

PRODUCT INFORMATION PACKET

Model No: E3AB3004091B30S41100

Catalog No: E3AB3004091B30S41100

Made in Italy E3AB30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 1,10kW,
3 phase, 1444 RPM, D230/Y400V 50Hz, 90S Frame B3, 4 Poles, IC411



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Nameplate Specifications

Output HP	1.50 Hp	Output KW	1.1 kW
Frequency	50 Hz	Voltage	230/400 V
Current	2.4 A	Speed	1444 rpm
Service Factor	1	Phase	3
Efficiency	84.5 %	Power Factor	0.78
Duty	S1	Insulation Class	F
Frame	90S	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6205	Opp Drive End Bearing Size	6205
UL	No	CSA	No
CE	Yes	IP Code	IP55
Number of Speeds	1		

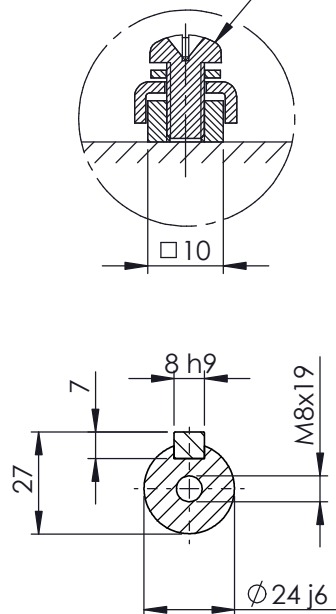
Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	4	Rotation	Bi-Directional
Mounting	B3	Motor Orientation	Horizontal
Drive End Bearing	Zz	Opp Drive End Bearing	Zz
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	423.00 mm	Frame Length	190.00 mm
Shaft Diameter	24.000 mm	Shaft Extension	50 mm
Assembly/Box Mounting	Top		
Outline Drawing	B3A04E8095001A01	Connection Drawing	SC-01-T-1v-1a

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DETAIL B
SCALE 1 : 1

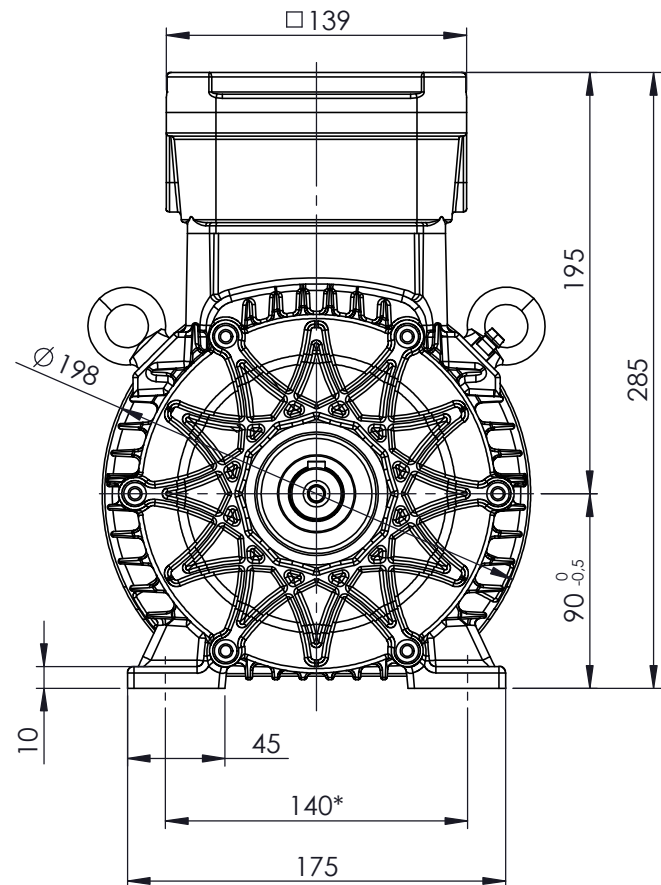
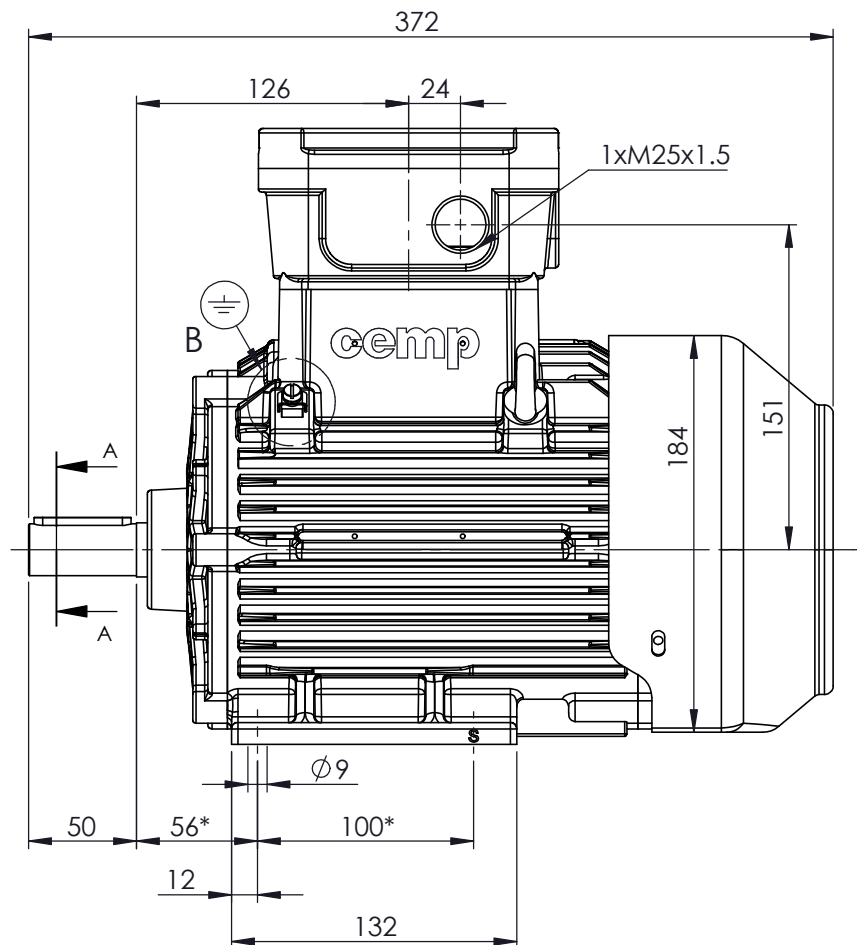
Earth Terminal
suitable for cable
section 1.5-10mm²



SECTION A-A
SCALE 1 : 2



Earth terminal: 1 in the terminal box, 1 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	REGAL™ cemp					
ECO	APPROVED BY	DATE		LP						
ECO DESCRIPTION				DATE				27/12/2016		
				APPROVED BY				DP		
COPYRIGHT CEMP Srl ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF CEMP Srl ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.			DATE	27/12/2016	DESCRIPTION Motor A90 S/SL (S) B3 IE3					
			SERIAL NUMBER	REFERENCE						
			FIRST ANGLE PROJECTION				SIZE	DRAWING NUMBER		SHEET
							A4	B3A04E8095001A01		1 OF 2

Schema di collegamento - *Connection diagram*
Schemas de branchement - *Schaltplän*
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	-
Ordine cliente / Customer order	-
Item	-

Conferma ordine / Acknowledgment	N° -
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 IIB T4 Gb	IP55	
Ex-db IIB 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		E3AB30 90S 4		
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°	4		
8	Potenza nominale / Rated power	kW	1,10		
9	Corrente nominale / Rated current	A	2,42		
10	Velocità nominale / Full Load speed	1/min	1444		
11	Collegamento / Winding connection		Y		
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	2/4	
18	Giri / Speed	1/min	1444	1460	1475
19	Corr. / Curr.	A	2,42	2,02	1,81
20	Rend / Eff	%	84,1	84,6	82,9
21	cos φ	-	0,78	0,70	0,53
Performances all'avviamento / Starting performances					
22	Ia/In - LRC/FLC	%	725		
23	Cosphi a rotore bloccato / LR power factor		0,68		
	Tempo a rotore bloccato / LRWT				
24	100% Un (A caldo / Warm)	sec	13		
25	(A freddo / Cold)	sec	26		
26	80% Un (A caldo / Warm)	sec	21		
27	(A freddo / Cold)	sec	40		
	Tempo di avviamento ammissibile / ART				
28	100% Un	sec	22		
29	80% Un	sec	35		
Curva di coppia / Speed-torque values					
30	Coppia nominale / Rated Torque	Nm	7,27		
31	Ca/Cn - LRT/FLT	%	300		
32	Cmax/Cn - BDT/FLT	%	0		
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	-	6205 ZZ
45	Cuscinetto post / NDE bearing	-	6205 ZZ
46	Carico radiale max / Max radial load in X1	N	660
47	Carico assiale max / Max axial load	N	200
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	38,6
52	Momento d'inerzia / Moment of inertia	kgm2	0,0031
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	61
54	Vibrazioni / Vibration level	IEC 34-14	A
55	Limite norma / Vibration limit	mm/sec	1,60
56			
57			
58			
59			
60			
61			
62			
Dati entrata cavi - verniciatura / Cable entry and painting			
63	Entrata cavi / Cable entry		1xM25
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 CEMP

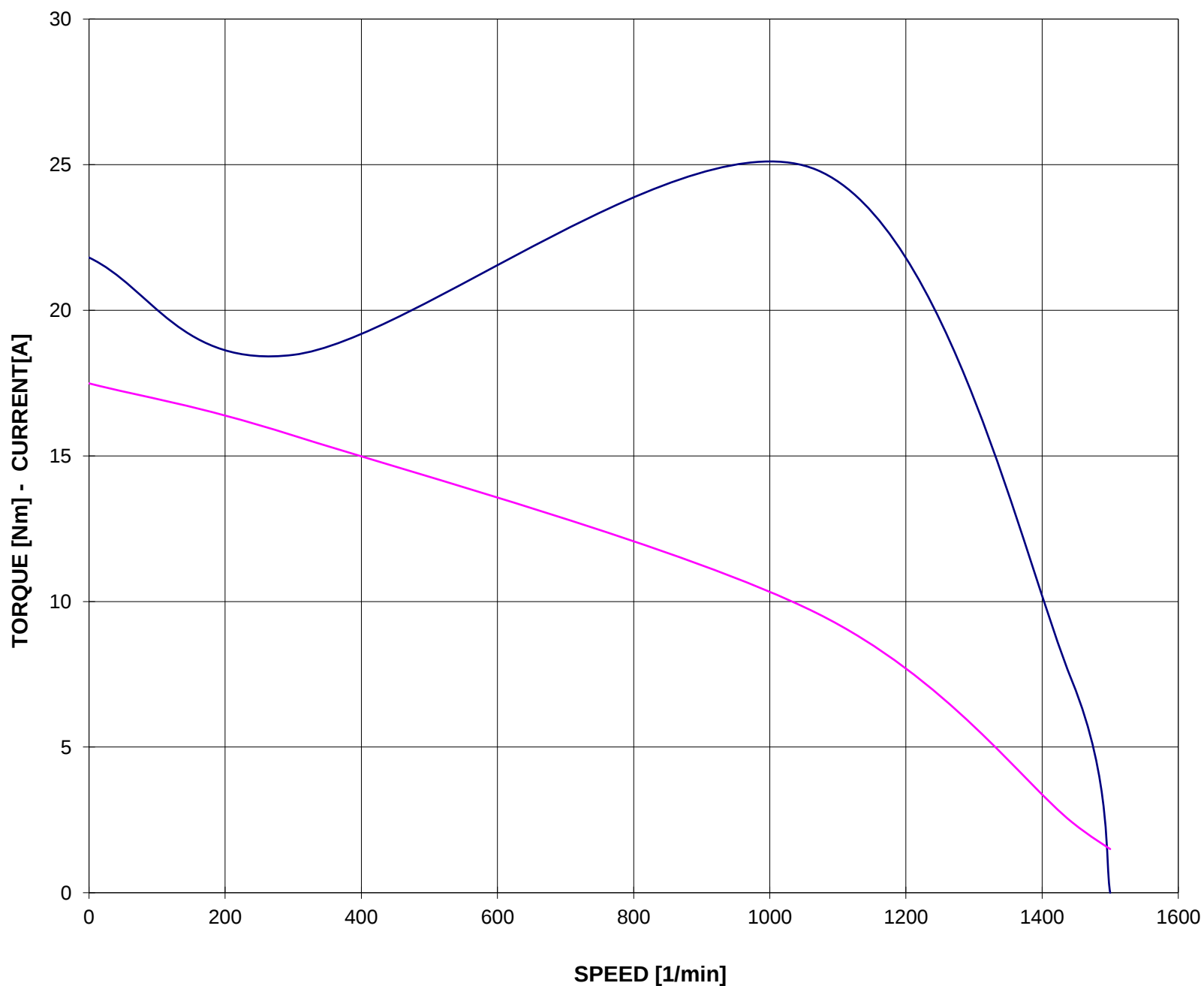
 Impianto / Plant
ITEM

 Numero d'offerta / Offer Number 2021.
 -

Motore / Motor E3AB30 90S 4

Potenza nominale / Rated power	1,10	kW
Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	2,42	A
Velocità / Speed	1444	rpm
Coppia / Torque	7,27	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

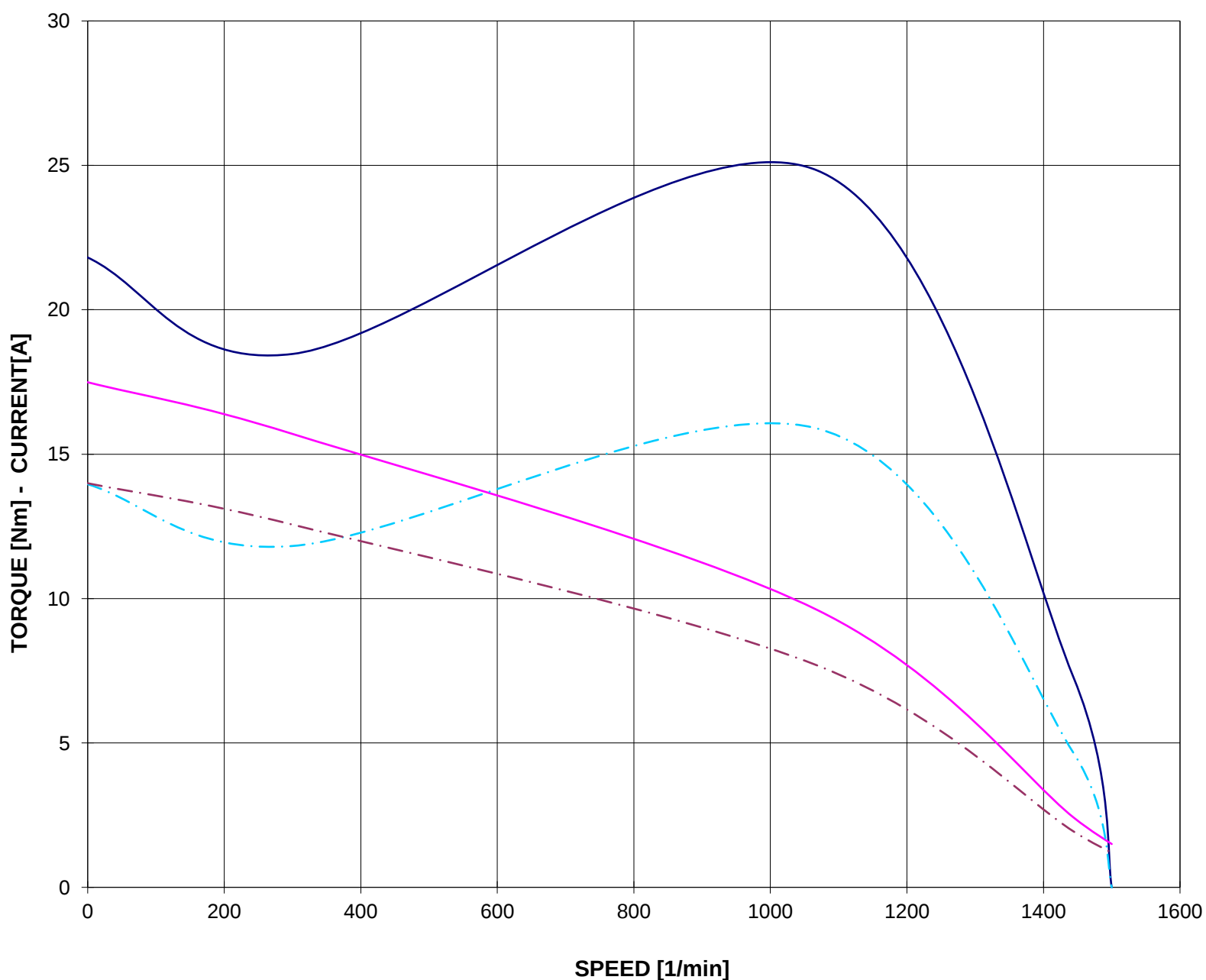
Impianto / Plant -
 ITEM -

Numero d'offerta / Offer Number 2021.
 -

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Poli / Pole	4	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	2,42	A
Velocità / Speed	1444	rpm
Coppia / Torque	7,27	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

E3AB30 90S 4

Potenza nominale / Rated power

1,10

kW

Poli / Pole

4

Tensione - Frequenza / Voltage - Frequency

400 - 50

V - Hz

Corrente / Rated current

2,42

A

Velocità / Speed

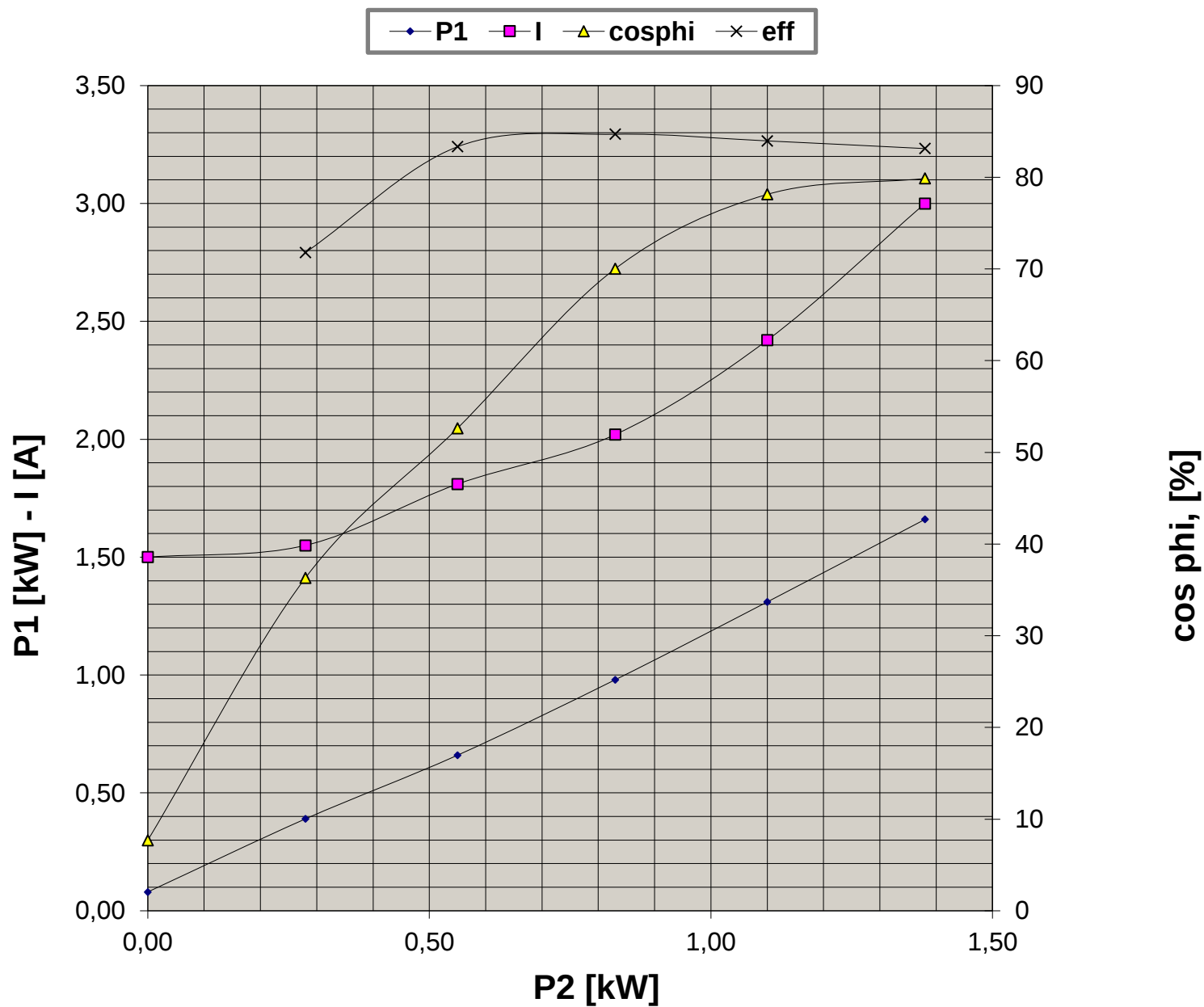
1444

rpm

Coppia / Torque

7,27

Nm



Valori calcolati - Data obtained by calculation method

CURVA LIMITE CORRENTE TEMPO
THERMAL WITHSTAND CURVE

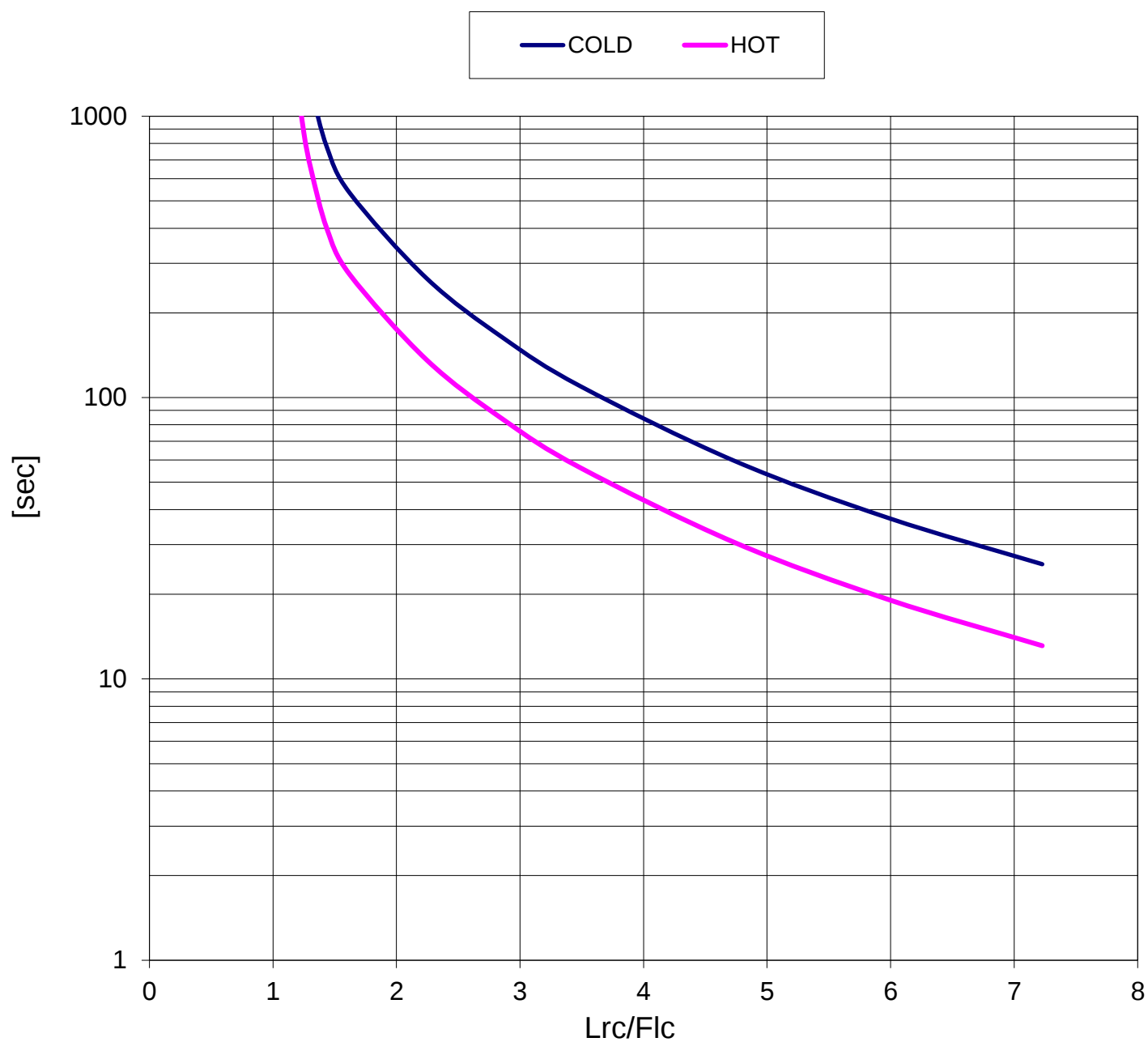
Cliente / Customer CEMP

 Impianto / Plant -
 ITEM -

 Numero d'offerta / Offer Number 2021.
 -

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Corrente / Rated current	2,42	A
Velocità / Speed	1444	rpm
Coppia / Torque	7,27	Nm



Valori calcolati - Data obtained by calculation method

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

Cliente / Customer CEMP

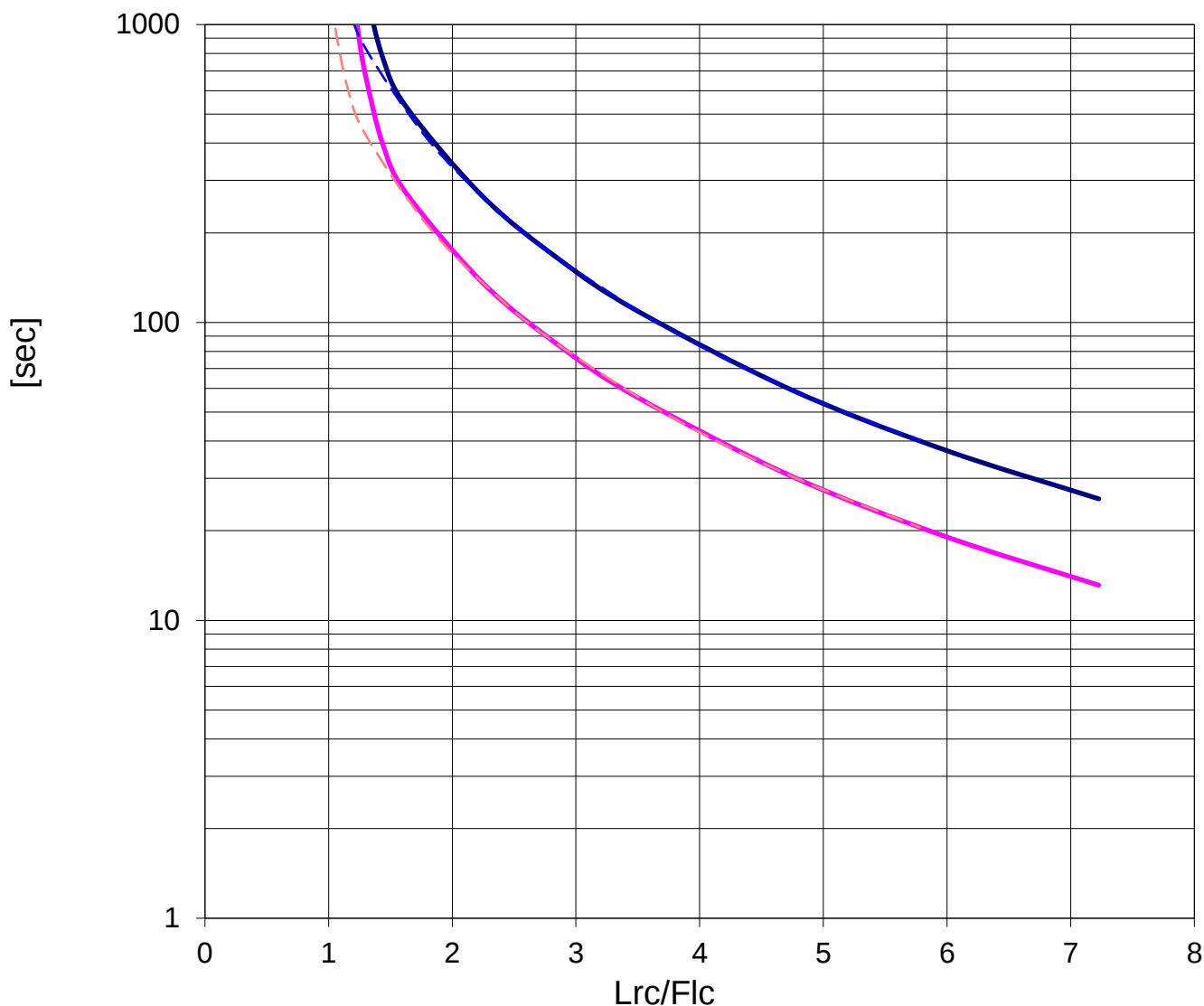
Impianto / Plant -
ITEM -

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Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	2,42	A
Velocità / Speed	1444	rpm
Coppia / Torque	7,27	Nm

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



Valori calcolati - Data obtained by calculation method