CURVE

Cliente / Customer	-
Ordine cliente / Customer order	-
Impianto / Plant	-
ITEM	-
Conferma ordine / Acknowledgment	-
Numero di serie / Serial Number	-
Motore / Motor	E3AC30 160MB 4
Potenza nominale / Rated power	11,00 kW
Poli / Pole	4
Tensione - Frequenza / Voltage - Frequency	400 - 50 V - Hz
Corrente / Rated current	20,66 A
Velocità / Speed	1476 rpm
Coppia / Torque	71,17 Nm



Valori calcolati - Data obtained by calculation method

Data / Date 25 January 2022

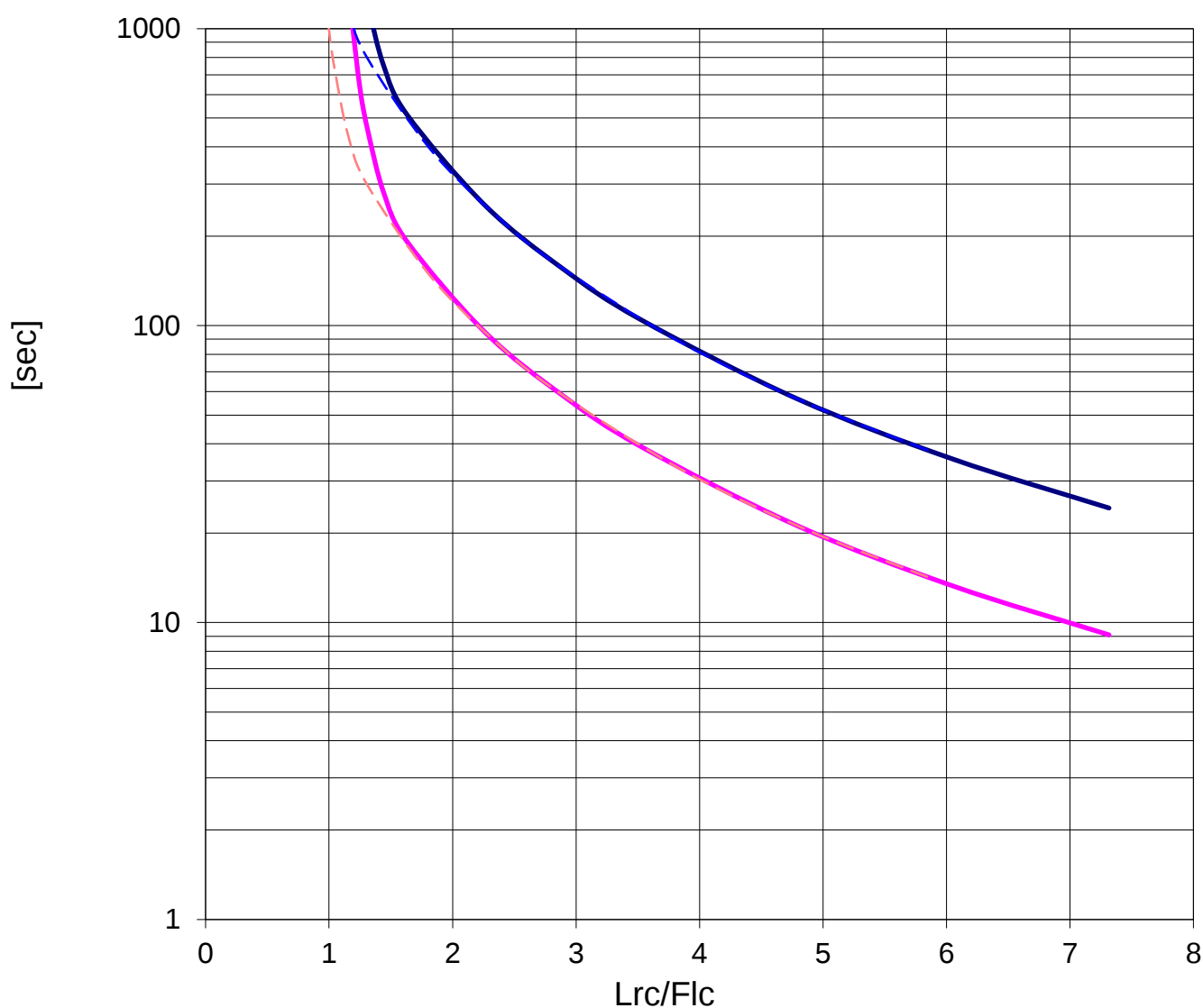
CURVA LIMITE CORRENTE TEMPO (Tensione ridotta)
THERMAL WITHSTAND CURVE (Reduced voltage)

Cliente / Customer -
Ordine cliente / Customer order -
Impianto / Plant -
ITEM -

Conferma ordine / Acknowledgment -
Numero di serie / Serial Number -

Motore / Motor **E3AC30 160MB 4**
Potenza nominale / Rated power 11,00 kW
Poli / Pole 4
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz
Corrente / Rated current 20,66 A
Velocità / Speed 1476 rpm
Coppia / Torque 71,17 Nm

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



Valori calcolati - Data obtained by calculation method