

PRODUCT INFORMATION PACKET

Model No: E3TN3004105B30S41100

Catalog No: E3TN3004105B30S41100

Made in Italy TCN Series, General Purpose Low Voltage IEC motor, Increased Safety, 3,00 kW,
3 phase, 1455 RPM, D230/Y400V 50Hz, 100LB Frame B3, 4 Poles, IC411



Regal and CEMP are trademarks of Regal Rexnord Corporation or one of its affiliated companies.

©2022 Regal Rexnord Corporation, All Rights Reserved. MC017097E

Nameplate Specifications

Output HP	4 Hp	Output KW	3.0 kW
Frequency	50 Hz	Voltage	230/400 V
Current	5.9 A	Speed	1455 rpm
Service Factor	1	Phase	3
Efficiency	87.8 %	Power Factor	0.83
Duty	S1	Insulation Class	F
Frame	100LB	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6206	Opp Drive End Bearing Size	6206
UL	No	CSA	No
CE	Yes	IP Code	IP55
Number of Speeds	1		

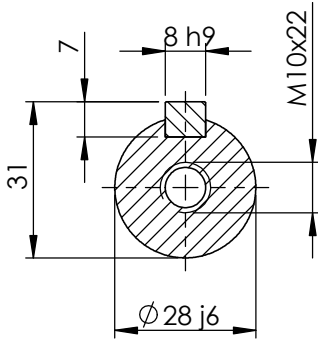
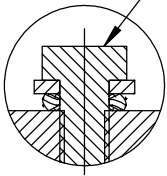
Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	4	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	398.00 mm	Frame Length	200.00 mm
Shaft Diameter	28.000 mm	Shaft Extension	60 mm
Assembly/Box Mounting	Top		
Connection Drawing	SC-01-T-1v-1a	Outline Drawing	B3A04T8100001A01

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:12/02/2022

DETAIL B

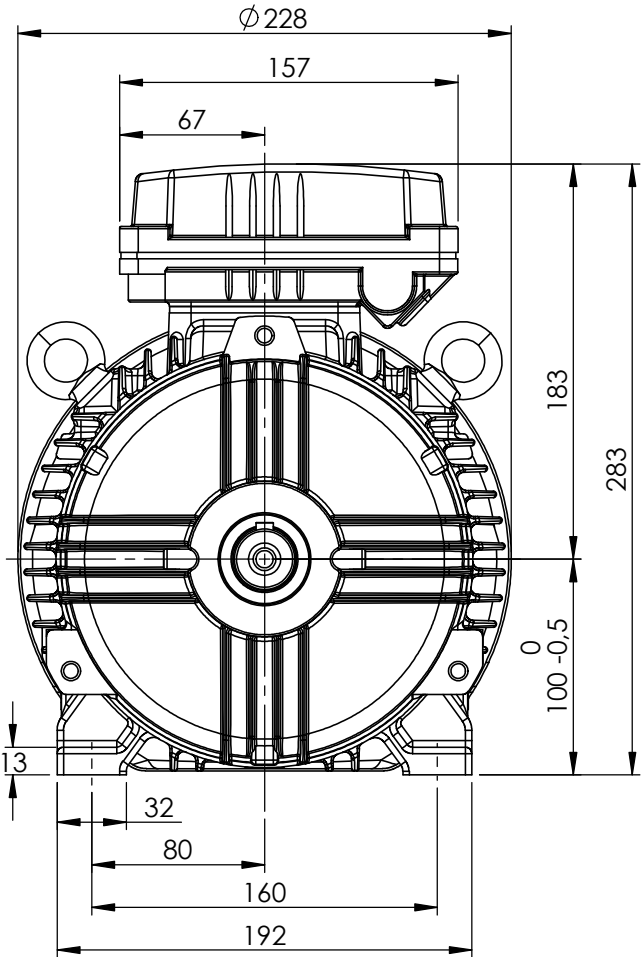
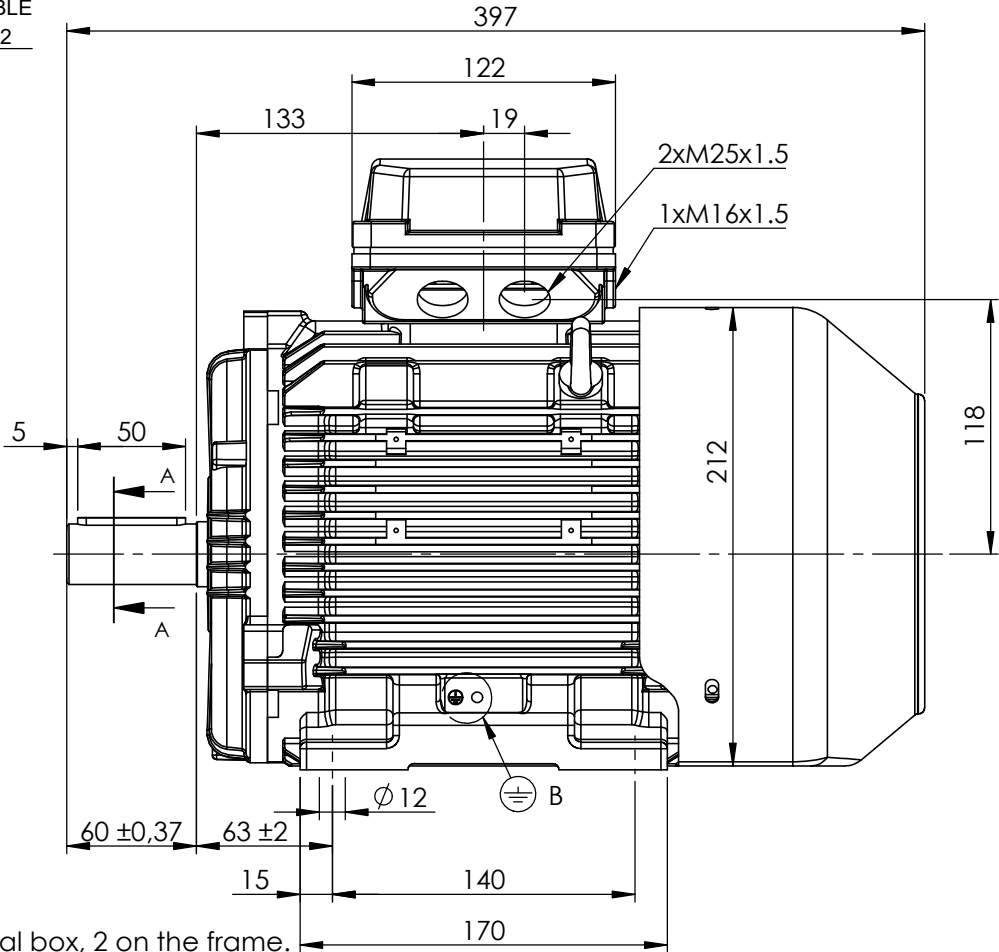
EARTH TERMINAL
SUITABLE FOR CABLE
SECTION 1.5-10MM2



SECTION A-A
SCALE 1 : 1.5

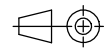


Earth terminal: 1 in the terminal box, 2 on the frame.



CUSTOMER REFERENCE AND ADDITIONAL INFORMATION:

MOTOR TYPE AND DESCRIPTION:

DRAWING REVISION 1	REVISION BY TN	DATE 21/04/2022	TOLERANCES (EXCEPT AS NOTED) TOLERANCES: ±2 * TOLERANCES: ±0.8 DIMENSIONS ARE IN mm ACCORDING TO IEC 60072	DRAWN BY TN	REGAL™ cemp			
ECO	APPROVED BY LP	DATE 22/04/2022		DATE 01/11/2021	DESCRIPTION Motor 100 TC (L) B3			
ECO DESCRIPTION				APPROVED BY LP				
				DATE 02/11/2021				
COPYRIGHT CEMP Srl. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF CEMP Srl. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.			SERIAL NUMBER	REFERENCE	SIZE A4		DRAWING NUMBER B3A04T8100001A01	SHEET 1 OF 2
				FIRST ANGLE PROJECTION				

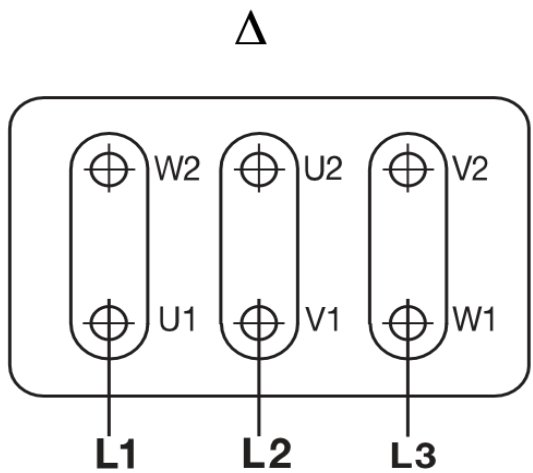
Schema di collegamento - *Connection diagram*
Schemas de branchement - *Schaltplan*
Esquemas de conexión



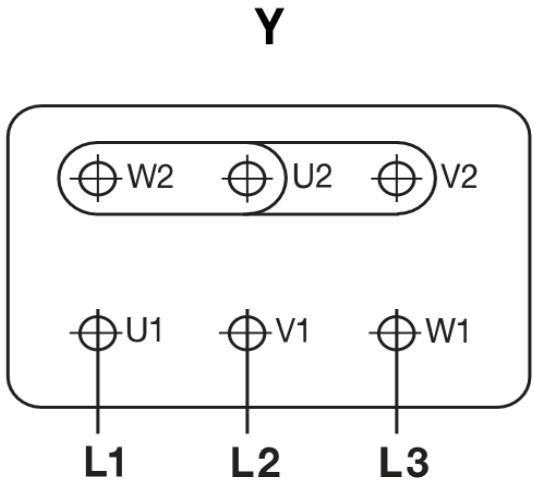
DTE 01/01/2004
SC - 01 - T - 1v.doc

**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	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 100LB4
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°	4
8	Potenza nominale / Rated power	kW	3,00
9	Corrente nominale / Rated current	A	5,87
10	Velocità nominale / Full Load speed	1/min	1455
11	Collegamento / Winding connection		Y
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	1455
19	Corr. / Curr.	A	5,87
20	Rend / Eff	%	87,8
21	cos φ	-	0,84
Performances all'avviamento / Starting performances			
22	Ia/In - LRC/FLC	%	825
23	Cosphi a rotore bloccato / LR power factor		0,61
	Tempo a rotore bloccato / LRWT		
24	100% Un (A caldo / Warm)	sec	4
25	(A freddo / Cold)	sec	9
26	80% Un (A caldo / Warm)	sec	6
27	(A freddo / Cold)	sec	14
	Tempo di avviamento ammissibile / ART		
28	100% Un	sec	8
29	80% Un	sec	12
Curva di coppia / Speed-torque values			
30	Coppia nominale / Rated Torque	Nm	19,69
31	Ca/Cn - LRT/FLT	%	290
32	Cmax/Cn - BDT/FLT	%	330
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	6206 ZZ C3
45	Cuscinetto post / NDE bearing	6206 ZZ C3
46	Carico radiale max / Max radial load in X1	892
47	Carico assiale max / Max axial load	513
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
52	Momento d'inerzia / Moment of inertia	kgm2
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)
54	Vibrazioni / Vibration level	IEC 34-14
55	Limite norma / Vibration limit	mm/sec
56		
57		
Dati entrata cavi - verniciatura / Cable entry and painting		
63	Entrata cavi / Cable entry	IEC 60423
64	Ciclo verniciatura / Painting cycle	STD
65	Colore finale / Final colour	RAL
66		
67		
68		
69		
70		
71		
Ausiliari - Auxiliaries		
72	Sonde termiche / Temperature detector	PTC
73	Sonde termiche / Temperature detector	-
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

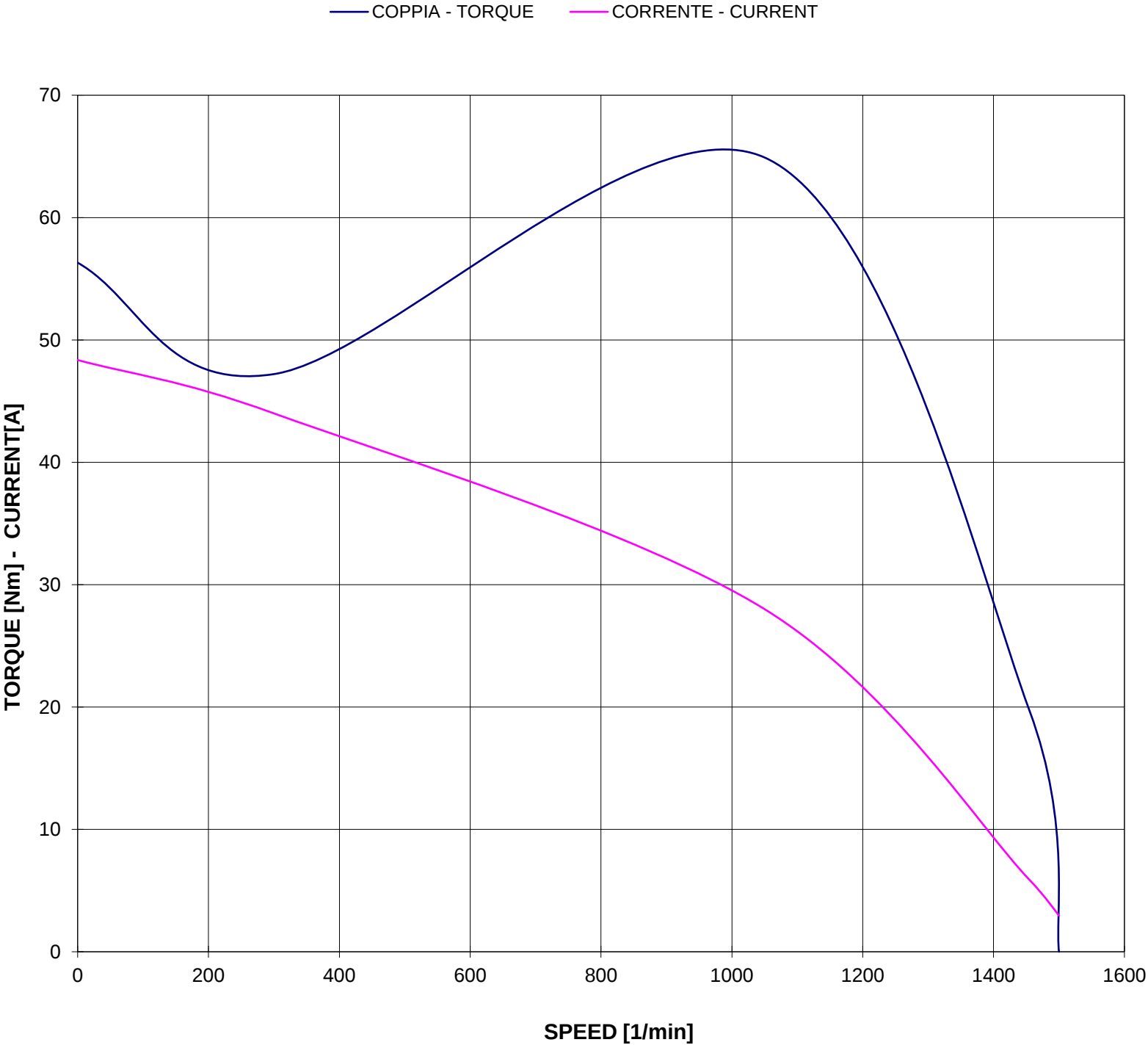
Data / Date

28 July 2021



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 100LB4	
Potenza nominale / Rated power	3,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	5,87	A
Velocità / Speed	1455	rpm
Coppia / Torque	19,69	Nm



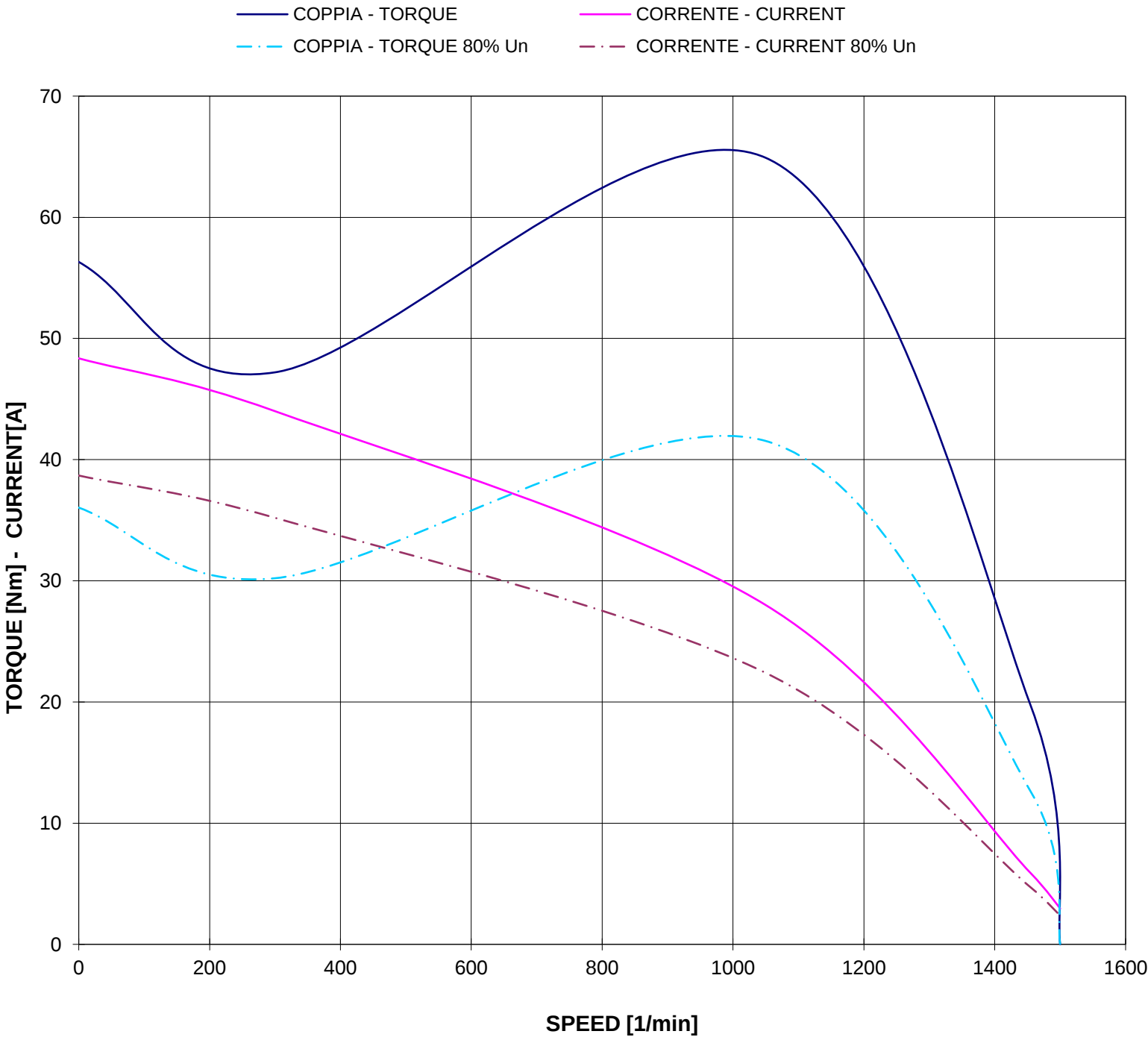


CURVA COPPIA/CORRENTE-GIRI (Tensione ridotta)
TORQUE/CURRENT-SPEED DIAGRAM (Reduced voltage)

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

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

Motore / Motor	TCN 100LB4	
Potenza nominale / Rated power	3,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	5,87	A
Velocità / Speed	1455	rpm
Coppia / Torque	19,69	Nm



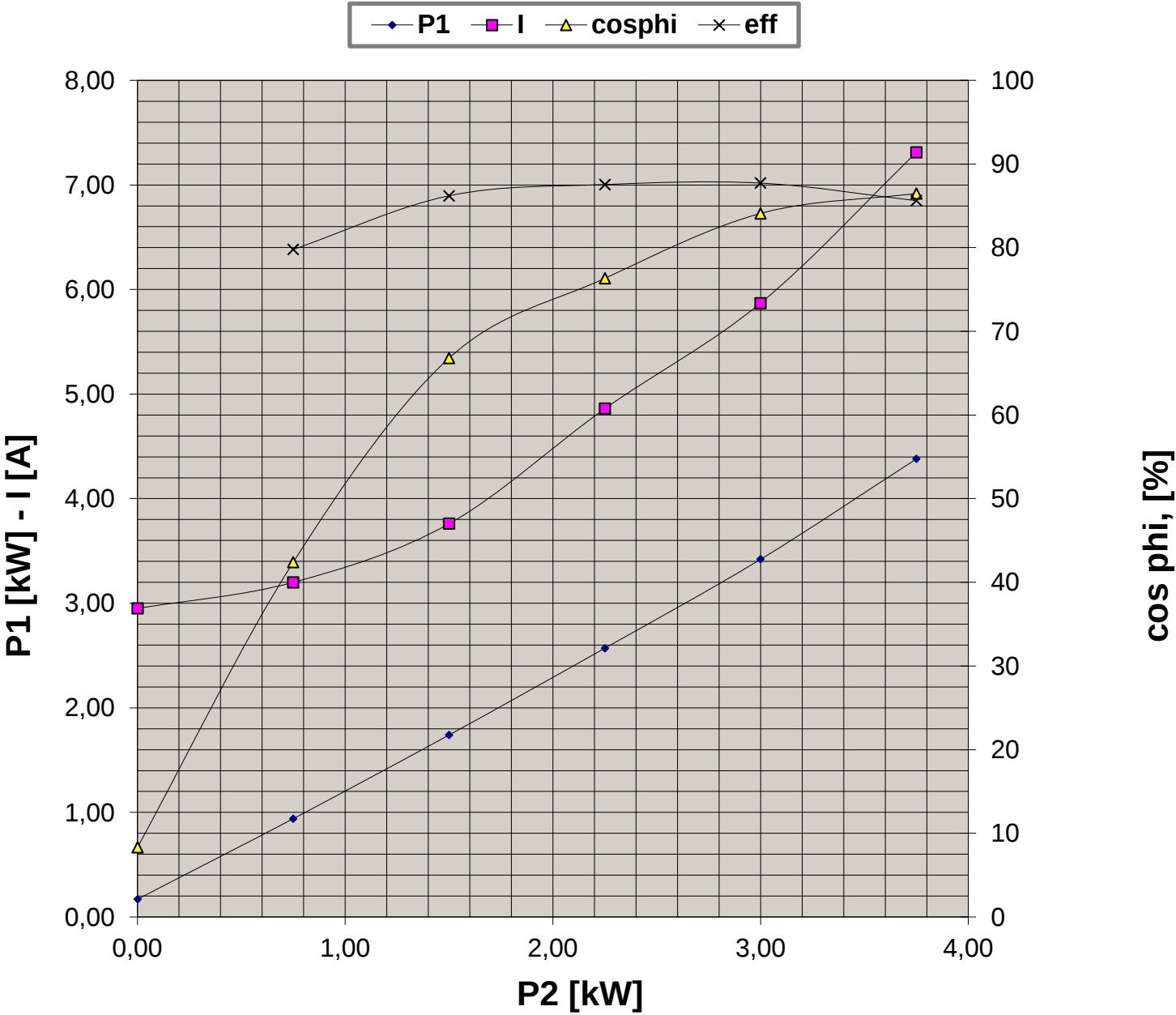


CURVE CARATTERISTICHE
PERFORMANCE CURVES

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

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

Motore / Motor	TCN 100LB4	
Potenza nominale / Rated power	3,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	5,87	A
Velocità / Speed	1455	rpm
Coppia / Torque	19,69	Nm



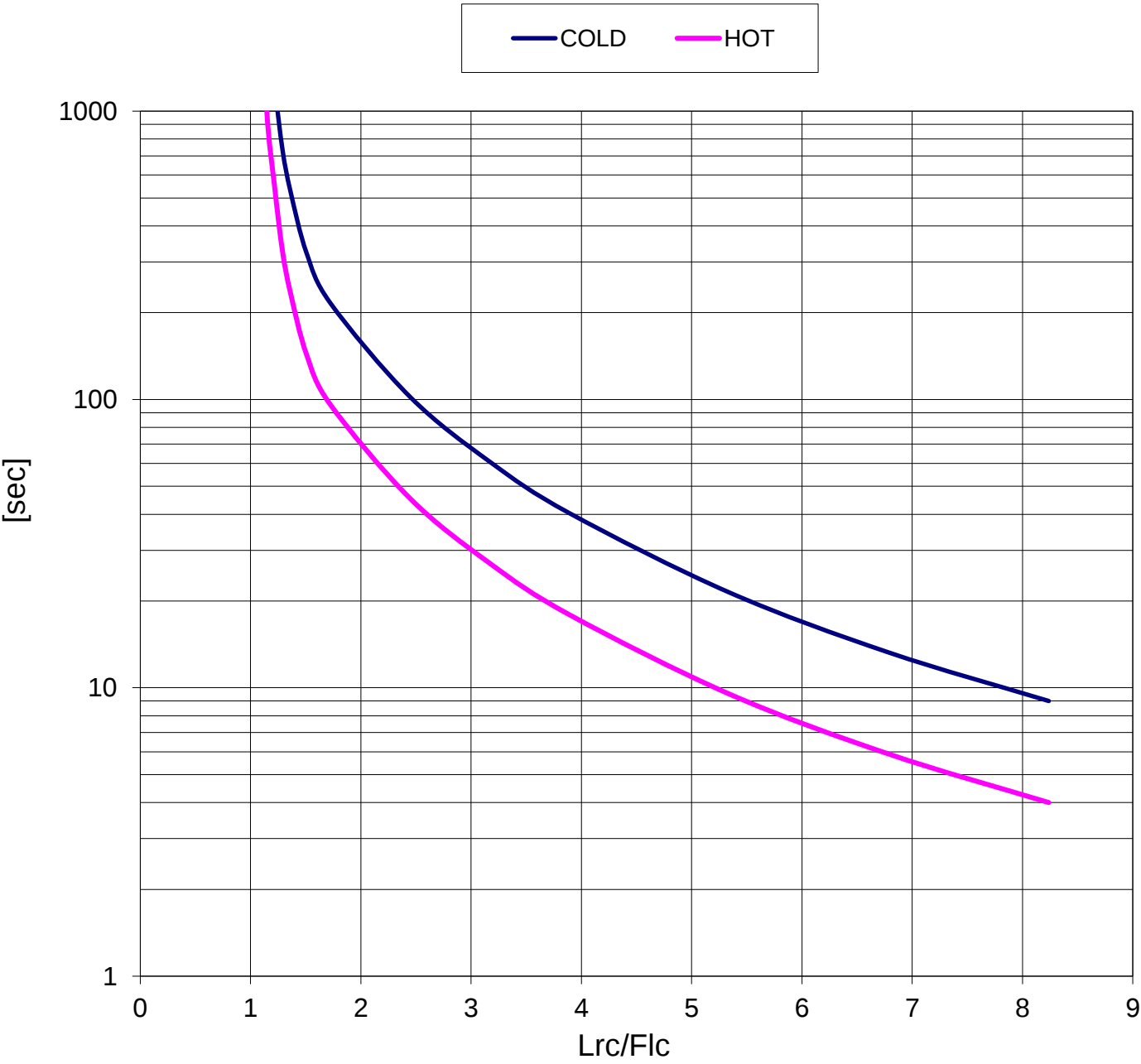


CURVA LIMITE CORRENTE TEMPO
THERMAL WITHSTAND CURVE

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

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

Motore / Motor	TCN 100LB4	
Potenza nominale / Rated power	3,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	5,87	A
Velocità / Speed	1455	rpm
Coppia / Torque	19,69	Nm





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

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

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

Motore / Motor	TCN 100LB4	
Potenza nominale / Rated power	3,00	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	5,87	A
Velocità / Speed	1455	rpm
Coppia / Torque	19,69	Nm

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

