

PRODUCT INFORMATION PACKET

Model No: E3AC3002185B30D41100

Catalog No: E3AC3002185B30D41100

Made in Italy E3AC30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 30,00kW,
3 phase, 2973 RPM, D400/Y690V 50Hz, 180L Frame B3, 2 Poles, IC411, Higher Output Motor



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Nameplate Specifications

Output HP	40 Hp	Output KW	30.0 kW
Frequency	50 Hz	Voltage	400/690 V
Current	54.3 A	Speed	2973 rpm
Service Factor	1	Phase	3
Efficiency	93.3 %	Power Factor	0.85
Duty	S1	Insulation Class	F
Frame	180L	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	40 °C	Drive End Bearing Size	6310
Opp Drive End Bearing Size	6310	UL	No
CSA	No	CE	Yes
IP Code	IP55	Number of Speeds	1

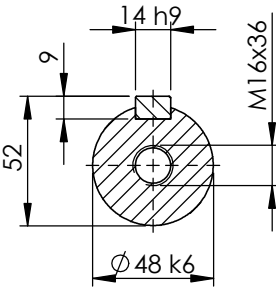
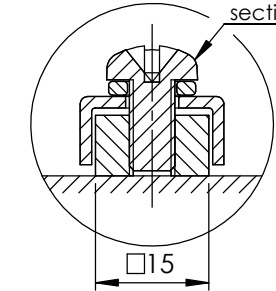
Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	Rotation	Bi-Directional
Mounting	B3	Motor Orientation	Horizontal
Drive End Bearing	Zz C3	Opp Drive End Bearing	Zz C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	1008.00 mm	Frame Length	484.00 mm
Shaft Diameter	48.000 mm	Shaft Extension	110 mm
Assembly/Box Mounting	Top		
Connection Drawing	SC-01-T-1v-1a	Outline Drawing	B3A04E8180001A01

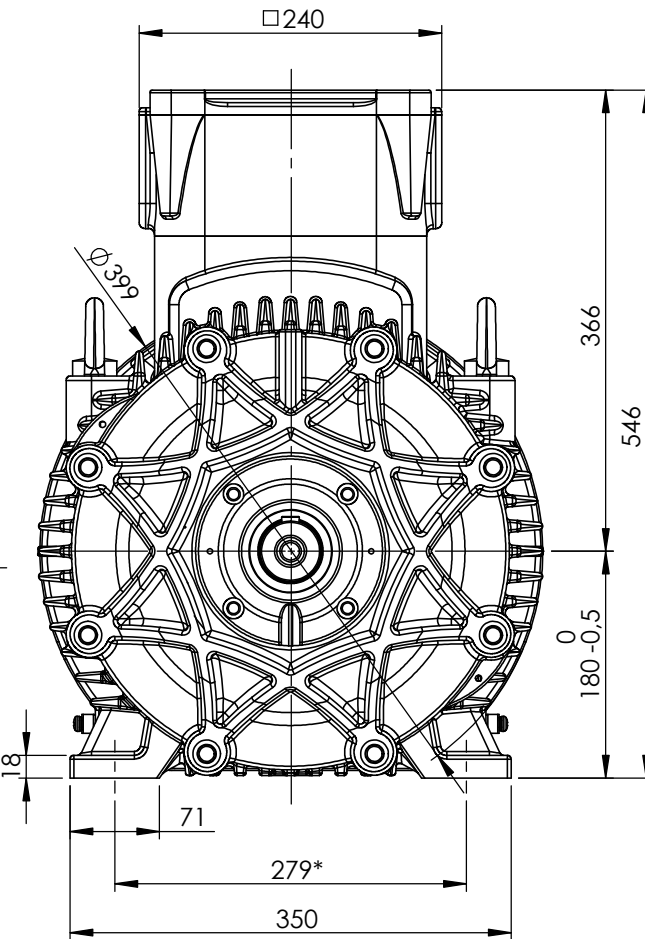
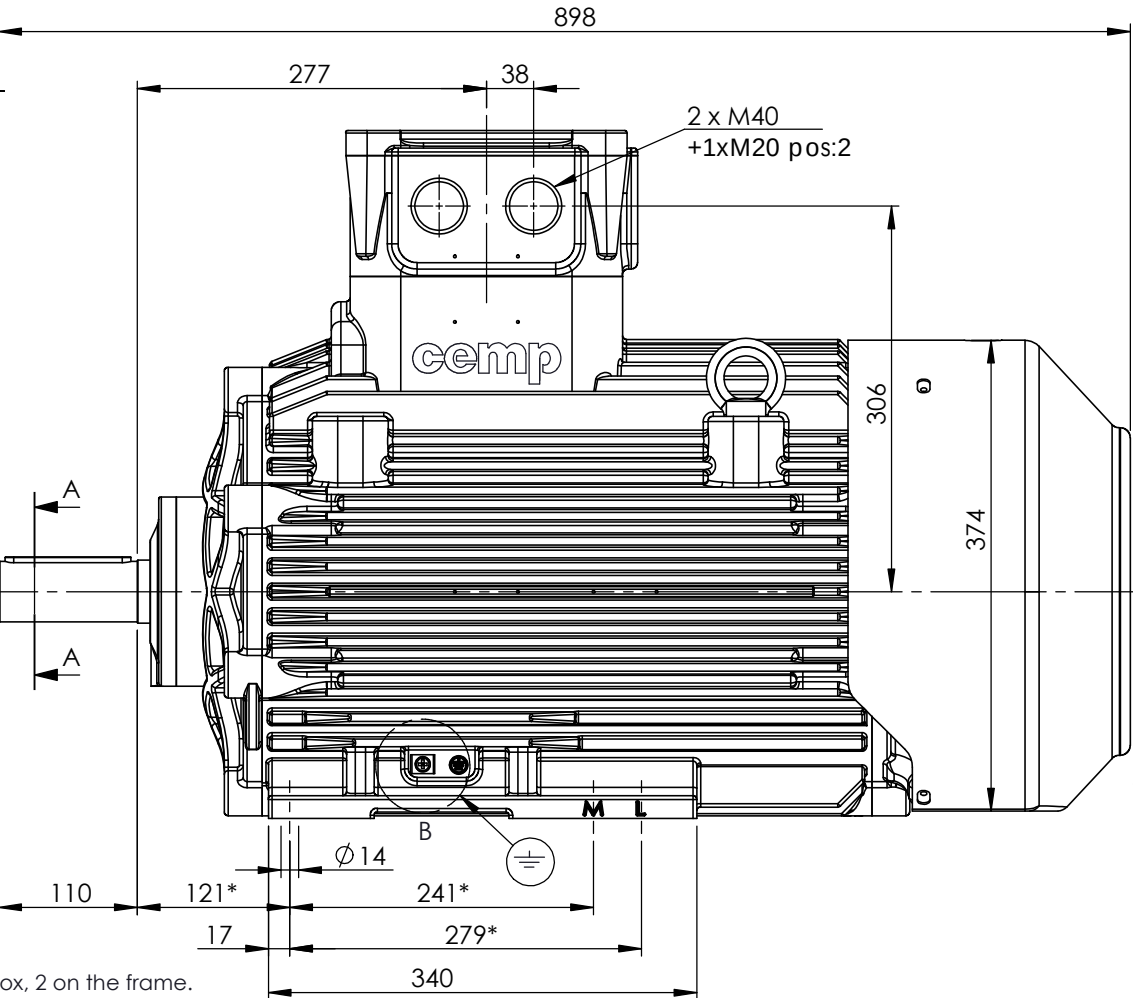
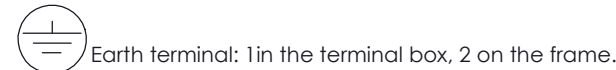
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DETAIL B
SCALE 1 : 1

Earth Terminal
suitable for cable
section 2.5-35mm²



SECTION A-A
SCALE 1 : 3



CUSTOMER REFERENCE AND ADDITIONAL INFORMATION:

MOTOR TYPE AND DESCRIPTION:

DRAWING REVISION	REVISION BY	DATE	TOLERANCES (EXCEPT AS NOTED) TOLERANCES: ±2 * TOLERANCES: ±0.8 DIMENSIONS ARE IN mm ACCORDING TO IEC 60072	DRAWN BY DP	 		
ECO	APPROVED BY	DATE		DATE 29/12/2016			
ECO DESCRIPTION				APPROVED BY DP	DESCRIPTION Motor A180 LA/LB (L) B3 IE3		
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			SERIAL NUMBER	REFERENCE	SIZE A4  DRAWING NUMBER B3A04E8180001A01 SHEET 1 OF 2		
			FIRST ANGLE PROJECTION				

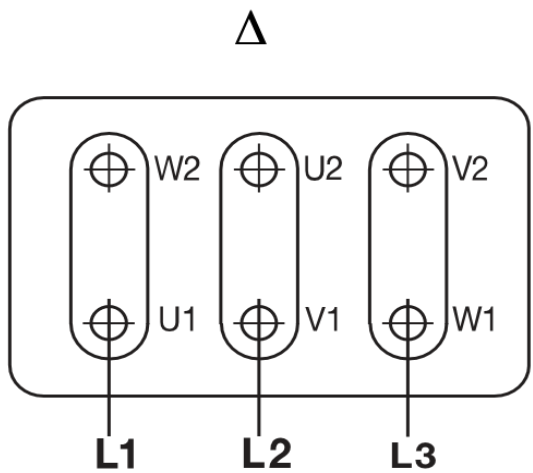
Schema di collegamento - *Connection diagram*
Schemas de branchement - *Schaltplan*
Esquemas de conexión



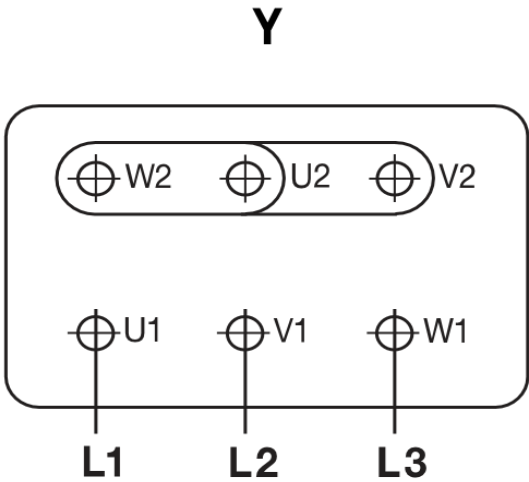
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**Motori trifase una velocità - *Single speed, three phase motors* - Moteurs triphasé une vitesse
Drehstrommotor Eine Drehzahlstufe - Motores trifásico una velocidad**

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. <i>morsetti</i> <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
Offerta / Offer
Impianto / Plant

DATI DI PROGETTO - DESIGN DATA

Modo di protezione	II2G	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 ± 5%	

Ex db IIC T4 Gb	IP55
Ex db IIC Gb	IP55
Tem. Amb. Max. / Max Amb. Temp.	40 °C
Altitudine / Altitude	< 1000 mslm / masl
Frequenza / Frequency	50 Hz ± 2%

DATI FUNZIONALI E COSTRUTTIVI - PERFORMANCE AND CONSTRUCTION DATA

1	Quantità / Quantity		01
2	Motore tipo / Motor type		E3AC30 180L 2
3	Numero di serie / Serial Number		-
4	Forma costruttiva / Shape		B3
5	Certificato / Certificate	TÜV CY	17 ATEX 0205845 X
6	Altro certificato / Other certificate		
Dati nominali / Rated data			
7	Poli / Pole	n°	2
8	Potenza nominale / Rated power	kW	30,00
9	Corrente nominale / Rated current	A	54,35
10	Velocità nominale / Full Load speed	1/min	2973
11	Collegamento / Winding connection		D
12	Isolamento / Insulation class		F
13	Sovratemperatura / Temperature rise		80K
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
18	Giri / Speed	1/min	2973
19	Corr. / Curr.	A	54,35
20	Rend / Eff	%	93,3
21	cos φ	-	0,85
Performances all'avviamento / Starting performances			
22	Ia/In - LRC/FLC	%	750
23	Cosphi a rotore bloccato / LR power factor		0,37
	Tempo a rotore bloccato / LRWT		
24	100% Un (A caldo / Warm)	sec	6
25	(A freddo / Cold)	sec	16
26	80% Un (A caldo / Warm)	sec	9
27	(A freddo / Cold)	sec	25
	Tempo di avviamento ammissibile / ART		
28	100% Un	sec	14
29	80% Un	sec	21
Curva di coppia / Speed-torque values			
30	Coppia nominale / Rated Torque	Nm	96,36
31	Ca/Cn - LRT/FLT	%	215
32	Cmax/Cn - BDT/FLT	%	330
33			
34			
35			
Varie / Other			
36			
37			
38			
39			

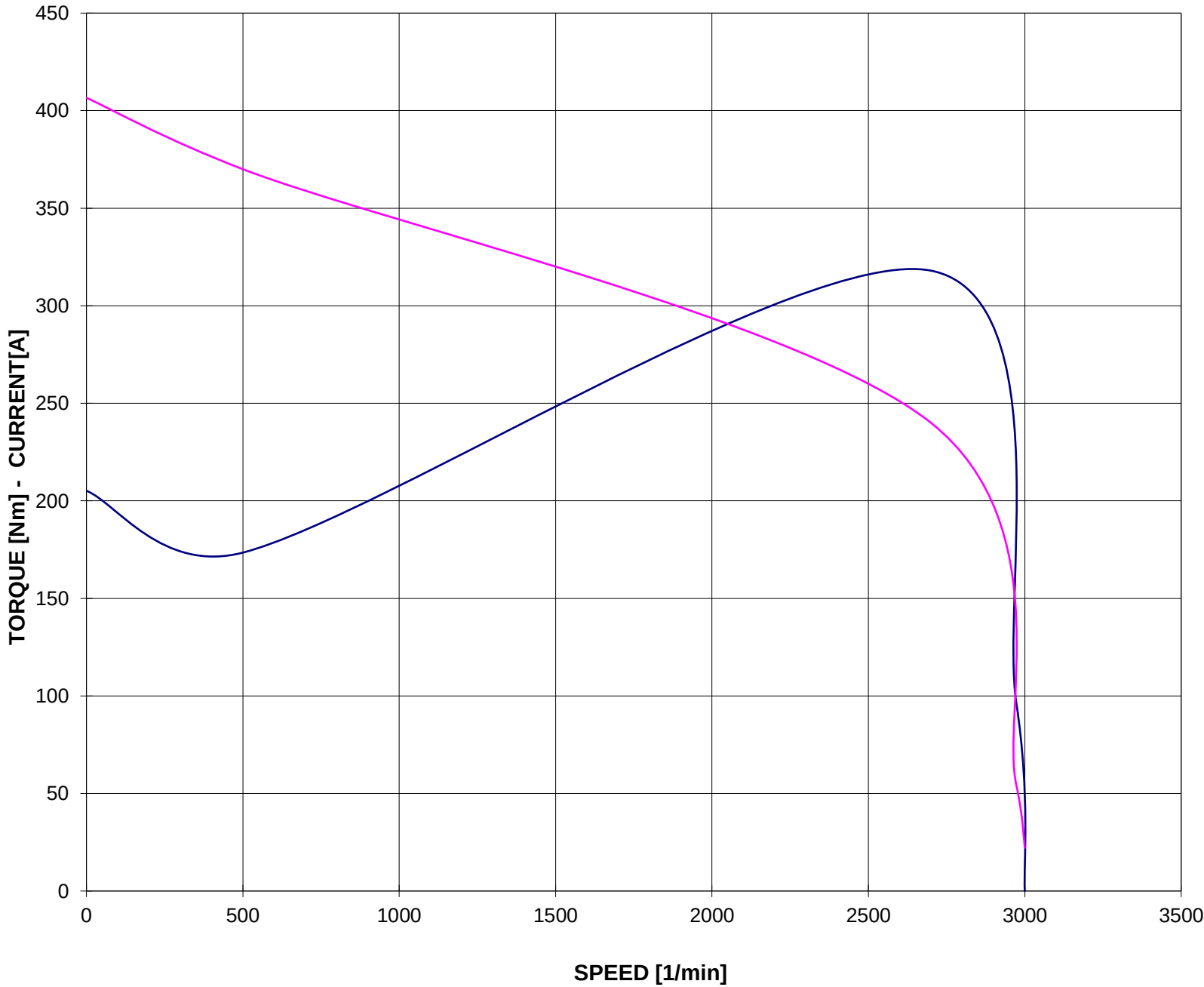
Servizio / Duty			
40	Servizio / Duty type	-	S1
41	Intermittenza / Cyclic duration factor	-	-
42	Avviamenti-ora / Starting-hour	-	-
43	Tempo ciclo / Time		-
Cuscinetti / Bearings			
44	Cuscinetto ant / DE bearing	-	6310 ZZ C3
45	Cuscinetto post / NDE bearing	-	6310 ZZ C3
46	Carico radiale max / Max radial load in X1	N	3200
47	Carico assiale max / Max axial load	N	880
48	Tipo grasso / Grease type	LGHP2 SKF or equivalent	
49	Intervallo lubrificazione / Lubrication	h	-
50	Quantità grasso / Quantity grease	gr	-
Caratteristiche meccaniche / mechanical specification			
51	Massa / Mass	kg	306,3
52	Momento d'inerzia / Moment of inertia	kgm2	0,1265
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			
Dati entrata cavi - verniciatura / Cable entry and painting			
63	Entrata cavi / Cable entry		2xM40
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	-
73	Sonde termiche / Temperature detector	bearing	-
74	Scaldiglie / Heaters	V / W	-
75	Preparation for SPM sensor		-
76	Pressacavi / Cable glands		NO
77			

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

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

Motore / Motor	E3AC30 180L 2	
Potenza nominale / Rated power	30,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	54,35	A
Velocità / Speed	2973	rpm
Coppia / Torque	96,36	Nm

COPPIA - TORQUE CORRENTE - CURRENT



Valori calcolati - Data obtained by calculation method

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

Cliente / Customer -

Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number -
-

Motore / Motor

E3AC30 180L 2

Potenza nominale / Rated power 30,00 kW

Poli / Pole 2

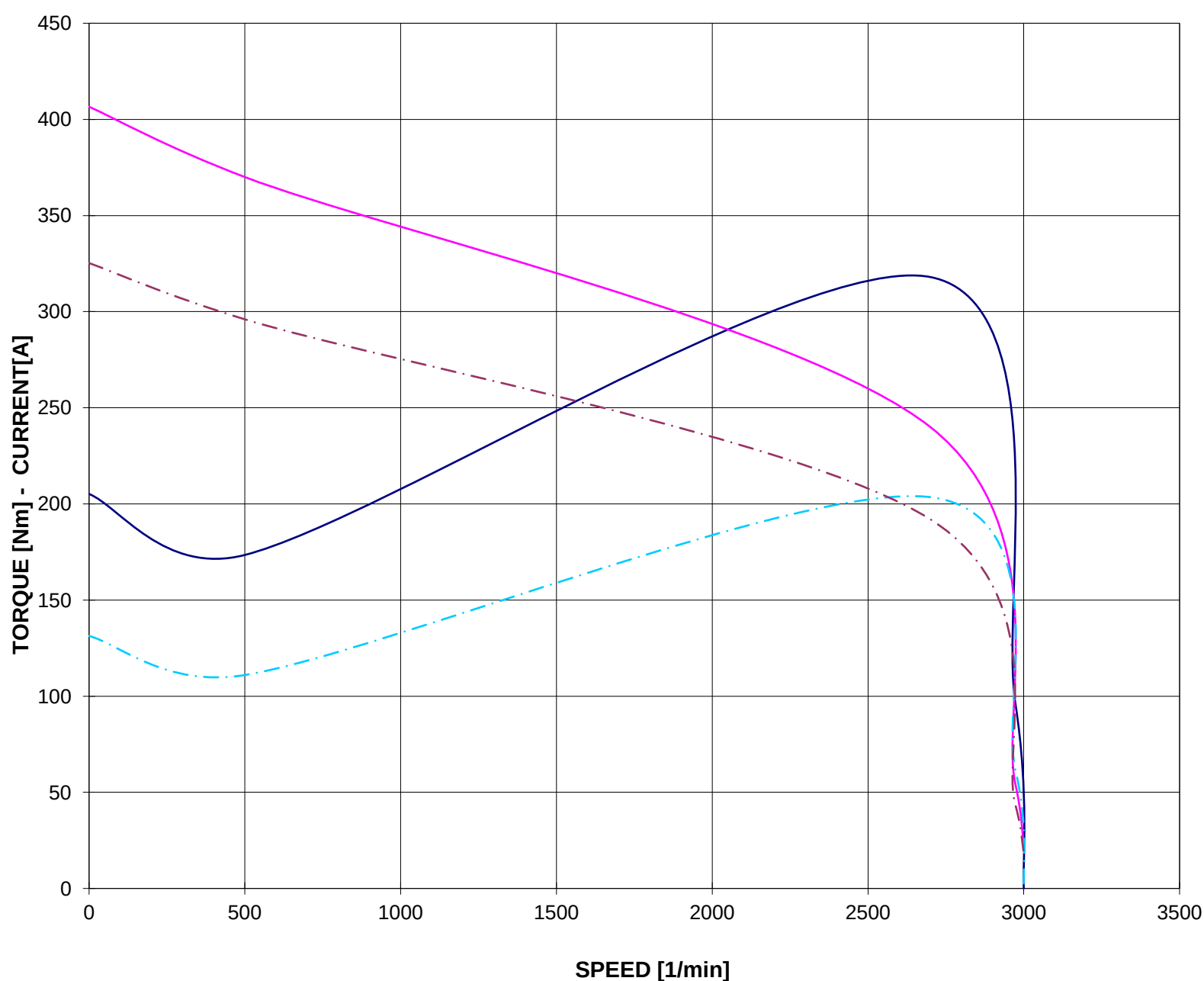
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz

Corrente / Rated current 54,35 A

Velocità / Speed 2973 rpm

Coppia / Torque 96,36 Nm

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

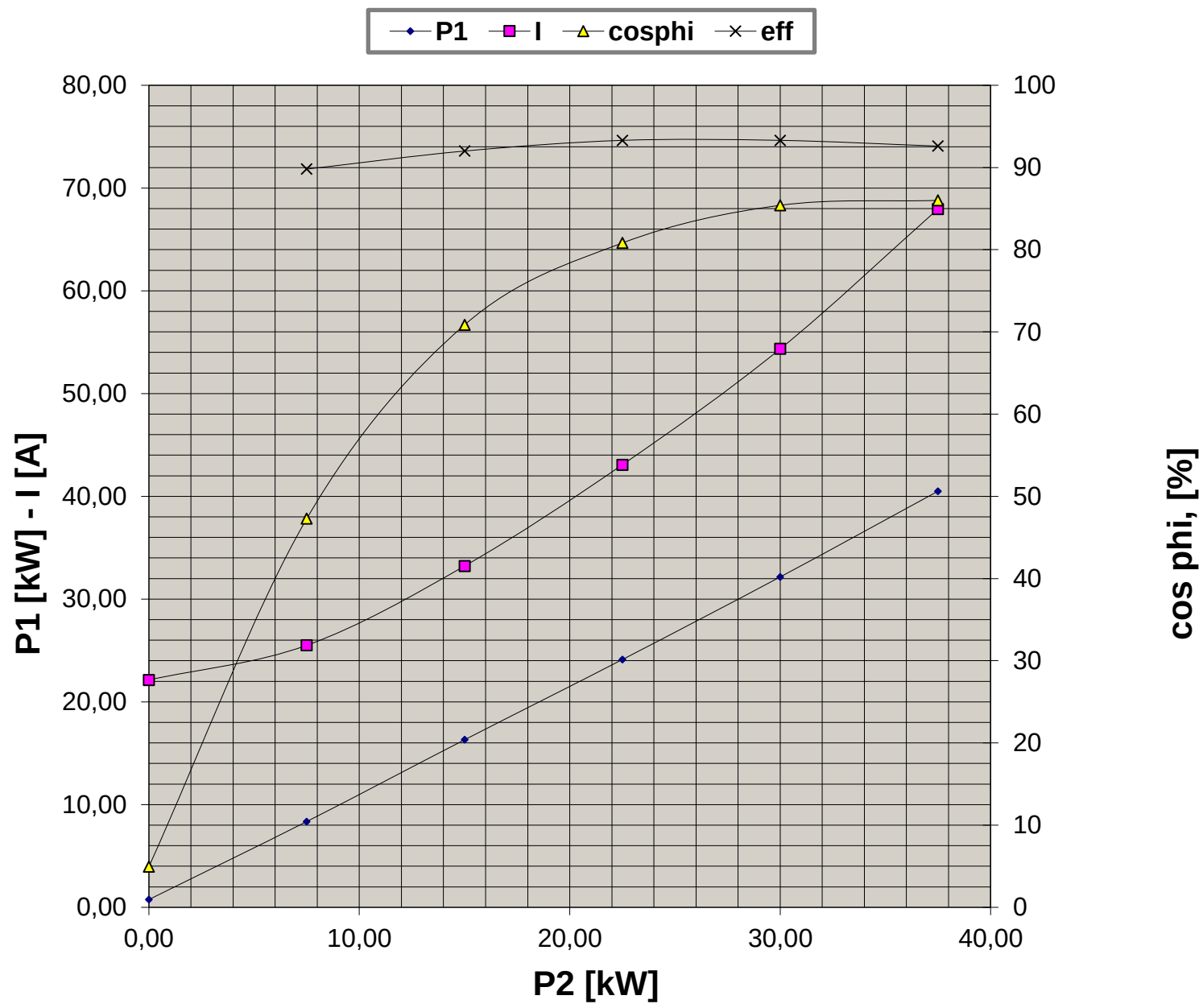


Valori calcolati - Data obtained by calculation method

CURVE CARATTERISTICHE
PERFORMANCE CURVES

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

Motore / Motor	E3AC30 180L 2	
Potenza nominale / Rated power	30,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	54,35	A
Velocità / Speed	2973	rpm
Coppia / Torque	96,36	Nm



Valori calcolati - Data obtained by calculation method

CURVA LIMITE CORRENTE TEMPO
THERMAL WITHSTAND CURVE

Cliente / Customer -

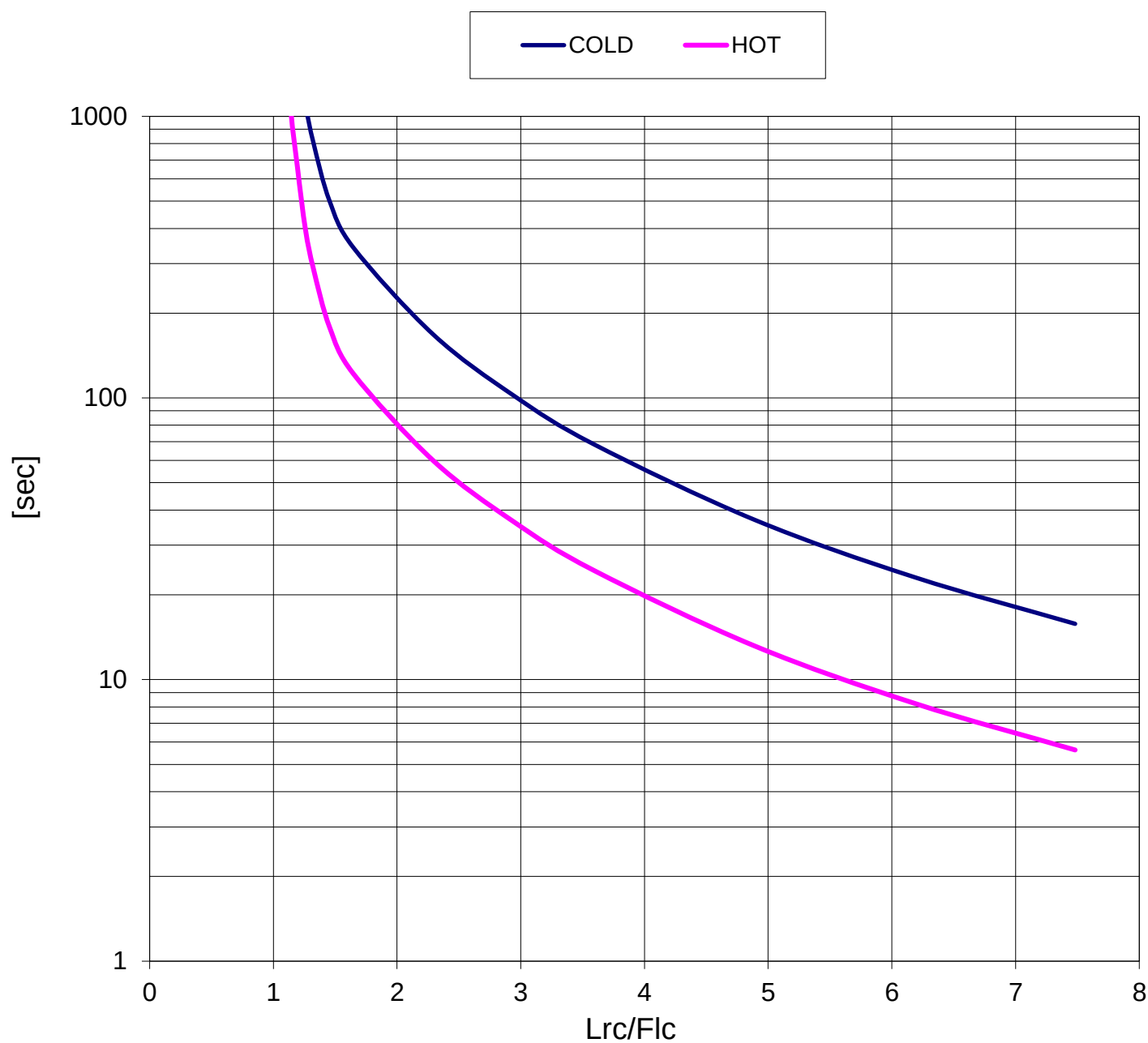
Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number -
-

Motore / Motor

E3AC30 180L 2

Potenza nominale / Rated power	30,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	54,35	A
Velocità / Speed	2973	rpm
Coppia / Torque	96,36	Nm



Valori calcolati - Data obtained by calculation method

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

Cliente / Customer -

Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number -
-

Motore / Motor

E3AC30 180L 2

Potenza nominale / Rated power 30,00 kW

Poli / Pole 2

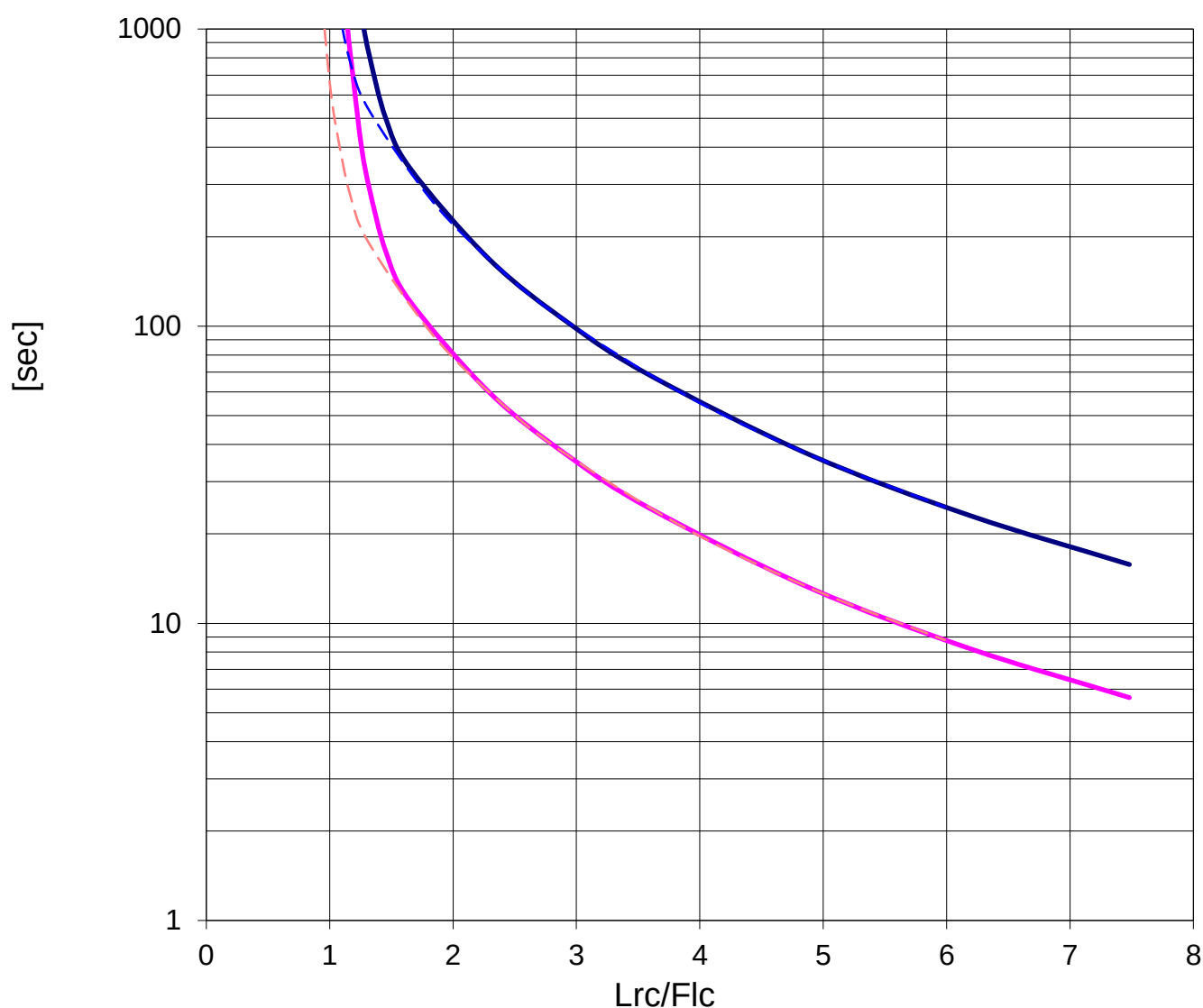
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz

Corrente / Rated current 54,35 A

Velocità / Speed 2973 rpm

Coppia / Torque 96,36 Nm

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



Valori calcolati - Data obtained by calculation method