

PRODUCT INFORMATION PACKET

Model No: E3TN3002131B30D41100

Catalog No: E3TN3002131B30D41100

Made in Italy TCN Series, General Purpose Low Voltage IEC motor, Increased Safety, 5,50 kW,
3 phase, 2924 RPM, D400/Y690V 50Hz, 132SA Frame B3, 2 Poles, IC411



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Nameplate Specifications

Output HP	7.50 Hp	Output KW	5.5 kW
Frequency	50 Hz	Voltage	400/690 V
Current	10.2 A	Speed	2924 rpm
Service Factor	1	Phase	3
Efficiency	89.2 %	Power Factor	0.86
Duty	S1	Insulation Class	F
Frame	132SA	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6308	Opp Drive End Bearing Size	6208
UL	No	CSA	No
CE	Yes	IP Code	IP55
Number of Speeds	1		

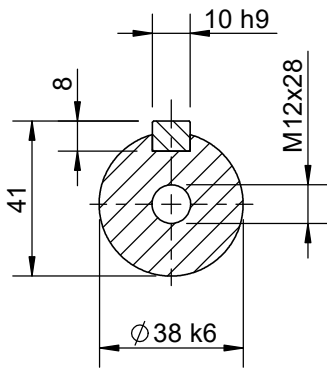
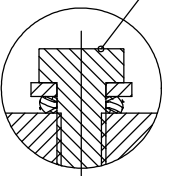
Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	Rotation	Bi-Directional
Mounting	B3	Motor Orientation	Horizontal
Drive End Bearing	2z-C3	Opp Drive End Bearing	2z-C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	465.00 mm	Frame Length	202.00 mm
Shaft Diameter	38.000 mm	Shaft Extension	80 mm
Assembly/Box Mounting	Top		
Outline Drawing	B3A04T8135001A01	Connection Drawing	SC-01-T-1v-1a

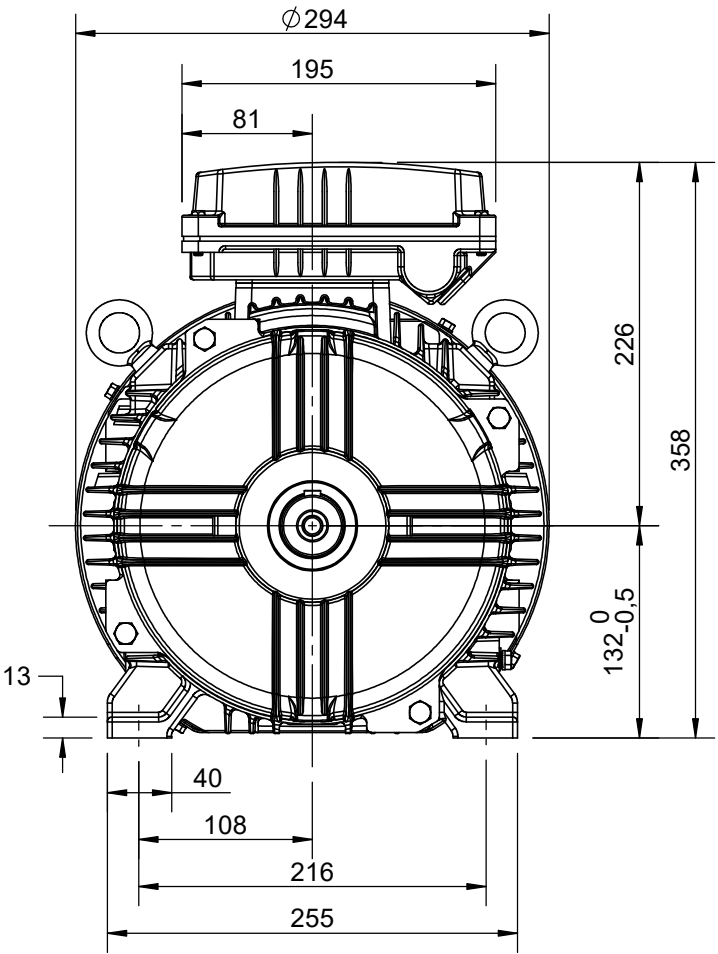
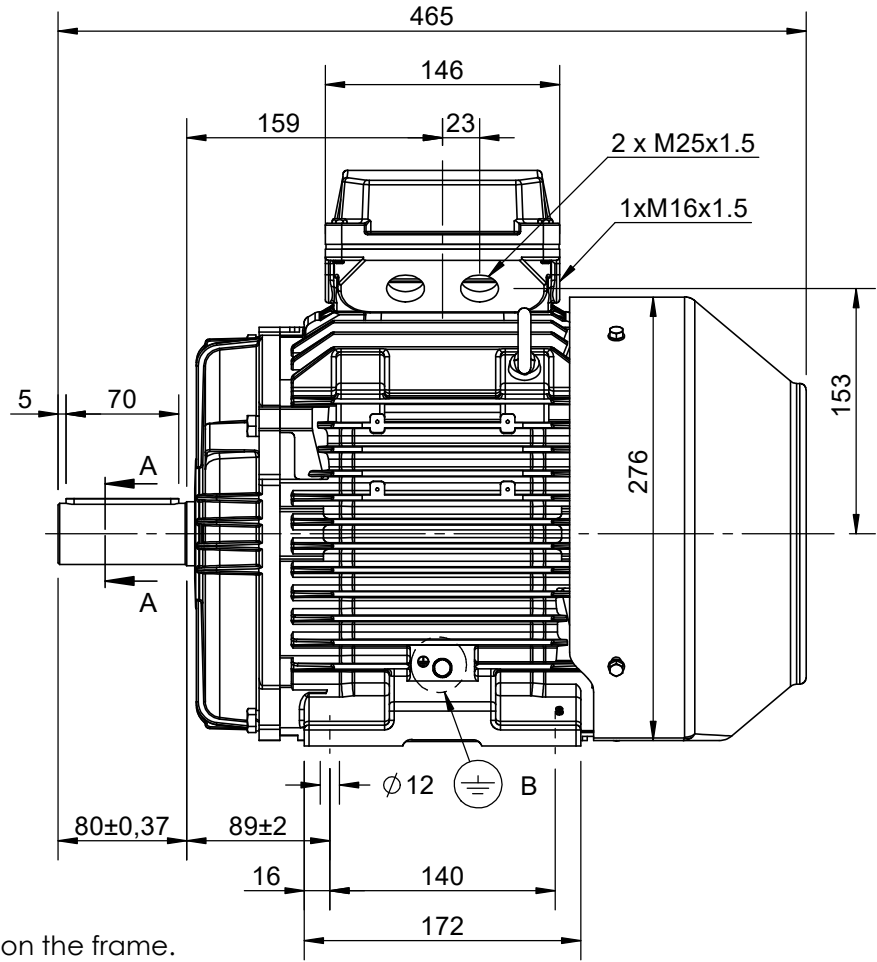
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Earth Terminal suitable for cable section 2.5-35mm²

DETAIL B



SECTION A-A
SCALE 1:2



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
ECO	APPROVED BY	DATE
ECO DESCRIPTION		
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TOLERANCES (EXCEPT AS NOTED) TOLERANCES: ±2
DIMENSIONS ARE IN mm ACCORDING TO IEC 60072
SERIAL NUMBER

DRAWN BY	TN
DATE	3/11/2021
APPROVED BY	LP
DATE	4/11/2021
REFERENCE	
FIRST ANGLE PROJECTION	

DESCRIPTION	
Motor 132 TC (S) B3	
SIZE	DRAWING NUMBER
A4	B3A04T8135001A01
3 of 11	
SHEET	1 OF 2

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**



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	
R4 - R5 - R6 (II sensore - <i>sensor</i>)	3	Termistore PT100 3 fili - <i>Thermistor PT 100 with 3 wires</i>
R7 - R8 - R9 (III sensore - <i>sensor</i>)	3	
R11 - R12 - R13 (anteriore - <i>DE</i>)	3	
R21 - R22 - R23 (posteriore - <i>NDE</i>)	3	Termistore PT100 su cuscinetto - <i>Thermistor PT 100 on bearing</i>
TB1 - TB2 (allarme- <i>warning</i>)	2	Protettore bimetallico normalmente chiuso -
TB3 - TB4 (intervento- <i>switch off</i>)	2	<i>Normally closed bi-metallic switch (**)</i>
TB8 - TB9 (intervento- <i>switch off</i>)	2	Protettore bimetallico del freno normalmente chiuso -
		<i>NC brake bi-metallic switch (**)</i>
TM1 - TM2 (allarme- <i>warning</i>)	2	Protettore bimetallico normalmente aperto -
TM3 - TM4 (intervento- <i>switch off</i>)	2	<i>Normally open bi-metallic switch (**)</i>
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



Flameproof
Motors

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	II3G	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 +/- 10%	

Ex ec IIB T3 Gc	IP55
Ex ec IIB Gc	IP55
Tem. Amb. Max. / Max Amb. Temp.	40 °C
Altitudine / Altitude	< 1000 mslm / masl
Frequenza / Frequency	50 Hz +/- 3%

DATI FUNZIONALI E COSTRUTTIVI - PERFORMANCE AND CONSTRUCTION DATA

1	Quantità / Quantity		01
2	Motore tipo / Motor type		TCN 132SA2
3	Numero di serie / Serial Number		
4	Forma costruttiva / Shape		B3
5	Certificato / Certificate	TÜV IT	20 ATEX 103X
6			
Dati nominali / Rated data			
7	Poli / Pole	n°	2
8	Potenza nominale / Rated power	kW	5,50
9	Corrente nominale / Rated current	A	10,20
10	Velocità nominale / Full Load speed	1/min	2924
11	Collegamento / Winding connection		D
12	Isolamento / Insulation class		F
13	Sovratemperatura / Temperature rise		DT80K
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
18	Giri / Speed	1/min	2924
19	Corr. / Curr.	A	10,20
20	Rend / Eff	%	89,2
21	cos φ	-	0,87
Performances all'avviamento / Starting performances			
22	Ia/In - LRC/FLC	%	815
23	Cosphi a rotore bloccato / LR power factor		0,49
	Tempo a rotore bloccato / LRWT		
24	100% Un (A caldo / Warm)	sec	5
25	(A freddo / Cold)	sec	13
26	80% Un (A caldo / Warm)	sec	8
27	(A freddo / Cold)	sec	21
	Tempo di avviamento ammissibile / ART		
28	100% Un	sec	11
29	80% Un	sec	18
Curva di coppia / Speed-torque values			
30	Coppia nominale / Rated Torque	Nm	17,96
31	Ca/Cn - LRT/FLT	%	240
32	Cmax/Cn - BDT/FLT	%	355
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	-	6308 ZZ C3
45	Cuscinetto post / NDE bearing	-	6208 ZZ C3
46	Carico radiale max / Max radial load in X1	N	2060
47	Carico assiale max / Max axial load	N	1333
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	71
52	Momento d'inerzia / Moment of inertia	kgm2	0,0169
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	75
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	IEC 60423	2xM25+1xM16
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	PTC
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

Prepared by : GC

Tolleranze secondo - Tolerances according IEC 60034-1

Rev. 0

Data / Date

26 July 2021



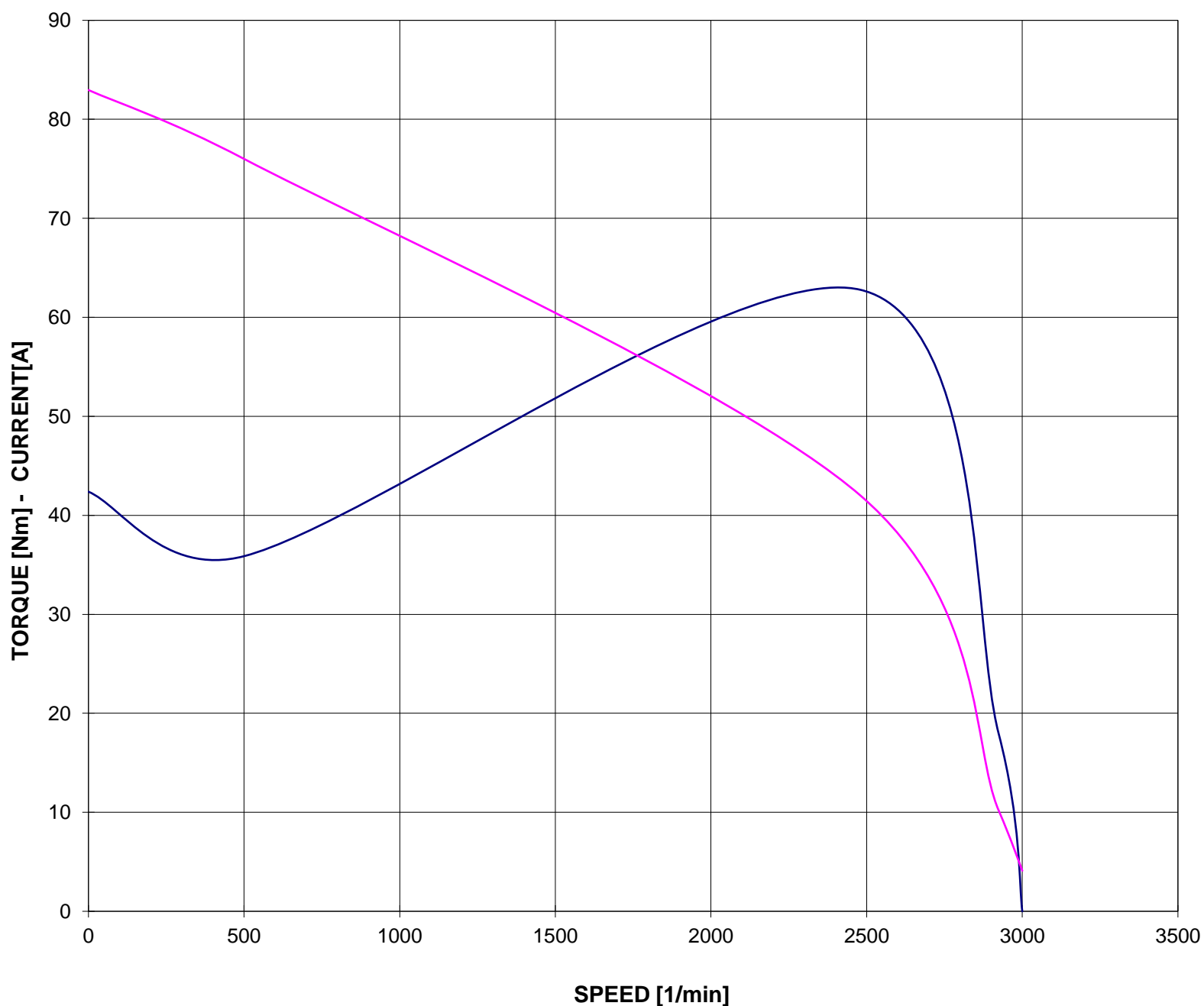
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CURVA COPPIA/CORRENTE-GIRI TORQUE/CURRENT-SPEED DIAGRAM

Cliente / Customer -
 Ordine cliente / Customer order -
 Impianto / Plant -
ITEM -
 Conferma ordine / Acknowledgment -
 Numero di serie / Serial Number -

Motore / Motor	TCN 132SA2	
Potenza nominale / Rated power	5,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	10,20	A
Velocità / Speed	2924	rpm
Coppia / Torque	17,96	Nm

— COPPIA - TORQUE — CORRENTE - CURRENT



Valori calcolati - Data obtained by calculation method
 Documento preliminare - Preliminary document

Data / Date 01-set-21



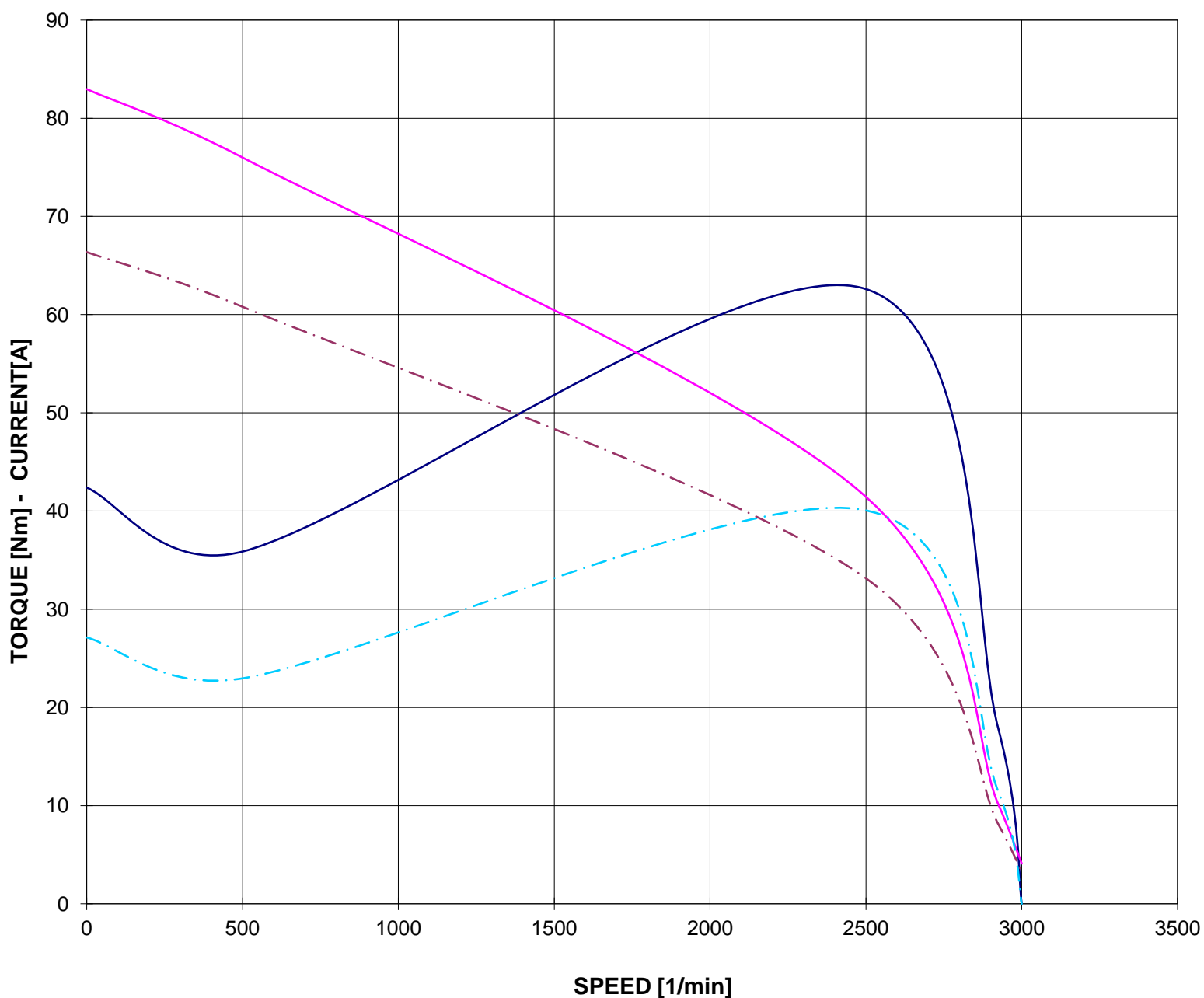
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Motors

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 **TCN 132SA2**
 Potenza nominale / Rated power 5,50 kW
 Poli / Pole 2
 Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz
 Corrente / Rated current 10,20 A
 Velocità / Speed 2924 rpm
 Coppia / Torque 17,96 Nm

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



Valori calcolati - Data obtained by calculation method
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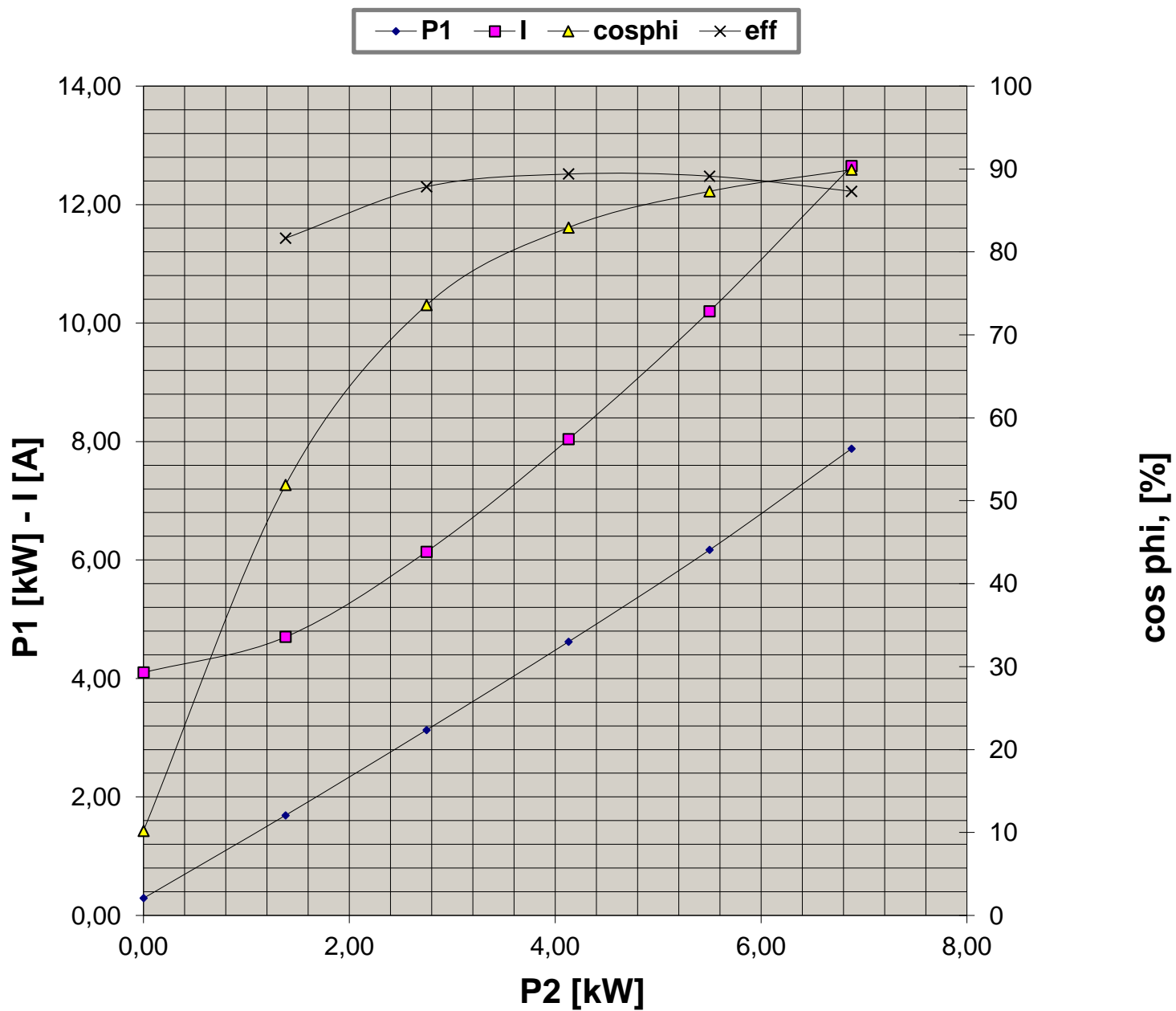
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CURVE CARATTERISTICHE PERFORMANCE CURVES

Cliente / Customer -
 Ordine cliente / Customer order -
 Impianto / Plant -
ITEM -
 Conferma ordine / Acknowledgment -
 Numero di serie / Serial Number -

Motore / Motor	TCN 132SA2	
Potenza nominale / Rated power	5,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	10,20	A
Velocità / Speed	2924	rpm
Coppia / Torque	17,96	Nm



Valori calcolati - Data obtained by calculation method
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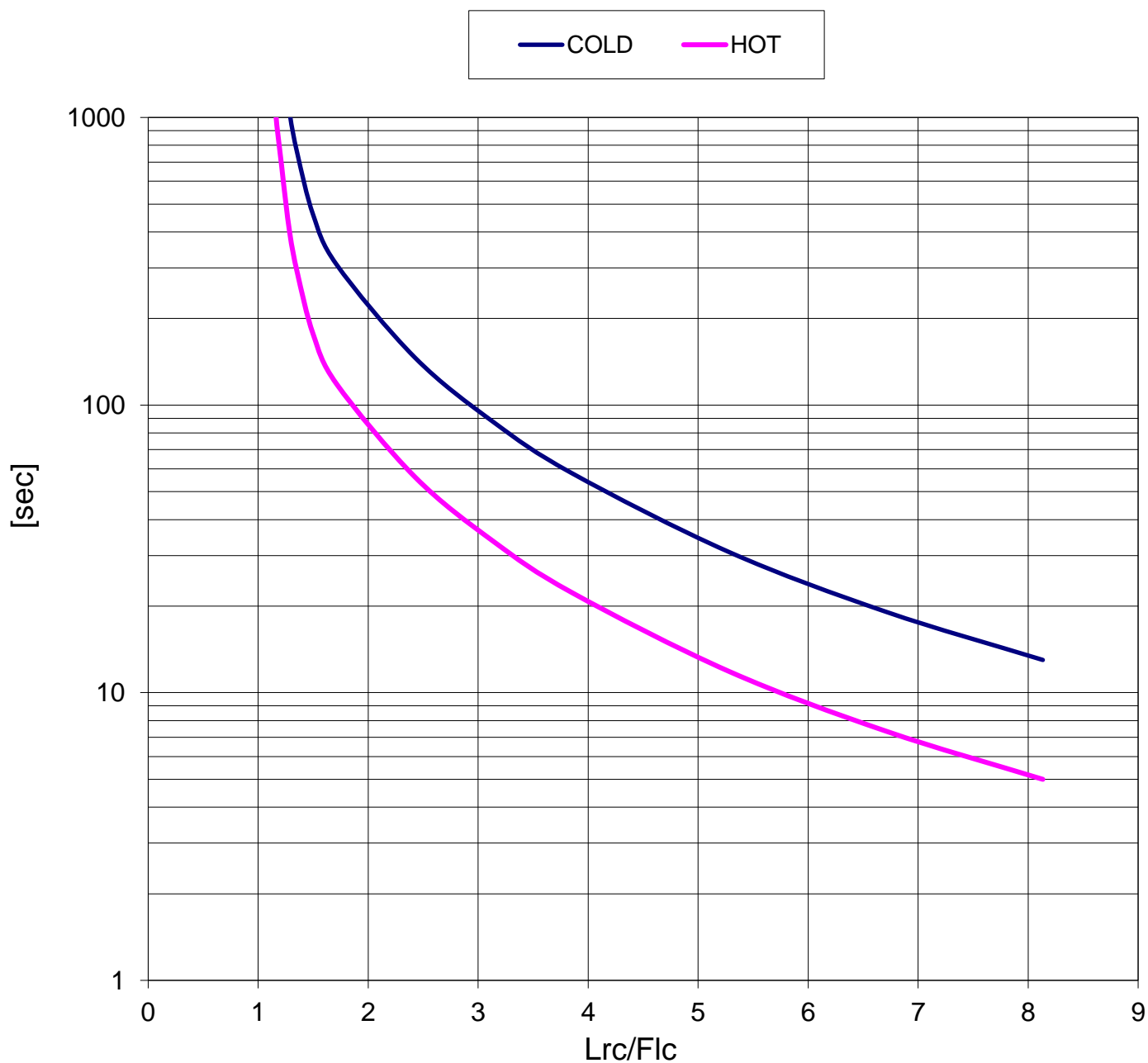


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CURVA LIMITE CORRENTE TEMPO THERMAL WITHSTAND CURVE

Cliente / Customer -
 Ordine cliente / Customer order -
 Impianto / Plant -
ITEM -
 Conferma ordine / Acknowledgment -
 Numero di serie / Serial Number -

Motore / Motor	TCN 132SA2	
Potenza nominale / Rated power	5,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	10,20	A
Velocità / Speed	2924	rpm
Coppia / Torque	17,96	Nm



Valori calcolati - Data obtained by calculation method
 Documento preliminare - Preliminary document

Data / Date 01-set-21

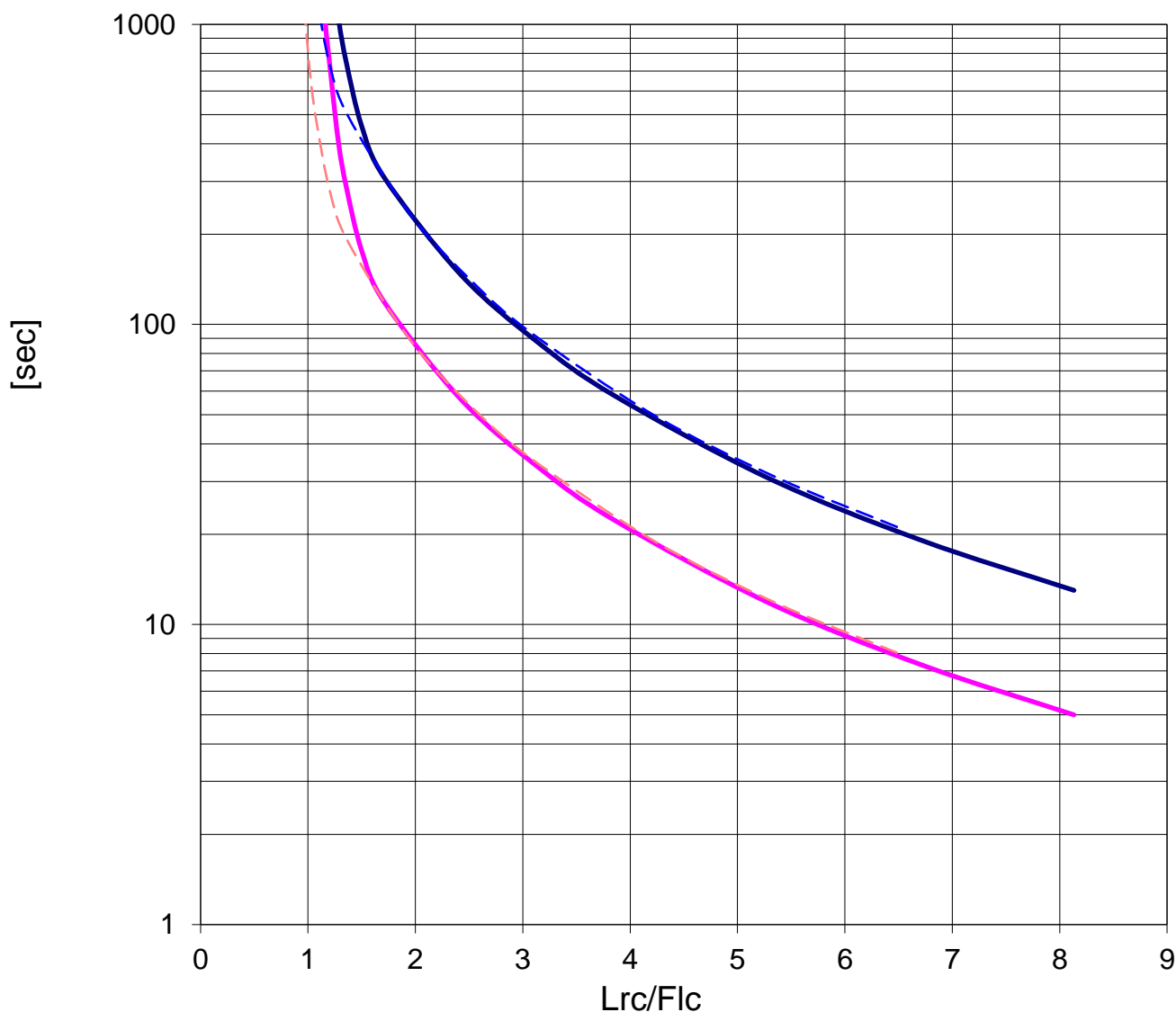
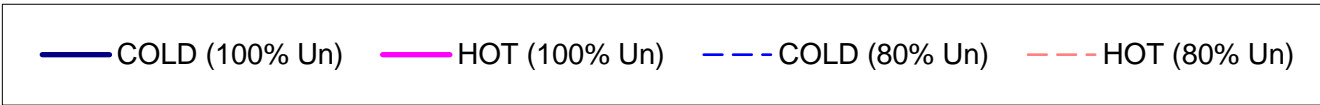


Flameproof
Motors

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	TCN 132SA2	
Potenza nominale / Rated power	5,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	10,20	A
Velocità / Speed	2924	rpm
Coppia / Torque	17,96	Nm



Valori calcolati - Data obtained by calculation method
 Documento preliminare - Preliminary document

Data / Date 01-set-21