

PRODUCT INFORMATION PACKET

Model No: E3AB3002225B50D41100

Catalog No: E3AB3002225B50D41100

Made in Italy E3AB30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 55,00kW,
3 phase, 2981 RPM, D400/Y690V 50Hz, 225MB Frame B5, 2 Poles, IC411, Higher Output Motor



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Nameplate Specifications

Output HP	75 Hp	Output KW	55.0 kW
Frequency	50 Hz	Voltage	400/690 V
Current	93.3 A	Speed	2981 rpm
Service Factor	1	Phase	3
Efficiency	94.3 %	Power Factor	0.9
Duty	S1	Insulation Class	F
Frame	225MB	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	40 °C	Drive End Bearing Size	6313
Opp Drive End Bearing Size	6313	UL	No
CSA	No	CE	Yes
IP Code	IP55	Number of Speeds	1

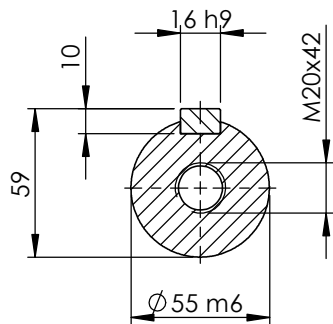
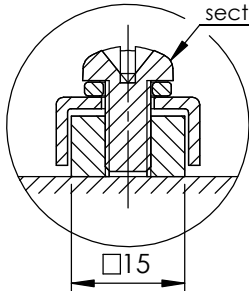
Technical Specifications

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	1065.00 mm	Frame Length	535.00 mm
Shaft Diameter	55.000 mm	Shaft Extension	140 mm
Assembly/Box Mounting	Top		
Outline Drawing	B5A04E8220001B01	Connection Drawing	SC-01-T-1v-1a

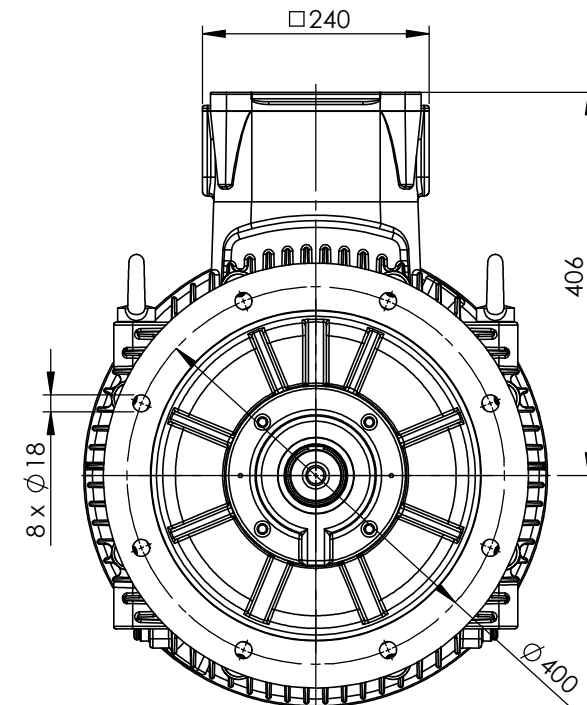
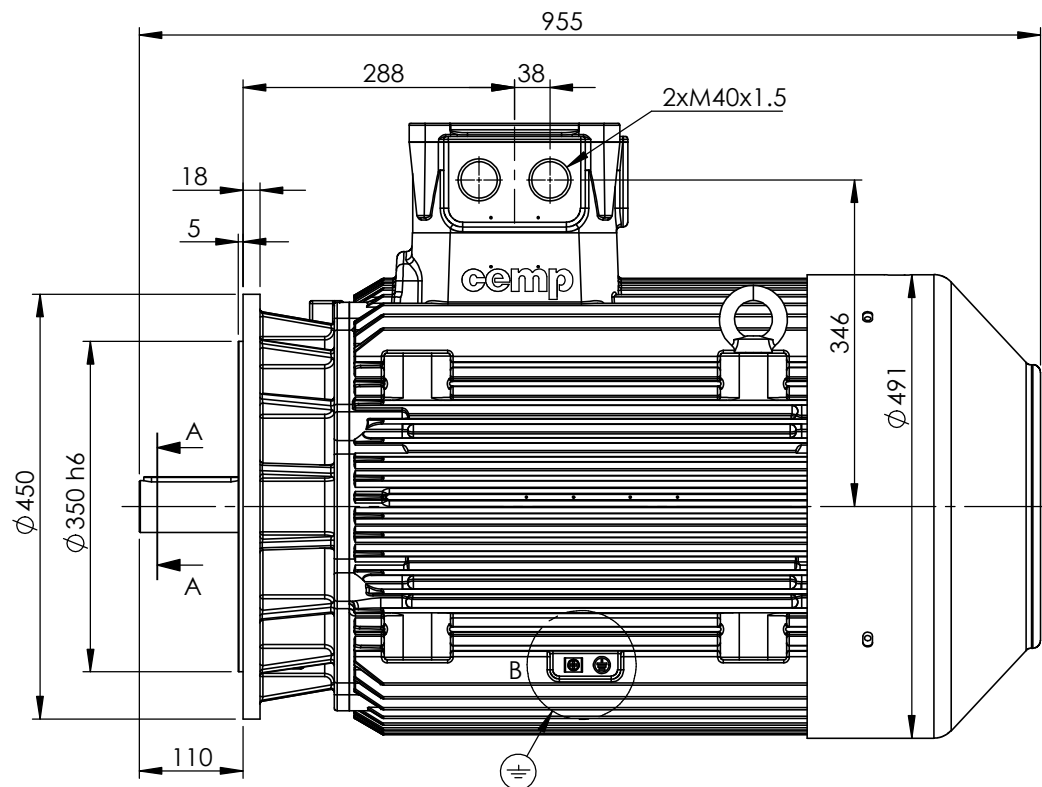
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DETAIL B
SCALE 1 : 1

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 DIMENSIONS ARE IN mm ACCORDING TO IEC 60072	DRAWN BY LP	REGAL™ cemp						
ECO	APPROVED BY	DATE		DATE 27/12/2016							
ECO DESCRIPTION				APPROVED BY DP	DESCRIPTION Motor A225 MB (L) 2P B5 IE3						
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			SERIAL NUMBER	REFERENCE	SIZE A4			DRAWING NUMBER B5A04E8220001B01		SHEET 1 OF 2	
			FIRST ANGLE PROJECTION								

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



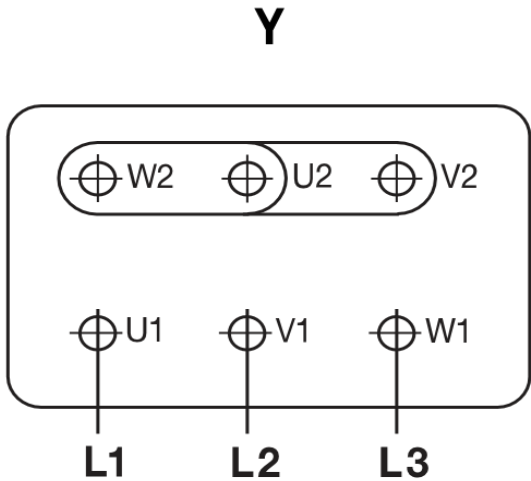
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**Motori trifase una velocità - *Single speed, three phase motors* - Moteurs triphasé une vitesse
Drehstrommotor Eine Drehzahlstufe - Motores trifásico una velocidad**

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. 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	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 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 225MB 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	55,00
9	Corrente nominale / Rated current	A	93,33
10	Velocità nominale / Full Load speed	1/min	2981
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	2981
19	Corr. / Curr.	A	93,33
20	Rend / Eff	%	94,3
21	cos φ	-	0,90
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	29
26	80% Un (A caldo / Warm)	sec	10
27	(A freddo / Cold)	sec	45
	Tempo di avviamento ammissibile / ART		
28	100% Un	sec	25
29	80% Un	sec	40
Curva di coppia / Speed-torque values			
30	Coppia nominale / Rated Torque	Nm	176,19
31	Ca/Cn - LRT/FLT	%	180
32	Cmax/Cn - BDT/FLT	%	320
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	- 6313 ZZ C3
45	Cuscinetto post / NDE bearing	- 6313 ZZ C3
46	Carico radiale max / Max radial load in X1	N 5000
47	Carico assiale max / Max axial load	N 1300
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 490,6
52	Momento d'inerzia / Moment of inertia	kgm2 0,3641
53	Rumore a vuoto / Noise at no load (1 m)	Lp dB(A) 79
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
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

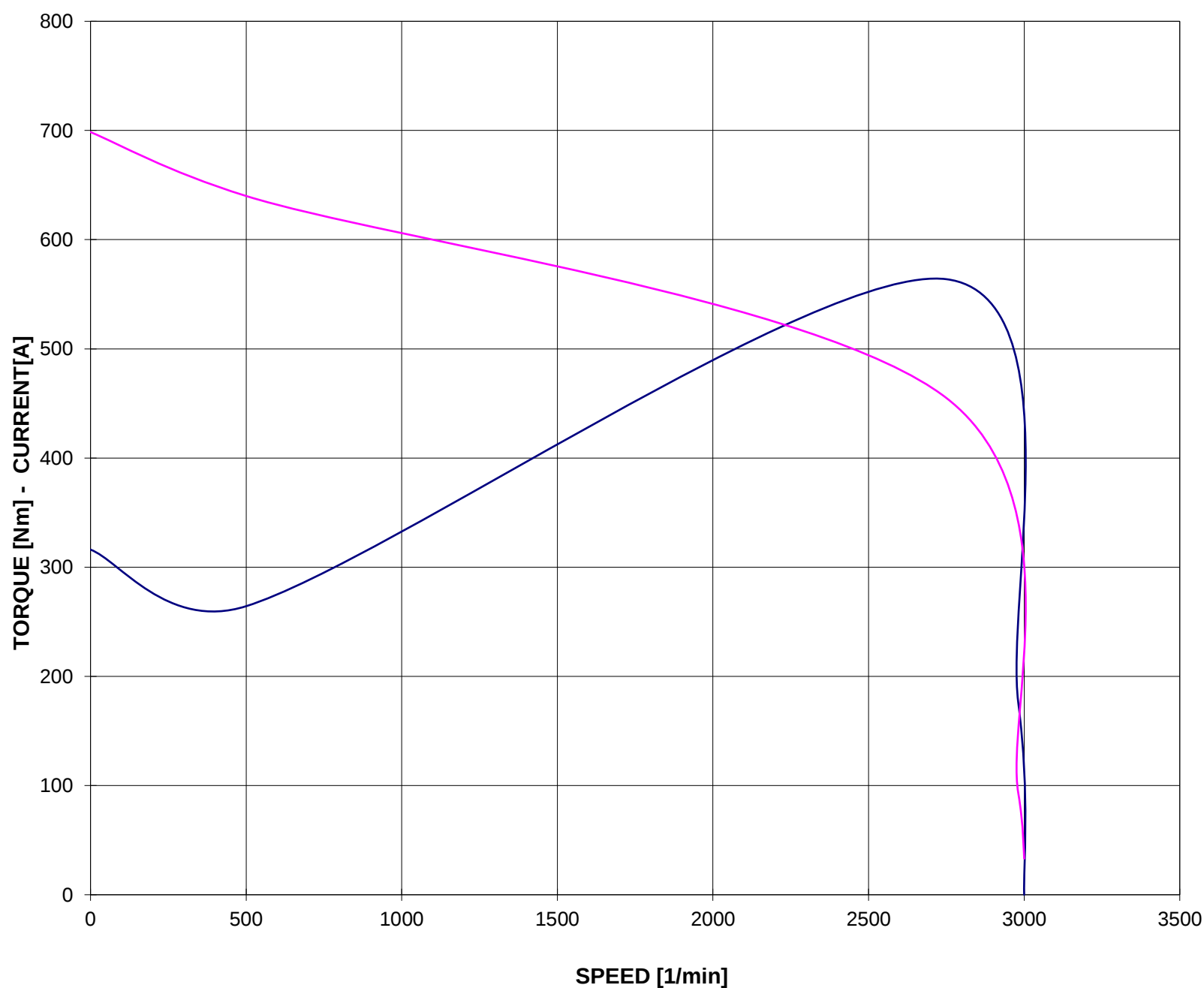
Impianto / Plant
ITEM -

Numero d'offerta / Offer Number 2021.
-

Motore / Motor E3AB30 250MB 2

Potenza nominale / Rated power	55,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	93,33	A
Velocità / Speed	2981	rpm
Coppia / Torque	176,19	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 E3AB30 250MB 2

Potenza nominale / Rated power 55,00 kW

Poli / Pole 2

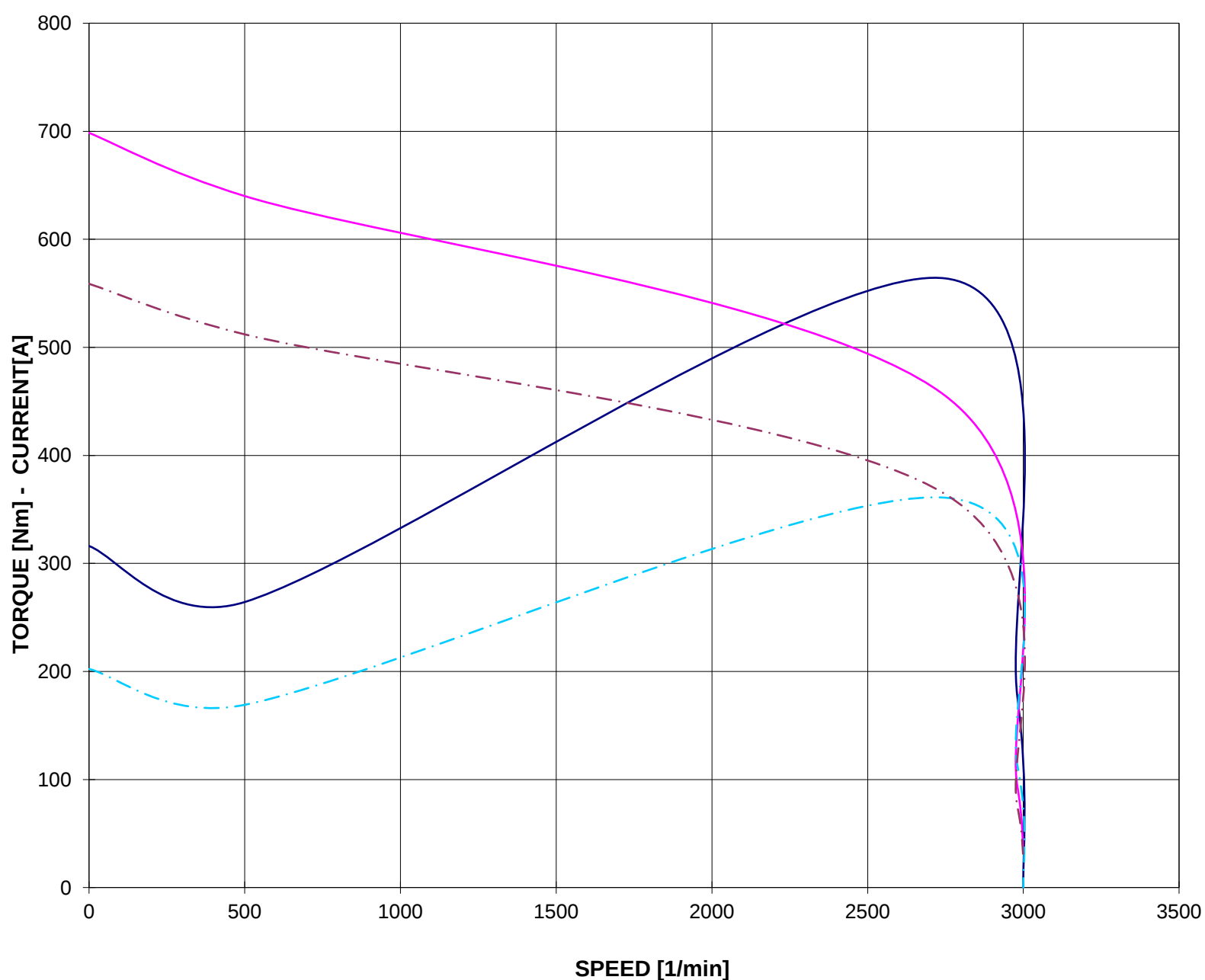
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz

Corrente / Rated current 93,33 A

Velocità / Speed 2981 rpm

Coppia / Torque 176,19 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 250MB 2

Potenza nominale / Rated power 55,00 kW

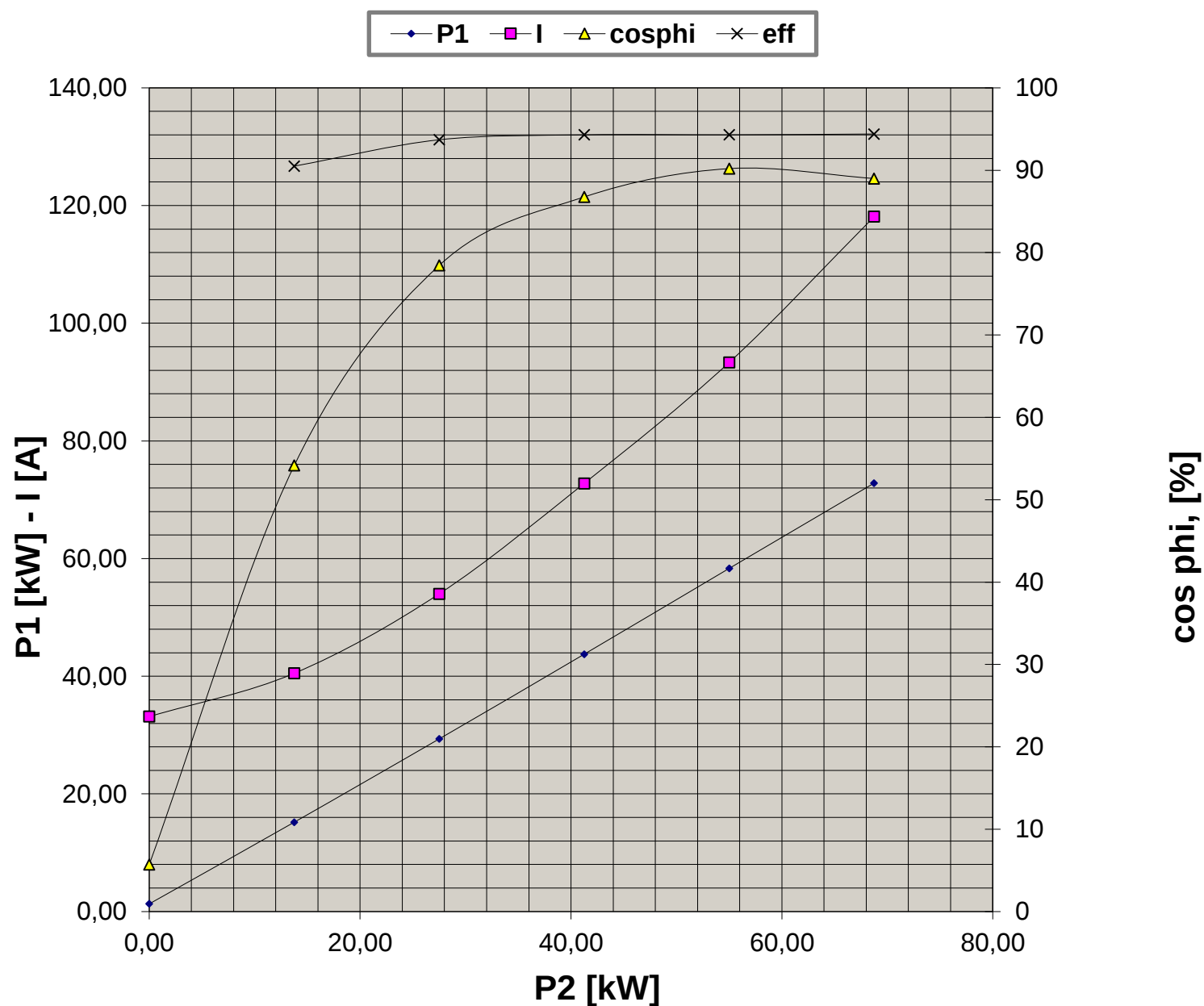
Poli / Pole 2

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

Corrente / Rated current 93,33 A

Velocità / Speed 2981 rpm

Coppia / Torque 176,19 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.

-

Motore / Motor

E3AB30 250MB 2

Potenza nominale / Rated power

55,00

kW

Poli / Pole

2

Tensione - Frequenza / Voltage - Frequency

400 - 50

V - Hz

Corrente / Rated current

93,33

A

Velocità / Speed

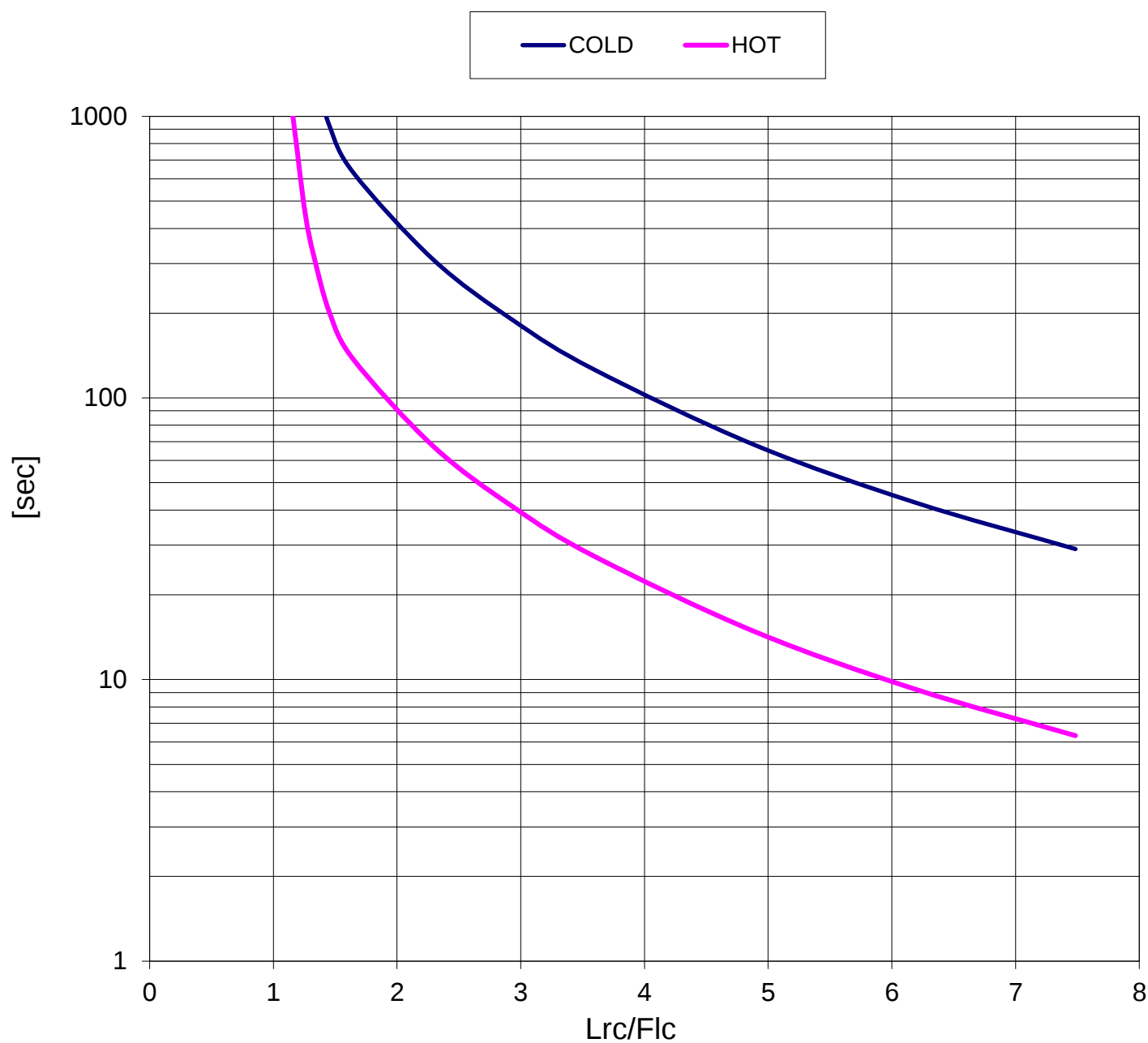
2981

rpm

Coppia / Torque

176,19

Nm



Valori calcolati - Data obtained by calculation method

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

Cliente / Customer CEMP

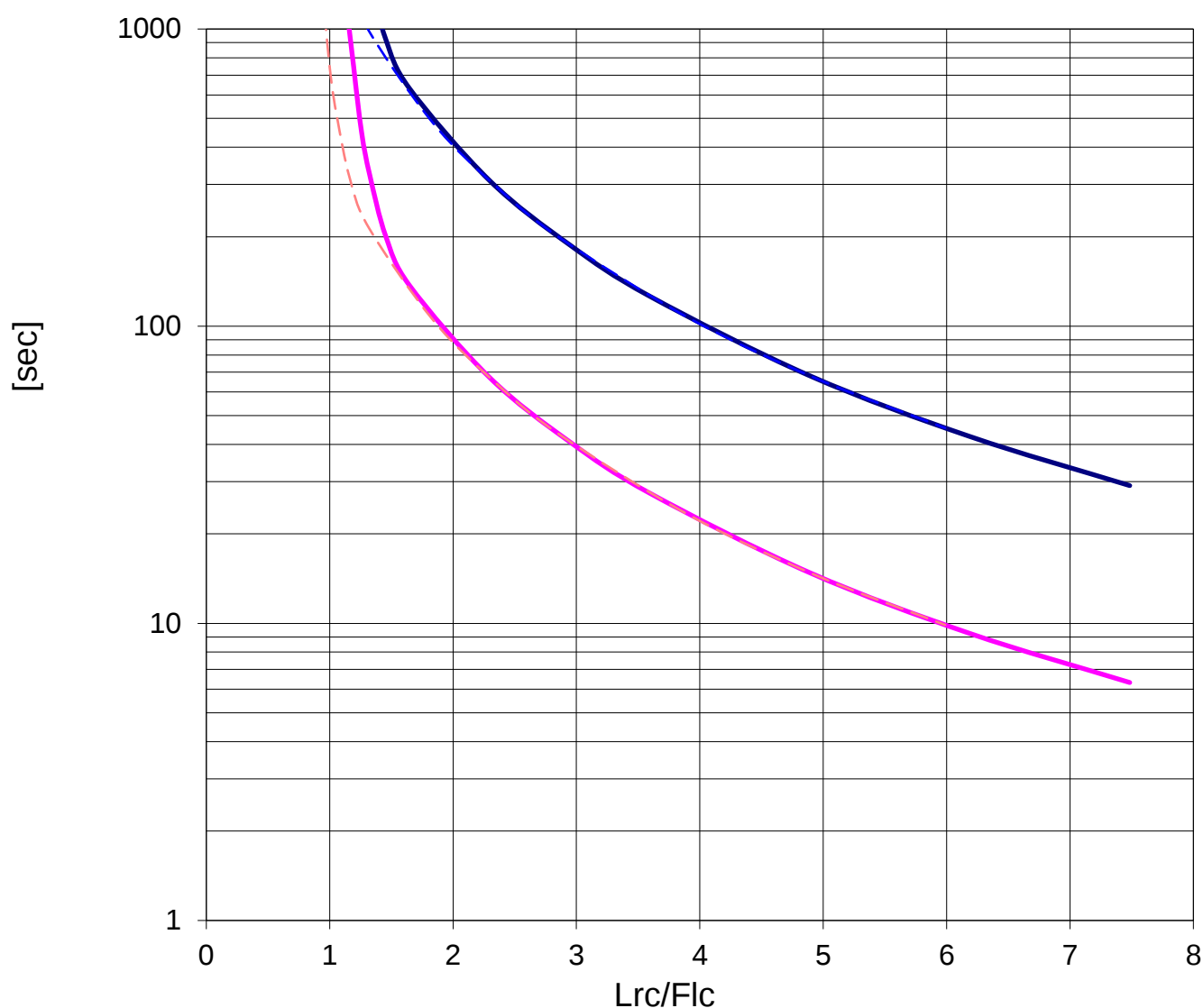
Impianto / Plant -
ITEM -

Numero d'offerta / Offer Number 2021.
-

Motore / Motor E3AB30 250MB 2

Potenza nominale / Rated power	55,00	kW
Poli / Pole	2	
Tensione - Frequenza / Voltage - Frequency	400 - 50	V - Hz
Corrente / Rated current	93,33	A
Velocità / Speed	2981	rpm
Coppia / Torque	176,19	Nm

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



Valori calcolati - Data obtained by calculation method