PRODUCT INFORMATION PACKET

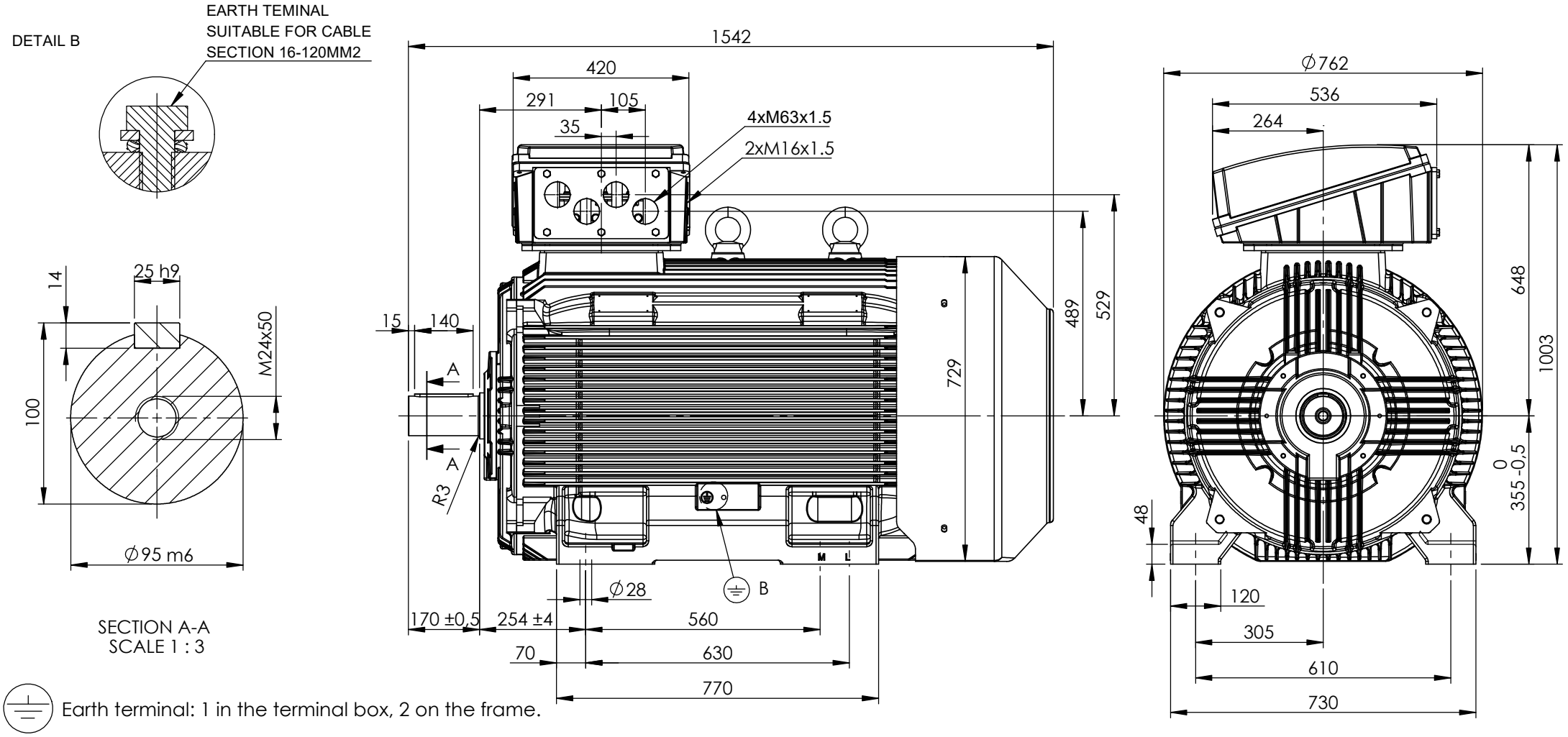
Model No: E3TN3006355B30D41100
Catalog No: E3TN3006355B30D41100
Made in Italy TCN Series, General Purpose Low Voltage IEC motor, Increased Safety, 250,00 kW, 3 phase, 992 RPM, D400/Y690V 50Hz, 355LB Frame B3, 6 Poles, IC411

Nameplate Specifications

Output HP	335 Hp	Output KW	250.0 kW
Frequency	50 Hz	Voltage	400/690 V
Current	454.0 A	Speed	992 rpm
Service Factor	1	Phase	3
Efficiency	95.8 %	Power Factor	0.83
Duty	S1	Insulation Class	F
Frame	355LB	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6322	Opp Drive End Bearing Size	6322
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	6	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	1542.00 mm	Frame Length	1010.00 mm
Shaft Diameter	95.000 mm	Shaft Extension	170 mm
Assembly/Box Mounting	Top		
Outline Drawing	B3A04T8350011A01	Connection Drawing	SC-01-T-1v-1a



CUSTOMER REFERENCE AND ADDITIONAL INFORMATION:

MOTOR TYPE AND DESCRIPTION:

DRAWING REVISION 2	REVISION BY MT	DATE 14/09/2022	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 15/09/2022		DATE 06/12/2021			
ECO DESCRIPTION				APPROVED BY LP	DESCRIPTION **Motor 355 4-8P TC (M/L) B3**		
				DATE 07/12/2021			
			SERIAL NUMBER	REFERENCE			
				FIRST ANGLE PROJECTION	SIZE A4	DRAWING NUMBER **B3A04T8350011A01**	SHEET 1 OF 2

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

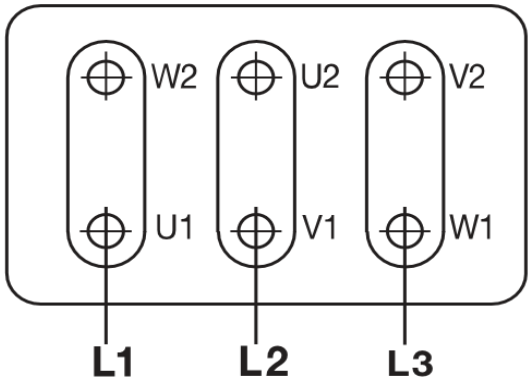
cemp
Flameproof Motors

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

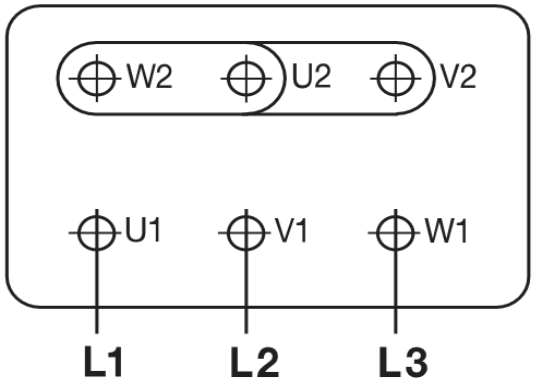
Collegamento - *Connection* - Connexion - *Schaltung* - Conexiòn

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 -
Item : -	

DATI DI PROGETTO - DESIGN DATA

Modo di protezione	II3G	Motore / Frame	Ex ec IIB T3 Gc	IP55
Type of protection		Scatola morsetti / Terminal box	Ex ec IIB Gc	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		TCN 355LB6
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°	6
8	Potenza nominale / Rated power	kW	250,00
9	Corrente nominale / Rated current	A	454,02
10	Velocità nominale / Full Load speed	1/min	992
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		

			4/4	3/4	2/4	
	Carico / Load					
18	Giri / Speed	1/min	992	994	996	
19	Corr. / Curr.	A	454,02	354,18	262,61	
20	Rend / Eff	%	95,8	95,3	94,5	
21	cos φ	-	0,83	0,80	0,73	

	Performances all'avviamento / Starting performances			
22	Ia/In - LRC/FLC		%	695
23	Cosphi a rotore bloccato / LR power factor			0,32
	Tempo a rotore bloccato / LRWT			
24	100% Un	(A caldo / Warm)	sec	17
25		(A freddo / Cold)	sec	59
26	80% Un	(A caldo / Warm)	sec	27
27		(A freddo / Cold)	sec	92
	Tempo di avviamento ammissibile / ART			
28	100% Un		sec	51
29	80% Un		sec	80
	Curva di coppia / Speed-torque values			
30	Coppia nominale / Rated Torque		Nm	2406,75
31	Ca/Cn - LRT/FLT		%	200
32				
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	-	6322 C3
45	Cuscinetto post / NDE bearing	-	6322 C3
46	Carico radiale max / Max radial load in X1	N	8642
47	Carico assiale max / Max axial load	N	5922
48	Tipo grasso / Grease type		LGHP2 SKF or equivalent
49	Intervallo lubrificazione / Lubrication	h	5000
50	Quantità grasso / Quantity grease	gr	60
	Caratteristiche meccaniche / mechanical specification		
51	Massa / Mass	kg	1875
52	Momento d'inerzia / Moment of inertia	kgm2	13,2630
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	2,80
56			
57			
58			
59			
60			
61			
62			
	Dati entrata cavi - verniciatura / Cable entry and painting		
63	Entrata cavi / Cable entry	IEC 60423	4xM63+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						

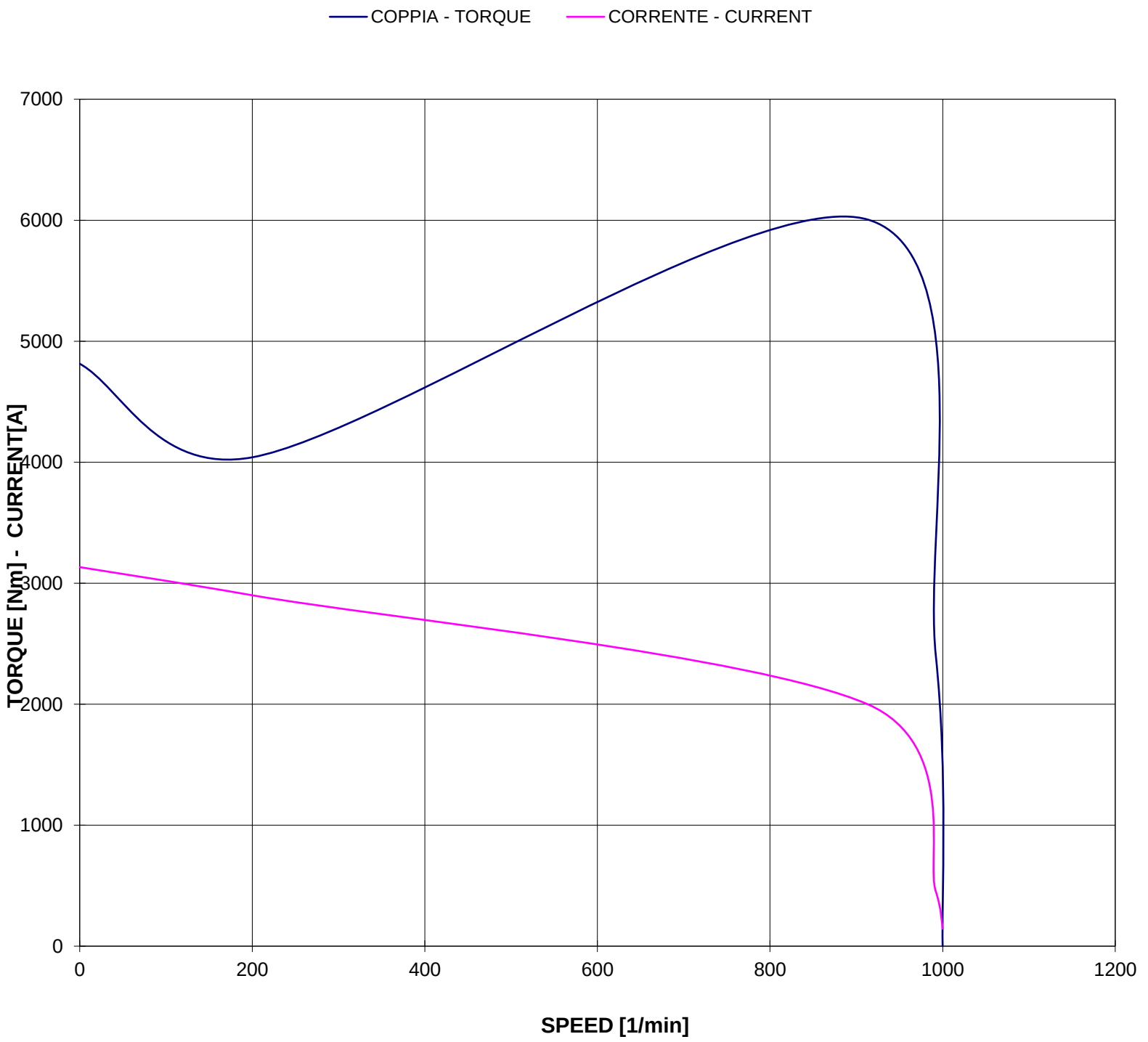
Documento preliminare - Preliminary data sheet

Prepared by : GC Tolleranze secondo - Tolerances according IEC 60034-1 Rev. 0 Data / Date 30 August 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 355LB6**	
Potenza nominale / Rated power	250,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	454,02	A
Velocità / Speed	992	rpm
Coppia / Torque	2406,75	Nm



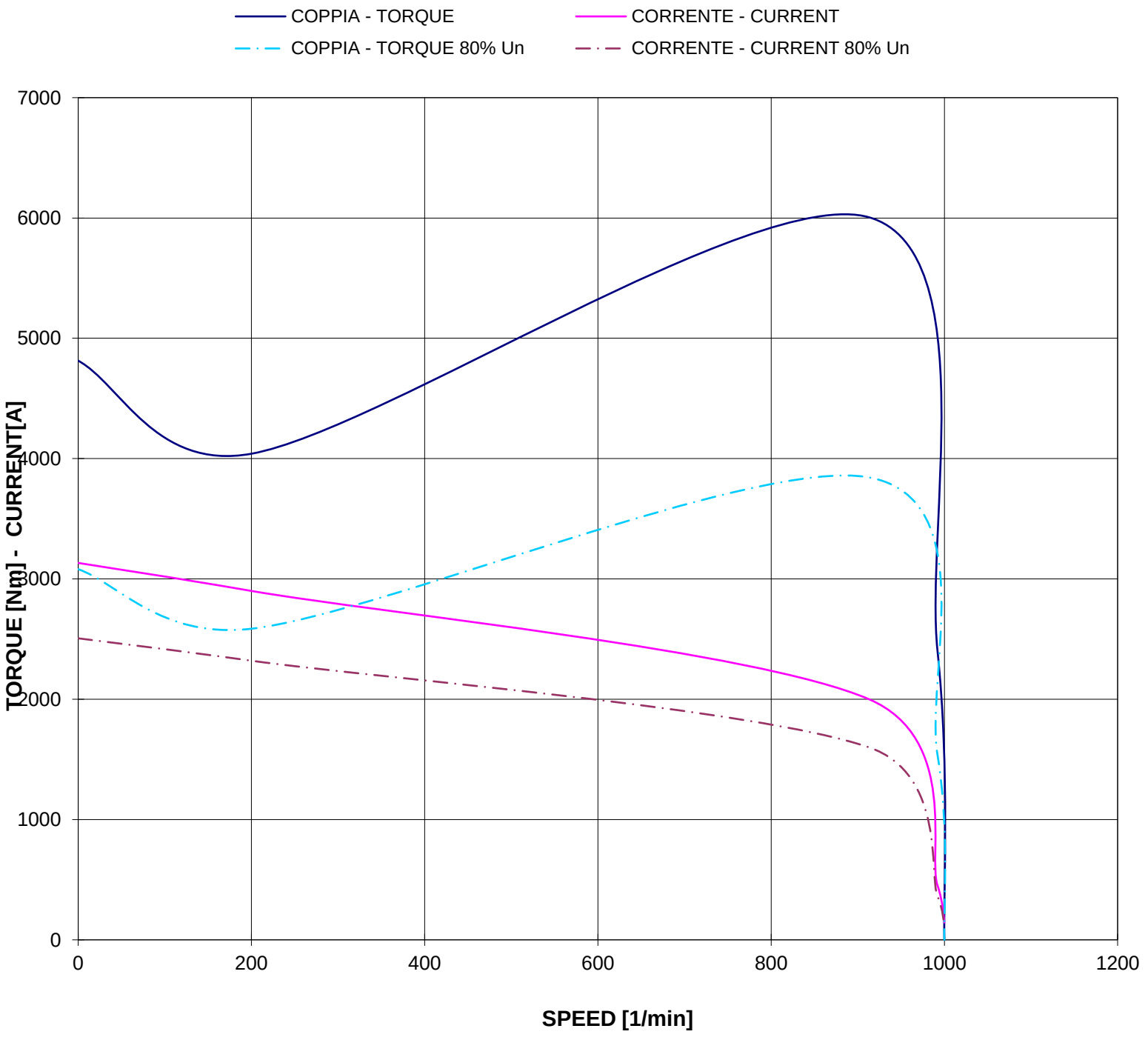
Valori calcolati - Data obtained by calculation method
Documento preliminare - Preliminary document

Data / Date 02-set-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	**TCN 355LB6**	
Potenza nominale / Rated power	250,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	454,02	A
Velocità / Speed	992	rpm
Coppia / Torque	2406,75	Nm



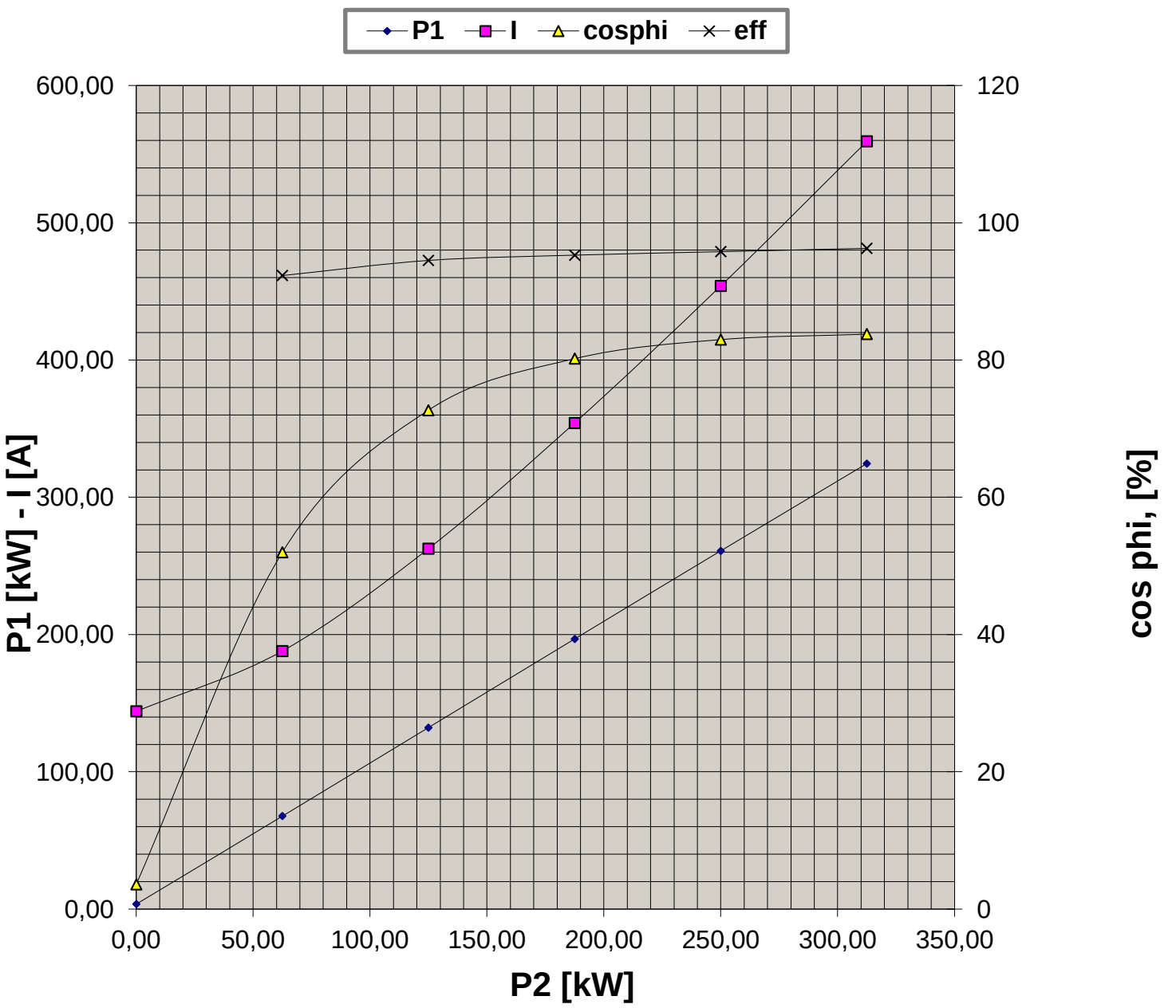
Valori calcolati - Data obtained by calculation method
Documento preliminare - Preliminary document

Data / Date 02-set-21

CURVE CARATTERISTICHE
PERFORMANCE CURVES

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

Motore / Motor	**TCN 355LB6**	
Potenza nominale / Rated power	250,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	454,02	A
Velocità / Speed	992	rpm
Coppia / Torque	2406,75	Nm



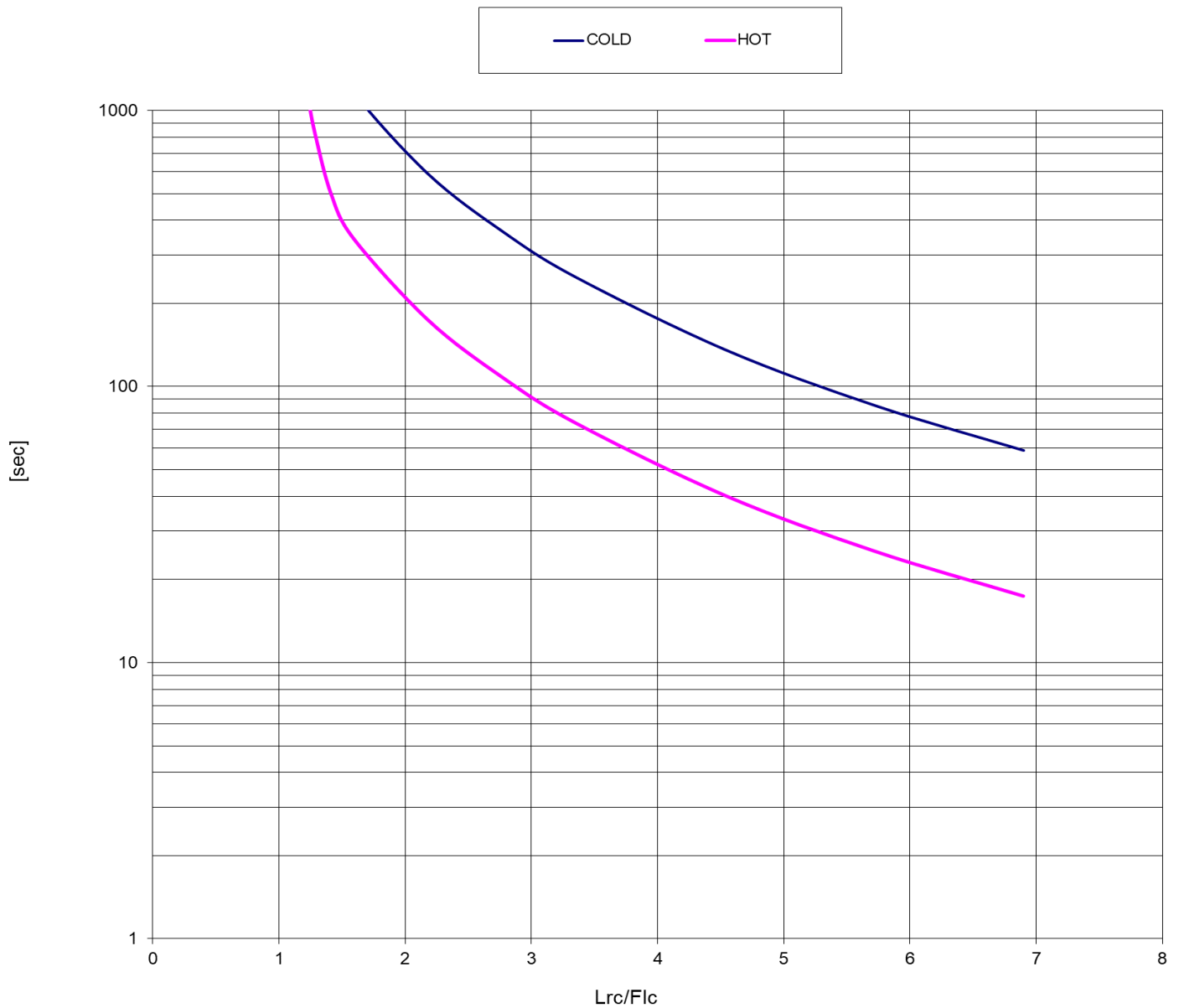
Valori calcolati - Data obtained by calculation method
Documento preliminare - Preliminary document

Data / Date 02-set-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	**TCN 355LB6**	
Potenza nominale / Rated power	250,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	454,02	A
Velocità / Speed	992	rpm
Coppia / Torque	2406,75	Nm



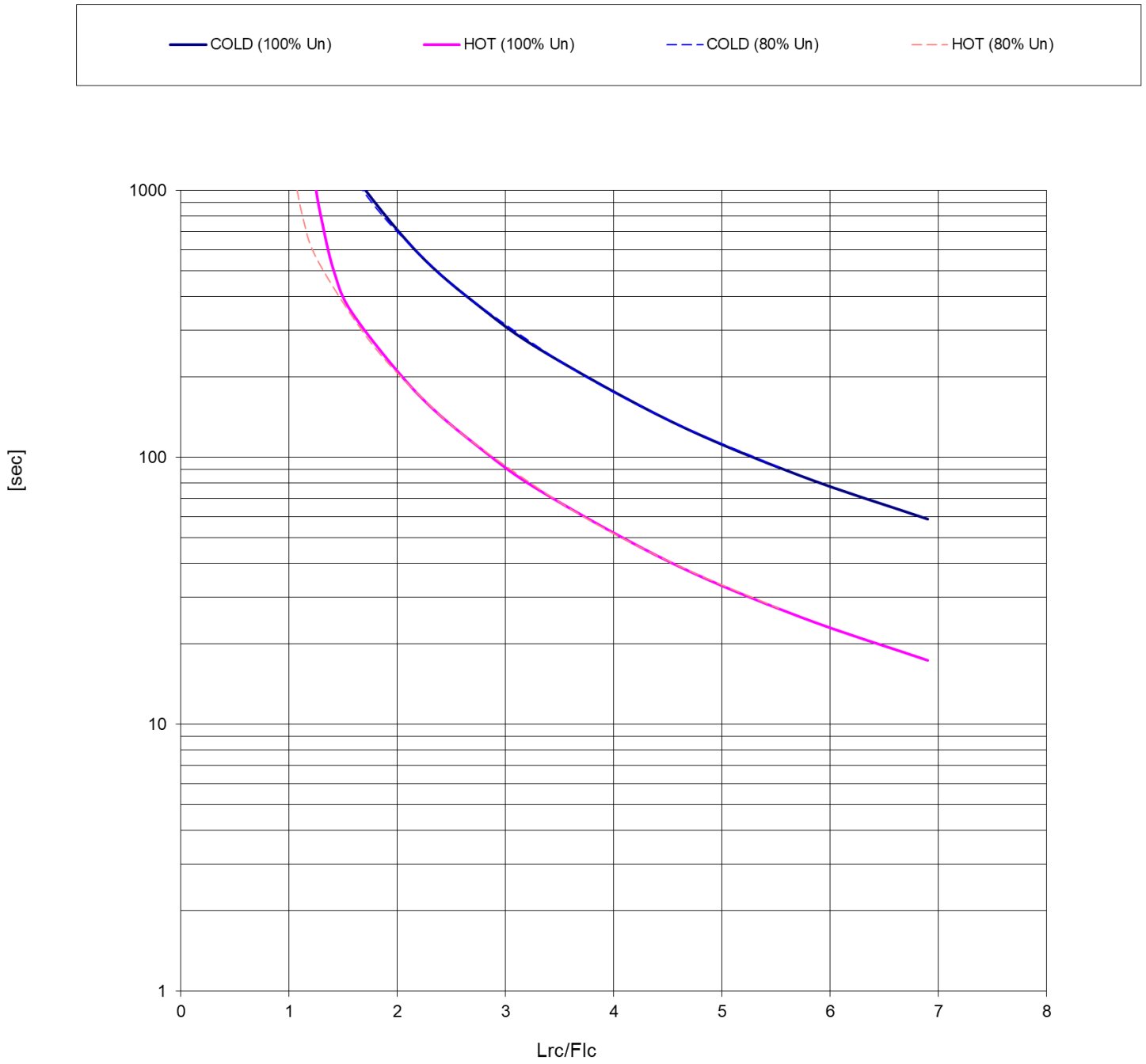
Valori calcolati - Data obtained by calculation method
Documento preliminare - Preliminary document

Data / Date 02-set-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	**TCN 355LB6**	
Potenza nominale / Rated power	250,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	454,02	A
Velocità / Speed	992	rpm
Coppia / Torque	2406,75	Nm



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