

PRODUCT INFORMATION PACKET

Model No: E3AB3002315B50D41100

Catalog No: E3AB3002315B50D41100

Made in Italy E3AB30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 160,00kW,
3 phase, 2983 RPM, D400/Y690V 50Hz, 315ML Frame B5, 2 Poles, IC411



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Nameplate Specifications

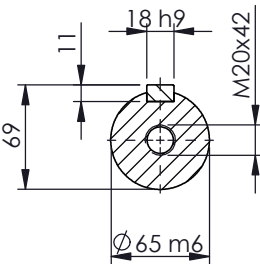
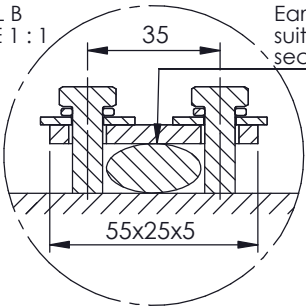
Output HP	215 Hp	Output KW	160.0 kW
Frequency	50 Hz	Voltage	400/690 V
Current	270.0 A	Speed	2983 rpm
Service Factor	1	Phase	3
Efficiency	95.7 %	Power Factor	0.89
Duty	S1	Insulation Class	F
Frame	315ML	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	40 °C	Drive End Bearing Size	6316
Opp Drive End Bearing Size	6316	UL	No
CSA	No	CE	Yes
IP Code	IP55	Number of Speeds	1

Technical Specifications

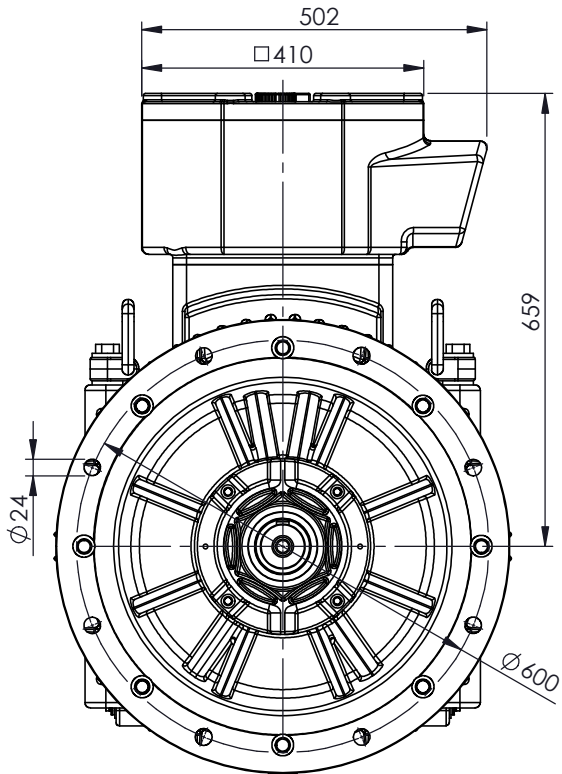
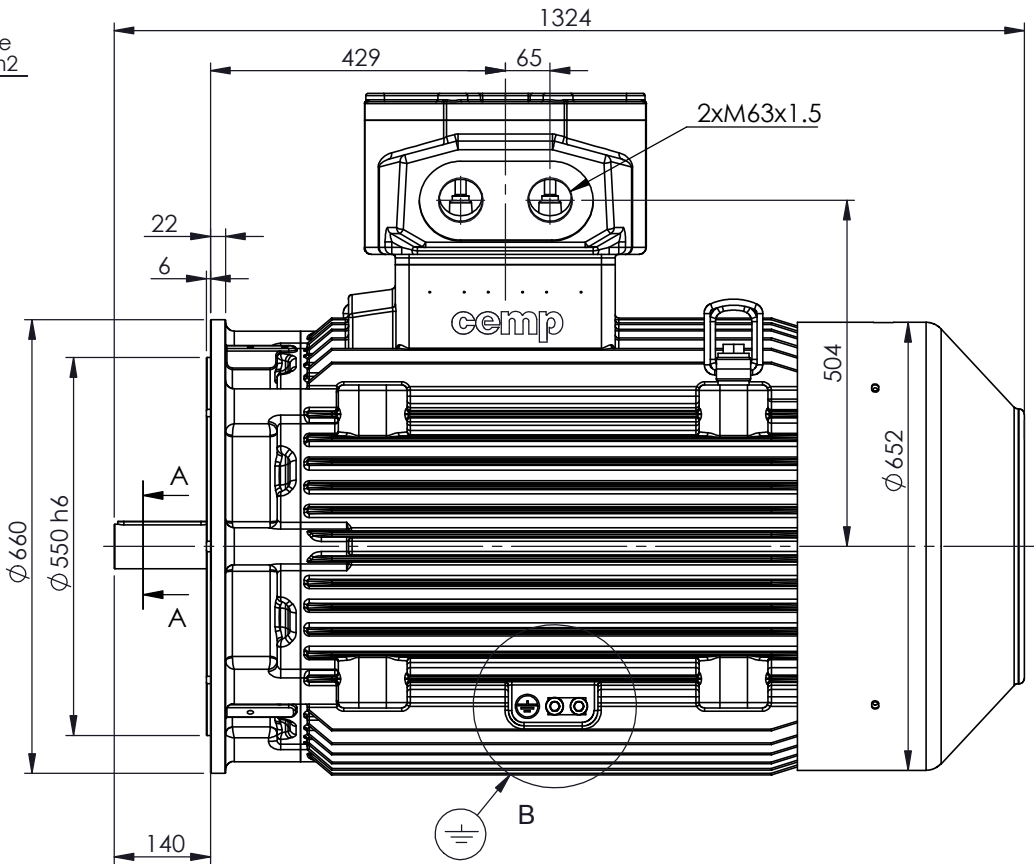
Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	Rotation	Bi-Directional
Mounting	B5	Motor Orientation	Horizontal
Drive End Bearing	Zz C3	Opp Drive End Bearing	Zz C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	1475.00 mm	Frame Length	800.00 mm
Shaft Diameter	65.000 mm	Shaft Extension	140 mm
Assembly/Box Mounting	Top		
Connection Drawing	SC-01-T-1v-1a	Outline Drawing	B5A04E8315001B01

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DETAIL B
SCALE 1 : 1



SECTION A-A
SCALE 1 : 5



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	 		
ECO	APPROVED BY	DATE		DATE 27/12/2016			
ECO DESCRIPTION				APPROVED BY DP	DESCRIPTION Motor A315 S/MA/MB/ML (S) B5 IE3		
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			SERIAL NUMBER	REFERENCE			
			FIRST ANGLE PROJECTION		SIZE A4	DRAWING NUMBER B5A04E8315001B01	SHEET 1 OF 2

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



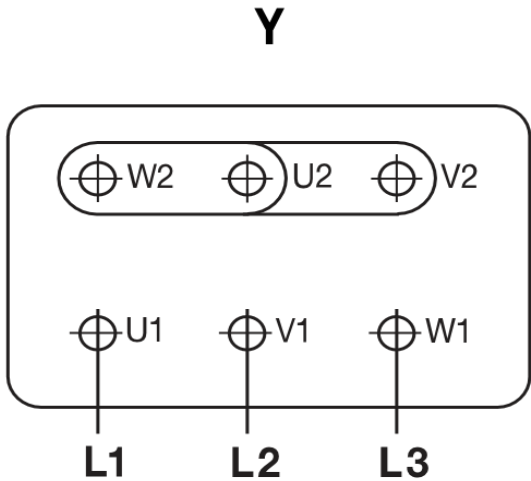
DTE 01/01/2004
SC - 01 - T - 1v.doc

**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	-
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				E3AB30 315ML 2
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°	2
8	Potenza nominale / Rated power			kW	160,00
9	Corrente nominale / Rated current			A	269,93
10	Velocità nominale / Full Load speed			1/min	2983
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	2983	2985	2990
19	Corr. / Curr.	A	269,93	207,79	151,57
20	Rend / Eff	%	95,7	95,7	94,4
21	cos φ	-	0,89	0,87	0,81
Performances all'avviamento / Starting performances					
22	Ia/In - LRC/FLC			%	710
23	Cosphi a rotore bloccato / LR power factor				0,27
	Tempo a rotore bloccato / LRWT				
24	100% Un (A caldo / Warm)			sec	3
25	(A freddo / Cold)			sec	27
26	80% Un (A caldo / Warm)			sec	4
27	(A freddo / Cold)			sec	42
	Tempo di avviamento ammissibile / ART				
28	100% Un			sec	24
29	80% Un			sec	37
Curva di coppia / Speed-torque values					
30	Coppia nominale / Rated Torque			Nm	512,20
31	Ca/Cn - LRT/FLT			%	185
32	Cmax/Cn - BDT/FLT			%	300
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	-	6316 ZZ C3
45	Cuscinetto post / NDE bearing	-	6316 ZZ C3
46	Carico radiale max / Max radial load in X1	N	5000
47	Carico assiale max / Max axial load	N	5500
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	1716
52	Momento d'inerzia / Moment of inertia	kgm2	2,2091
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	84
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		2xM63
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 : GC

Tolleranze secondo - Tolerances according IEC 60034-1

Rev. 0

Data / Date

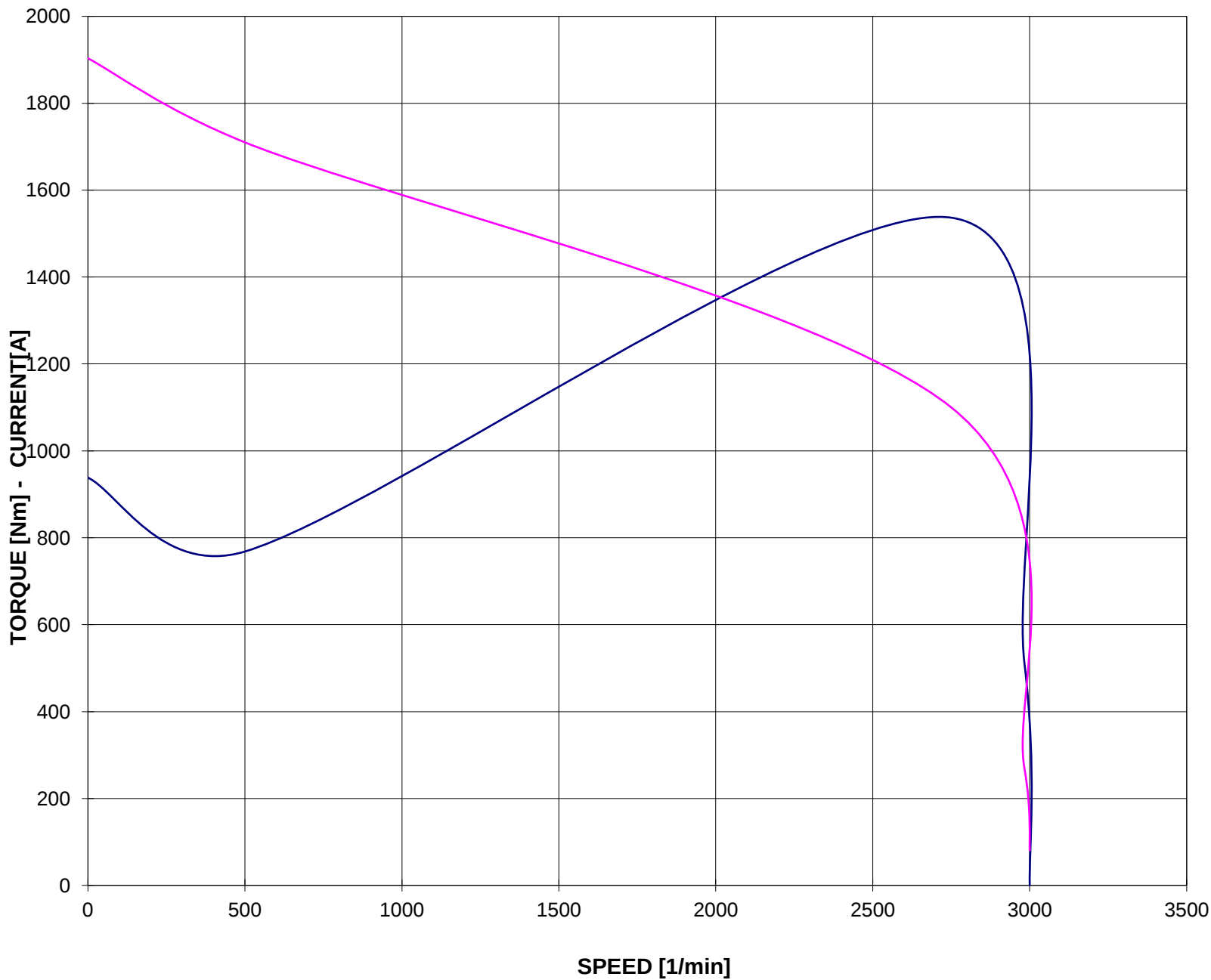
24 January 2022

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	E3AB30 315ML 2	
Potenza nominale / Rated power	160,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	269,93	A
Velocità / Speed	2983	rpm
Coppia / Torque	512,20	Nm

— COPPIA - TORQUE — CORRENTE - CURRENT



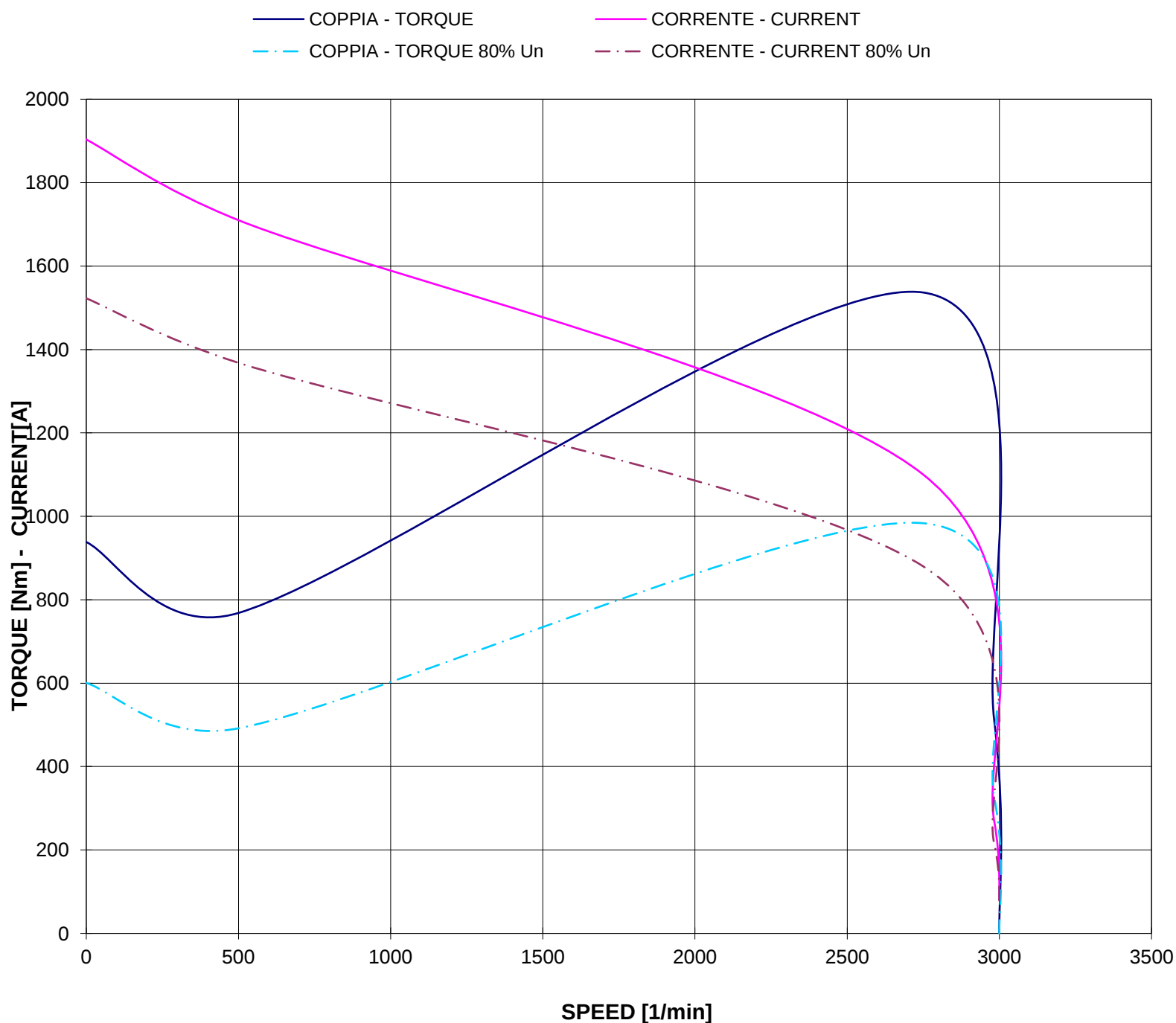
Valori calcolati - Data obtained by calculation method

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	E3AB30 315ML 2	
Potenza nominale / Rated power	160,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	269,93	A
Velocità / Speed	2983	rpm
Coppia / Torque	512,20	Nm



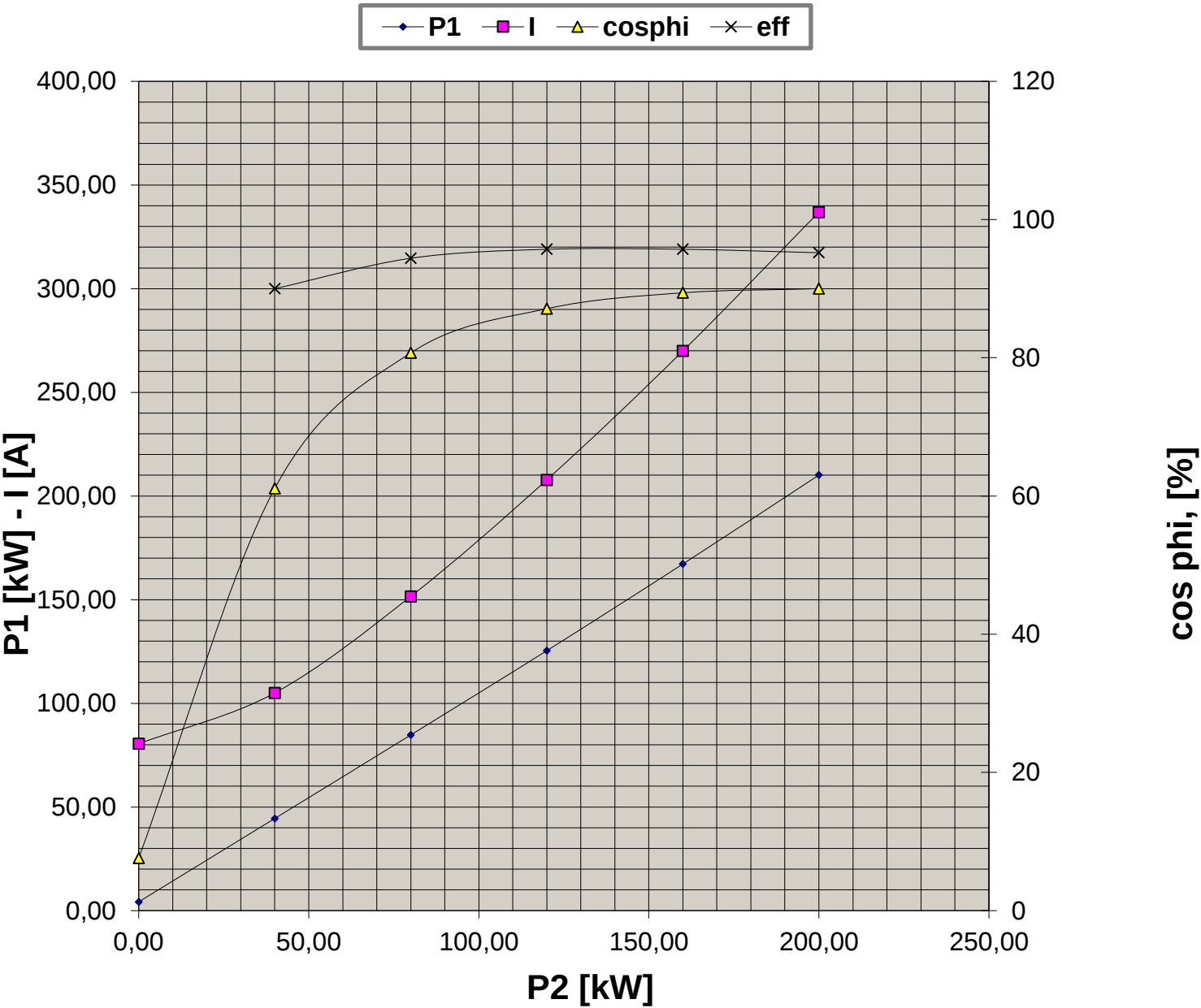
Valori calcolati - Data obtained by calculation method

CURVE CARATTERISTICHE
PERFORMANCE CURVES

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

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

Motore / Motor	E3AB30 315ML 2	
Potenza nominale / Rated power	160,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	269,93	A
Velocità / Speed	2983	rpm
Coppia / Torque	512,20	Nm



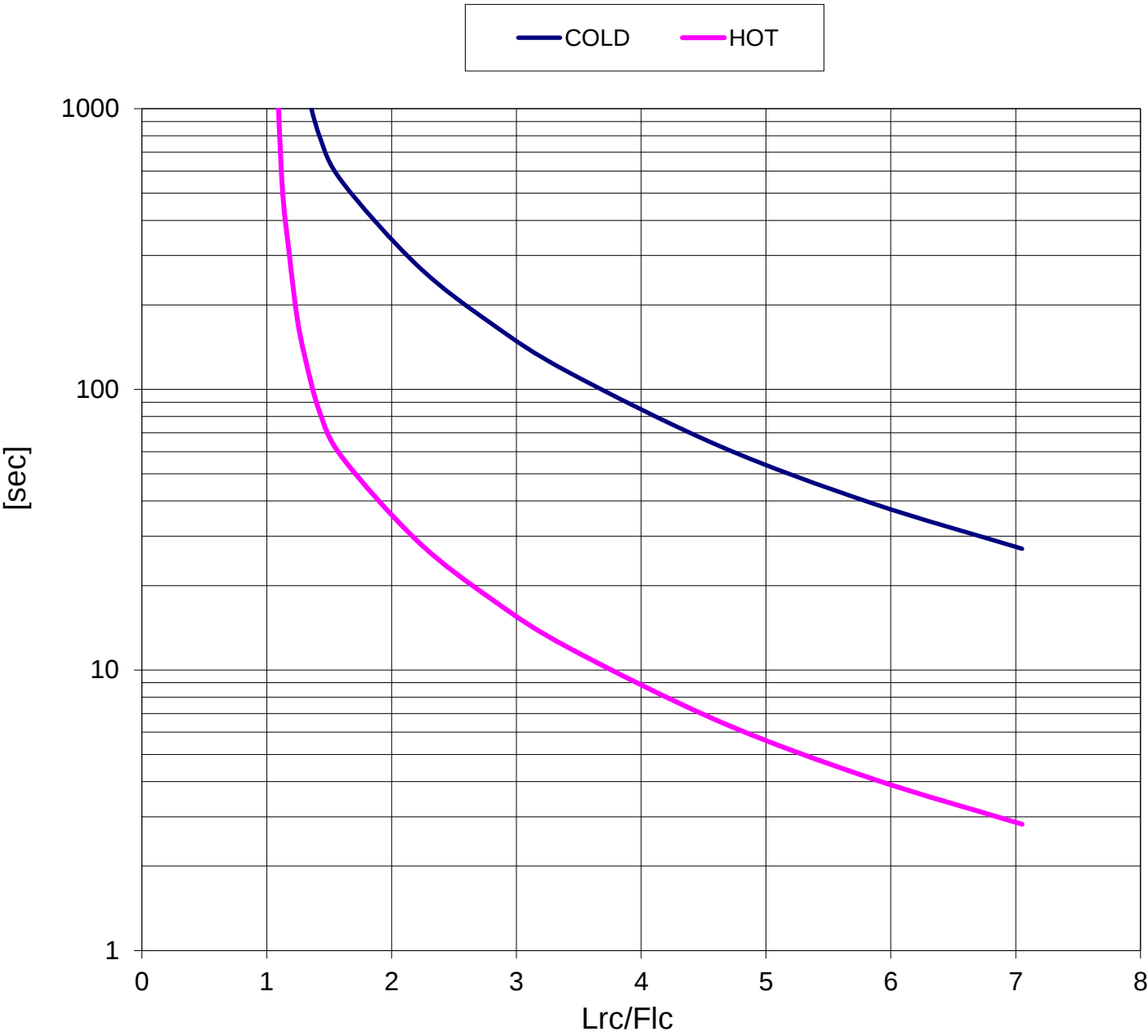
Valori calcolati - Data obtained by calculation method

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	E3AB30 315ML 2	
Potenza nominale / Rated power	160,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	269,93	A
Velocità / Speed	2983	rpm
Coppia / Torque	512,20	Nm



Valori calcolati - Data obtained by calculation method

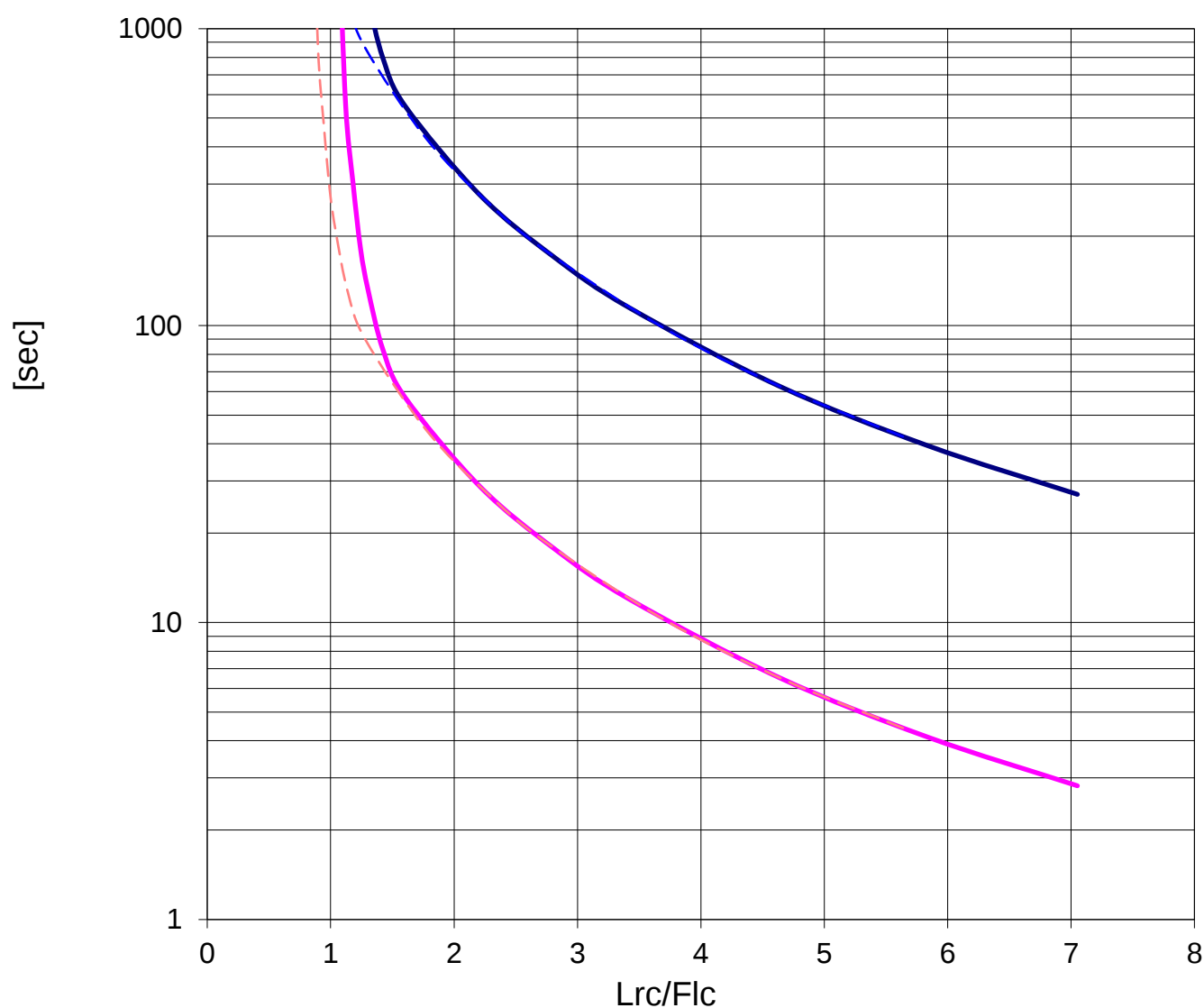
CURVA LIMITE CORRENTE TEMPO (Tensione ridotta)
THERMAL WITHSTAND CURVE (Reduced voltage)

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

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

Motore / Motor	E3AB30 315ML 2	
Potenza nominale / Rated power	160,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	269,93	A
Velocità / Speed	2983	rpm
Coppia / Torque	512,20	Nm

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



Valori calcolati - Data obtained by calculation method