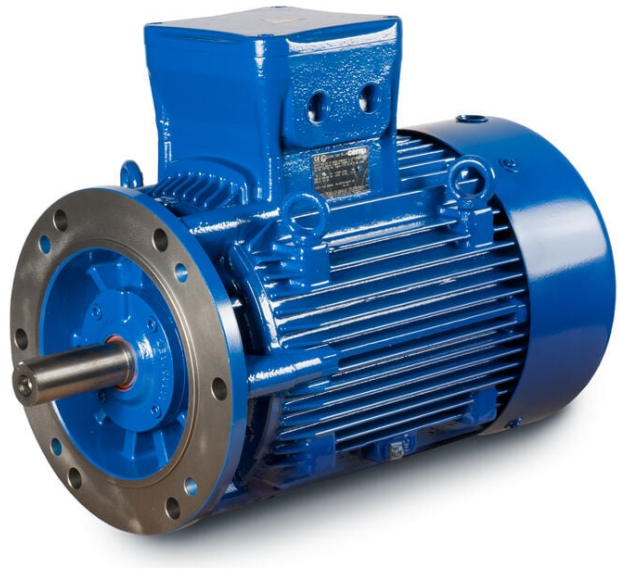
PRODUCT INFORMATION PACKET

Model No: E3AC3004169B50D41100
Catalog No: E3AC3004169B50D41100
Made in Italy E3AC30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 18,50kW, 3 phase, 1477 RPM, D400/Y690V 50Hz, 160LB Frame B5, 4 Poles, IC411, Higher Output Motor

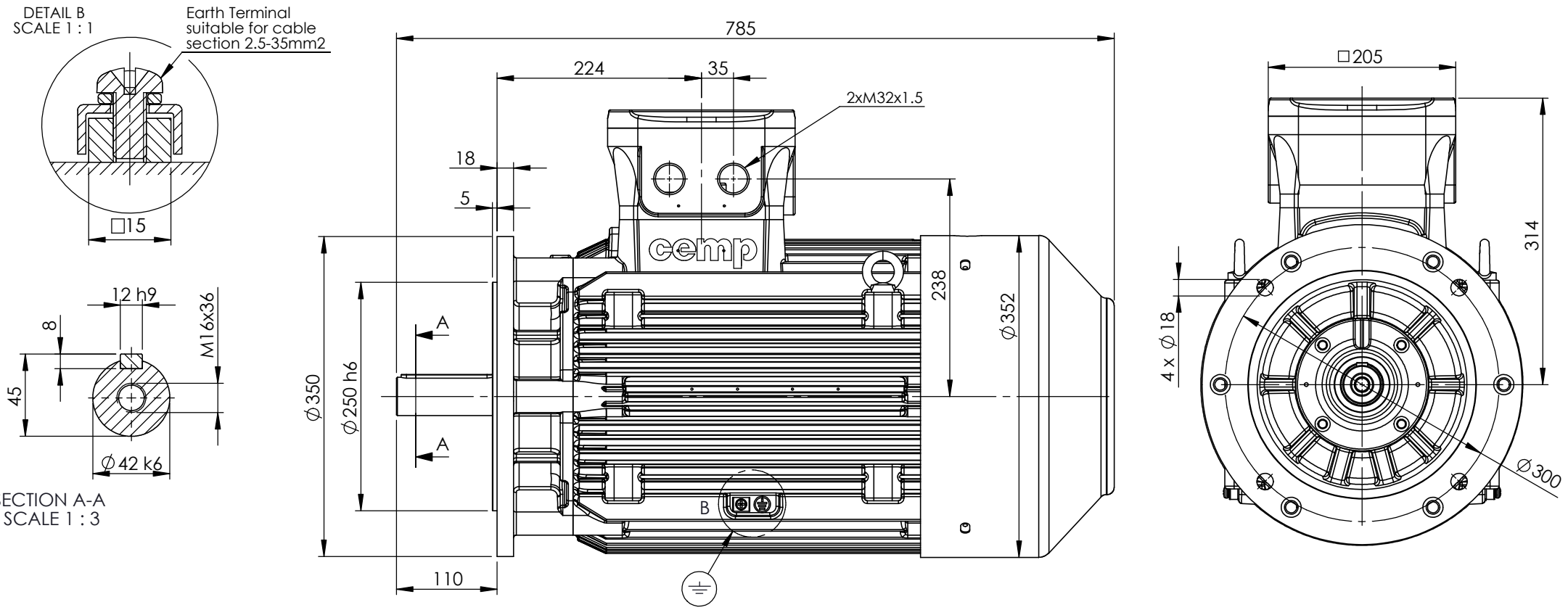


Nameplate Specifications

Phase	3	Output HP	25 Hp
Output KW	18.5 kW	Voltage	400/690 V
Speed	1477 rpm	Service Factor	1
Frame	160LB	Enclosure	Totally Enclosed Fan Cooled
Efficiency	92.6 %	Ambient Temperature	40 °C
Frequency	50 Hz	Current	35.0 A
Power Factor	0.83	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	933.00 mm	Frame Length	420.00 mm
Shaft Diameter	42.000 mm	Shaft Extension	110 mm
Assembly/Box Mounting	Top		
Connection Drawing	SC-01-T-1v-1a	Outline Drawing	B5A04E8160001B01



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

CUSTOMER REFERENCE AND ADDITIONAL INFORMATION:

MOTOR TYPE AND DESCRIPTION:

DRAWING REVISION	REVISION BY	DATE
ECO	APPROVED BY	DATE
ECO DESCRIPTION		

TOLERANCES (EXCEPT AS NOTED)
TOLERANCES: ±2
* TOLERANCES: ±0.8

DIMENSIONS ARE IN mm
ACCORDING TO IEC 60072

SERIAL NUMBER

DRAWN BY	LP
DATE	27/12/2016
APPROVED BY	DP
DATE	27/12/2016
REFERENCE	
FIRST ANGLE PROJECTION	

REGAL™ cemp

DESCRIPTION

Motor A160 LA/LB (L) B5
IE3

SIZE	DRAWING NUMBER	SHEET
A4	**B5A04E8160001B01**	1 OF 2

Schema di collegamento - *Connection diagram*
Schemas de branchement - *Schaltplän*
Esquemas de conéxiòn

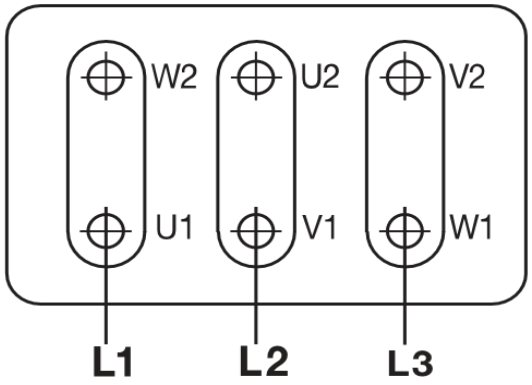
cemp
Flameproof Motors

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

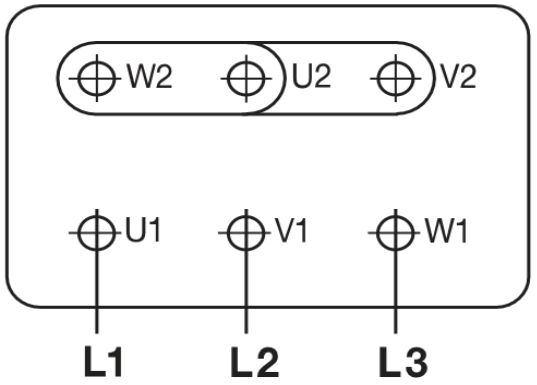
Collegamento - *Connection* - Connexion - *Schaltung* - Conexiòn

Δ



Collegamento - *Connection* - Connexion - *Schaltung* - Conexiòn

Y



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 - *Additional terminals marking* (IEC60034-8)

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

[*] 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	CEMP
Offerta / Offer : 2021.	
Impianto / Plant	-

DATI DI PROGETTO - DESIGN DATA

Modo di protezione	II2G	Motore / Frame	Ex db IIC T4 Gb	IP55
Type of protection		Scatola morsetti / Terminal box	Ex db IIC Gb	IP55

Tem. Amb. Min. / Min Amb.Temp.	-20 °C	Tem. Amb. Max. / Max Amb. Temp.	40 °C
Umidità relativa / Relative humidity	90%	Altitudine / Altitude	< 1000 mslm / masl
Tensione nominale / Rated Voltage	400 V ± 5%	Frequenza / Frequency	50 Hz ± 2%

DATI FUNZIONALI E COSTRUTTIVI - PERFORMANCE AND CONSTRUCTION DATA

1	Quantità / Quantity		01
2	Motore tipo / Motor type		E3AC30 160LB 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	18,50
9	Corrente nominale / Rated current	A	34,95
10	Velocità nominale / Full Load speed	1/min	1477
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	1477	1484	1489	
19	Corr. / Curr.	A	34,95	27,98	23,20	
20	Rend / Eff	%	92,6	93,2	91,7	
21	cos φ	-	0,83	0,77	0,63	

Performances all'avviamento / Starting performances

22	Ia/In - LRC/FLC	%	715
23	Cosphi a rotore bloccato / LR power factor		0,43
	Tempo a rotore bloccato / LRWT		
24	100% Un (A caldo / Warm)	sec	6
25	(A freddo / Cold)	sec	19
26	80% Un (A caldo / Warm)	sec	9
27	(A freddo / Cold)	sec	29
	Tempo di avviamento ammissibile / ART		
28	100% Un	sec	16
29	80% Un	sec	25

Curva di coppia / Speed-torque values

30	Coppia nominale / Rated Torque	Nm	119,61
31	Ca/Cn - LRT/FLT	%	225
32	Cmax/Cn - BDT/FLT	%	310
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	258
52	Momento d'inerzia / Moment of inertia	kgm2	0,1368
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			
58			
59			
60			
61			
62			

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			

Documento preliminare - Preliminary data sheet

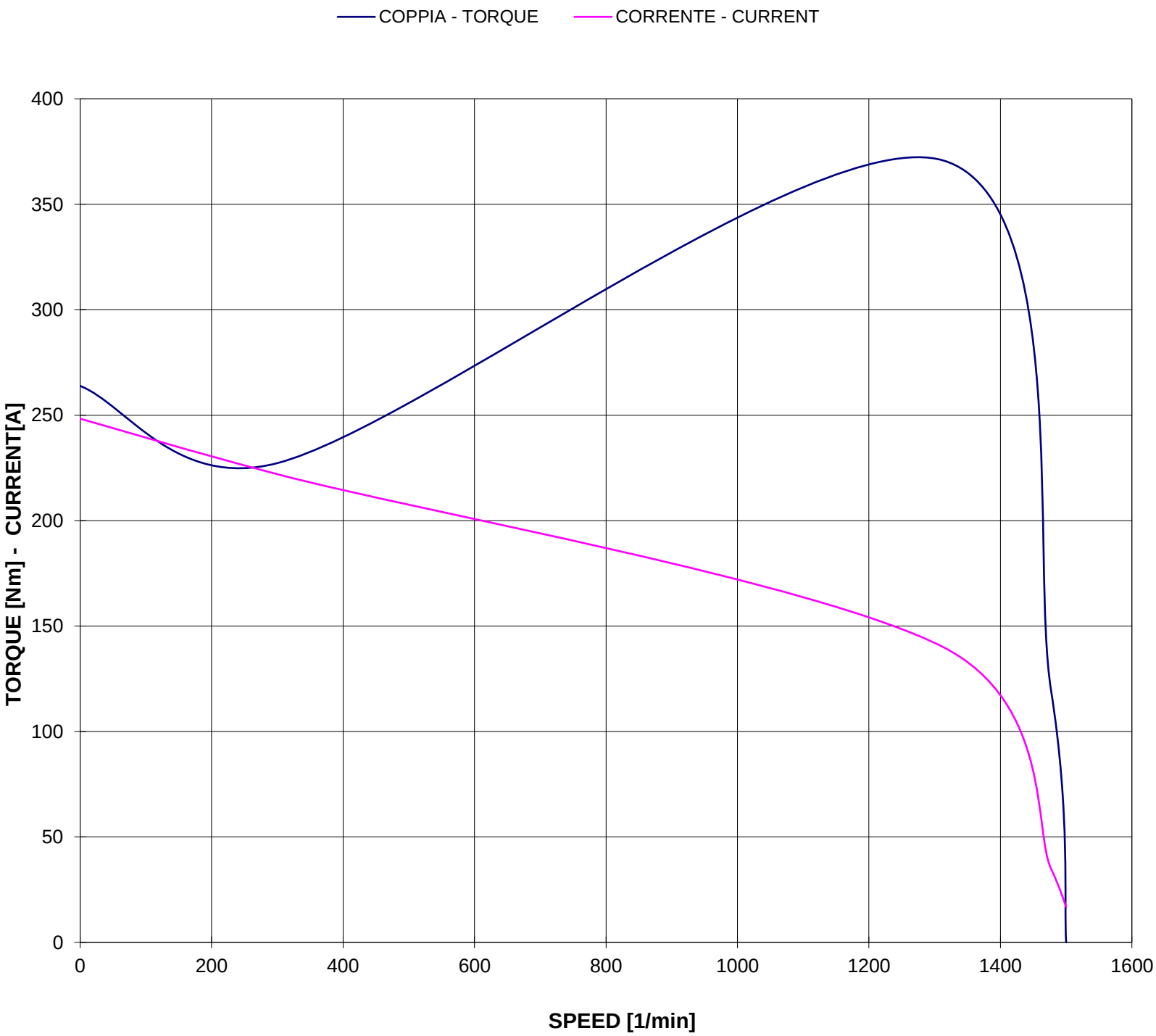
MOD. 803

Prepared by : AP Tolleranze secondo - Tolerances according IEC 60034-1 Rev. 0 Data / Date 28 January 2022

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

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

Motore / Motor	**E3AC30 160LB 4**	
Potenza nominale / Rated power	18,50	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	34,95	A
Velocità / Speed	1477	rpm
Coppia / Torque	119,61	Nm



Valori calcolati - Data obtained by calculation method

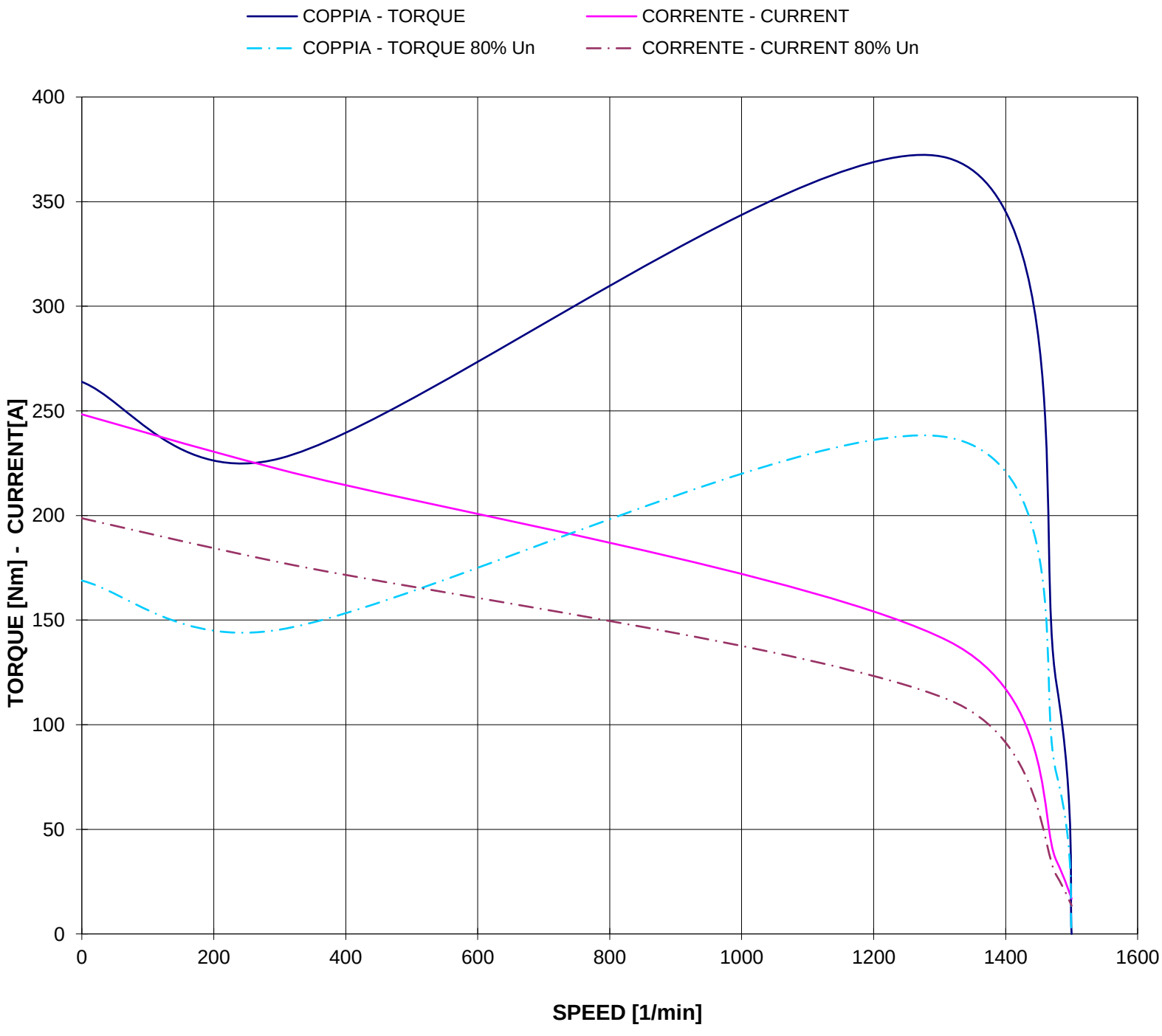
MOD-600

Data / Date 28 January 2022

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	**E3AC30 160LB 4**	
Potenza nominale / Rated power	18,50	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	34,95	A
Velocità / Speed	1477	rpm
Coppia / Torque	119,61	Nm



Valori calcolati - Data obtained by calculation method

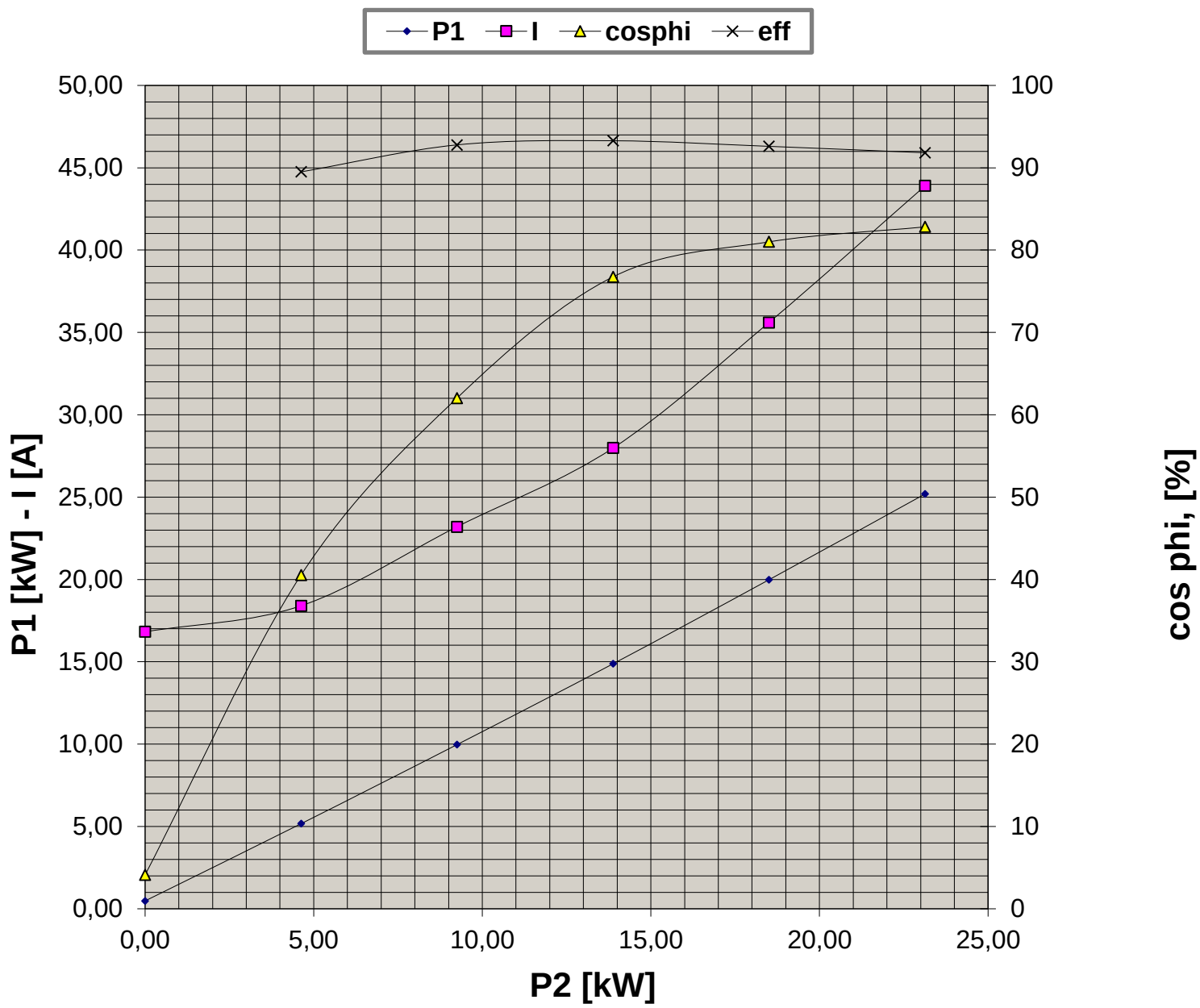
MOD-602

Data / Date 28 January 2022

CURVE CARATTERISTICHE
PERFORMANCE CURVES

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

Motore / Motor	**E3AC30 160LB 4**	
Potenza nominale / Rated power	18,50	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	34,95	A
Velocità / Speed	1477	rpm
Coppia / Torque	119,61	Nm



Valori calcolati - Data obtained by calculation method

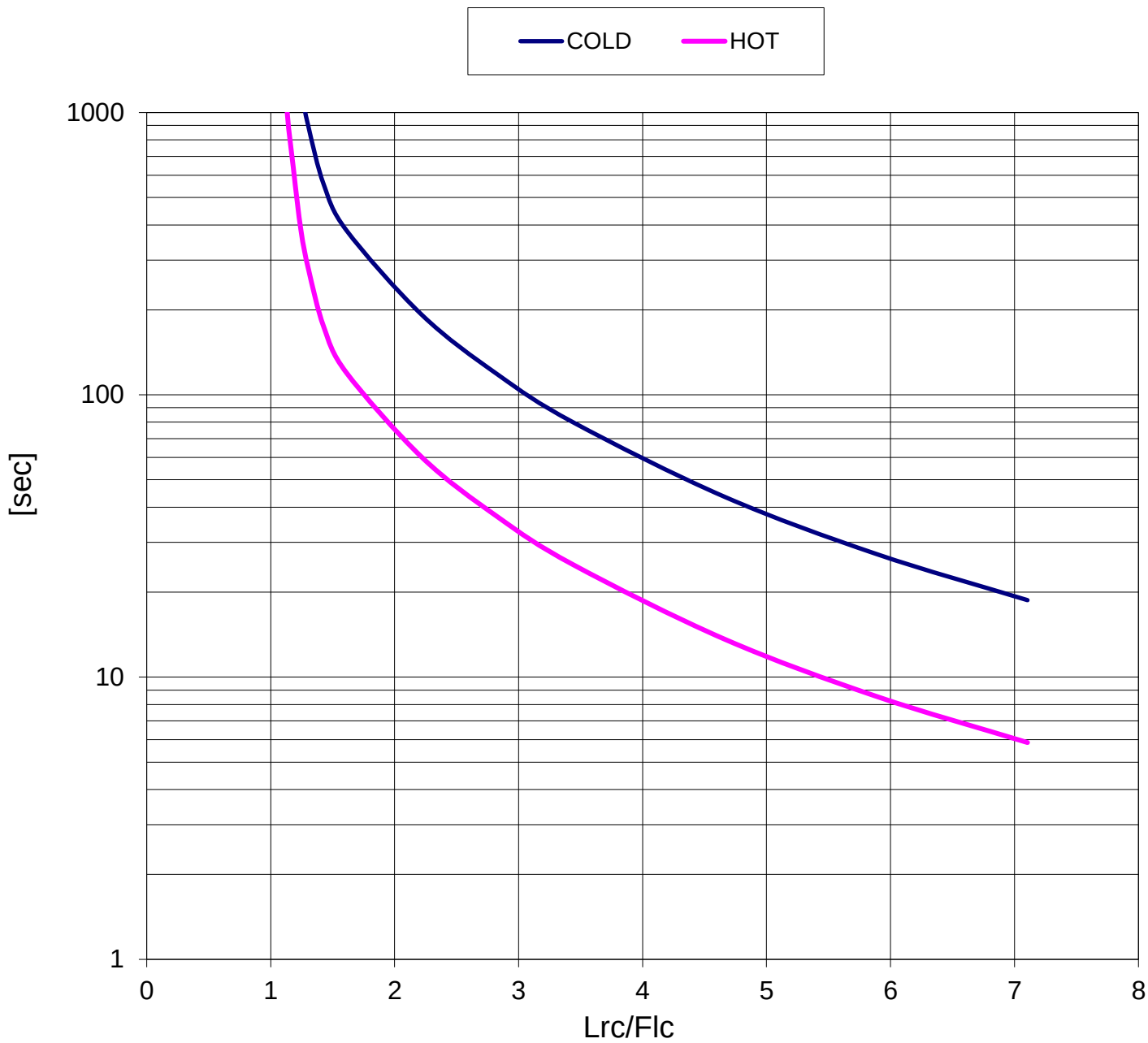
MOD-700

Data / Date 28 January 2022

CURVA LIMITE CORRENTE TEMPO
THERMAL WITHSTAND CURVE

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

Motore / Motor	**E3AC30 160LB 4**	
Potenza nominale / Rated power	18,50	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	34,95	A
Velocità / Speed	1477	rpm
Coppia / Torque	119,61	Nm



Valori calcolati - Data obtained by calculation method

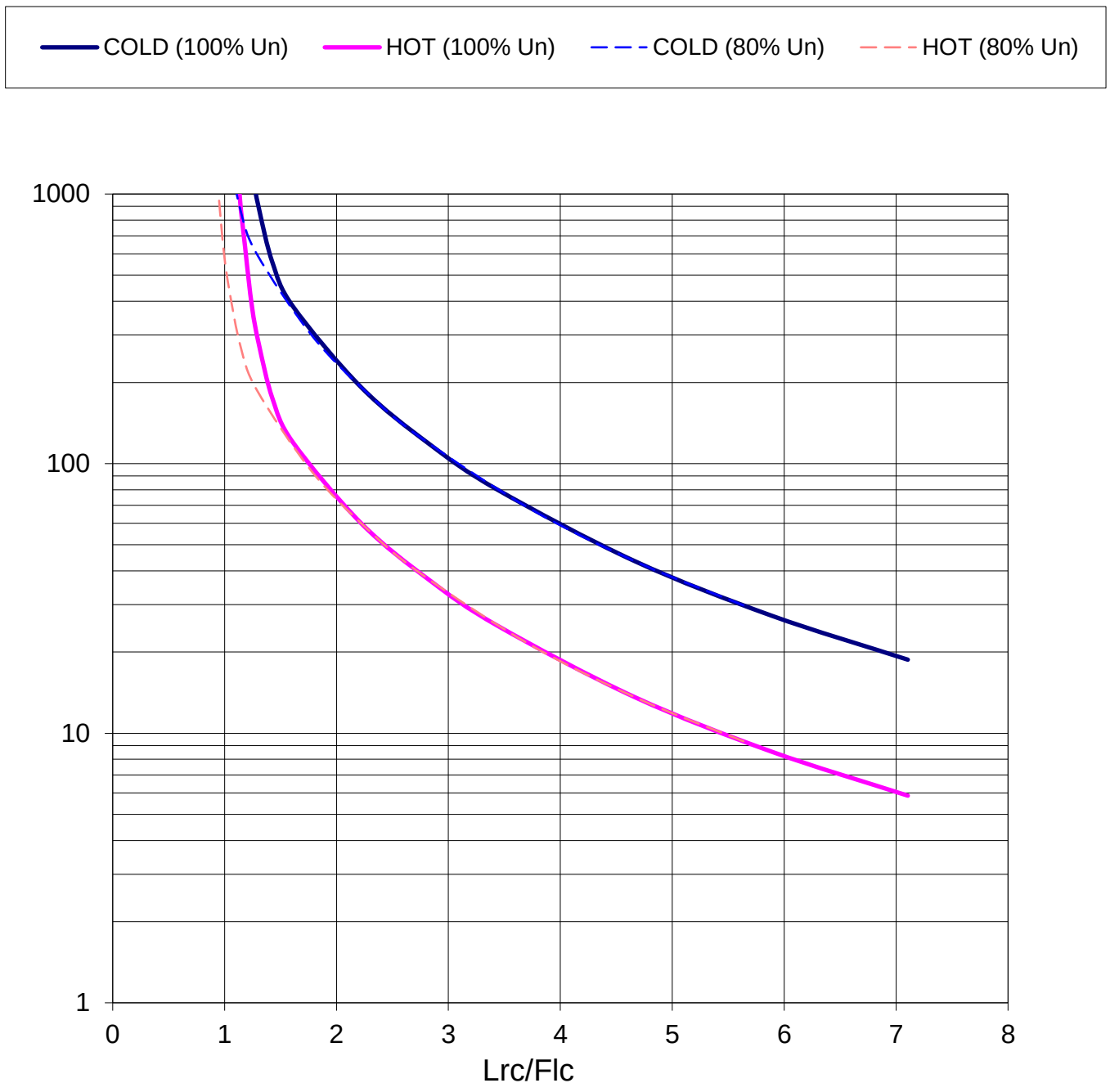
MOD-900

Data / Date 28 January 2022

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	**E3AC30 160LB 4**	
Potenza nominale / Rated power	18,50	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	34,95	A
Velocità / Speed	1477	rpm
Coppia / Torque	119,61	Nm



Valori calcolati - Data obtained by calculation method

MOD-901

Data / Date 28 January 2022