PRODUCT INFORMATION PACKET

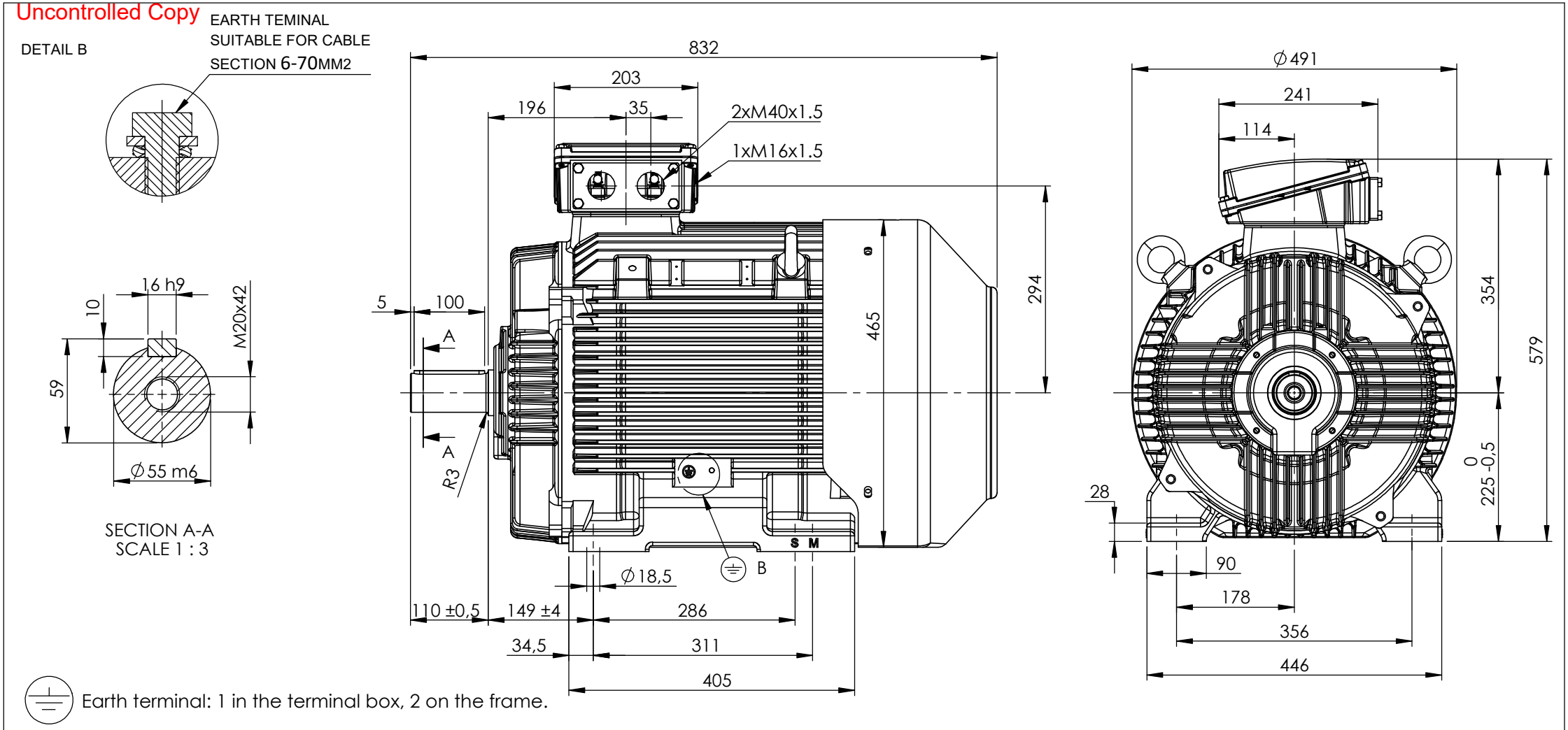
Model No: E3TI3002223B30D41100
Catalog No: E3TI3002223B30D41100
Made in Italy TCI Series, General Purpose Low Voltage IEC motor, Safe Area, 45,00 kW, 3 phase, 2966 RPM, D400/Y690V 50Hz, 225MA Frame B3, 2 Poles, IC411

Nameplate Specifications

Output HP	60 Hp	Output KW	45.0 kW
Frequency	50 Hz	Voltage	400/690 V
Current	78.7 A	Speed	2966 rpm
Service Factor	1	Phase	3
Efficiency	94.4 %	Power Factor	0.87
Duty	S1	Insulation Class	F
Frame	225MA	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6313	Opp Drive End Bearing Size	6213
UL	No	CSA	No
CE	Yes	IP Code	IP55
Number of Speeds	1	Efficiency Class	IE3

Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	Rotation	Bi-Directional
Mounting	B3	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	832.00 mm	Frame Length	425.00 mm
Shaft Diameter	55.000 mm	Shaft Extension	110 mm
Assembly/Box Mounting	Top		
Outline Drawing	B3A04T8220001A01	Connection Drawing	SC-01-T-1v-1a



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 06/05/2022	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 09/05/2022		DATE 17/11/2021		
ECO DESCRIPTION				APPROVED BY LP	DESCRIPTION **Motor 225 2P TC (L) B3**	
				DATE 18/11/2021		
			SERIAL NUMBER	REFERENCE		
				FIRST ANGLE PROJECTION	SIZE A4	DRAWING NUMBER **B3A04T8220001A01**
						SHEET 1 OF 2

Schema di collegamento - *Connection diagram*
Schemas de branchement - *Schaltplän*
Esquemas de conéxiòn

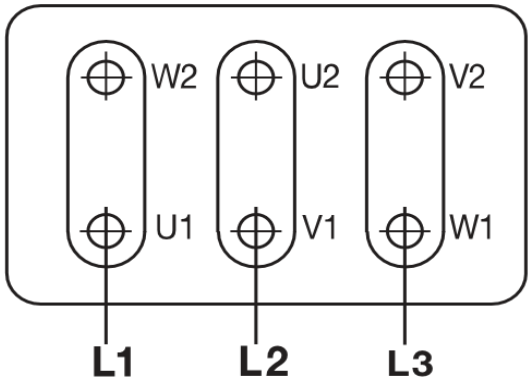
cemp
Flameproof Motors

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

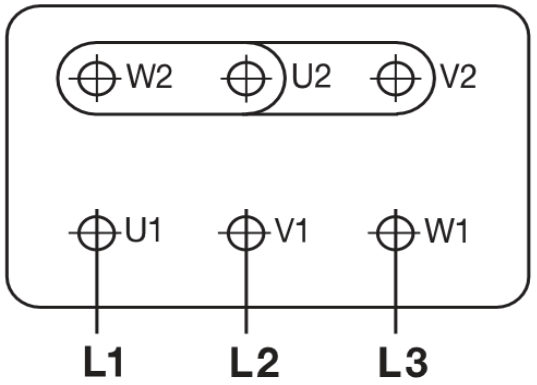
Collegamento - *Connection* - Connexion - *Schaltung* - Conexiòn

Δ



Collegamento - *Connection* - Connexion - *Schaltung* - Conexiòn

Y



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 - *Additional terminals marking* (IEC60034-8)

Marcatura *Marking*	No. morsetti *terminals*	**Morsetto ausiliare per:** *Additional terminal for:*
TP1A - TP2A (allarme- *warning)*	2	Termistori PTC (alta velocità) - *Thermistor PTC (high speed)* [*]
TP1B - TP2B (allarme- *warning)*	2	Termistori PTC (bassa velocità) - *Thermistor PTC (low speed)* [*]
R1 - R2 - R3 (I sensore - *sensor)*	3	Termistore PT100 3 fili - *Thermistor PT 100 with 3 wires*
R4 - R5 - R6 (II sensore - *sensor)*	3	
R7 - R8 - R9 (III sensore - *sensor)*	3	
R11 - R12 - R13 (anteriore - *DE*)	3	Termistore PT100 su cuscinetto - *Thermistor PT 100 on bearing*
R21 - R22 - R23 (posteriore - *NDE*)	3	
TB1 - TB2 (allarme- *warning)*	2	Protettore bimetallico normalmente chiuso - *Normally closed bi-metallic switch* (**)
TB3 - TB4 (intervento- *switch off)*	2	
TB8 - TB9 (intervento- *switch off)*	2	Protettore bimetallico del freno normalmente chiuso - *NC brake bi-metallic switch* (**)
TM1 - TM2 (allarme- *warning)*	2	Protettore bimetallico normalmente aperto - *Normally open bi-metallic switch* (**)
TM3 - TM4 (intervento- *switch off)*	2	
HE1- HE2	2	Resistenze riscaldanti - *Space heaters*
U1 - U2	2	Ventilazione ausiliaria monofase - *Single phase forced ventilation*
U - V - W	2	Ventilazione ausiliaria trifase - *Three phase forced ventilation*
colori secondo schema del produttore - *colours according manufacturer*	9	Encoder
CA1 - CA2	2	Condensatore - *Capacitor*
PE	1	Conduttore di terra - *Earth cable*

[*] U nominale - *U rated* = 6V - max 30V

(**) U nominale - *U rated* = 250V

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FOGLIO DATI PER MOTORI ELETTRICI ASINCRONI TRIFASI : SERIE IEC

DATA SHEET FOR ASYNCHRONOUS THREEPHASE INDUCTION MOTORS: IEC SERIES

Cliente / Customer -	Conferma ordine / Acknowledgment : N° -
Ordine cliente / Customer order : -	Impianto / Plant 0
Item : -	

DATI DI PROGETTO - DESIGN DATA

Modo di protezione		Motore / Frame		IP55
Type of protection		Scatola morsetti / Terminal box		IP55

Tem. Amb. Min. / Min Amb.Temp.	-20 °C	Tem. Amb. Max. / Max Amb. Temp.	40 °C
Umidità relativa / Relative humidity	90%	Altitudine / Altitude	< 1000 mslm / masl
Tensione nominale / Rated Voltage	400 V +/- 10%	Frequenza / Frequency	50 Hz +/- 3%

DATI FUNZIONALI E COSTRUTTIVI - PERFORMANCE AND CONSTRUCTION DATA

1	Quantità / Quantity		01
2	Motore tipo / Motor type		TCI 225MA2
3	Numero di serie / Serial Number		
4	Forma costruttiva / Shape		B3
5			
6			
	Dati nominali / Rated data		
7	Poli / Pole	n°	2
8	Potenza nominale / Rated power	kW	45,00
9	Corrente nominale / Rated current	A	78,74
10	Velocità nominale / Full Load speed	1/min	2966
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	2/4	
18	Giri / Speed	1/min	2966	2975	2984	
19	Corr. / Curr.	A	78,74	60,47	44,32	
20	Rend / Eff	%	94,4	94,7	94,3	
21	cos φ	-	0,87	0,85	0,78	

Performances all'avviamento / Starting performances

22	Ia/In - LRC/FLC	%	690
23	Cosphi a rotore bloccato / LR power factor		0,38
	Tempo a rotore bloccato / LRWT		
24	100% Un (A caldo / Warm)	sec	10
25	(A freddo / Cold)	sec	34
26	80% Un (A caldo / Warm)	sec	16
27	(A freddo / Cold)	sec	53
	Tempo di avviamento ammissibile / ART		
28	100% Un	sec	29
29	80% Un	sec	46

Curva di coppia / Speed-torque values

30	Coppia nominale / Rated Torque	Nm	144,89
31	Ca/Cn - LRT/FLT	%	215
32	Cmax/Cn - BDT/FLT	%	315
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	-	6313 C3
45	Cuscinetto post / NDE bearing	-	6213 C3
46	Carico radiale max / Max radial load in X1	N	4499
47	Carico assiale max / Max axial load	N	3077
48	Tipo grasso / Grease type		LGHP2 SKF or equivalent
49	Intervallo lubrificazione / Lubrication	h	2000
50	Quantità grasso / Quantity grease	gr	24
	Caratteristiche meccaniche / mechanical specification		
51	Massa / Mass	kg	379
52	Momento d'inerzia / Moment of inertia	kgm2	0,4032
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	79
54	Vibrazioni / Vibration level	IEC 34-14	A
55	Limite norma / Vibration limit	mm/sec	2,20
56			
57			
58			
59			
60			
61			
62			

Dati entrata cavi - verniciatura / Cable entry and painting

63	Entrata cavi / Cable entry	IEC 60423	2xM40+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		-
77			

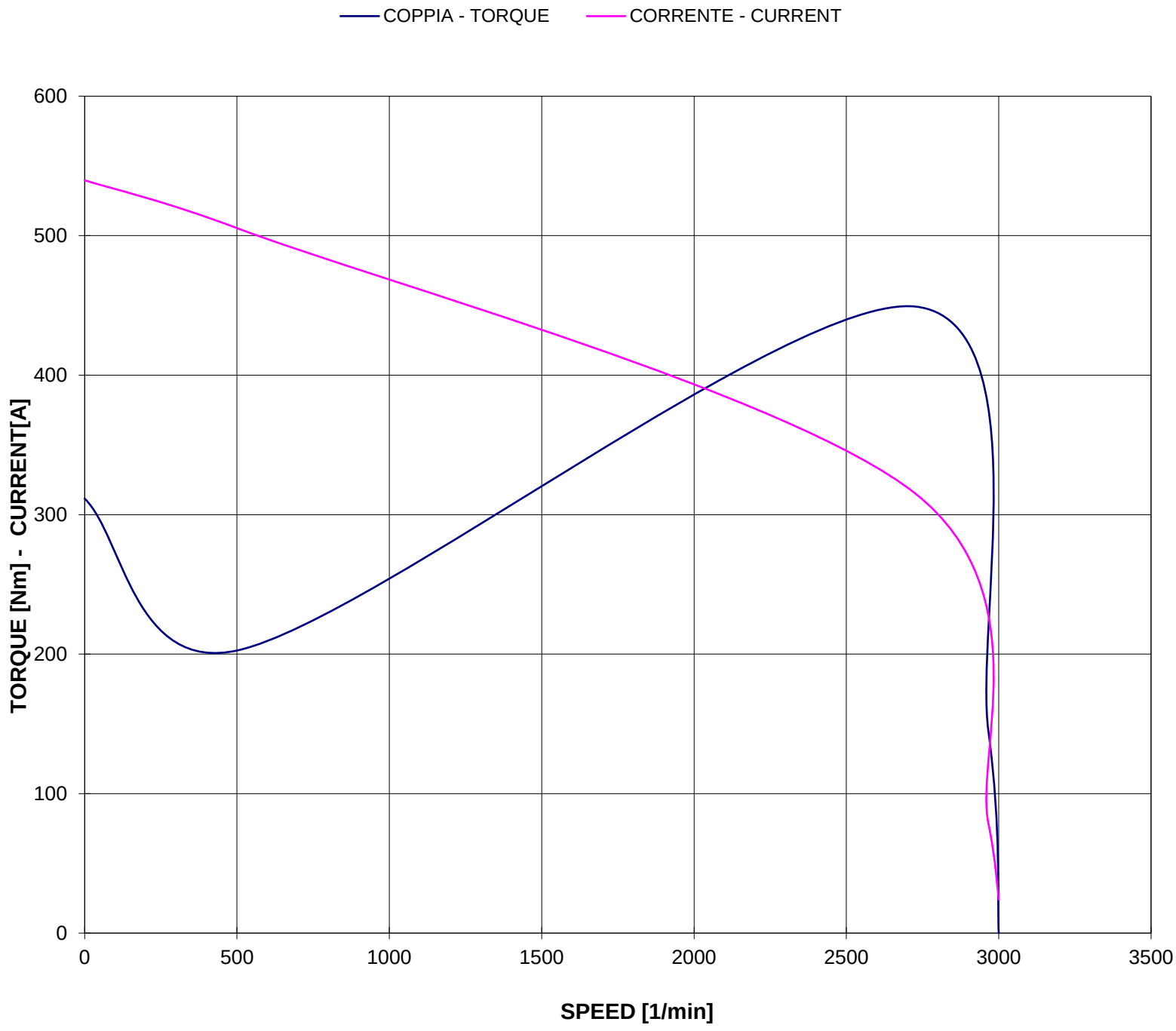
Documento preliminare - Preliminary data sheet

Prepared by : RP Tolleranze secondo - Tolerances according IEC 60034-1 Rev. 0 Data / Date 1 February 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	**TCI 225MA2**	
Potenza nominale / Rated power	45,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	78,74	A
Velocità / Speed	2966	rpm
Coppia / Torque	144,89	Nm



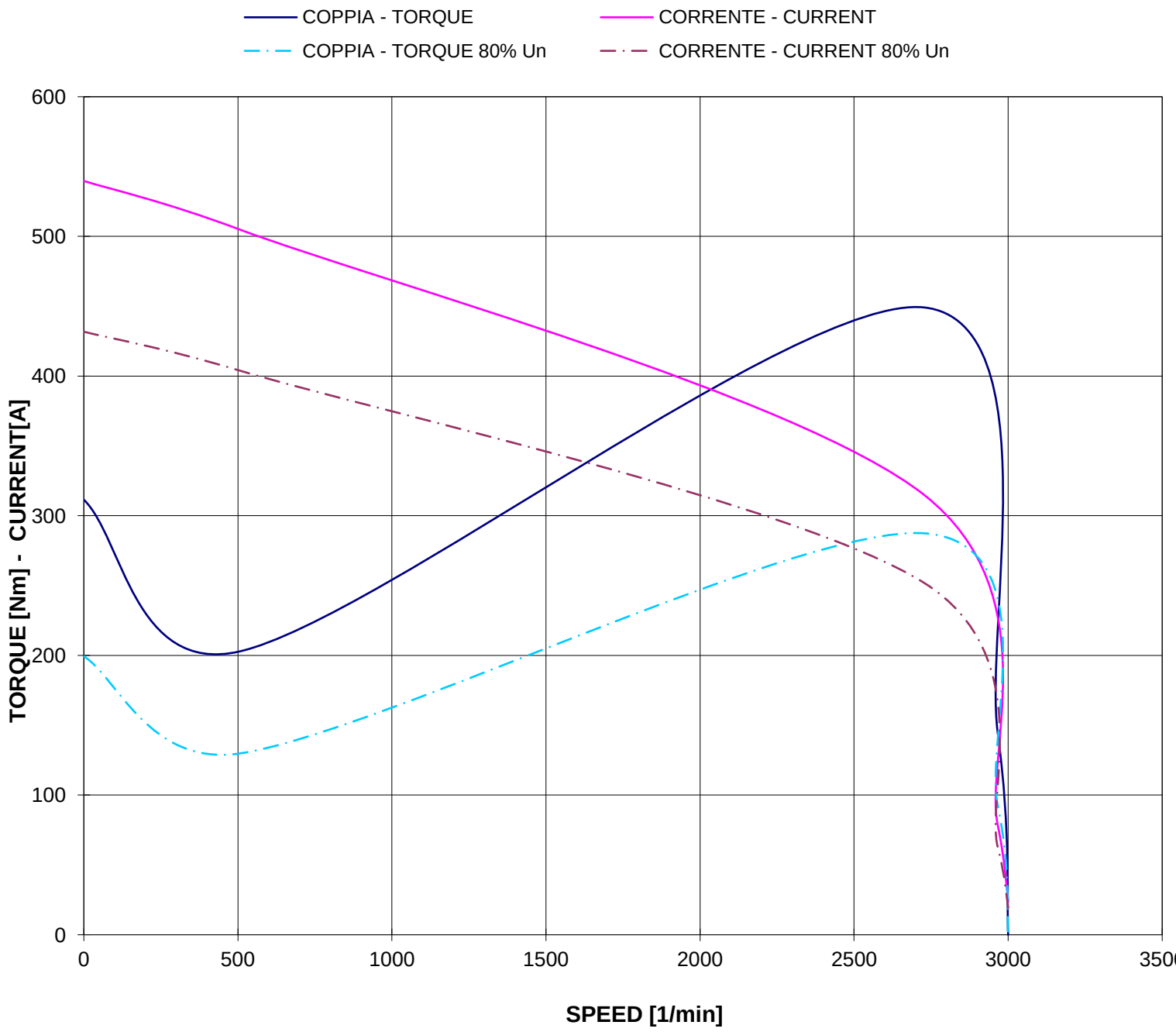
Valori calcolati - Data obtained by calculation method
Documento preliminare - Preliminary document

Data / Date 01-feb-21

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 225MA2**	
Potenza nominale / Rated power	45,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	78,74	A
Velocità / Speed	2966	rpm
Coppia / Torque	144,89	Nm



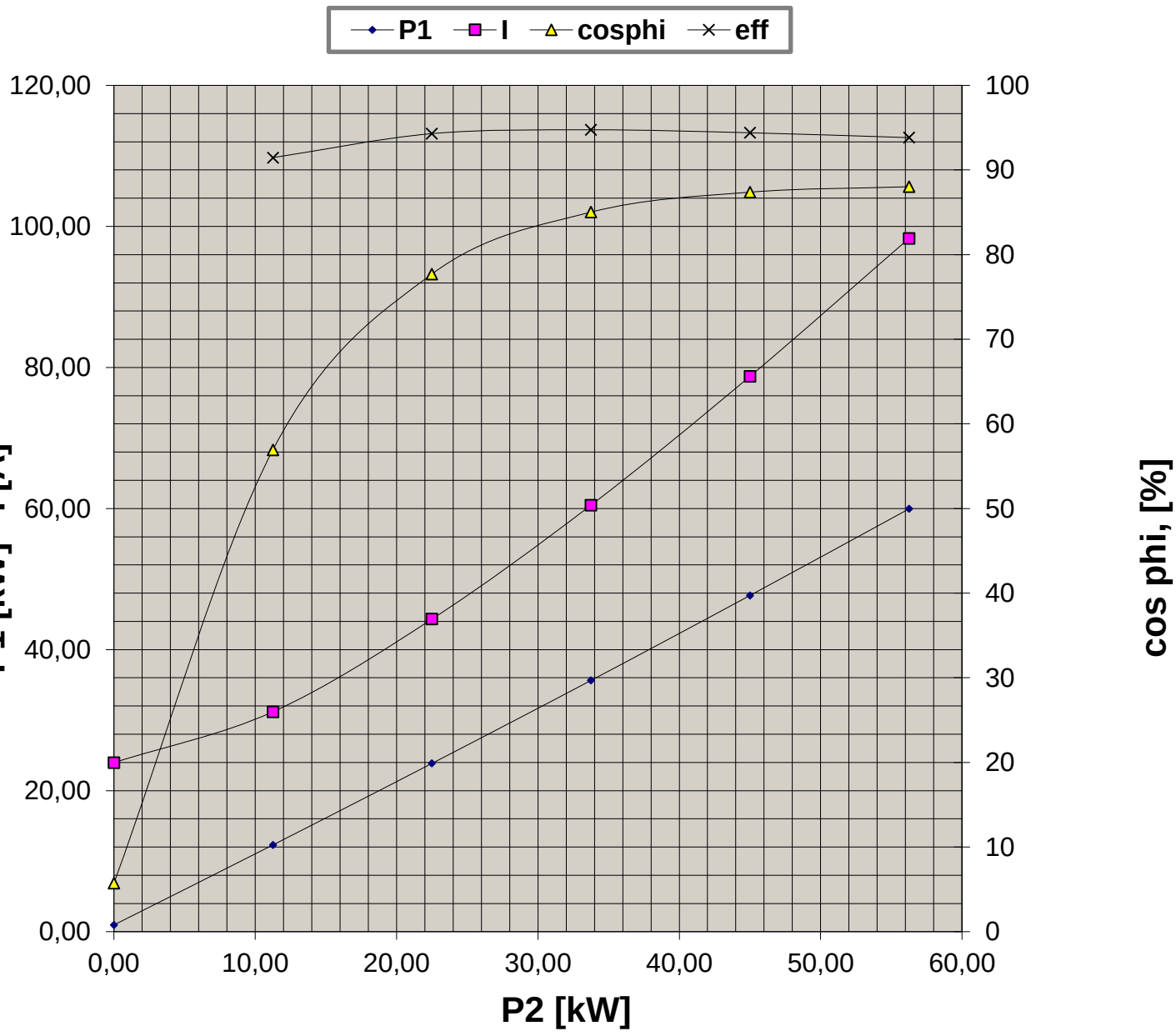
Valori calcolati - Data obtained by calculation method
Documento preliminare - Preliminary document

Data / Date 01-feb-21

CURVE CARATTERISTICHE
PERFORMANCE CURVES

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

Motore / Motor	**TCI 225MA2**	
Potenza nominale / Rated power	45,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	78,74	A
Velocità / Speed	2966	rpm
Coppia / Torque	144,89	Nm



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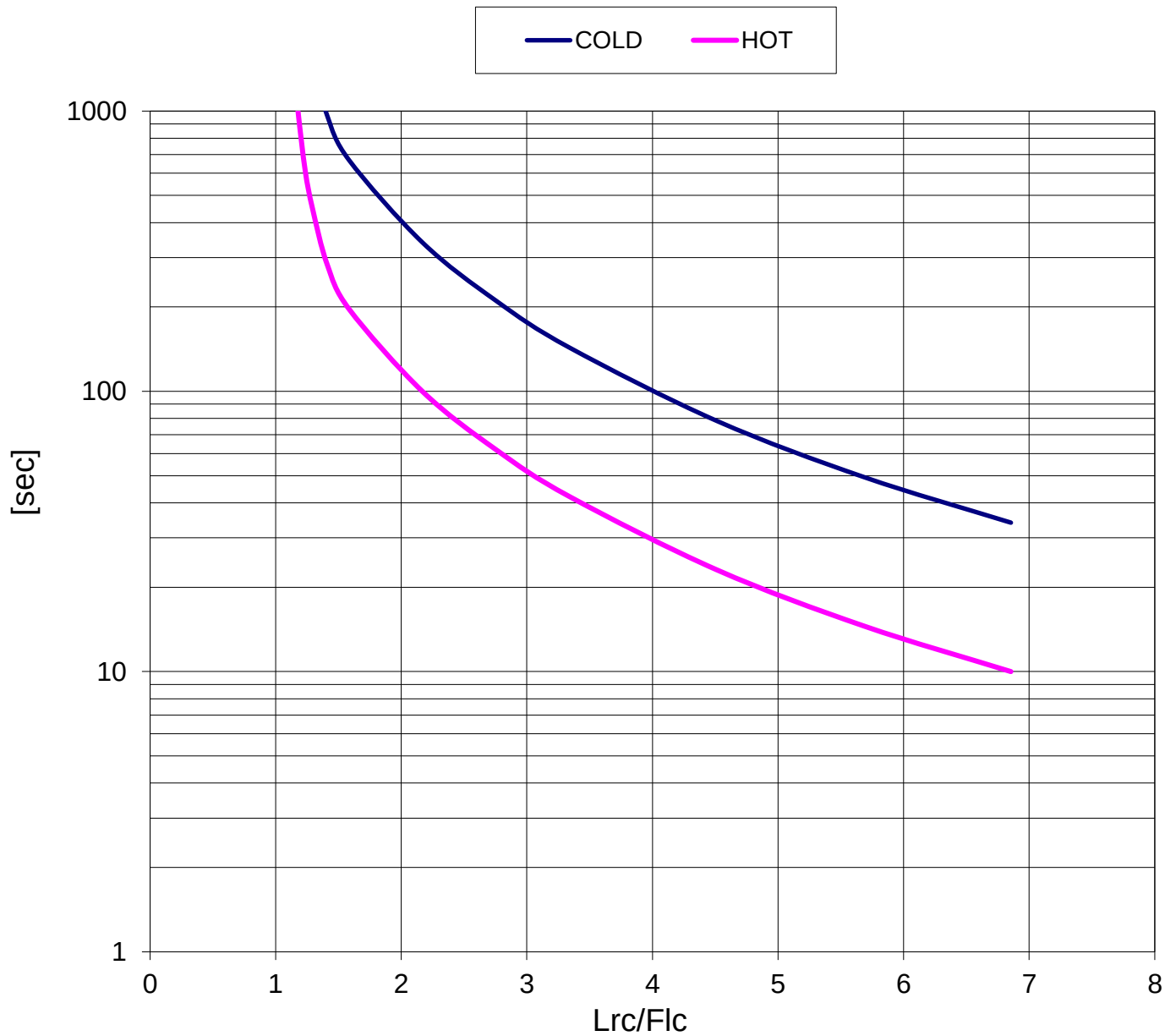
Documento preliminare - Preliminary document

Data / Date 01-feb-21

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 225MA2**	
Potenza nominale / Rated power	45,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	78,74	A
Velocità / Speed	2966	rpm
Coppia / Torque	144,89	Nm



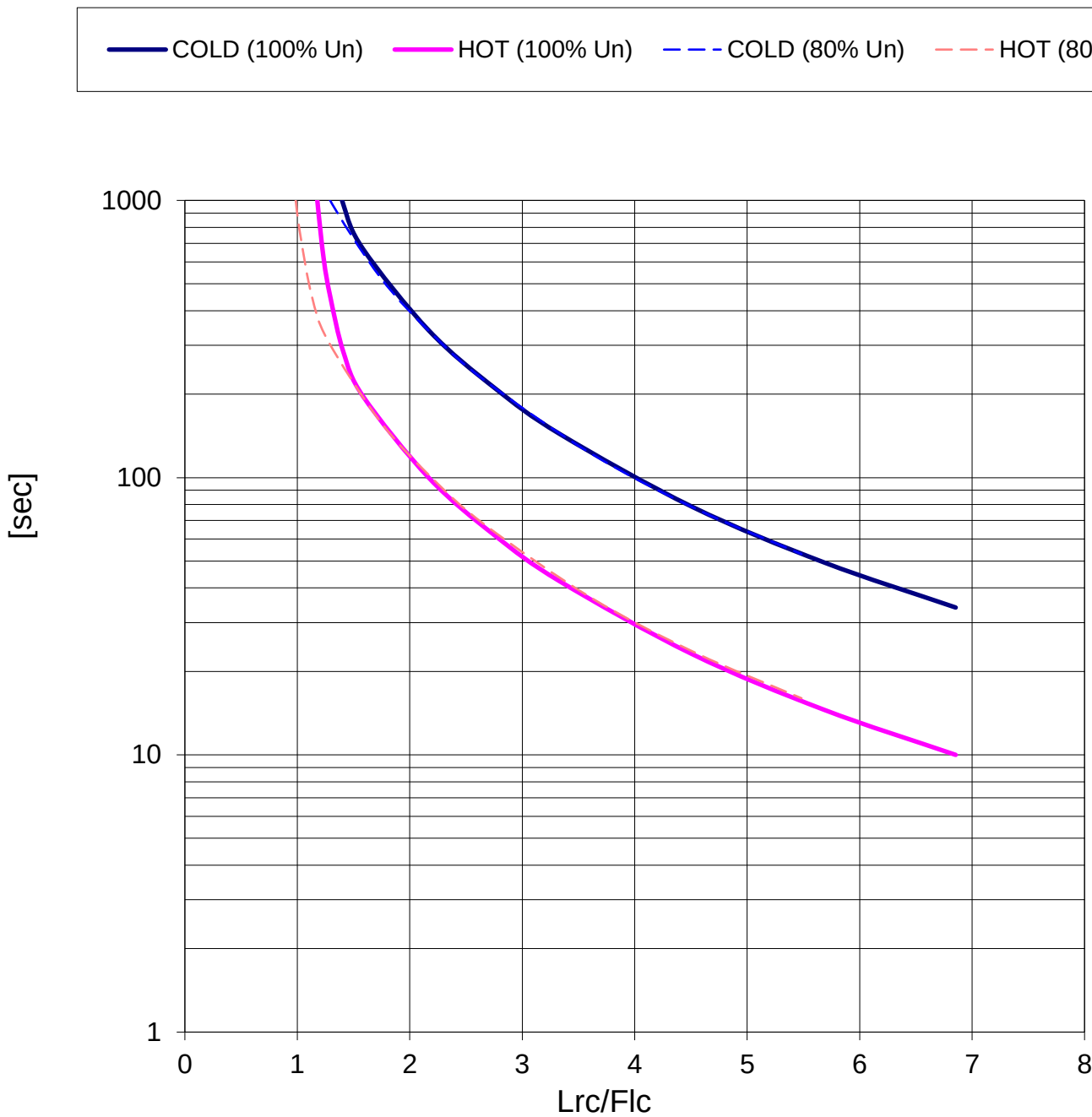
Valori calcolati - Data obtained by calculation method
Documento preliminare - Preliminary document

Data / Date 01-feb-21

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 225MA2**	
Potenza nominale / Rated power	45,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	78,74	A
Velocità / Speed	2966	rpm
Coppia / Torque	144,89	Nm



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