

PRODUCT INFORMATION PACKET

Model No: E3TI3006223B50D41100

Catalog No: E3TI3006223B50D41100

Made in Italy TCI Series, General Purpose Low Voltage IEC motor, Safe Area, 30,00 kW, 3 phase,
987 RPM, D400/Y690V 50Hz, 225MA Frame B5, 6 Poles, IC411



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Nameplate Specifications

Output HP	40 Hp	Output KW	30.0 kW
Frequency	50 Hz	Voltage	400/690 V
Current	55.9 A	Speed	987 rpm
Service Factor	1	Phase	3
Efficiency	92.9 %	Power Factor	0.83
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		

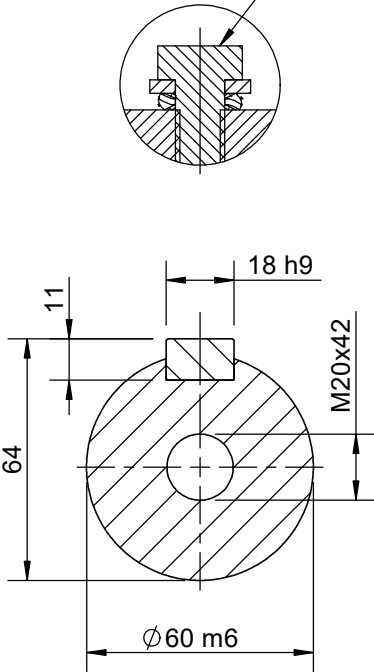
Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	6	Rotation	Bi-Directional
Mounting	B5	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	862.00 mm	Frame Length	425.00 mm
Shaft Diameter	60.000 mm	Shaft Extension	140 mm
Assembly/Box Mounting	Top		
Outline Drawing	B5A04T8220021B01	Connection Drawing	SC-01-T-1v-1a

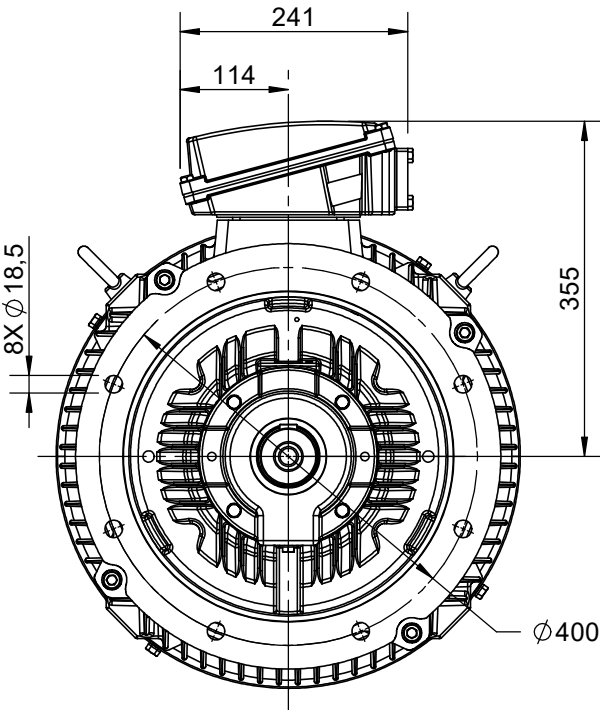
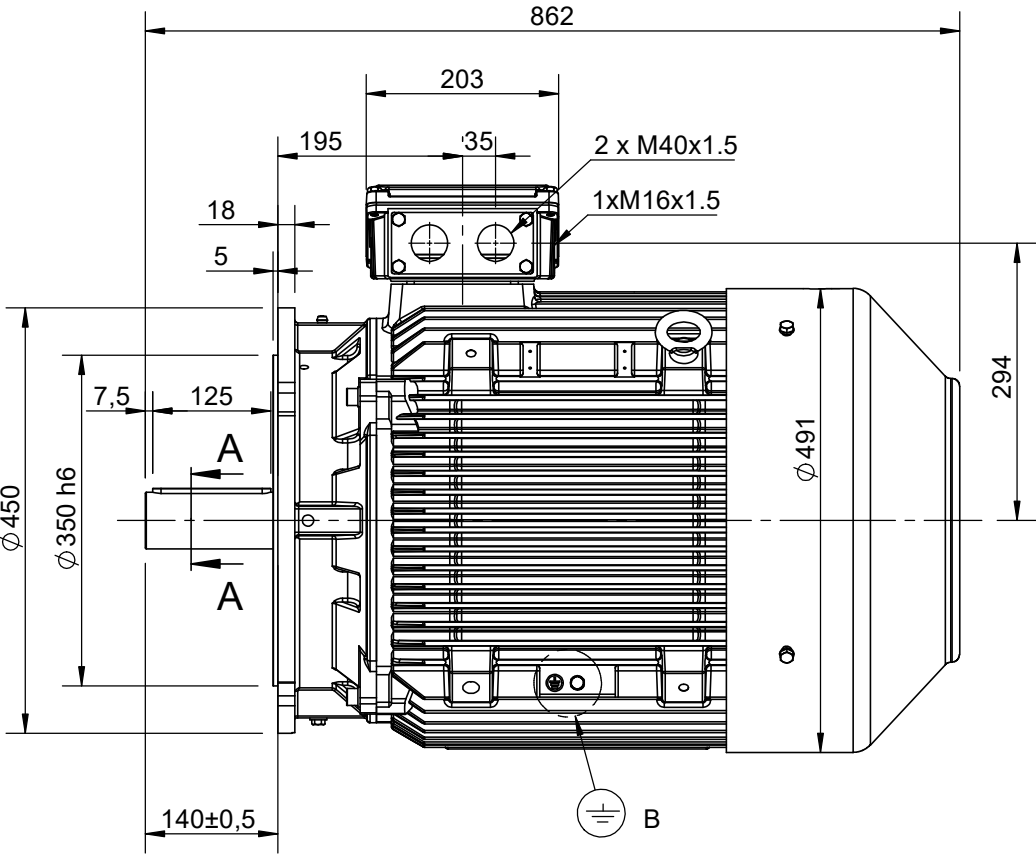
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DETAIL B

Earth Terminal
suitable for cable
section 2.5-35mm²



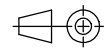
SECTION A-A
SCALE 1:2



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	TOLERANCES (EXCEPT AS NOTED) TOLERANCES: ±2	DRAWN BY	TN	 			
ECO	APPROVED BY	DATE		DATE	17/11/2021				
ECO DESCRIPTION				DIMENSIONS ARE IN mm ACCORDING TO IEC 60072	APPROVED BY	LP	DESCRIPTION Motor 225 4-6P TC (L) B5		
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			SERIAL NUMBER		REFERENCE	FIRST ANGLE PROJECTION		SIZE A4	DRAWING NUMBER B5A04T8220021B01

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



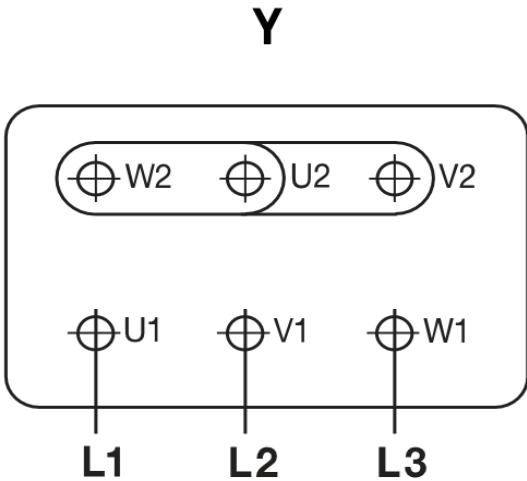
DTE 01/01/2004
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**Motori trifase una velocità - *Single speed, three phase motors* - Moteurs triphasé une vitesse
Drehstrommotor Eine Drehzahlstufe - Motores trifásico una velocidad**

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		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 225MA6
3	Numero di serie / Serial Number				
4	Forma costruttiva / Shape				B5
5					
6					
Dati nominali / Rated data					
7	Poli / Pole			n°	6
8	Potenza nominale / Rated power			kW	30,00
9	Corrente nominale / Rated current			A	55,89
10	Velocità nominale / Full Load speed			1/min	987
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	987	990	994
19	Corr. / Curr.	A	55,89	44,85	35,16
20	Rend / Eff	%	92,9	93,0	92,2
21	cos φ	-	0,84	0,78	0,67
Performances all'avviamento / Starting performances					
22	Ia/In - LRC/FLC			%	680
23	Cosphi a rotore bloccato / LR power factor				0,44
	Tempo a rotore bloccato / LRWT				
24	100% Un (A caldo / Warm)			sec	10
25	(A freddo / Cold)			sec	22
26	80% Un (A caldo / Warm)			sec	15
27	(A freddo / Cold)			sec	35
	Tempo di avviamento ammissibile / ART				
28	100% Un			sec	19
29	80% Un			sec	30
Curva di coppia / Speed-torque values					
30	Coppia nominale / Rated Torque			Nm	290,27
31	Ca/Cn - LRT/FLT			%	215
32	Cmax/Cn - BDT/FLT			%	280
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	4646
47	Carico assiale max / Max axial load	N	3514
48	Tipo grasso / Grease type	LGHP2 SKF or equivalent	
49	Intervallo lubrificazione / Lubrication	h	10000
50	Quantità grasso / Quantity grease	gr	24
Caratteristiche meccaniche / mechanical specification			
51	Massa / Mass	kg	374
52	Momento d'inerzia / Moment of inertia	kgm2	1,0179
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	70
54	Vibrazioni / Vibration level	IEC 34-14	A
55	Limite norma / Vibration limit	mm/sec	2,20
56			
57			
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		NO
77			

Documento preliminare - Preliminary data sheet

Prepared by : GC

Tolleranze secondo - Tolerances according IEC 60034-1

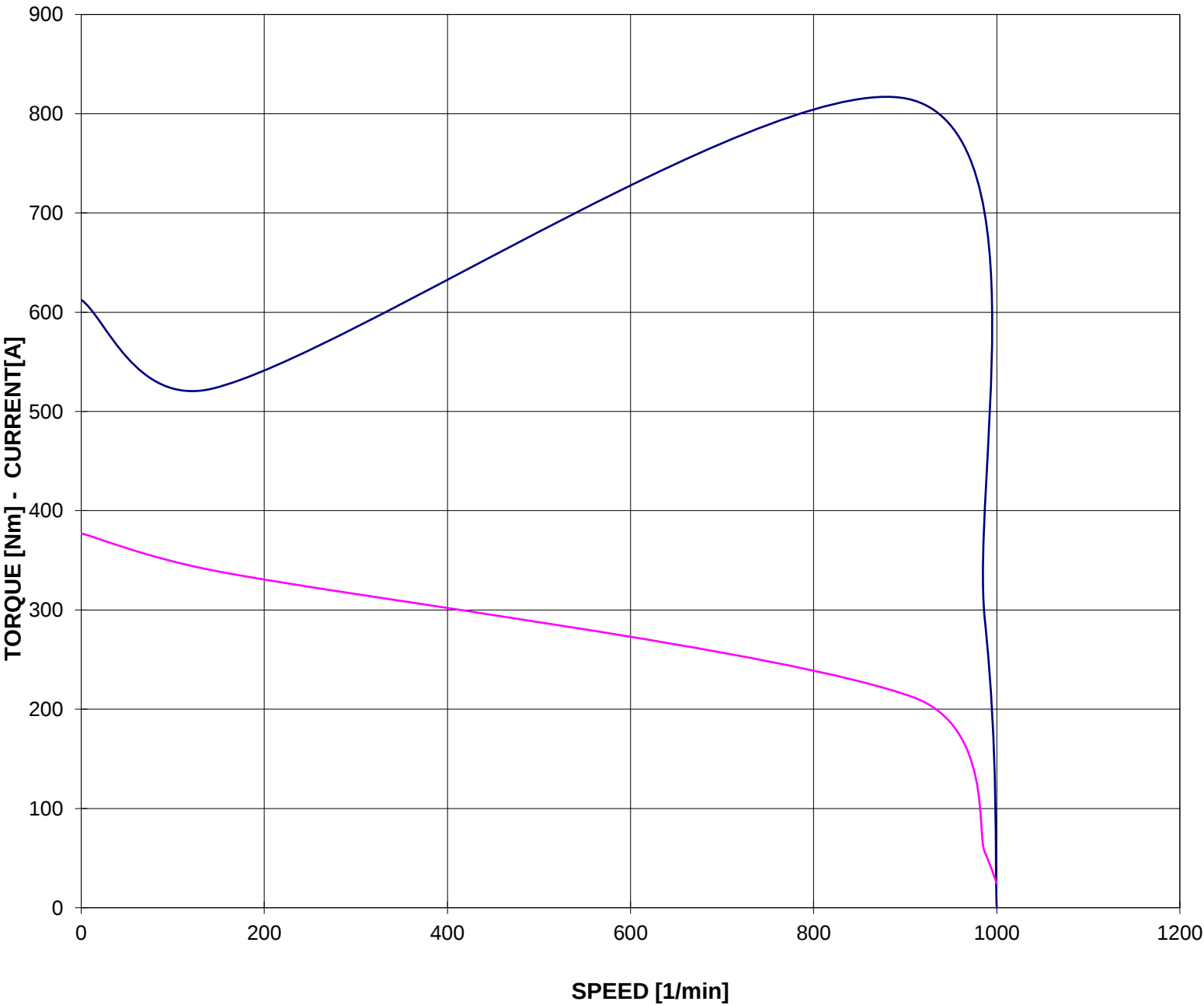
Rev. 0

Data / Date 21 February 2022

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 225MA6	
Potenza nominale / Rated power	30,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	55,89	A
Velocità / Speed	987	rpm
Coppia / Torque	290,27	Nm

— COPPIA - TORQUE — CORRENTE - CURRENT



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

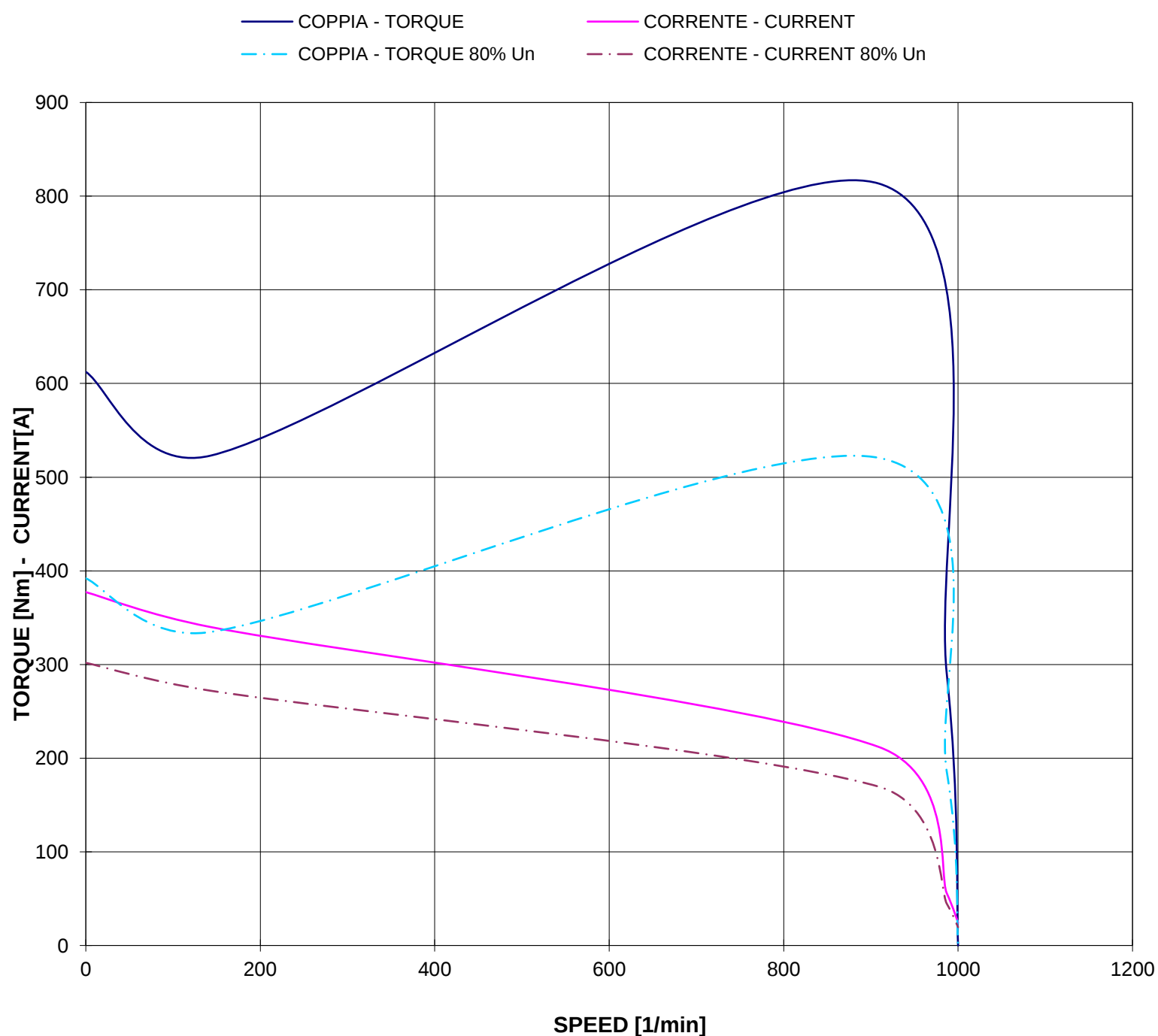
Cliente / Customer -
Ordine cliente / Customer order -
Impianto / Plant -
ITEM -

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

Motore / Motor

TCI 225MA6

Potenza nominale / Rated power	30,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	55,89	A
Velocità / Speed	987	rpm
Coppia / Torque	290,27	Nm



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

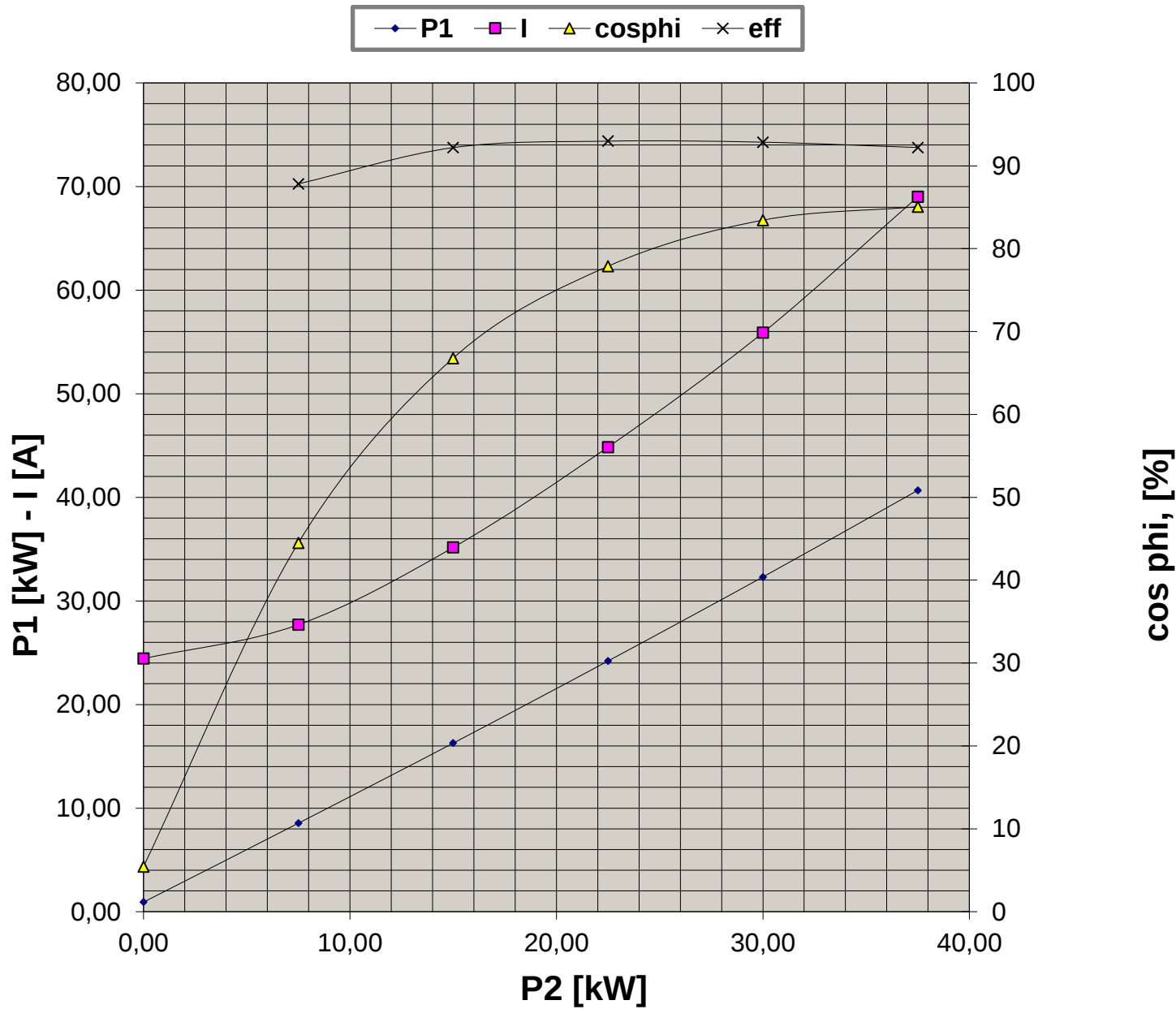
Data / Date 24-feb-22

CURVE CARATTERISTICHE
PERFORMANCE CURVES

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

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

Motore / Motor	TCI 225MA6	
Potenza nominale / Rated power	30,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	55,89	A
Velocità / Speed	987	rpm
Coppia / Torque	290,27	Nm

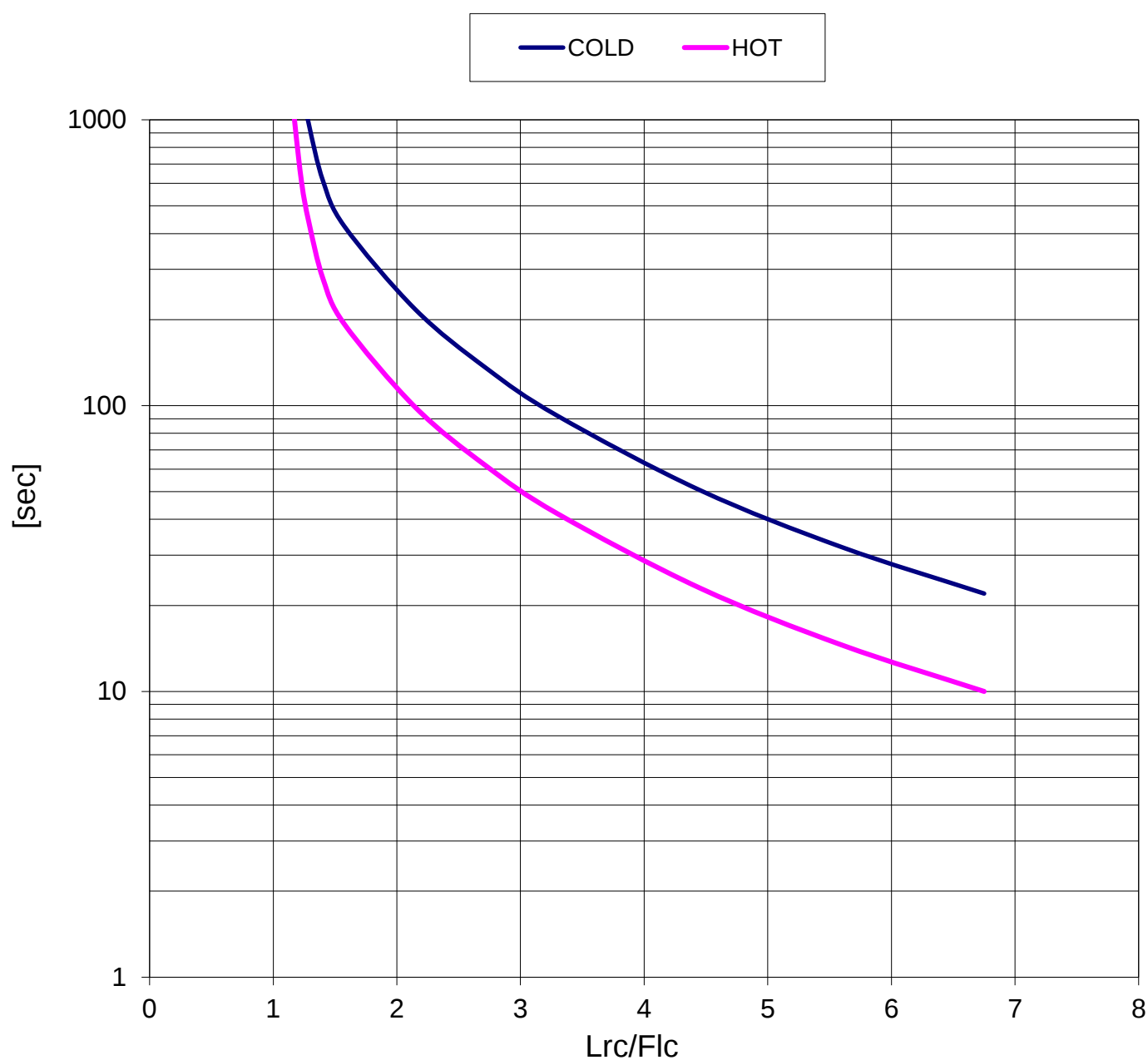


CURVA LIMITE CORRENTE TEMPO
THERMAL WITHSTAND CURVE

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

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

Motore / Motor **TCI 225MA6**
Potenza nominale / Rated power 30,00 kW
Poli / Pole 6
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz
Corrente / Rated current 55,89 A
Velocità / Speed 987 rpm
Coppia / Torque 290,27 Nm



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

Data / Date 24-feb-22

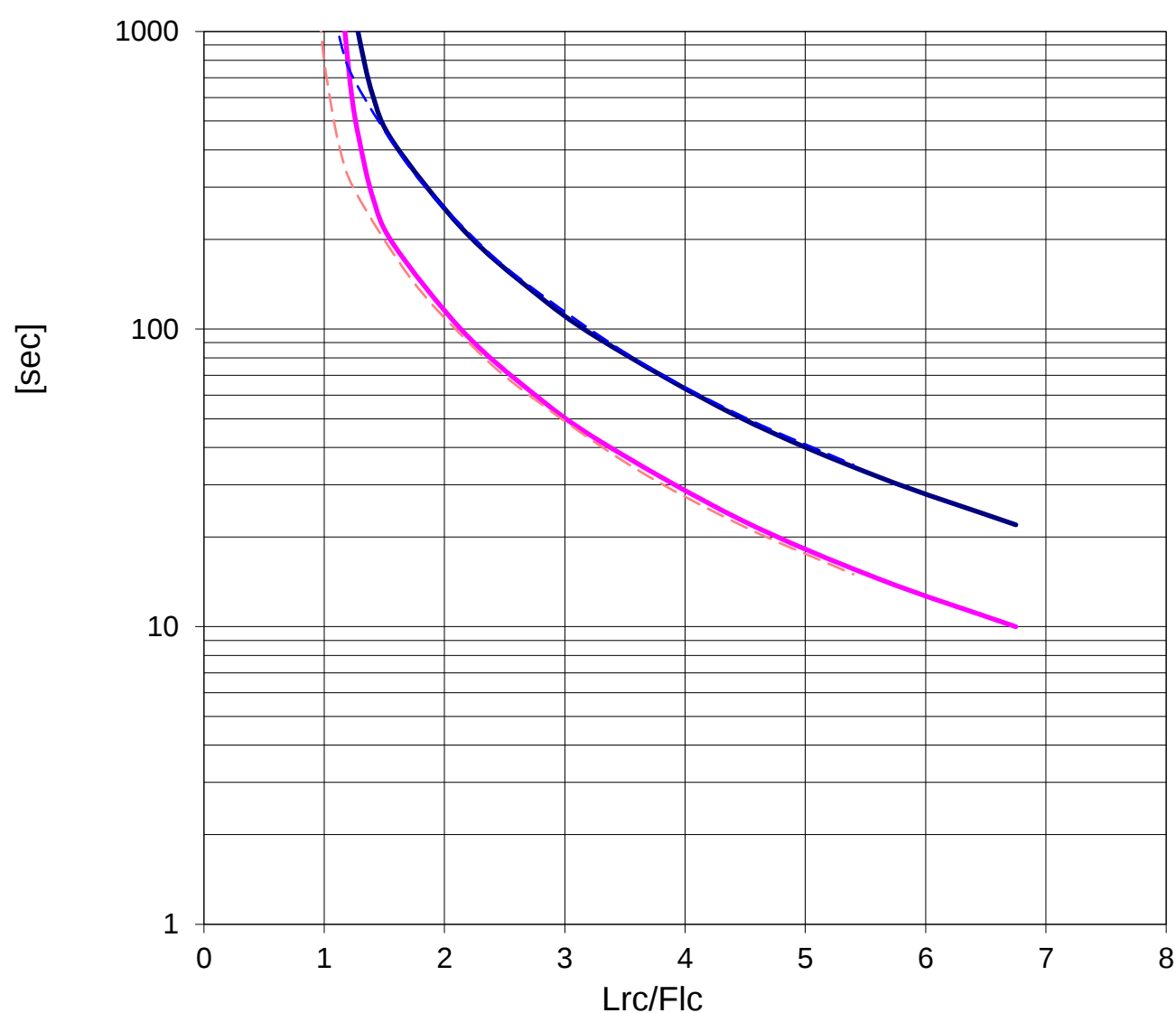
CURVA LIMITE CORRENTE TEMPO (Tensione ridotta)
THERMAL WITHSTAND CURVE (Reduced voltage)

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

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

Motore / Motor	TCI 225MA6	
Potenza nominale / Rated power	30,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	55,89	A
Velocità / Speed	987	rpm
Coppia / Torque	290,27	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