

PRODUCT INFORMATION PACKET

Model No: E3AC3002287B50D41100

Catalog No: E3AC3002287B50D41100

Made in Italy E3AC30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 110,00kW,
3 phase, 2983 RPM, D400/Y690V 50Hz, 280MB Frame B5, 2 Poles, IC411, Higher Output Motor



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Nameplate Specifications

Phase	3	Output HP	150 Hp
Output KW	110.0 kW	Voltage	400/690 V
Speed	2983 rpm	Service Factor	1
Frame	280MB	Enclosure	Totally Enclosed Fan Cooled
Efficiency	95.3 %	Ambient Temperature	40 °C
Frequency	50 Hz	Current	186.0 A
Power Factor	0.89	Duty	S1
Insulation Class	F	Drive End Bearing Size	6316
Opp Drive End Bearing Size	6316	UL	No
CSA	No	CE	Yes
IP Code	IP55	Number of Speeds	1

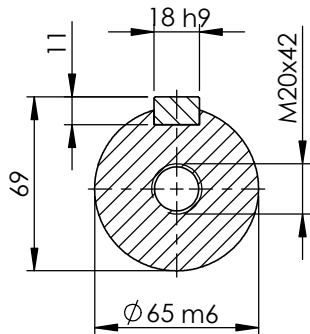
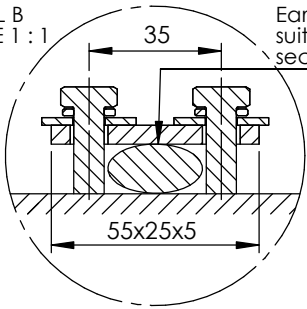
Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	Rotation	Bi-Directional
Mounting	B5	Motor Orientation	Horizontal
Drive End Bearing	Zz C3	Opp Drive End Bearing	Zz C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	1489.00 mm	Frame Length	775.00 mm
Shaft Diameter	65.000 mm	Shaft Extension	140 mm
Assembly/Box Mounting	Top		
Outline Drawing	B5A04E8280001B01	Connection Drawing	SC-01-T-1v-1a

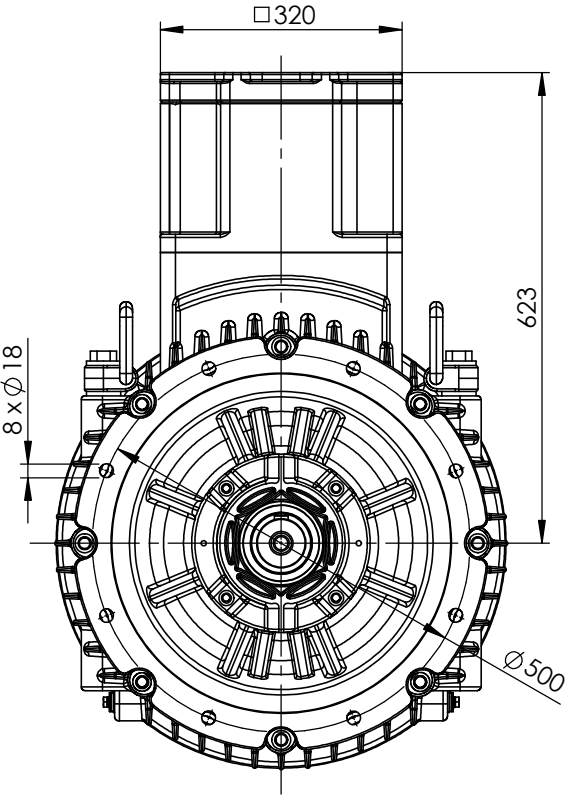
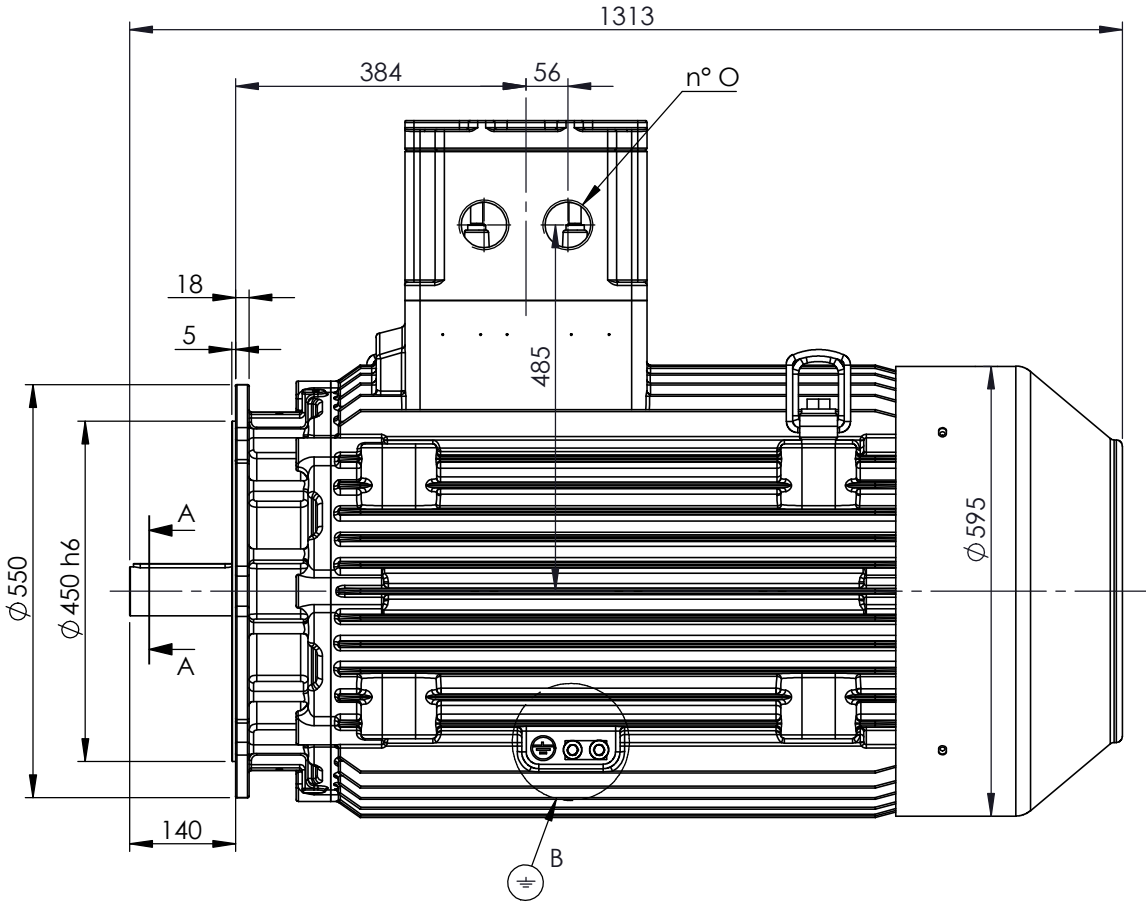
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DETAIL B
SCALE 1 : 1

Earth terminal
suitable for cable
section 6-150mm²



SECTION A-A
SCALE 1 : 3



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 * TOLERANCES: ±0.8 DIMENSIONS ARE IN mm ACCORDING TO IEC 60072	DRAWN BY	MA	 		
ECO	APPROVED BY	DATE		DATE	30/09/2021			
ECO DESCRIPTION				APPROVED BY	LP	DESCRIPTION Motor A280 MA/MB (L) 2P B5		
				DATE	01/10/2021			
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Schema di collegamento - *Connection diagram*
Schemas de branchement - *Schaltplan*
Esquemas de conexión



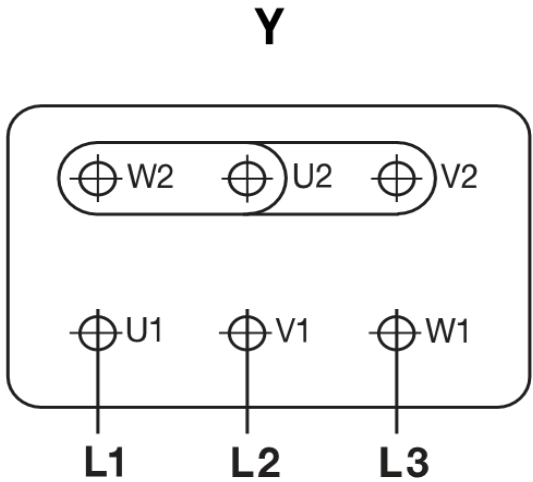
DTE 01/01/2004
SC - 01 - T - 1v.doc

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

Collegamento - *Connection* - Connexion - *Schaltung* - 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	CEMP
Offerta / Offer : 2021.	
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 280MB 2
3	Numero di serie / Serial Number		-
4	Forma costruttiva / Shape		B5
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	110,00
9	Corrente nominale / Rated current	A	186,36
10	Velocità nominale / Full Load speed	1/min	2983
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	2983
19	Corr. / Curr.	A	186,36
20	Rend / Eff	%	95,3
21	cos φ	-	0,89
Performances all'avviamento / Starting performances			
22	Ia/In - LRC/FLC	%	695
23	Cosphi a rotore bloccato / LR power factor		0,26
	Tempo a rotore bloccato / LRWT		
24	100% Un (A caldo / Warm)	sec	8
25	(A freddo / Cold)	sec	27
26	80% Un (A caldo / Warm)	sec	13
27	(A freddo / Cold)	sec	43
	Tempo di avviamento ammissibile / ART		
28	100% Un	sec	24
29	80% Un	sec	37
Curva di coppia / Speed-torque values			
30	Coppia nominale / Rated Torque	Nm	352,14
31	Ca/Cn - LRT/FLT	%	170
32	Cmax/Cn - BDT/FLT	%	300
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	6316 ZZ C3
45	Cuscinetto post / NDE bearing	6316 ZZ C3
46	Carico radiale max / Max radial load in X1	5000
47	Carico assiale max / Max axial load	5500
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
52	Momento d'inerzia / Moment of inertia	kgm2
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)
54	Vibrazioni / Vibration level	IEC 34-14
55	Limite norma / Vibration limit	mm/sec
56		
57		
Dati entrata cavi - verniciatura / Cable entry and painting		
63	Entrata cavi / Cable entry	2xM63
64	Ciclo verniciatura / Painting cycle	STD
65	Colore finale / Final colour	RAL
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

CEMP

Impianto / Plant

-

ITEM

-

Numero d'offerta / Offer Number

2021.

-

Motore / Motor

E3AC30 280MB 2

Potenza nominale / Rated power

110,00

kW

Poli / Pole

2

Tensione - Frequenza / Voltage - Frequency

400 - 50

V - Hz

Corrente / Rated current

186,36

A

Velocità / Speed

2983

rpm

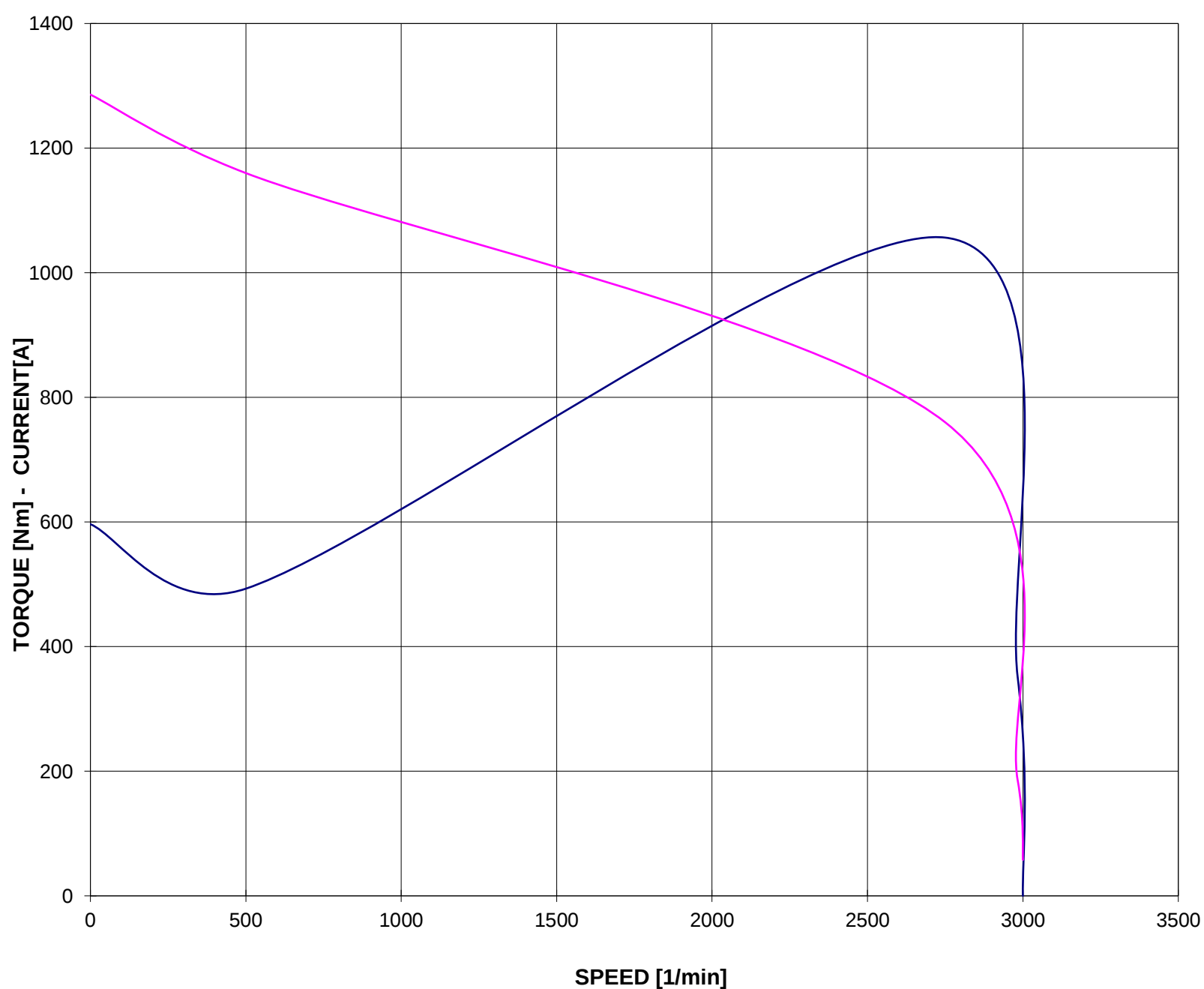
Coppia / Torque

352,14

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 CEMP

Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number 2021.
-

Motore / Motor E3AC30 280MB 2

Potenza nominale / Rated power 110,00 kW

Poli / Pole 2

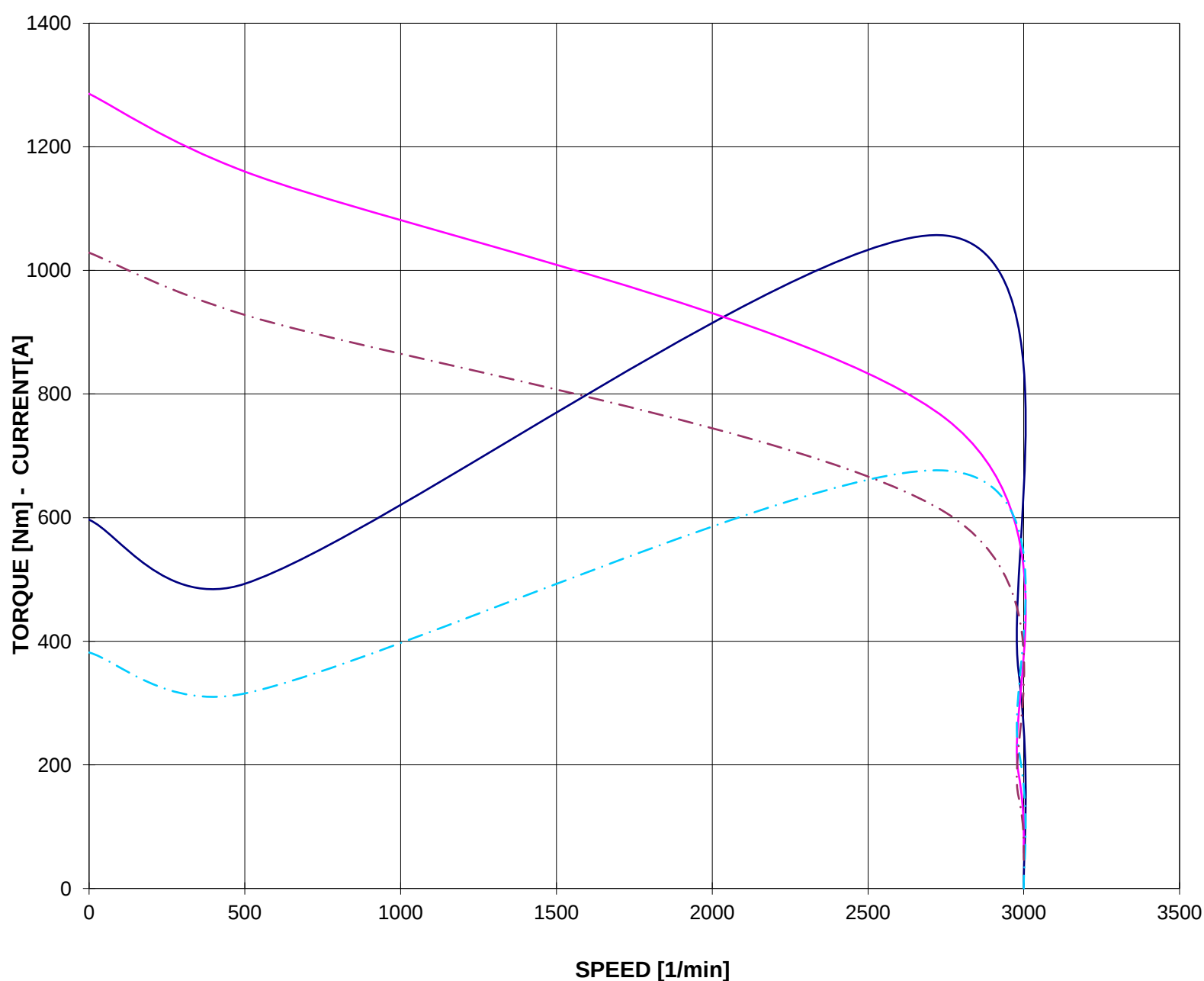
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz

Corrente / Rated current 186,36 A

Velocità / Speed 2983 rpm

Coppia / Torque 352,14 Nm

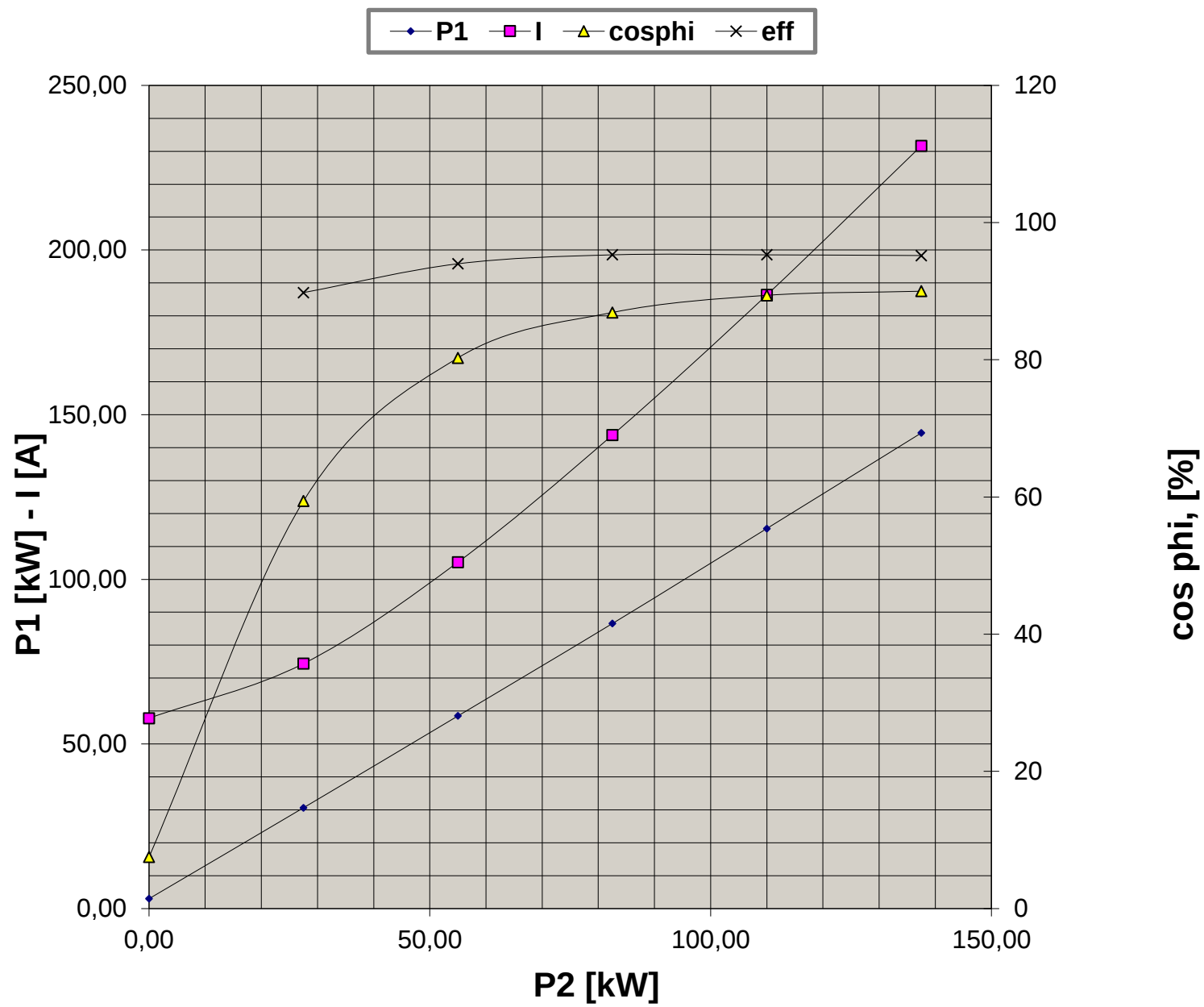
— COPPIA - TORQUE — CORRENTE - CURRENT
- - - COPPIA - TORQUE 80% Un - - - CORRENTE - CURRENT 80% Un



Valori calcolati - Data obtained by calculation method

CURVE CARATTERISTICHE
PERFORMANCE CURVES

Cliente / Customer	CEMP	
Impianto / Plant	-	
ITEM	-	
Numero d'offerta / Offer Number	2021.	
	-	
Motore / Motor	E3AC30 280MB 2	
Potenza nominale / Rated power	110,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	186,36	A
Velocità / Speed	2983	rpm
Coppia / Torque	352,14	Nm



Valori calcolati - Data obtained by calculation method

Data / Date 28 January 2022

CURVA LIMITE CORRENTE TEMPO THERMAL WITHSTAND CURVE

Cliente / Customer

CEMP

Impianto / Plant

-

ITEM

-

Numero d'offerta / Offer Number

2021.

-

Motore / Motor

E3AC30 280MB 2

Potenza nominale / Rated power

110,00

kW

Poli / Pole

2

Tensione - Frequenza / Voltage - Frequency

400 - 50

V - Hz

Corrente / Rated current

186,36

A

Velocità / Speed

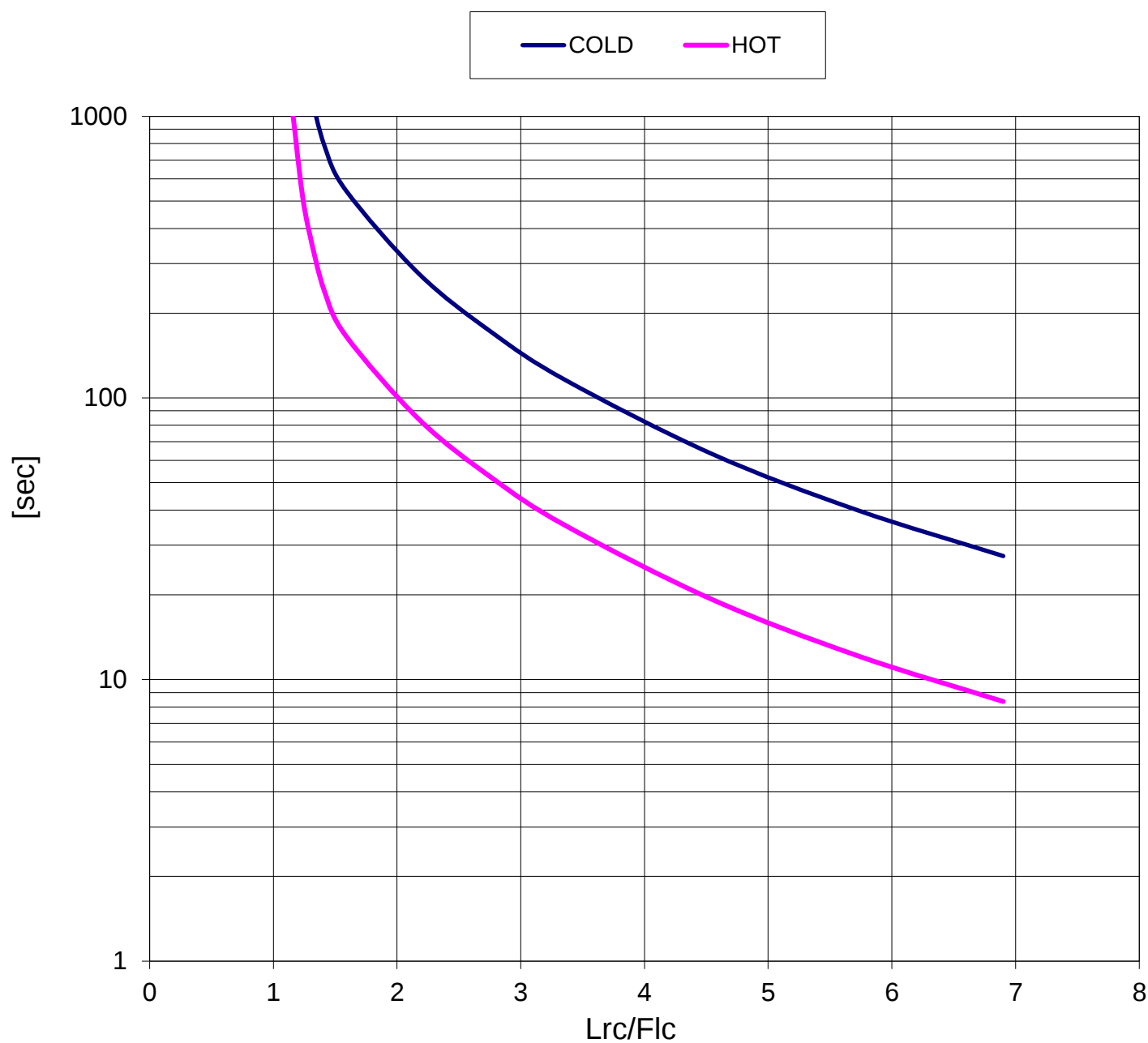
2983

rpm

Coppia / Torque

352,14

Nm



Valori calcolati - Data obtained by calculation method

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

Cliente / Customer CEMP

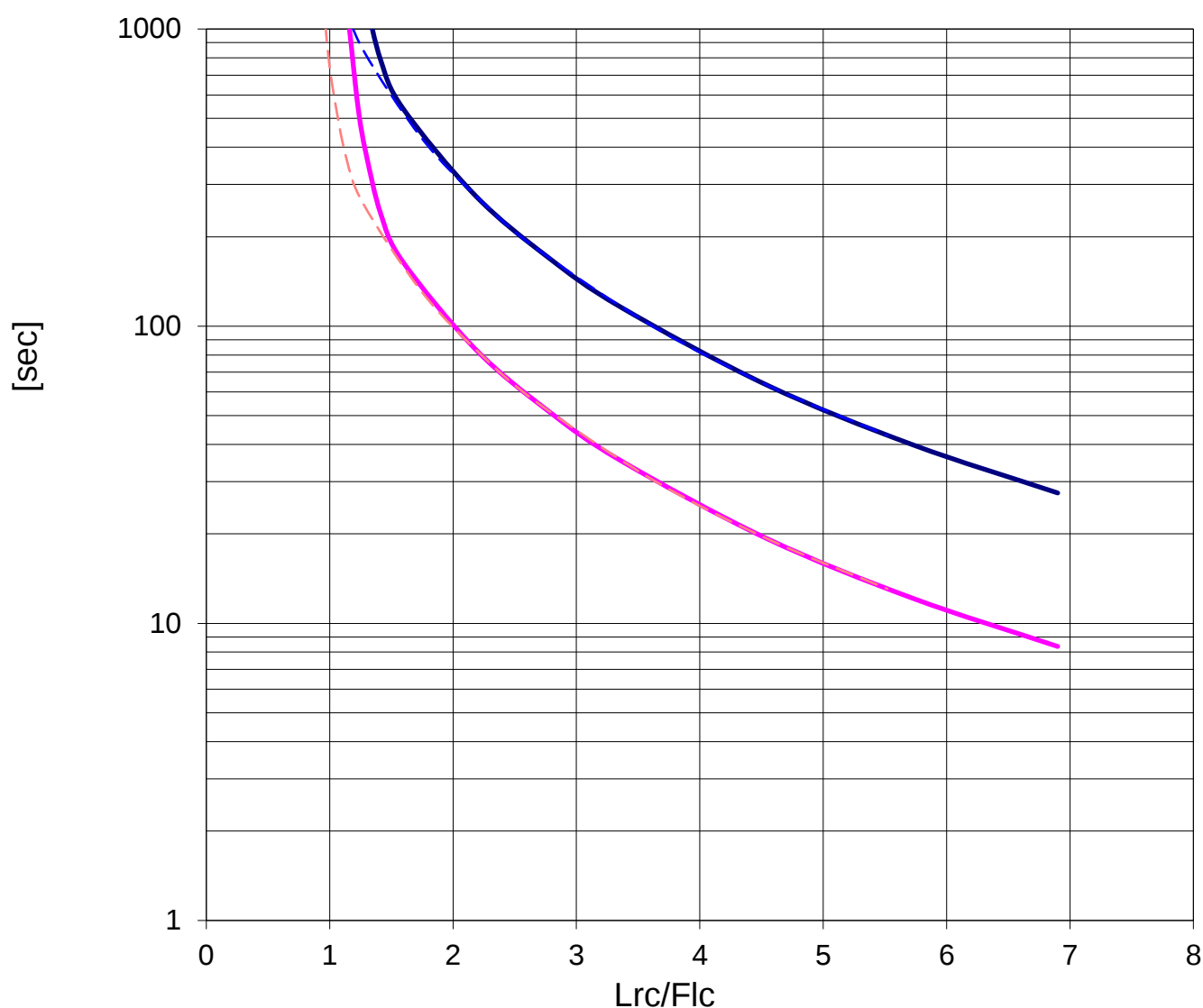
Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number 2021.
-

Motore / Motor E3AC30 280MB 2

Potenza nominale / Rated power	110,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	186,36	A
Velocità / Speed	2983	rpm
Coppia / Torque	352,14	Nm

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



Valori calcolati - Data obtained by calculation method