

PRODUCT INFORMATION PACKET

Model No: E3AC3002091B30S41100

Catalog No: E3AC3002091B30S41100

Made in Italy E3AC30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 1,50kW,
3 phase, 2870 RPM, D230/Y400V 50Hz, 90S Frame B3, 2 Poles, IC411



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Nameplate Specifications

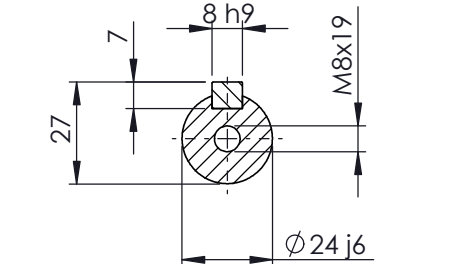
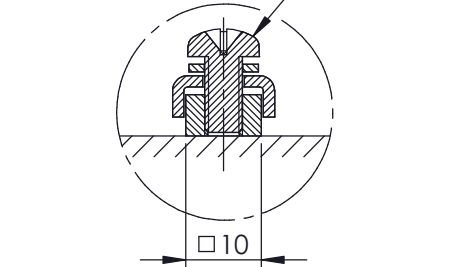
Output HP	2 Hp	Output KW	1.5 kW
Frequency	50 Hz	Voltage	230/400 V
Current	3.0 A	Speed	2870 rpm
Service Factor	1	Phase	3
Efficiency	84.8 %	Power Factor	0.84
Duty	S1	Insulation Class	F
Frame	90S	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	40 °C	Drive End Bearing Size	6205
Opp Drive End Bearing Size	6205	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	2	Rotation	Bi-Directional
Mounting	B3	Motor Orientation	Horizontal
Drive End Bearing	Zz	Opp Drive End Bearing	Zz
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	422.50 mm	Frame Length	190.00 mm
Shaft Diameter	24.000 mm	Shaft Extension	50 mm
Assembly/Box Mounting	Top		
Outline Drawing	B3A04E8095001A01	Connection Drawing	SC-01-T-1v-1a

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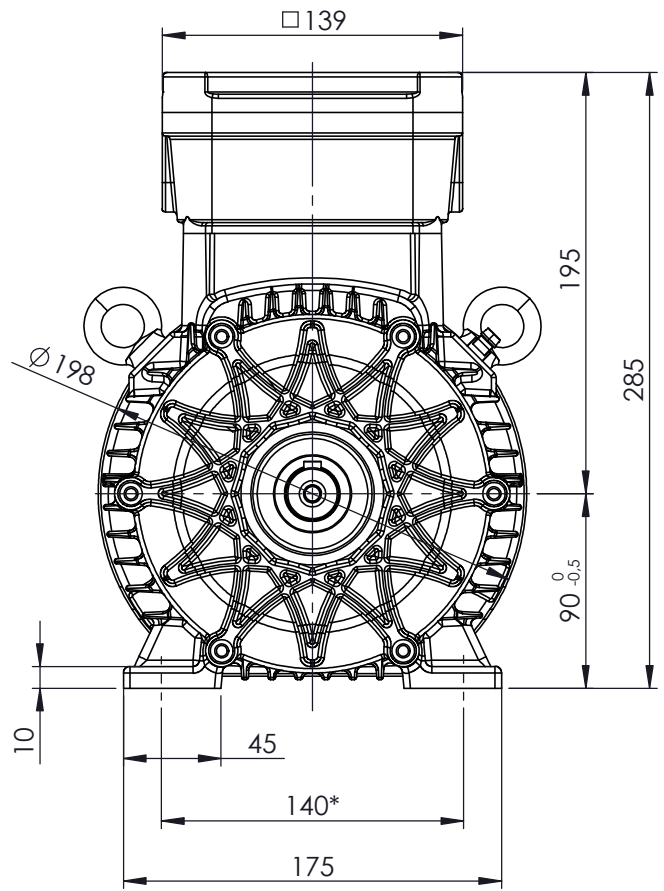
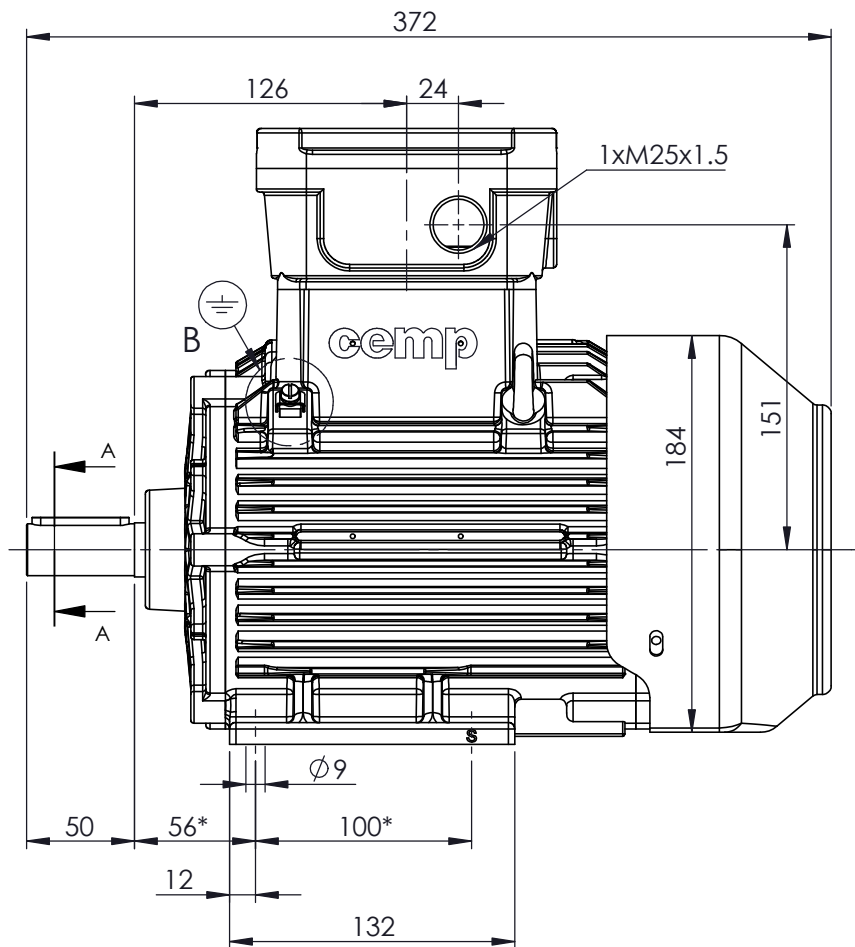
DETAIL B
SCALE 1 : 1



SECTION A-A
SCALE 1 : 2



Earth terminal: 1 in the terminal box, 1 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	 			
ECO	APPROVED BY	DATE		DATE 27/12/2016				
ECO DESCRIPTION				APPROVED BY DP	DESCRIPTION Motor A90 S/SL (S) B3 IE3			
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			SERIAL NUMBER	REFERENCE				
				FIRST ANGLE PROJECTION		SIZE A4	DRAWING NUMBER B3A04E8095001A01	SHEET 1 OF 2

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
Offerta / Offer
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

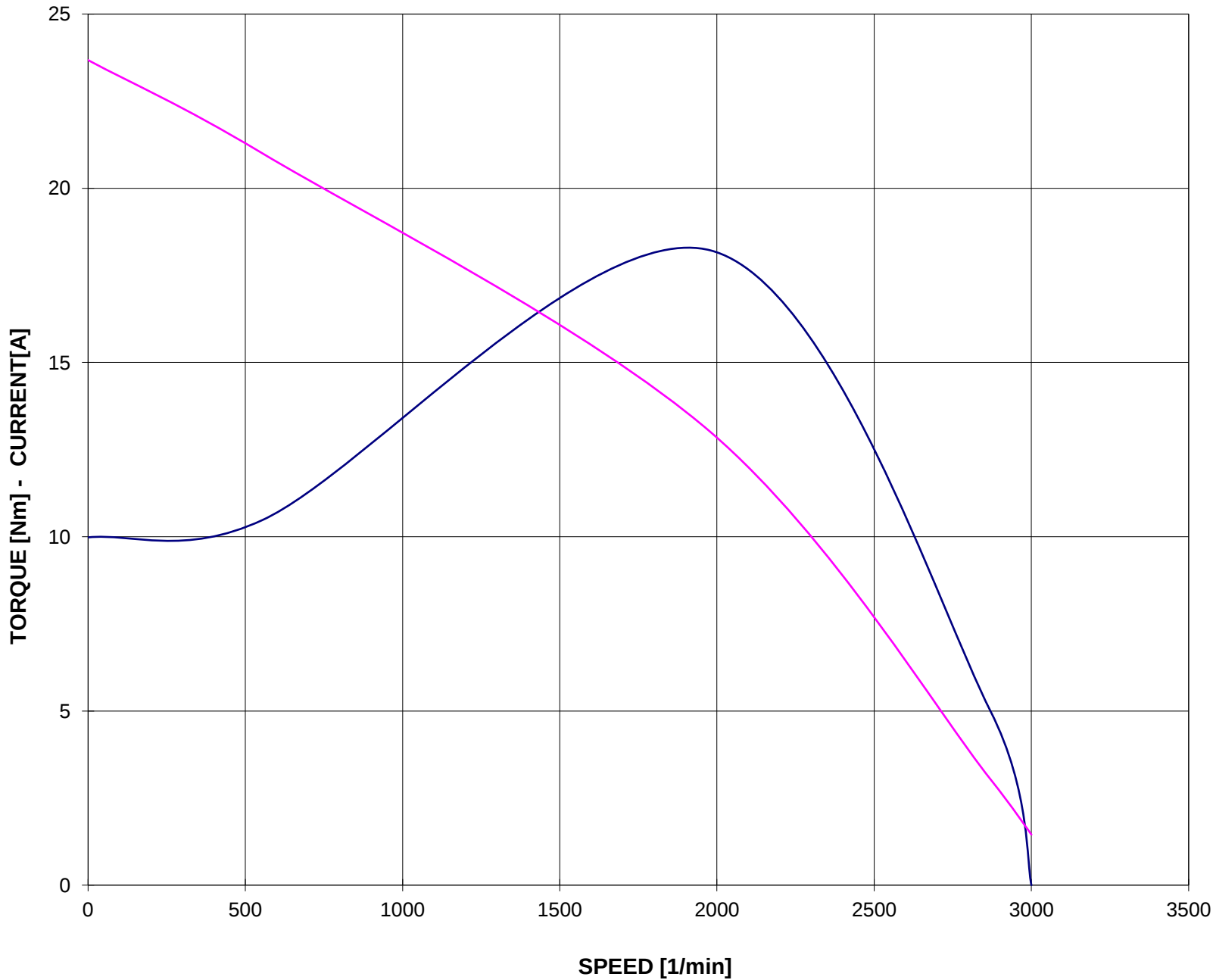
1	Quantità / Quantity				01	
2	Motore tipo / Motor type				E3AC30 90S 2	
3	Numero di serie / Serial Number				-	
4	Forma costruttiva / Shape				B3	
5	Certificato / Certificate			TÜV CY	17 ATEX 0205845 X	
6	Altro certificato / Other certificate					
Dati nominali / Rated data						
7	Poli / Pole			n°	2	
8	Potenza nominale / Rated power			kW	1,50	
9	Corrente nominale / Rated current			A	3,04	
10	Velocità nominale / Full Load speed			1/min	2870	
11	Collegamento / Winding connection				Y	
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	2870	2891	2934	
19	Corr. / Curr.	A	3,04	2,45	1,96	
20	Rend / Eff	%	84,8	84,8	82,7	
21	cos φ	-	0,84	0,78	0,67	
Performances all'avviamento / Starting performances						
22	Ia/In - LRC/FLC			%	785	
23	Cosphi a rotore bloccato / LR power factor				0,71	
	Tempo a rotore bloccato / LRWT					
24	100% Un (A caldo / Warm)			sec	5	
25	(A freddo / Cold)			sec	14	
26	80% Un (A caldo / Warm)			sec	7	
27	(A freddo / Cold)			sec	21	
	Tempo di avviamento ammissibile / ART					
28	100% Un			sec	12	
29	80% Un			sec	19	
Curva di coppia / Speed-torque values						
30	Coppia nominale / Rated Torque			Nm	4,99	
31	Ca/Cn - LRT/FLT			%	200	
32	Cmax/Cn - BDT/FLT			%	365	
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	-	6205 ZZ
45	Cuscinetto post / NDE bearing	-	6205 ZZ
46	Carico radiale max / Max radial load in X1	N	660
47	Carico assiale max / Max axial load	N	200
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	35,5
52	Momento d'inerzia / Moment of inertia	kgm2	0,0017
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	68
54	Vibrazioni / Vibration level	IEC 34-14	A
55	Limite norma / Vibration limit	mm/sec	1,60
56			
57			
Dati entrata cavi - verniciatura / Cable entry and painting			
63	Entrata cavi / Cable entry		1xM25
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 90S 2
Potenza nominale / Rated power	1,50 kW
Poli / Pole	2
Tensione - Frequenza / Voltage - Frequency	400 - 50 V - Hz
Corrente / Rated current	3,04 A
Velocità / Speed	2870 rpm
Coppia / Torque	4,99 Nm

COPPIA - TORQUE CORRENTE - CURRENT



Valori calcolati - Data obtained by calculation method

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

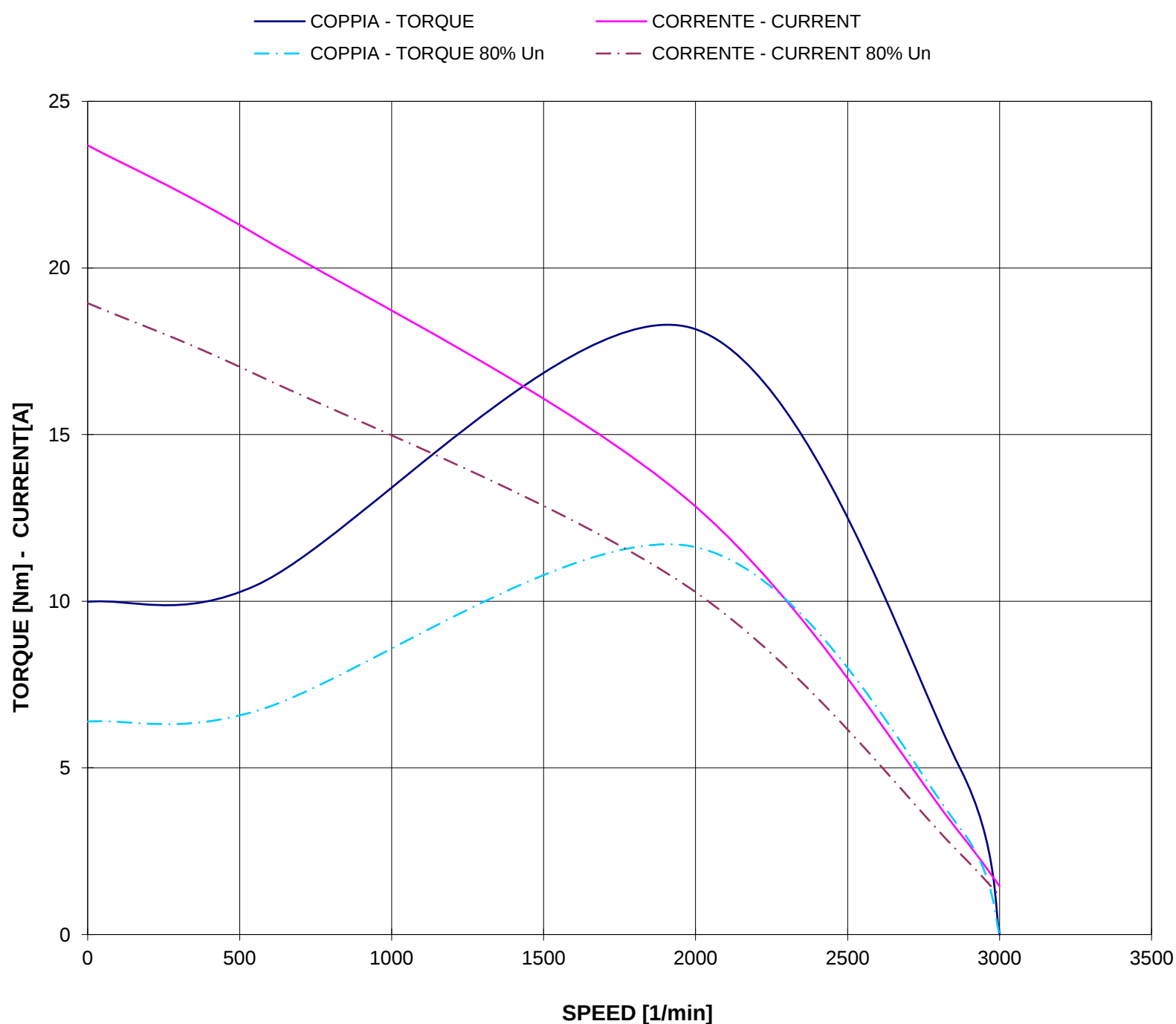
Cliente / Customer -
Ordine cliente / Customer order -
Impianto / Plant -
ITEM -

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

Motore / Motor

E3AC30 90S 2

Potenza nominale / Rated power	1,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	3,04	A
Velocità / Speed	2870	rpm
Coppia / Torque	4,99	Nm



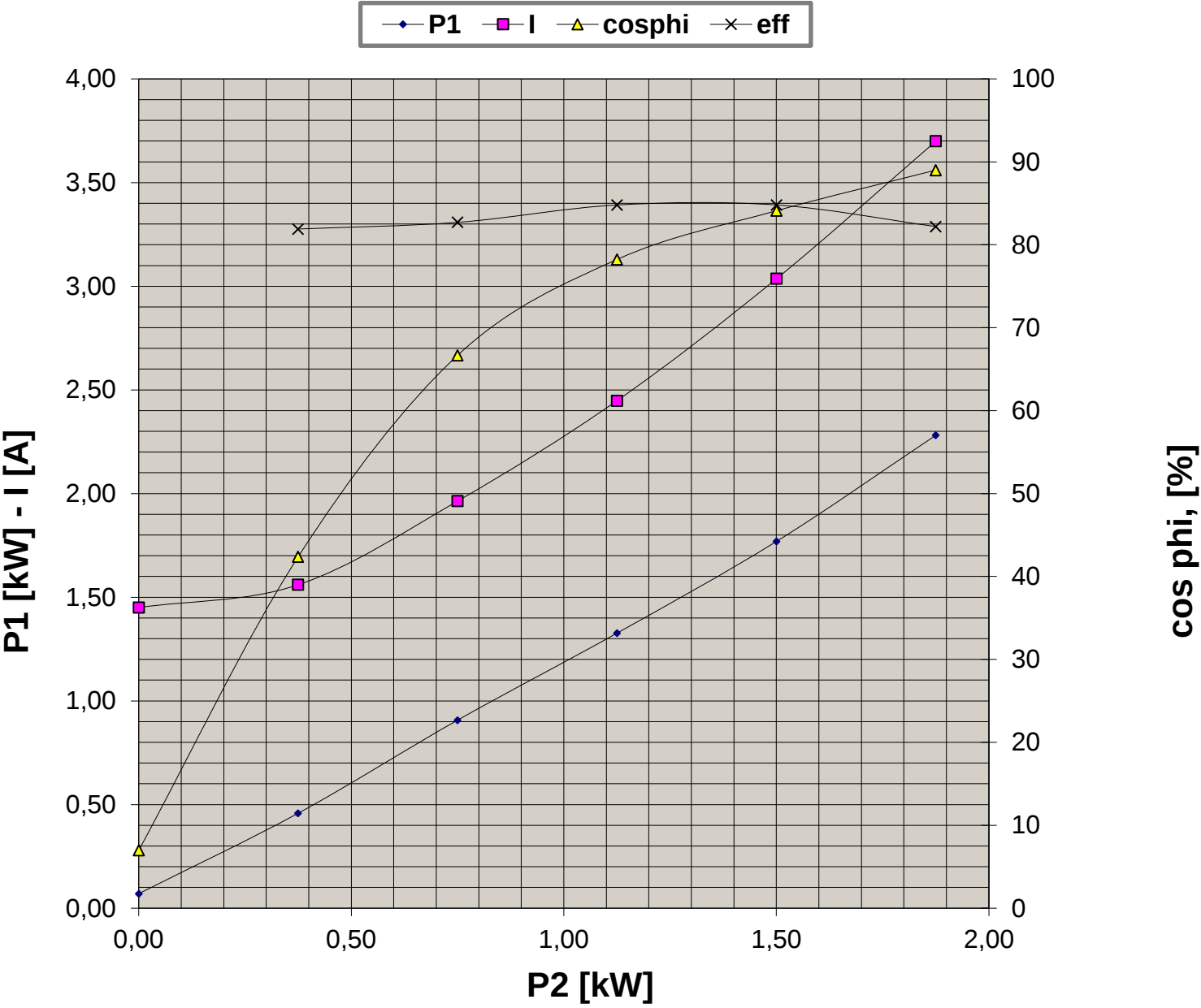
Valori calcolati - Data obtained by calculation method

CURVE CARATTERISTICHE
PERFORMANCE CURVES

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

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

Motore / Motor	E3AC30 90S 2	
Potenza nominale / Rated power	1,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	3,04	A
Velocità / Speed	2870	rpm
Coppia / Torque	4,99	Nm



Valori calcolati - Data obtained by calculation method

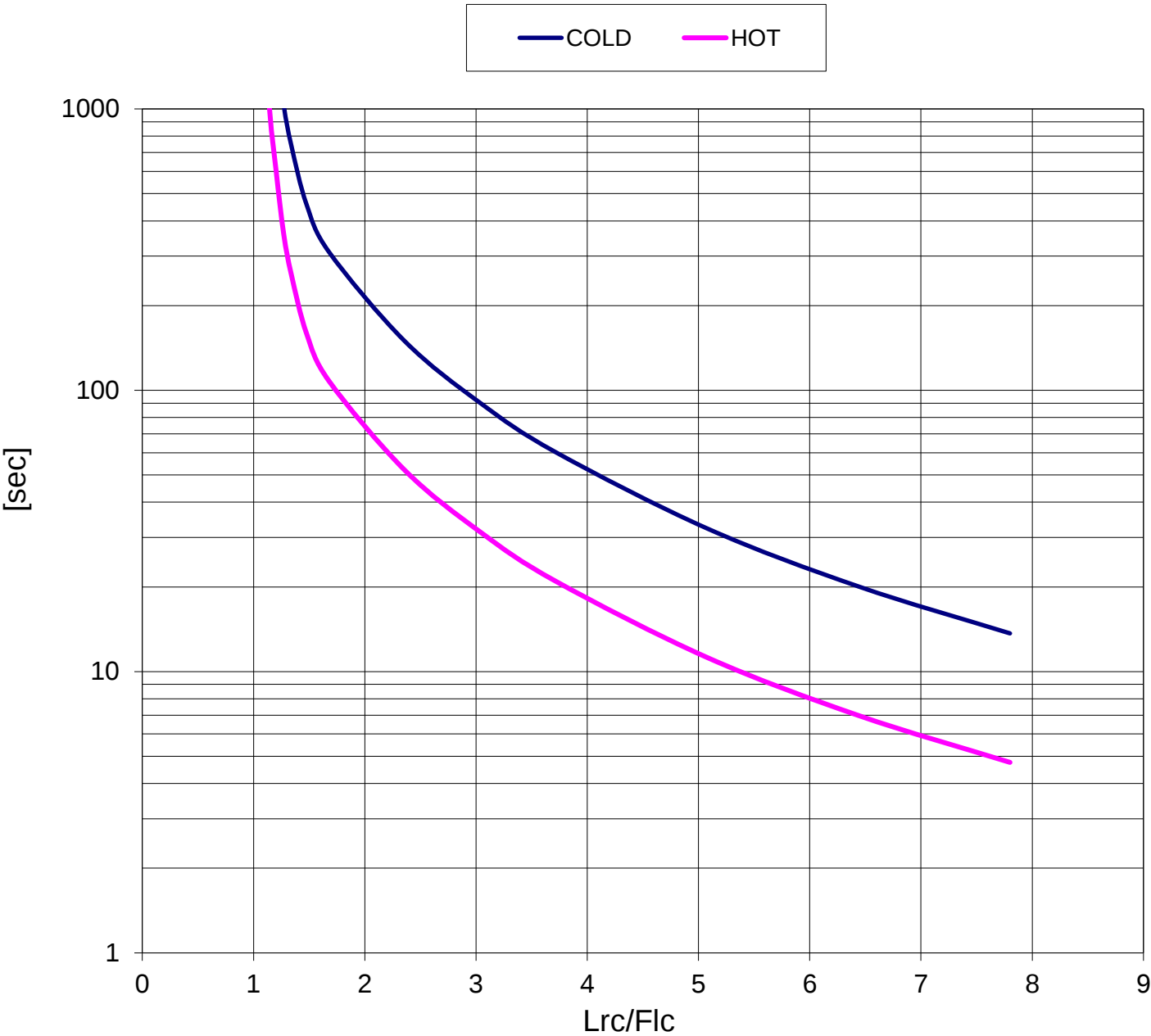
Data / Date 20 Dec 2022

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 90S 2	
Potenza nominale / Rated power	1,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	3,04	A
Velocità / Speed	2870	rpm
Coppia / Torque	4,99	Nm



Valori calcolati - Data obtained by calculation method

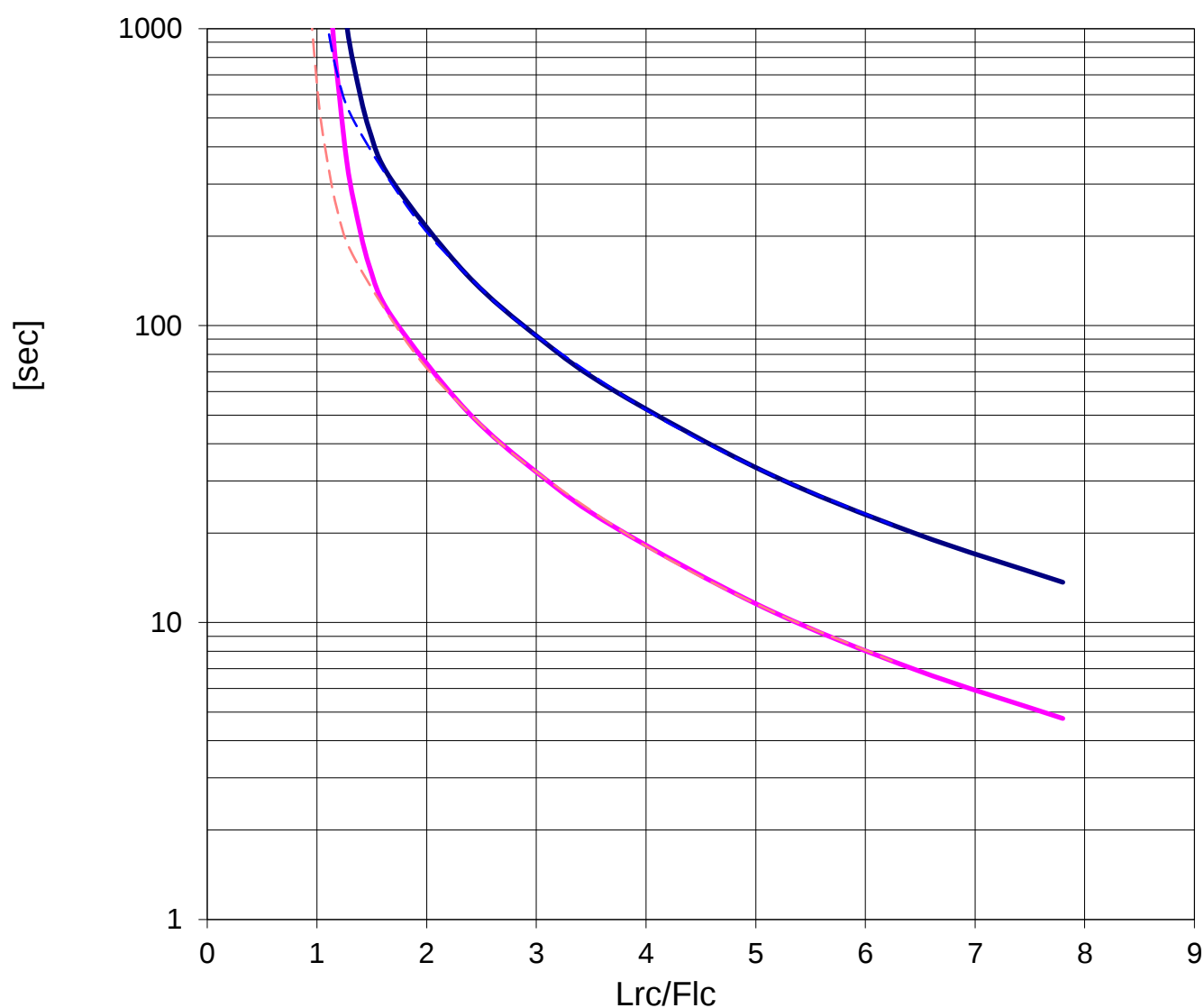
CURVA LIMITE CORRENTE TEMPO (Tensione ridotta)
THERMAL WITHSTAND CURVE (Reduced voltage)

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

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

Motore / Motor	E3AC30 90S 2	
Potenza nominale / Rated power	1,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	3,04	A
Velocità / Speed	2870	rpm
Coppia / Torque	4,99	Nm

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



Valori calcolati - Data obtained by calculation method