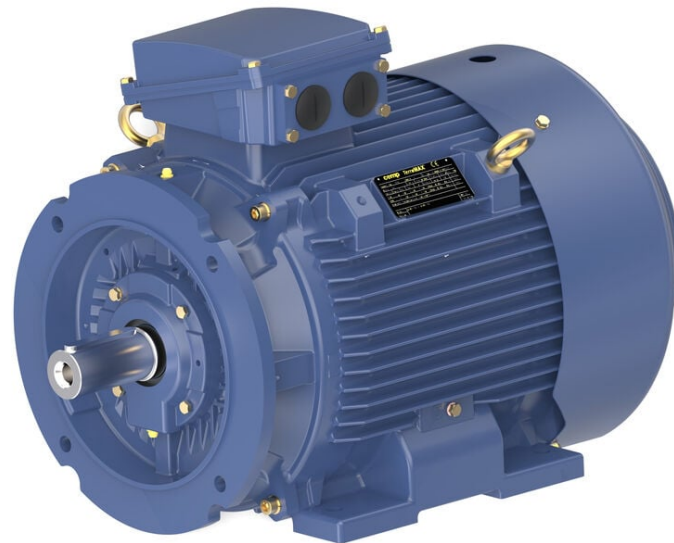


# PRODUCT INFORMATION PACKET

Model No: E3TI3002183B35D41100

Catalog No: E3TI3002183B35D41100

Made in Italy TCI Series, General Purpose Low Voltage IEC motor, Safe Area, 22,00 kW, 3 phase,  
2963 RPM, D400/Y690V 50Hz, 180M Frame B35, 2 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	<b>30 Hp</b>	Output KW	<b>22.0 kW</b>
Frequency	<b>50 Hz</b>	Voltage	<b>400/690 V</b>
Current	<b>38.7 A</b>	Speed	<b>2963 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>92.7 %</b>	Power Factor	<b>0.88</b>
Duty	<b>S1</b>	Insulation Class	<b>F</b>
Frame	<b>180M</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Ambient Temperature	<b>40 °C</b>	Drive End Bearing Size	<b>6311</b>
Opp Drive End Bearing Size	<b>6211</b>	UL	<b>No</b>
CSA	<b>No</b>	CE	<b>Yes</b>
IP Code	<b>IP55</b>	Number of Speeds	<b>1</b>

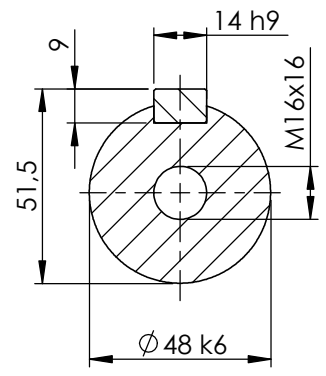
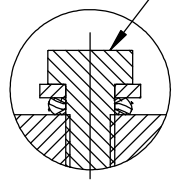
### Technical Specifications

Electrical Type	<b>Squirrel Cage</b>	Starting Method	<b>Direct On Line</b>
Poles	<b>2</b>	Rotation	<b>Bi-Directional</b>
Mounting	<b>B35</b>	Motor Orientation	<b>Horizontal</b>
Drive End Bearing	<b>2z-C3</b>	Opp Drive End Bearing	<b>2z-C3</b>
Frame Material	<b>Cast Iron</b>	Shaft Type	<b>Keyed</b>
Overall Length	<b>712.00 mm</b>	Frame Length	<b>328.00 mm</b>
Shaft Diameter	<b>48.000 mm</b>	Shaft Extension	<b>110 mm</b>
Assembly/Box Mounting	<b>Top</b>		
Outline Drawing	<b>B3A04T8185001D01</b>	Connection Drawing	<b>SC-01-T-1v-1a</b>

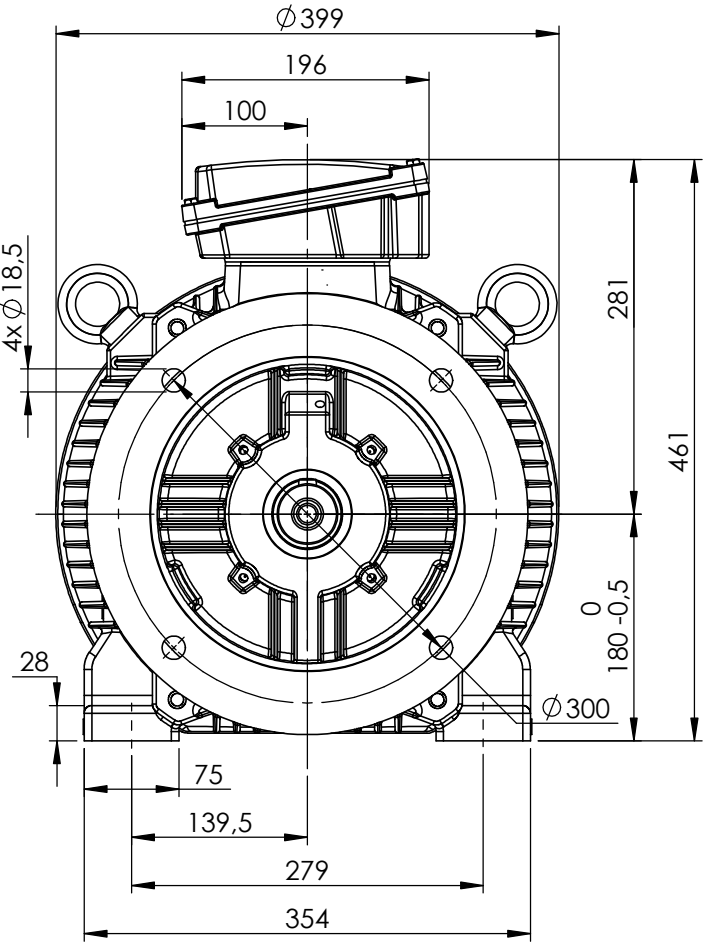
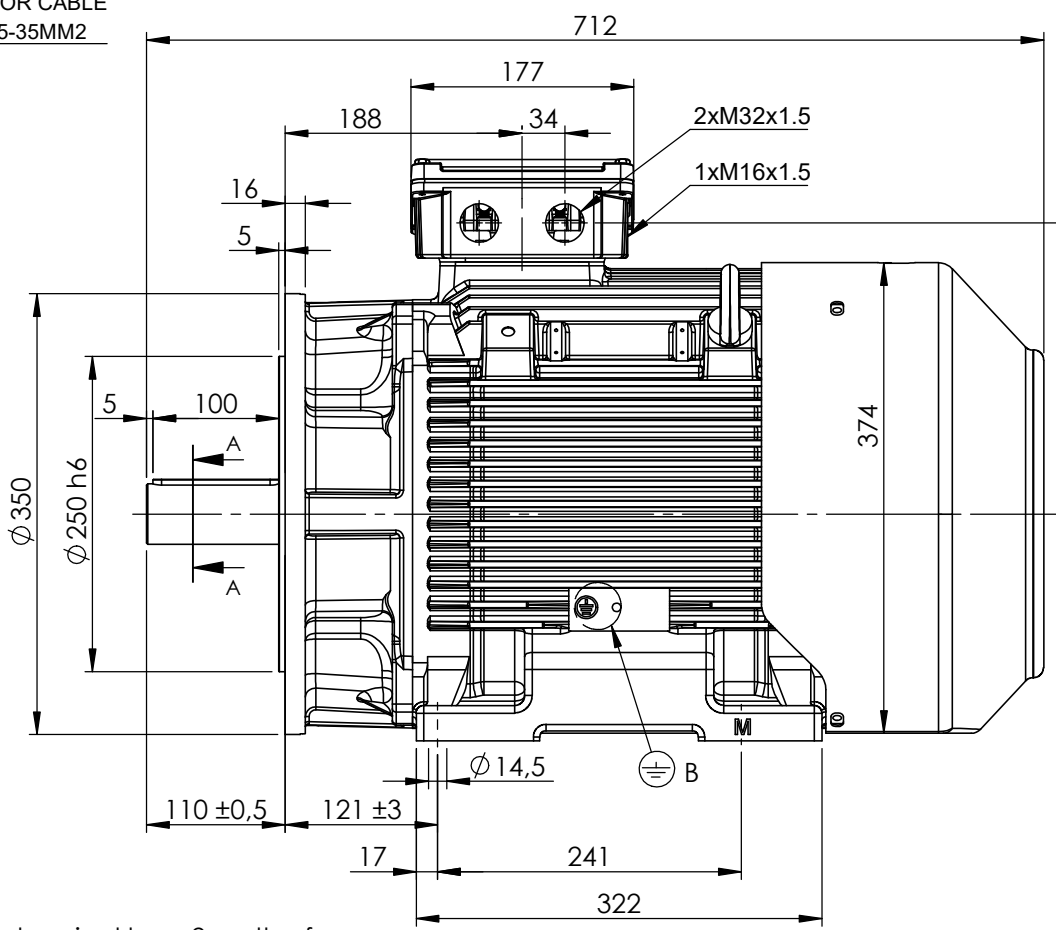
This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:12/02/2022

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

TOLERANCES (EXCEPT AS NOTED)  
TOLERANCES: ±2  
\* TOLERANCES: ±0.8  
DIMENSIONS ARE IN mm  
ACCORDING TO IEC 60072

DRAWN BY	TN
DATE	11/11/2021
APPROVED BY	LP
DATE	12/11/2021
REFERENCE	

DESCRIPTION

**Motor 180 TC (S) B35**

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

FIRST ANGLE PROJECTION

SIZE	DRAWING NUMBER	SHEET
A4	B3A04T8185001D01	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

<b>Marcatura Morsetti Ausiliari - <i>Additional terminals marking (IEC60034-8)</i></b>		
<b>Marcatura <i>Marking</i></b>	<b>No. morsetti <i>terminals</i></b>	<b>Morsetto ausiliare per: <i>Additional terminal for:</i></b>
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

**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		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%	

	IP55
	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		TCI 180M2
3	Numero di serie / Serial Number		
4	Forma costruttiva / Shape		B35
5			
6			
<b>Dati nominali / Rated data</b>			
7	Poli / Pole	n°	2
8	Potenza nominale / Rated power	kW	22,00
9	Corrente nominale / Rated current	A	38,75
10	Velocità nominale / Full Load speed	1/min	2963
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
<b>Performances elettriche / Electrical performances</b>			
	Carico / Load	4/4	3/4
18	Giri / Speed	1/min	2963
19	Corr. / Curr.	A	38,75
20	Rend / Eff	%	92,7
21	cos φ	-	0,89
<b>Performances all'avviamento / Starting performances</b>			
22	Ia/In - LRC/FLC	%	785
23	Cosphi a rotore bloccato / LR power factor		0,44
	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	30
	Tempo di avviamento ammissibile / ART		
28	100% Un	sec	17
29	80% Un	sec	26
<b>Curva di coppia / Speed-torque values</b>			
30	Coppia nominale / Rated Torque	Nm	70,91
31	Ca/Cn - LRT/FLT	%	205
32	Cmax/Cn - BDT/FLT	%	340
33			
34			
35			
<b>Varie / Other</b>			
36			
37			
38			
39			

<b>Servizio / Duty</b>			
40	Servizio / Duty type	-	S1
41	Intermittenza / Cyclic duration factor	-	-
42	Avviamenti-ora / Starting-hour	-	-
43	Tempo ciclo / Time		-
<b>Cuscinetti / Bearings</b>			
44	Cuscinetto ant / DE bearing	-	6311 ZZ C3
45	Cuscinetto post / NDE bearing	-	6211 ZZ C3
46	Carico radiale max / Max radial load in X1	N	3630
47	Carico assiale max / Max axial load	N	2493
48	Tipo grasso / Grease type		LGHP2 SKF or equivalent
49	Intervallo lubrificazione / Lubrication	h	-
50	Quantità grasso / Quantity grease	gr	-
<b>Caratteristiche meccaniche / mechanical specification</b>			
51	Massa / Mass	kg	211
52	Momento d'inerzia / Moment of inertia	kgm2	0,1470
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	72
54	Vibrazioni / Vibration level	IEC 34-14	A
55	Limite norma / Vibration limit	mm/sec	2,20
56			
57			
<b>Dati entrata cavi - verniciatura / Cable entry and painting</b>			
63	Entrata cavi / Cable entry	IEC 60423	2xM32+1xM16
64	Ciclo verniciatura / Painting cycle		STD
65	Colore finale / Final colour	RAL	5010
66			
67			
68			
69			
70			
71			
<b>Ausiliari - Auxiliaries</b>			
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			

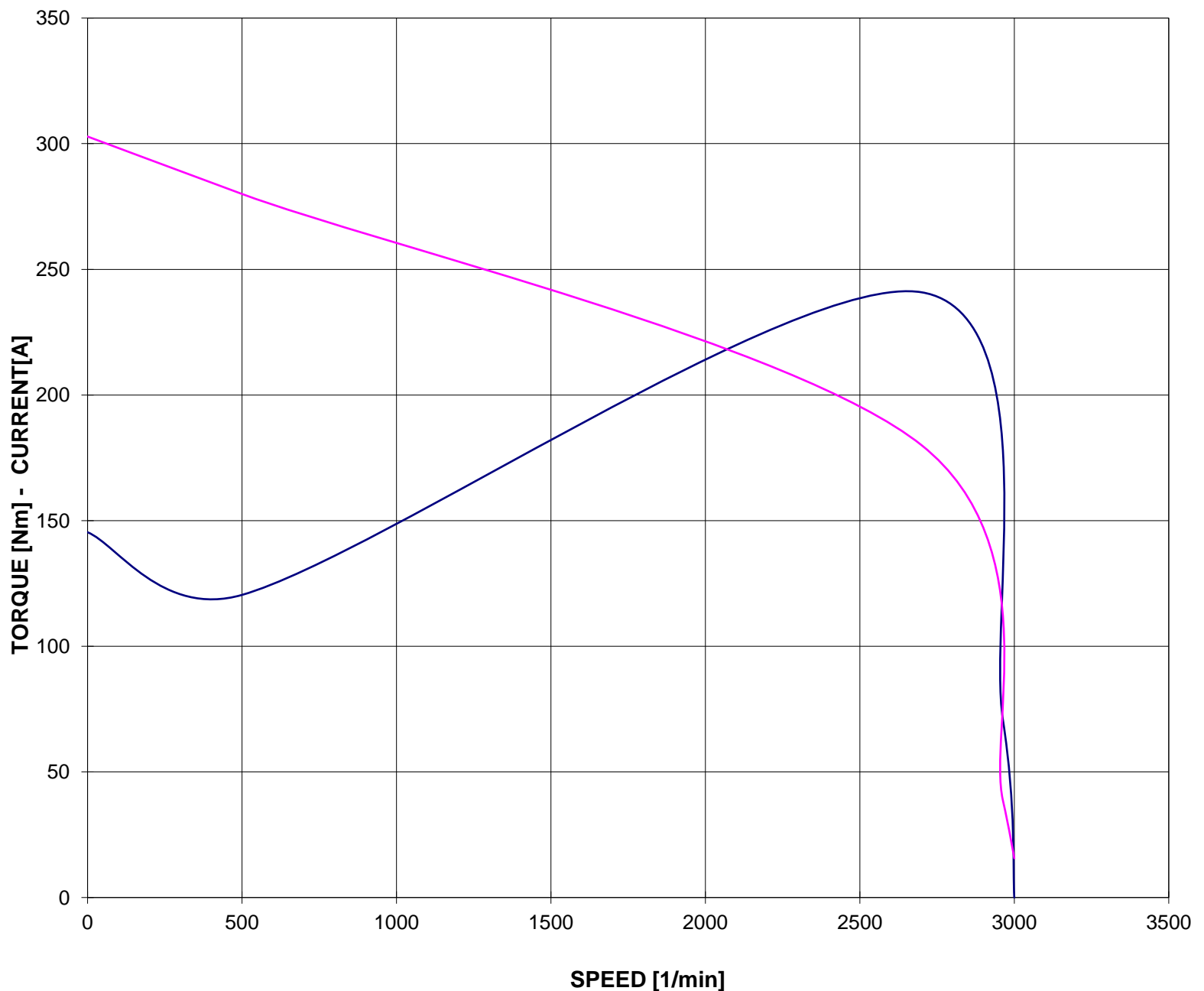
**Documento preliminare - Preliminary data sheet**

**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** **TCI 180M2**  
 Potenza nominale / Rated power 22,00 kW  
 Poli / Pole 2  
 Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz  
 Corrente / Rated current 38,75 A  
 Velocità / Speed 2963 rpm  
 Coppia / Torque 70,91 Nm

— COPPIA - TORQUE — CORRENTE - CURRENT



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

Data / Date 24-feb-22

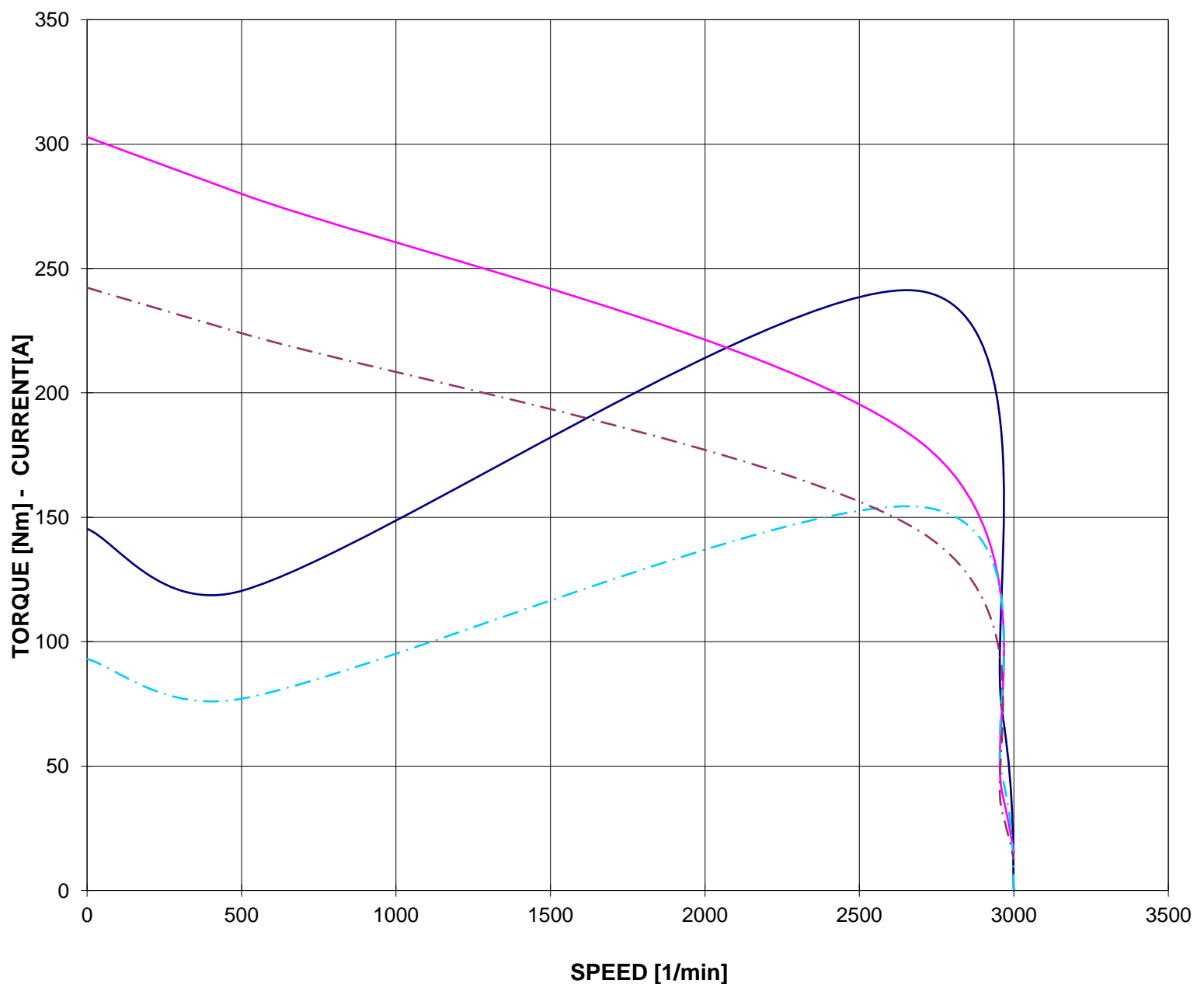


**CURVA COPPIA/CORRENTE-GIRI (Tensione ridotta)**  
**TORQUE/CURRENT-SPEED DIAGRAM (Reduced voltage)**

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

**Motore / Motor** **TCI 180M2**  
Potenza nominale / Rated power 22,00 kW  
Poli / Pole 2  
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz  
Corrente / Rated current 38,75 A  
Velocità / Speed 2963 rpm  
Coppia / Torque 70,91 Nm

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



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

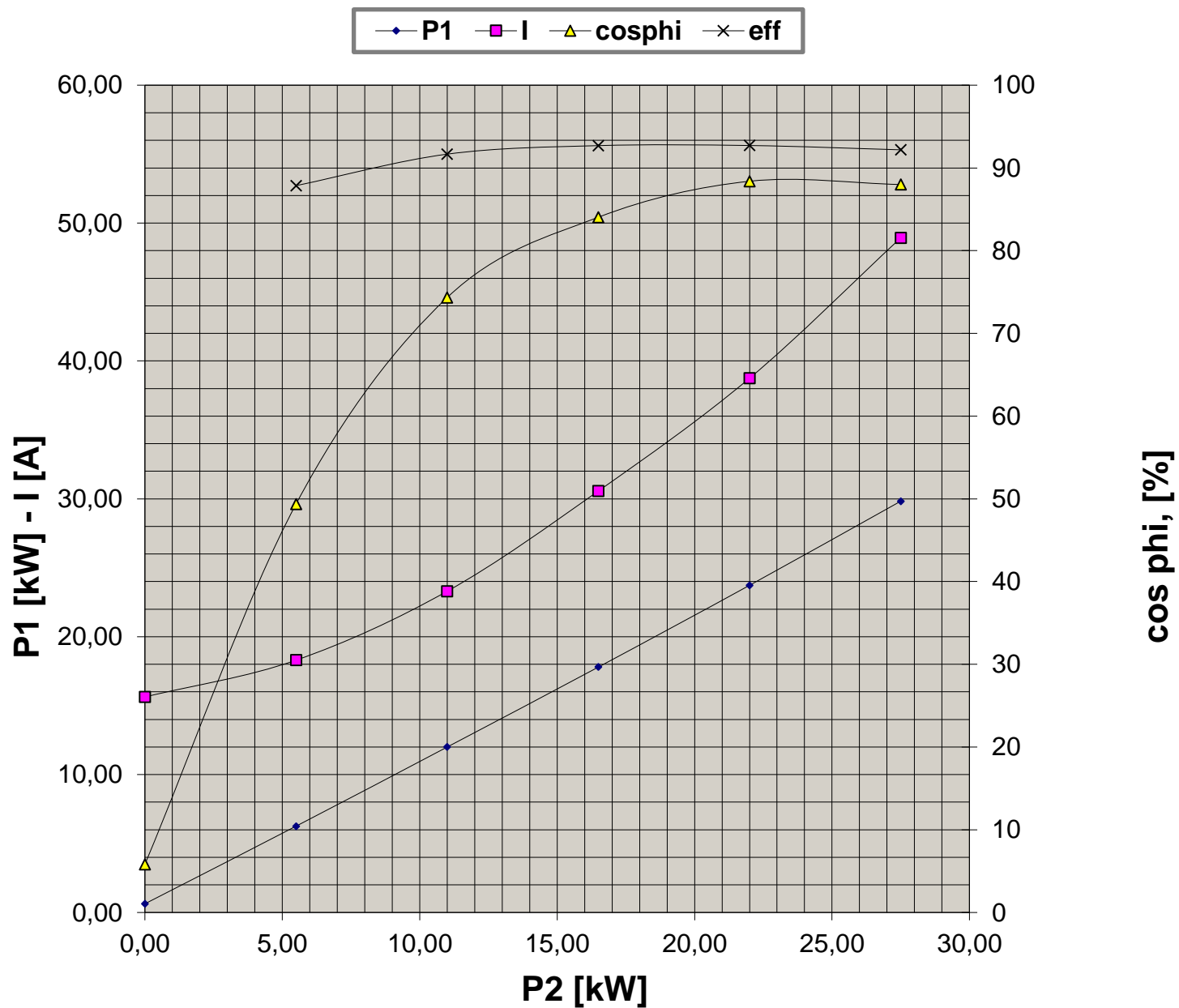
Data / Date 24-feb-22



**CURVE CARATTERISTICHE  
PERFORMANCE CURVES**

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

**Motore / Motor** **TCI 180M2**  
 Potenza nominale / Rated power 22,00 kW  
 Poli / Pole 2  
 Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz  
 Corrente / Rated current 38,75 A  
 Velocità / Speed 2963 rpm  
 Coppia / Torque 70,91 Nm



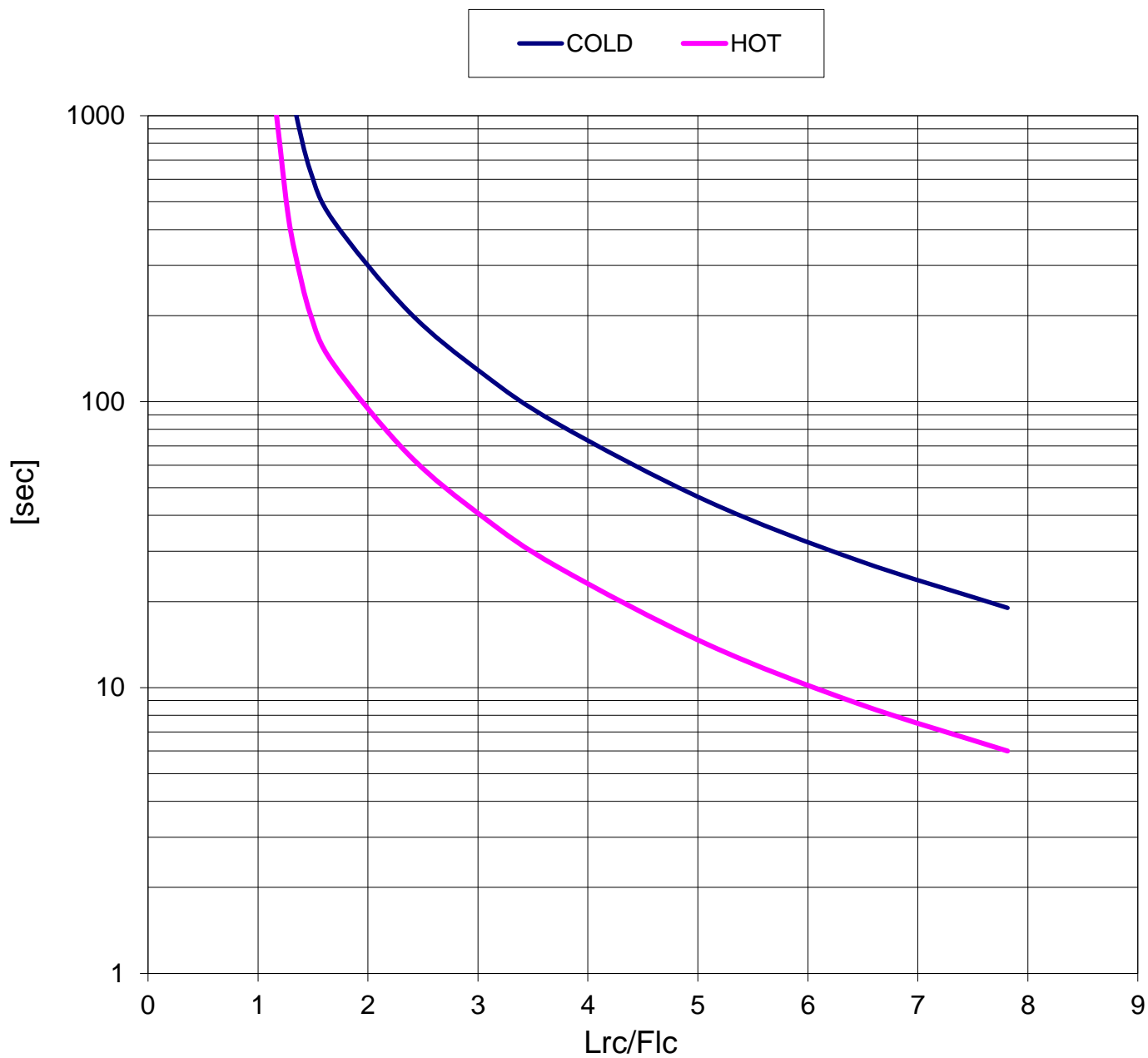
Valori calcolati - Data obtained by calculation method  
 Documento preliminare - Preliminary document

Data / Date 24-feb-22

**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** **TCI 180M2**  
 Potenza nominale / Rated power 22,00 kW  
 Poli / Pole 2  
 Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz  
 Corrente / Rated current 38,75 A  
 Velocità / Speed 2963 rpm  
 Coppia / Torque 70,91 Nm



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

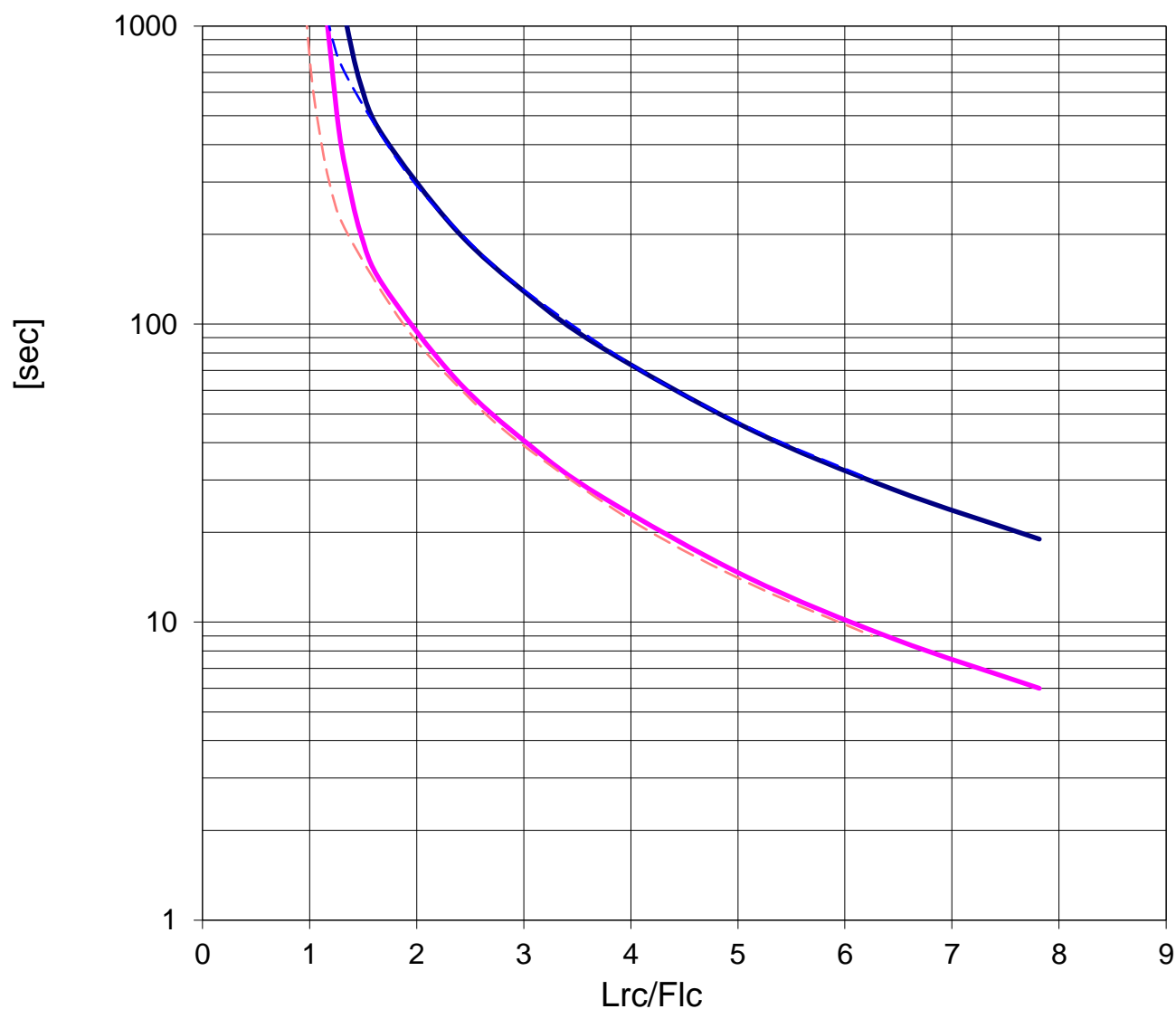
Data / Date 24-feb-22

**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** **TCI 180M2**  
 Potenza nominale / Rated power 22,00 kW  
 Poli / Pole 2  
 Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz  
 Corrente / Rated current 38,75 A  
 Velocità / Speed 2963 rpm  
 Coppia / Torque 70,91 Nm

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



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

Data / Date 24-feb-22