

PRODUCT INFORMATION PACKET

Model No: E3AC3002167B35D41100

Catalog No: E3AC3002167B35D41100

Made in Italy E3AC30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 18,50kW,
3 phase, 2944 RPM, D400/Y690V 50Hz, 160LA Frame B35, 2 Poles, IC411



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Nameplate Specifications

Phase	3	Output HP	25.0 Hp
Output KW	18.5 kW	Voltage	400/690 V
Speed	2944 rpm	Service Factor	1
Frame	160LA	Enclosure	Totally Enclosed Fan Cooled
Efficiency	92.4 %	Ambient Temperature	40 °C
Frequency	50 Hz	Power Factor	0.9
Duty	S1	Insulation Class	F
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6309
UL	No	CSA	Yes
CE	Yes	IP Code	IP55
Number of Speeds	1		

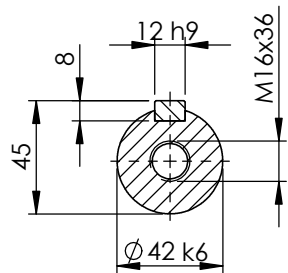
Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	2	Rotation	Bi-Directional
Mounting	B35	Motor Orientation	Horizontal
Drive End Bearing	Zz C3	Opp Drive End Bearing	Zz C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	933.00 mm	Frame Length	420.00 mm
Shaft Diameter	42.000 mm	Shaft Extension	110 mm
Assembly/Box Mounting	Top		
Outline Drawing	B3A04E8160001D01	Connection Drawing	SC-01-T-1v-1a

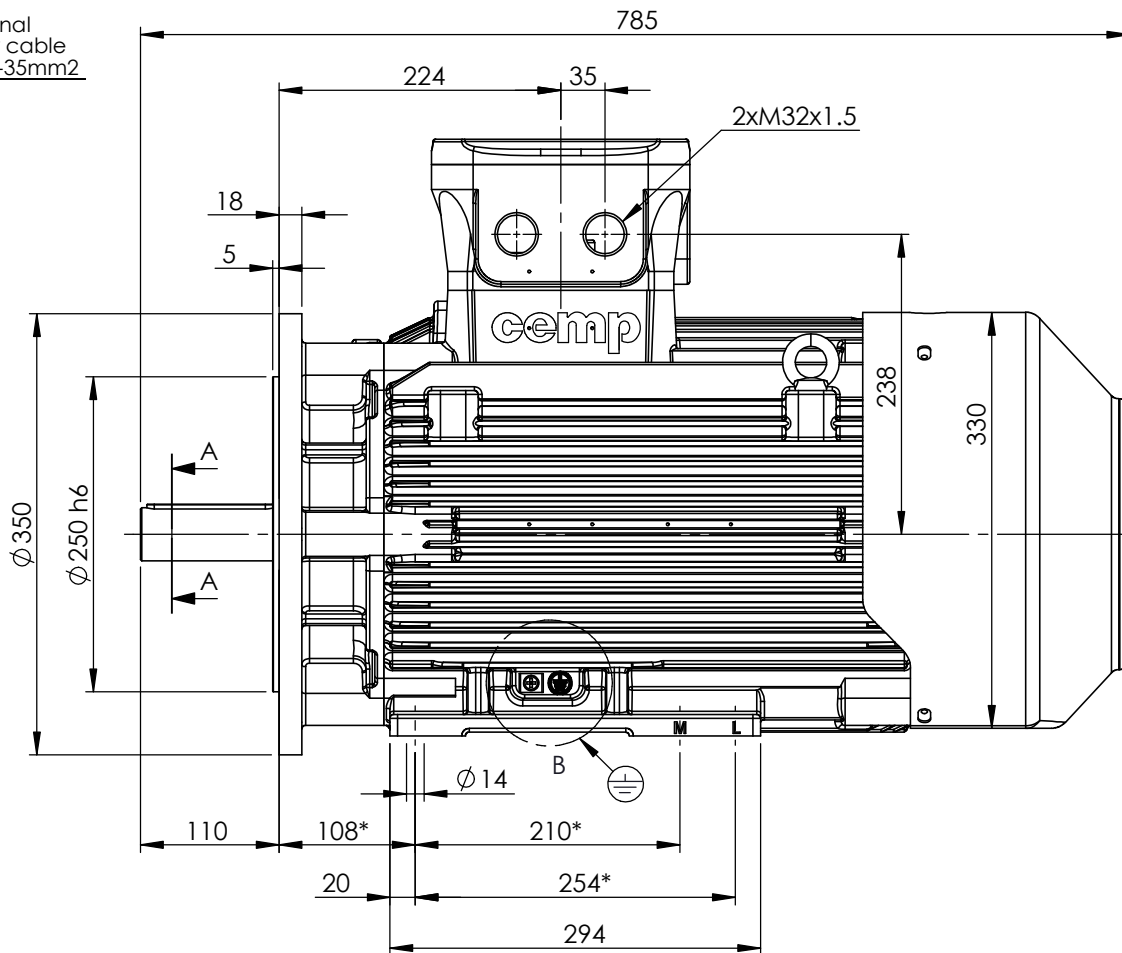
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DETAIL B
SCALE 1 : 1

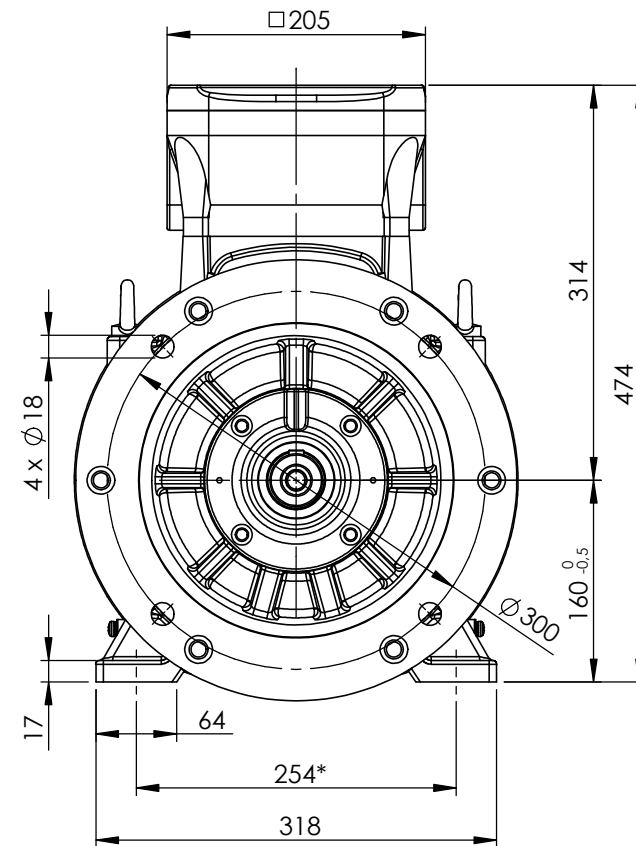
Earth Terminal
suitable for cable
section 2.5-35mm²



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	DRAWN BY LP	REGAL™ cemp			
ECO	APPROVED BY	DATE	DIMENSIONS ARE IN mm ACCORDING TO IEC 60072	DATE 27/12/2016	DESCRIPTION Motor A160 LA/LB (L) B35 IE3			
ECO DESCRIPTION				APPROVED BY DP				
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				SERIAL NUMBER				
				REFERENCE				
				FIRST ANGLE PROJECTION		SIZE A4	DRAWING NUMBER B3A04E8160001D01	SHEET 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 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 160LA 2	
3	Numero di serie / Serial Number				-	
4	Forma costruttiva / Shape				B35	
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	18,50	
9	Corrente nominale / Rated current			A	32,28	
10	Velocità nominale / Full Load speed			1/min	2944	
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	2/4	
18	Giri / Speed	1/min	2944	2966	2978	
19	Corr. / Curr.	A	32,28	24,92	18,06	
20	Rend / Eff	%	92,4	92,4	92,3	
21	cos φ	-	0,90	0,87	0,80	
Performances all'avviamento / Starting performances						
22	Ia/In - LRC/FLC			%	820	
23	Cosphi a rotore bloccato / LR power factor				0,44	
	Tempo a rotore bloccato / LRWT					
24	100% Un (A caldo / Warm)			sec	6	
25	(A freddo / Cold)			sec	17	
26	80% Un (A caldo / Warm)			sec	9	
27	(A freddo / Cold)			sec	27	
	Tempo di avviamento ammissibile / ART					
28	100% Un			sec	15	
29	80% Un			sec	23	
Curva di coppia / Speed-torque values						
30	Coppia nominale / Rated Torque			Nm	60,01	
31	Ca/Cn - LRT/FLT			%	250	
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	-	6309 ZZ C3
45	Cuscinetto post / NDE bearing	-	6309 ZZ C3
46	Carico radiale max / Max radial load in X1	N	2470
47	Carico assiale max / Max axial load	N	750
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	245,2
52	Momento d'inerzia / Moment of inertia	kgm2	0,0808
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A)	76
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		2xM32
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			

Documento preliminare - Preliminary data sheet

MOD. 803

Prepared by : GC

Tolleranze secondo - Tolerances according IEC 60034-1

Rev. 0

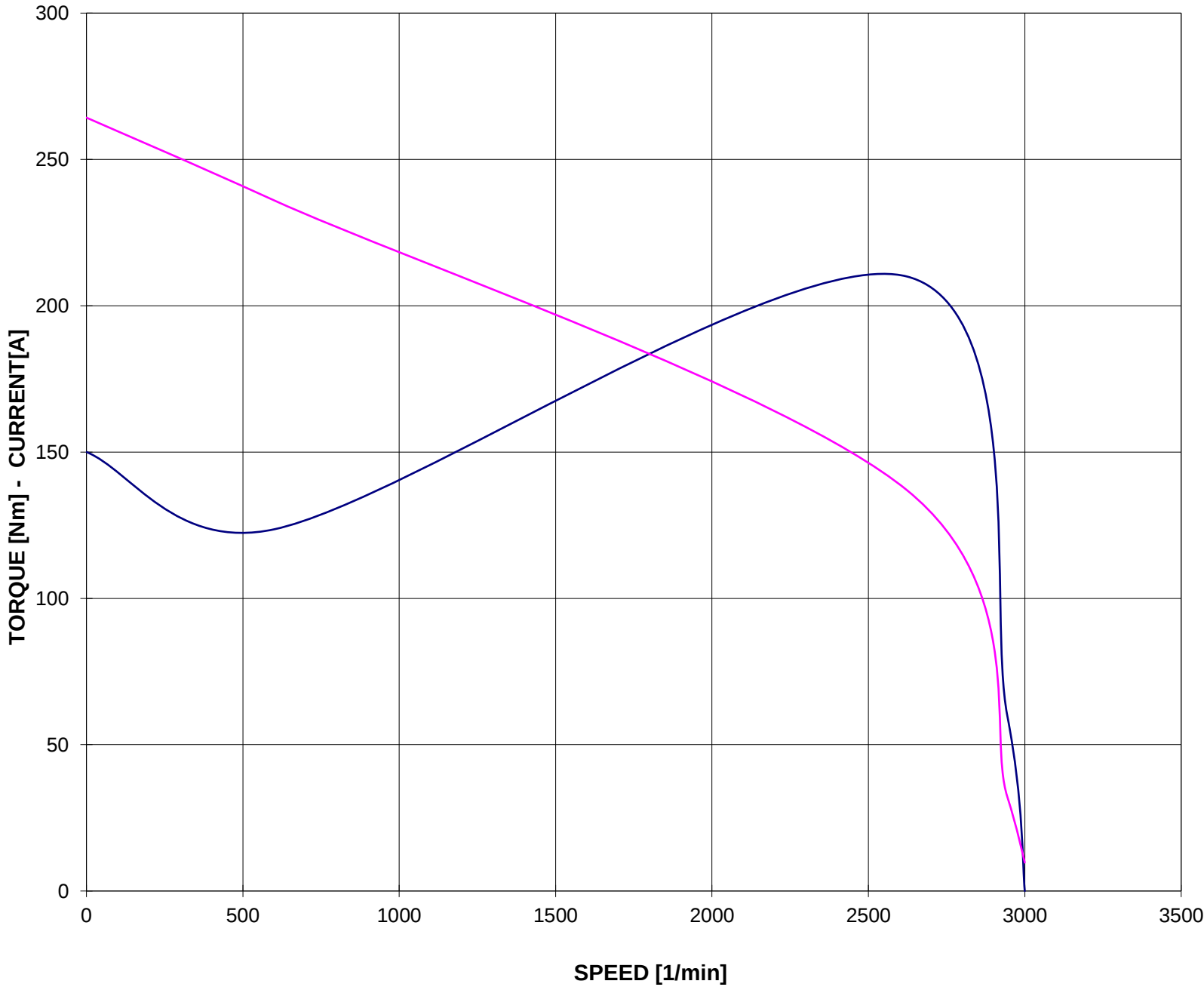
Data / Date 19 October 2022

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

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

Motore / Motor	E3AC30 160LA 2	
Potenza nominale / Rated power	18,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	32,28	A
Velocità / Speed	2944	rpm
Coppia / Torque	60,01	Nm

COPPIA - TORQUECORRENTE - CURRENT



Valori calcolati - Data obtained by calculation method

Data / Date 28 January 2022

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 160LA 2

Potenza nominale / Rated power 18,50 kW

Poli / Pole 2

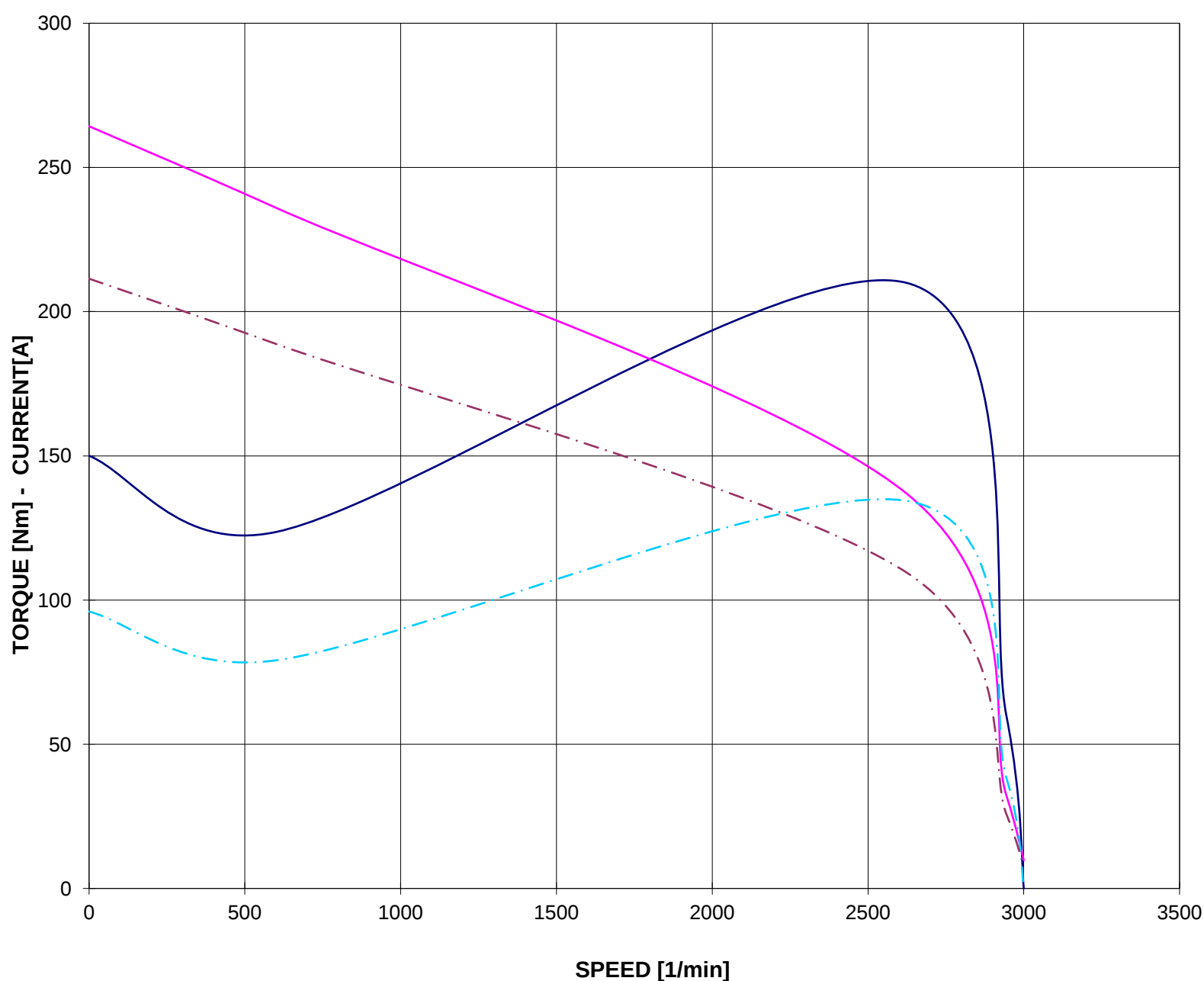
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz

Corrente / Rated current 32,28 A

Velocità / Speed 2944 rpm

Coppia / Torque 60,01 Nm

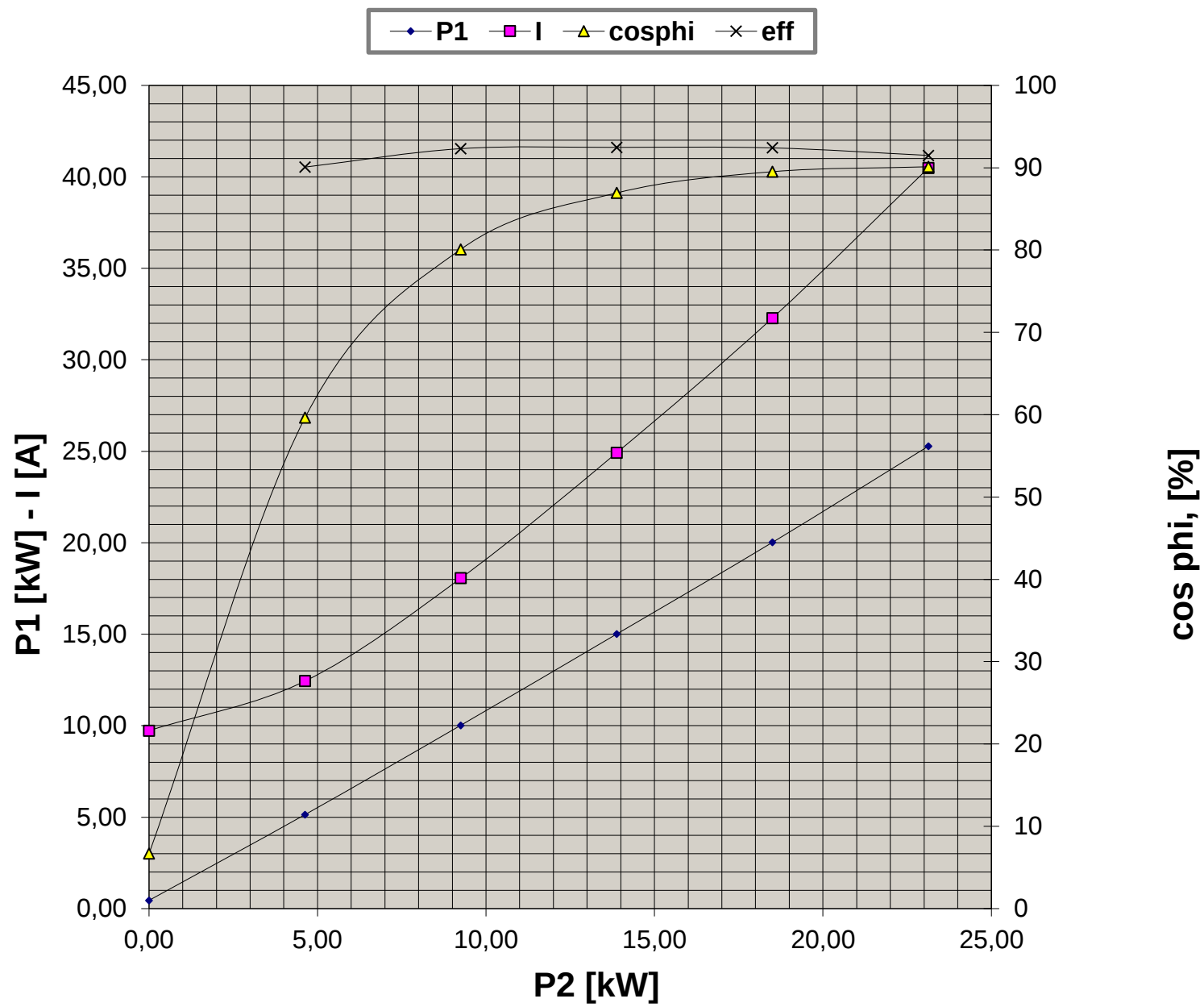
— COPPIA - TORQUE — CORRENTE - CURRENT
- - - COPPIA - TORQUE 80% Un - - - CORRENTE - CURRENT 80% Un



Valori calcolati - Data obtained by calculation method

CURVE CARATTERISTICHE
PERFORMANCE CURVES

Ciente / Customer	-
Impianto / Plant	-
ITEM	-
Numero d'offerta / Offer Number	-
Motore / Motor	E3AC30 160LA 2
Potenza nominale / Rated power	18,50 kW
Poli / Pole	2
Tensione - Frequenza / Voltage - Frequency	400 - 50 V - Hz
Corrente / Rated current	32,28 A
Velocità / Speed	2944 rpm
Coppia / Torque	60,01 Nm

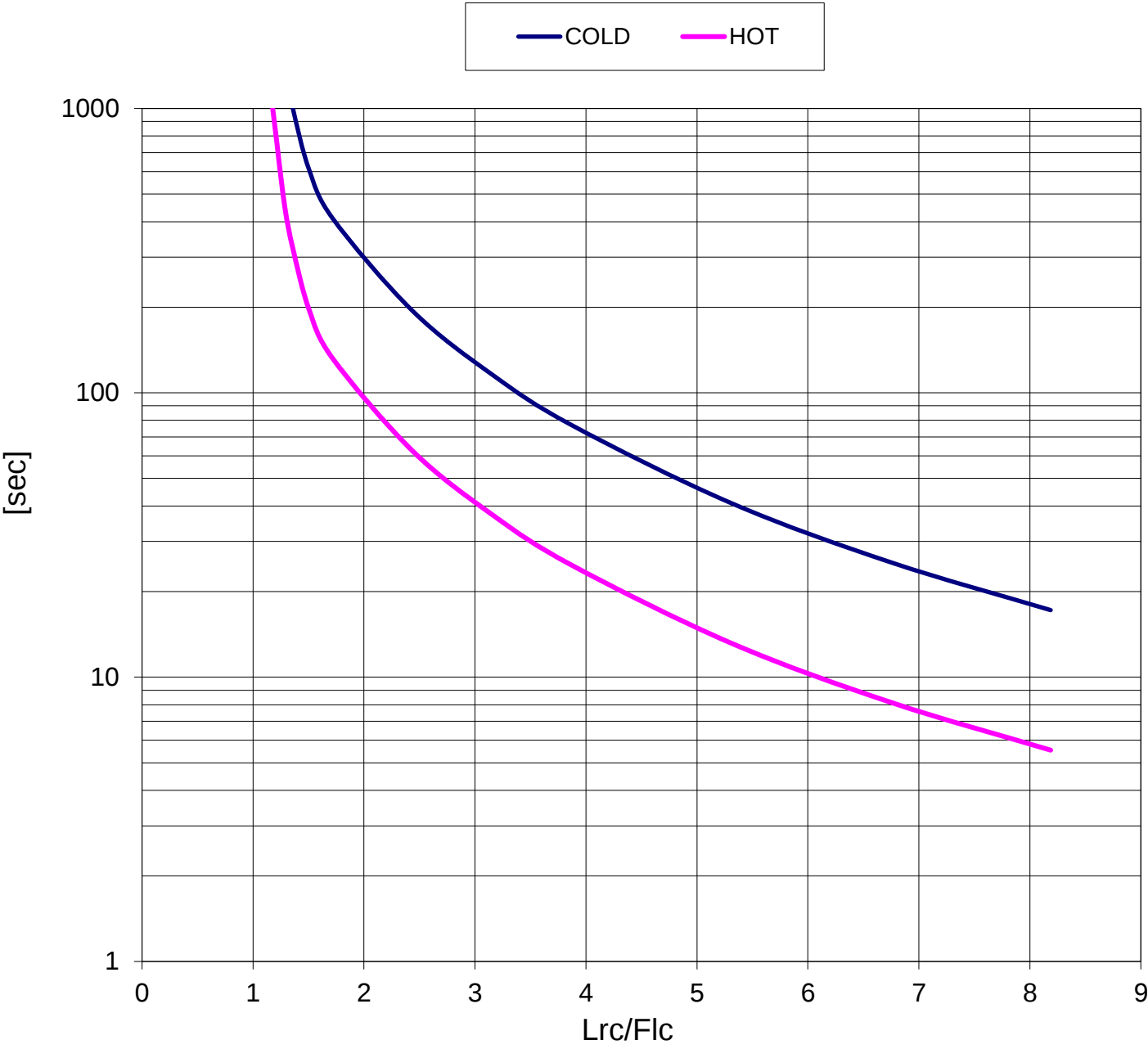


Valori calcolati - Data obtained by calculation method

Data / Date 28 January 2022

CURVA LIMITE CORRENTE TEMPO
THERMAL WITHSTAND CURVE

Cliente / Customer	-	
Impianto / Plant	-	
ITEM	-	
Numero d'offerta / Offer Number	-	
	-	
Motore / Motor	E3AC30 160LA 2	
Potenza nominale / Rated power	18,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	32,28	A
Velocità / Speed	2944	rpm
Coppia / Torque	60,01	Nm



Valori calcolati - Data obtained by calculation method

Data / Date 28 January 2022

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

Cliente / Customer -

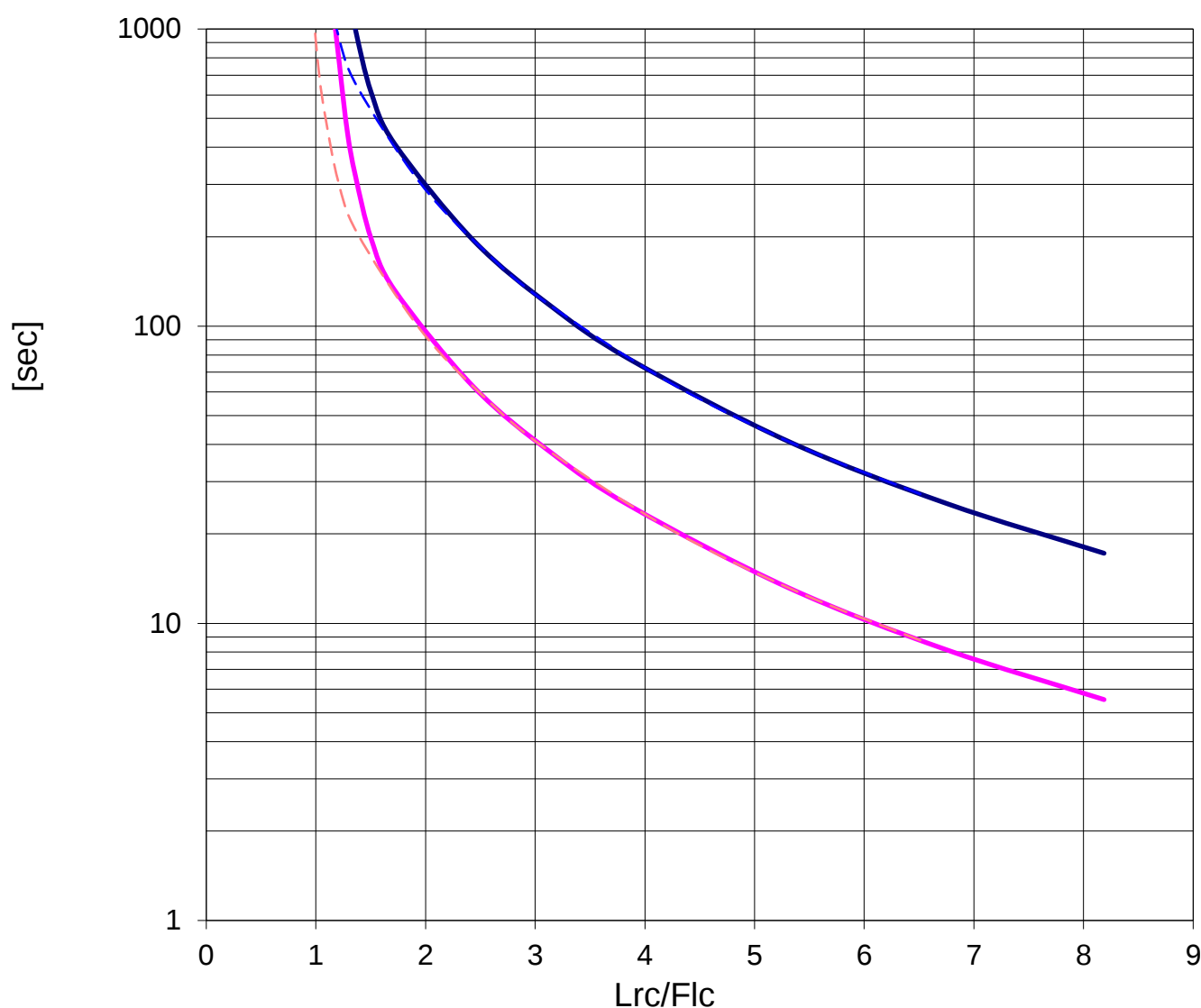
Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number -
-

Motore / Motor E3AC30 160LA 2

Potenza nominale / Rated power	18,50	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	32,28	A
Velocità / Speed	2944	rpm
Coppia / Torque	60,01	Nm

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



Valori calcolati - Data obtained by calculation method