

PRODUCT INFORMATION PACKET

Model No: E3TN3006205B35D41100

Catalog No: E3TN3006205B35D41100

Made in Italy TCN Series, General Purpose Low Voltage IEC motor, Increased Safety, 22,00 kW,
3 phase, 984 RPM, D400/Y690V 50Hz, 200LB Frame B35, 6 Poles, IC411



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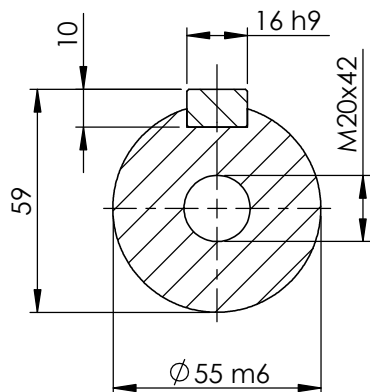
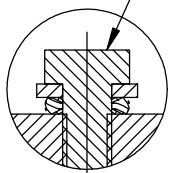
Nameplate Specifications

Output HP	30 Hp	Output KW	22.0 kW
Frequency	50 Hz	Voltage	400/690 V
Current	42.9 A	Speed	985 rpm
Service Factor	1	Phase	3
Efficiency	92.2 %	Power Factor	0.8
Duty	S1	Insulation Class	F
Frame	200LB	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	40 °C	Drive End Bearing Size	6312
Opp Drive End Bearing Size	6212	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	B35	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	769.00 mm	Frame Length	370.00 mm
Shaft Diameter	55.000 mm	Shaft Extension	110 mm
Assembly/Box Mounting	Top		
Connection Drawing	SC-01-T-1v-1a	Outline Drawing	B3A04T8200001D01

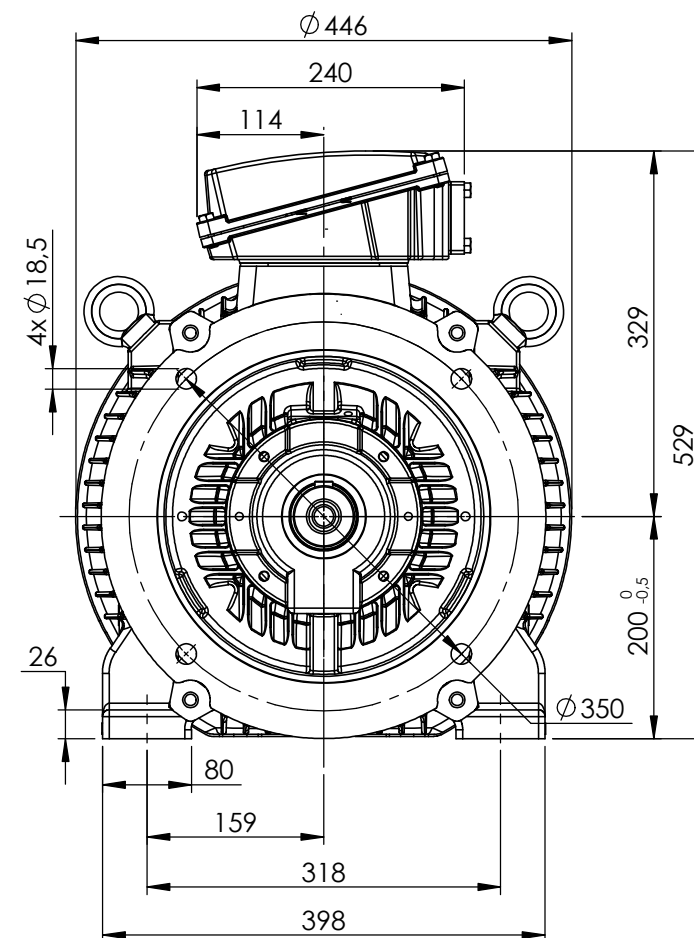
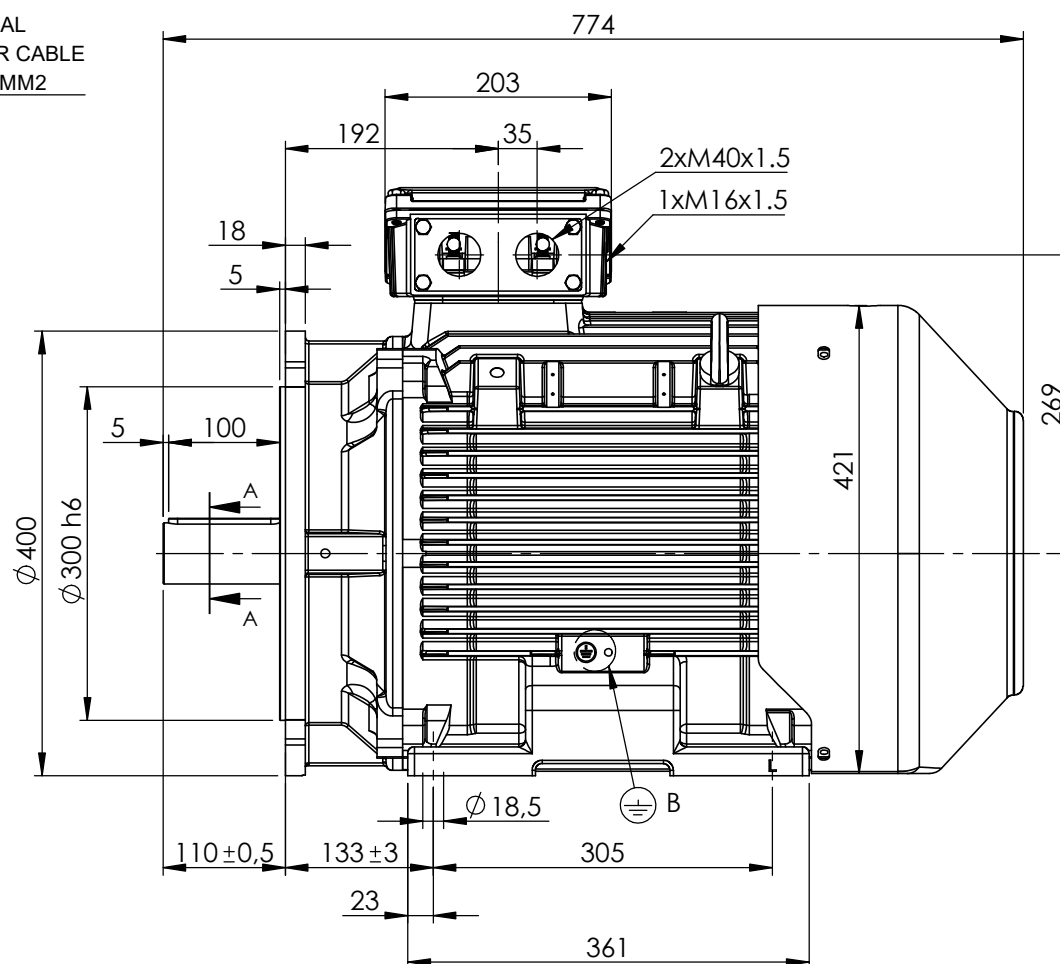
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SECTION A-A
SCALE 1 : 2



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



MOTOR TYPE AND DESCRIPTION:

DRAWING REVISION 1	REVISION BY MT	DATE 26/04/2022	TOLERANCES (EXCEPT AS NOTED) TOLERANCES: ±2 * TOLERANCES: ±0.8	DRAWN BY TN	REGAL™ cemp		
ECO	APPROVED BY LP	DATE 27/04/2022		DATE 15/11/2021			
ECO DESCRIPTION			DIMENSIONS ARE IN mm ACCORDING TO IEC 60072	APPROVED BY LP	DESCRIPTION Motor 200 TC (L) B35		
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			SERIAL NUMBER		REFERENCE	SIZE A4	
			FIRST ANGLE PROJECTION	DRAWING NUMBER B3A04T8200001D01			

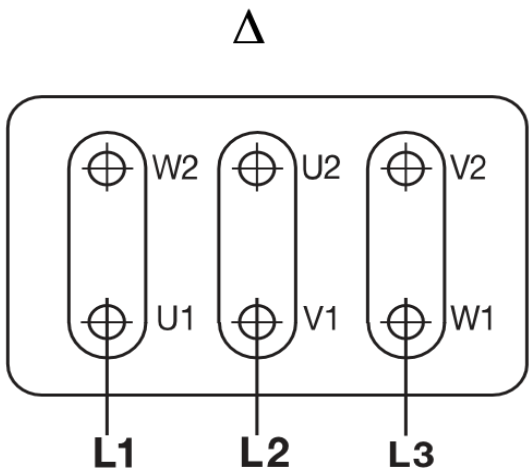
Schema di collegamento - *Connection diagram*
Schemas de branchement - *Schaltpl n*
Esquemas de conexi n



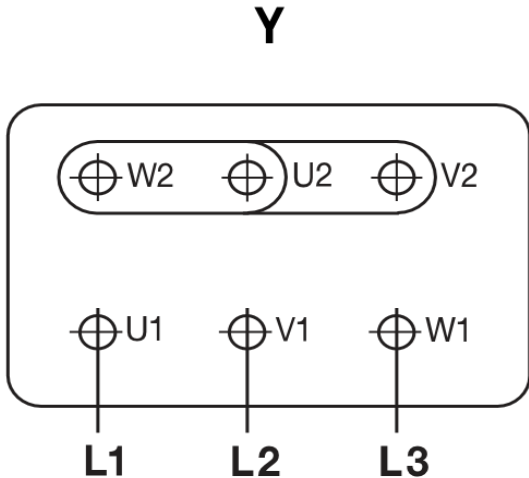
DTE 01/01/2004
SC - 01 - T - 1v.doc

**Motori trifase una velocit  - *Single speed, three phase motors* - Moteurs triphas  une vitesse
Drehstrommotor Eine Drehzahlstufe - Motores trif sico una velocidad**

Collegamento - *Connection* - Connexion - *Schaltung* - Conexi n



Collegamento - *Connection* - Connexion - *Schaltung* - Conexi n



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 Drehrichtungs nderung zwei Phasen vertauschen* - Para invertir el sentido de rotaci n 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	
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 - <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	-
Offerta / Offer	-
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 200LB6	
3	Numero di serie / Serial Number					
4	Forma costruttiva / Shape				B35	
5	Certificato / Certificate			TÜV IT	20 ATEX 103X	
6						
Dati nominali / Rated data						
7	Poli / Pole			n°	6	
8	Potenza nominale / Rated power			kW	22,00	
9	Corrente nominale / Rated current			A	42,96	
10	Velocità nominale / Full Load speed			1/min	985	
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	985	989	993	
19	Corr. / Curr.	A	42,96	34,33	26,97	
20	Rend / Eff	%	92,4	92,6	91,8	
21	cos φ	-	0,80	0,75	0,64	
Performances all'avviamento / Starting performances						
22	Ia/In - LRC/FLC			%	615	
23	Cosphi a rotore bloccato / LR power factor				0,44	
	Tempo a rotore bloccato / LRWT					
24	100% Un (A caldo / Warm)			sec	11	
25	(A freddo / Cold)			sec	23	
26	80% Un (A caldo / Warm)			sec	17	
27	(A freddo / Cold)			sec	35	
	Tempo di avviamento ammissibile / ART					
28	100% Un			sec	20	
29	80% Un			sec	31	
Curva di coppia / Speed-torque values						
30	Coppia nominale / Rated Torque			Nm	213,30	
31	Ca/Cn - LRT/FLT			%	210	
32	Cmax/Cn - BDT/FLT			%	250	
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	-	6312 C3
45	Cuscinetto post / NDE bearing	-	6212 C3
46	Carico radiale max / Max radial load in X1	N	4223
47	Carico assiale max / Max axial load	N	3246
48	Tipo grasso / Grease type	LGHP2 SKF or equivalent	
49	Intervallo lubrificazione / Lubrication	h	12000
50	Quantità grasso / Quantity grease	gr	22
Caratteristiche meccaniche / mechanical specification			
51	Massa / Mass	kg	275
52	Momento d'inerzia / Moment of inertia	kgm2	0,6381
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	71
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

CURVA COPPIA/CORRENTE-GIRI TORQUE/CURRENT-SPEED DIAGRAM

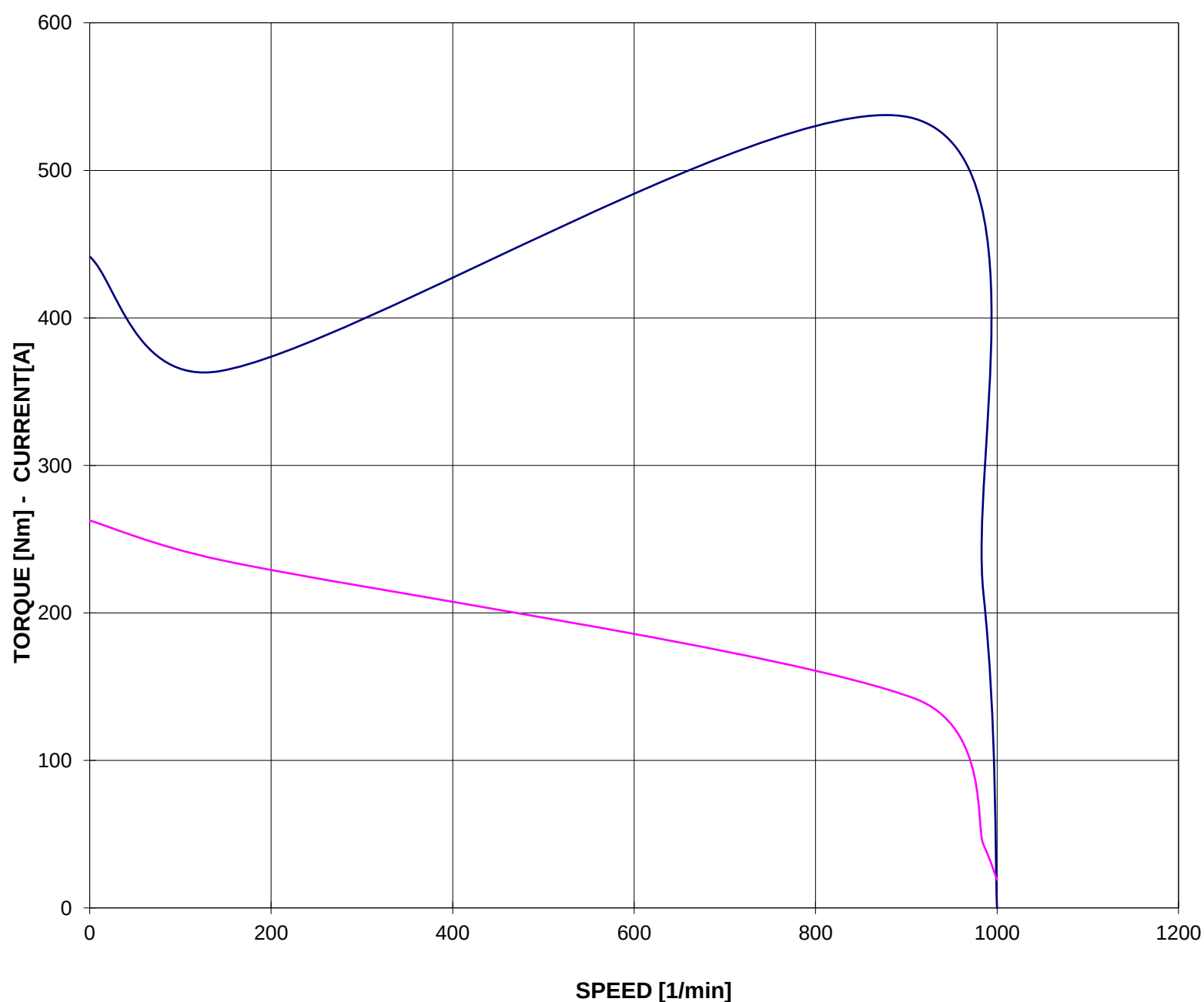
Cliente / Customer -
Impianto / Plant -
ITEM -
Numero d'offerta / Offer Number -

Motore / Motor

TCN 200LB6

Potenza nominale / Rated power	22,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	42,96	A
Velocità / Speed	985	rpm
Coppia / Torque	213,30	Nm

— COPPIA - TORQUE — CORRENTE - CURRENT



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

Data / Date 29-giu-22

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

Cliente / Customer

-

Impianto / Plant

-

ITEM

-

Numero d'offerta / Offer Number

-

Motore / Motor

TCN 200LB6

Potenza nominale / Rated power

22,00

kW

Poli / Pole

6

Tensione - Frequenza / Voltage - Frequency

400 - 50

V - Hz

Corrente / Rated current

42,96

A

Velocità / Speed

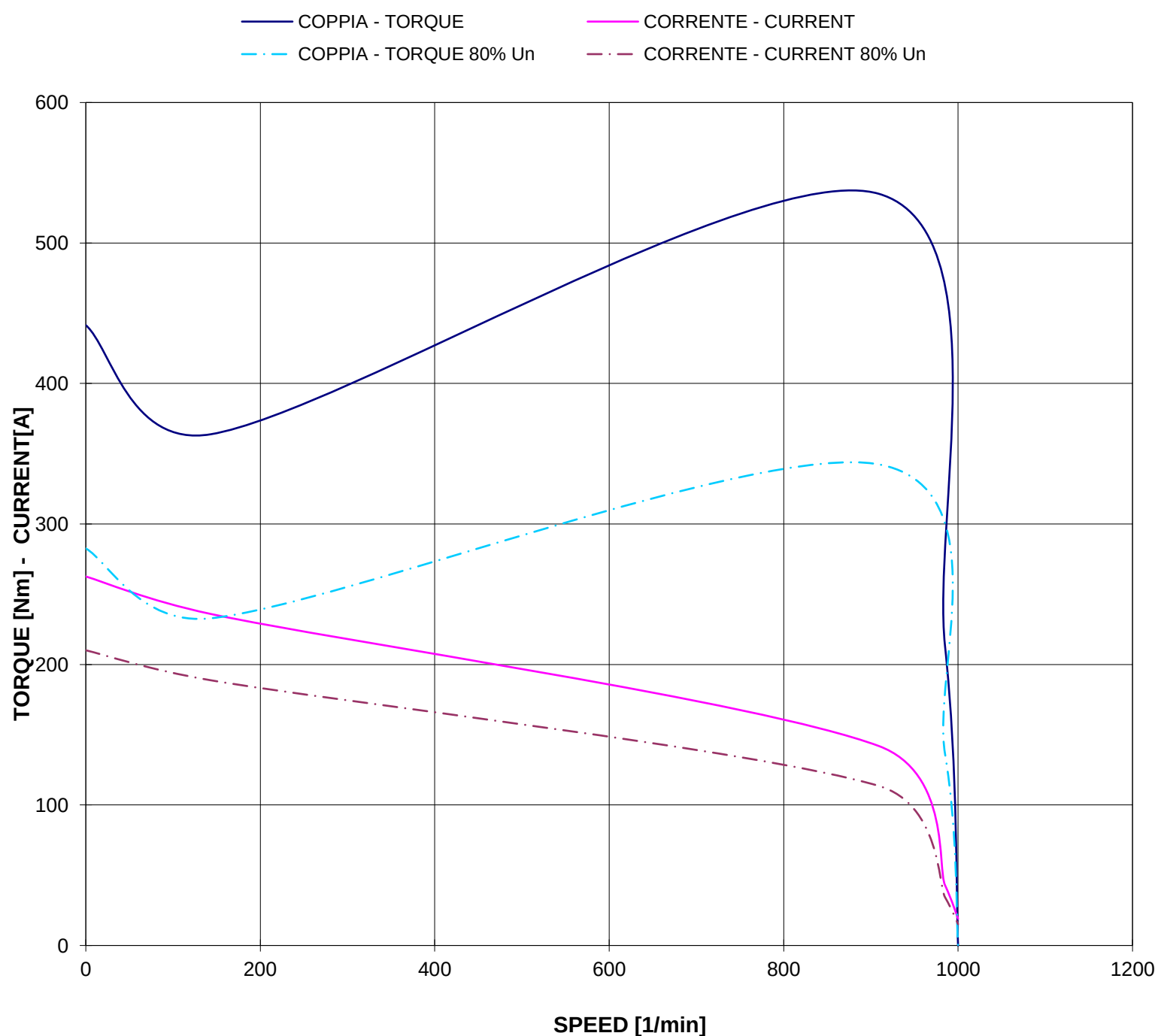
985

rpm

Coppia / Torque

213,30

Nm



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

Data / Date 29-giu-22

CURVE CARATTERISTICHE PERFORMANCE CURVES

Cliente / Customer

-

Impianto / Plant

-

ITEM

-

Numero d'offerta / Offer Number

-

Motore / Motor

TCN 200LB6

Potenza nominale / Rated power

22,00

kW

Poli / Pole

6

Tensione - Frequenza / Voltage - Frequency

400 - 50

V - Hz

Corrente / Rated current

42,96

A

Velocità / Speed

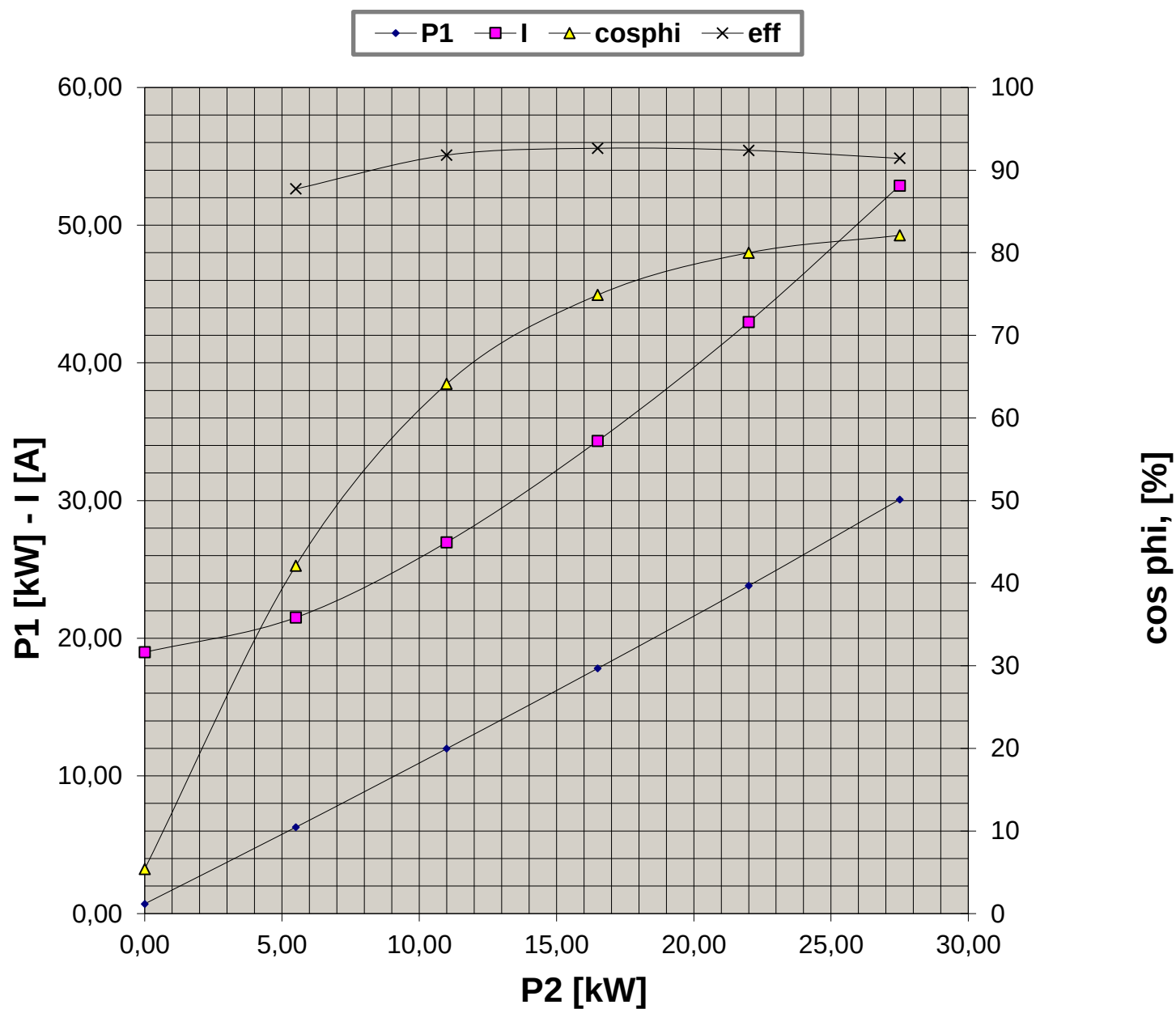
985

rpm

Coppia / Torque

213,30

Nm



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

Data / Date 29-giu-22

CURVA LIMITE CORRENTE TEMPO
THERMAL WITHSTAND CURVE

Cliente / Customer

-

Impianto / Plant

-

ITEM

-

Numero d'offerta / Offer Number

-

Motore / Motor

TCN 200LB6

Potenza nominale / Rated power

22,00

kW

Poli / Pole

6

Tensione - Frequenza / Voltage - Frequency

400 - 50

V - Hz

Corrente / Rated current

42,96

A

Velocità / Speed

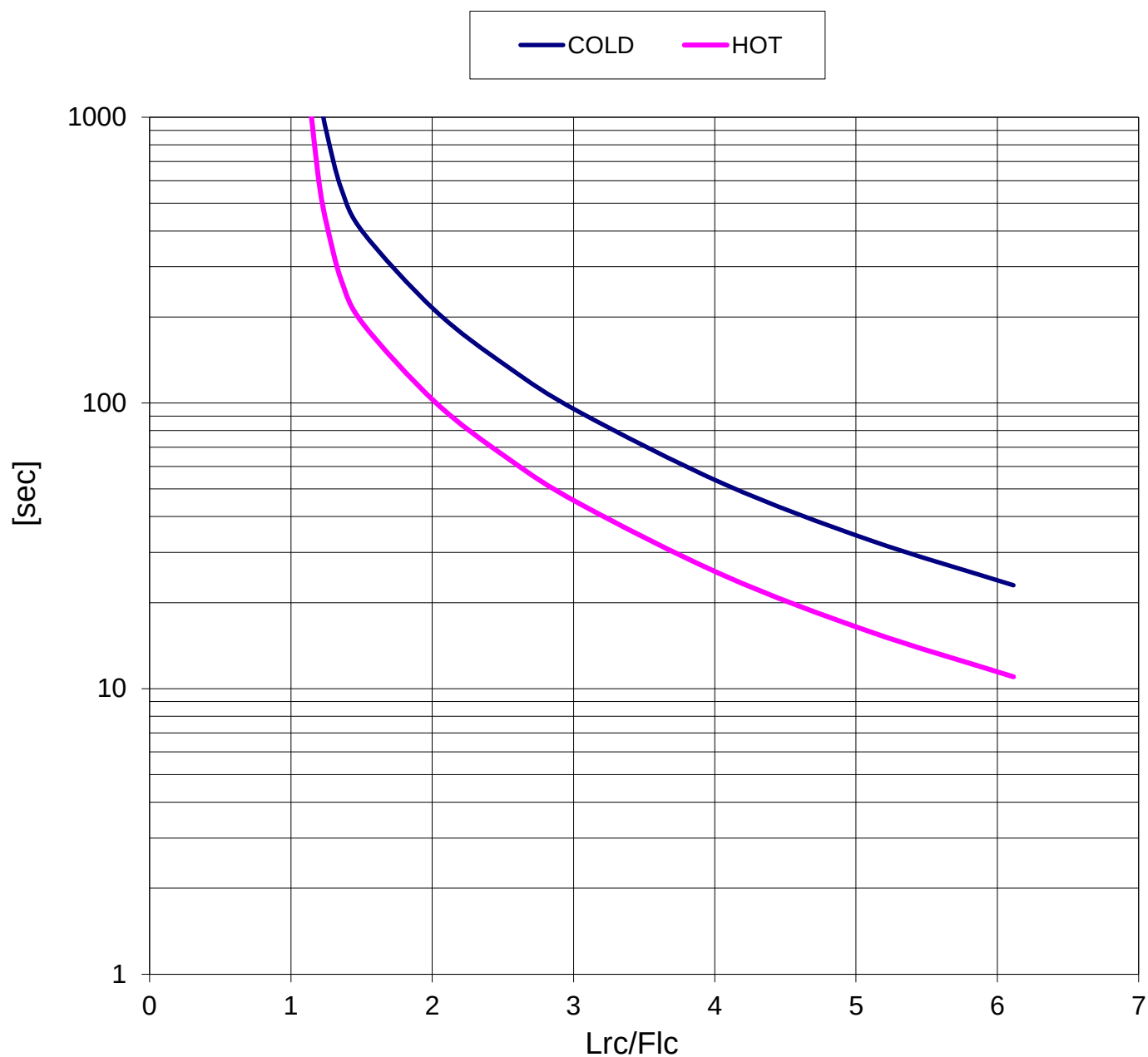
985

rpm

Coppia / Torque

213,30

Nm



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

Data / Date 29-giu-22

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

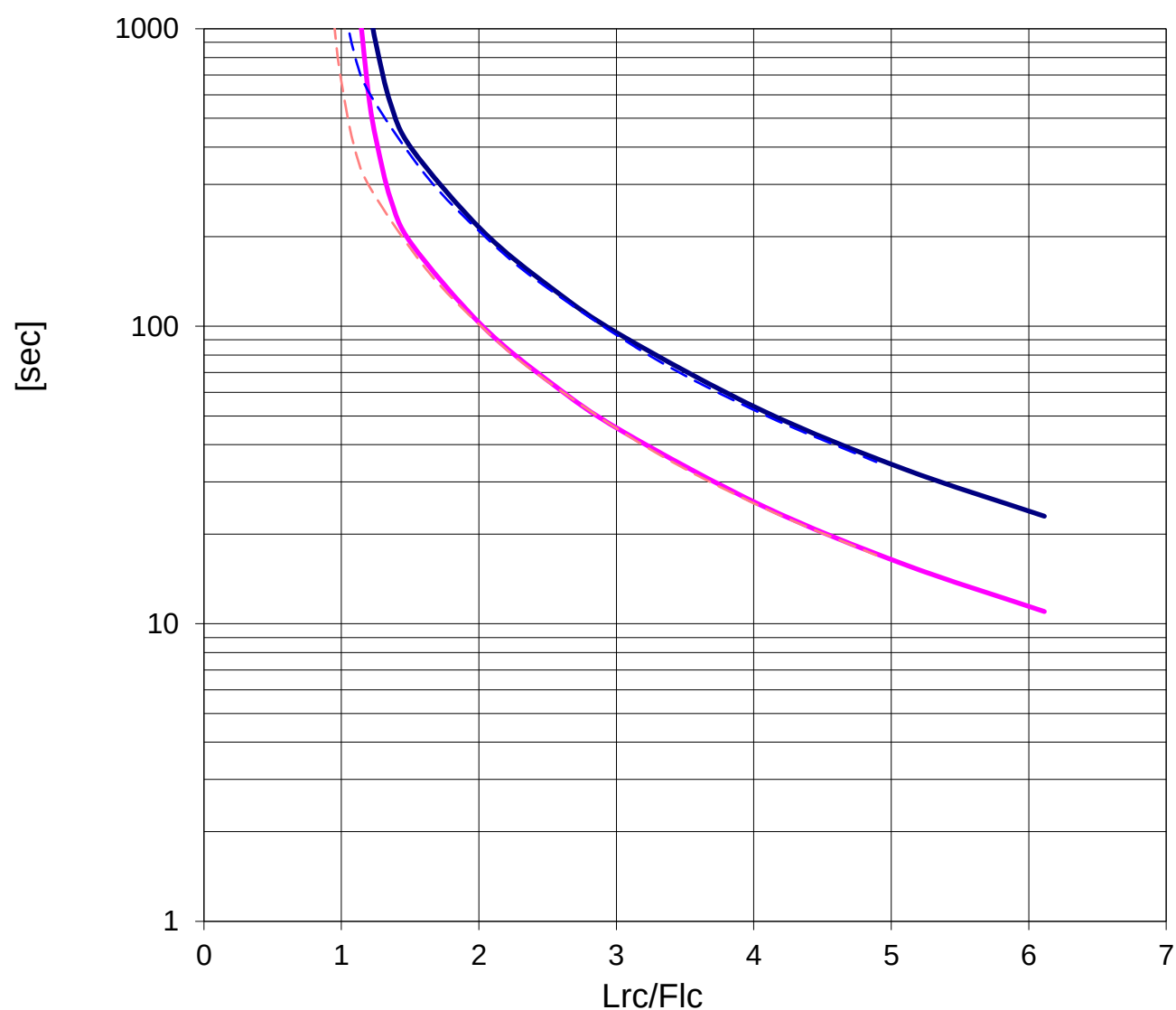
Ciente / Customer -
Impianto / Plant -
ITEM -
Numero d'offerta / Offer Number -

Motore / Motor

TCN 200LB6

Potenza nominale / Rated power	22,00	kW
Poli / Pole	6	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	42,96	A
Velocità / Speed	985	rpm
Coppia / Torque	213,30	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 29-giu-22