

# PRODUCT INFORMATION PACKET

Model No: E3AB3004225B30D41100

Catalog No: E3AB3004225B30D41100

Made in Italy E3AB30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 55,00kW,  
3 phase, 1488 RPM, D400/Y690V 50Hz, 225M Frame B3, 4 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                | 97.7 A        | Speed                      | 1488 rpm                    |
| Service Factor         | 1             | Phase                      | 3                           |
| Efficiency             | 94.6 %        | Power Factor               | 0.86                        |
| Duty                   | S1            | Insulation Class           | F                           |
| Frame                  | 225M          | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection | 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             |                            |                             |

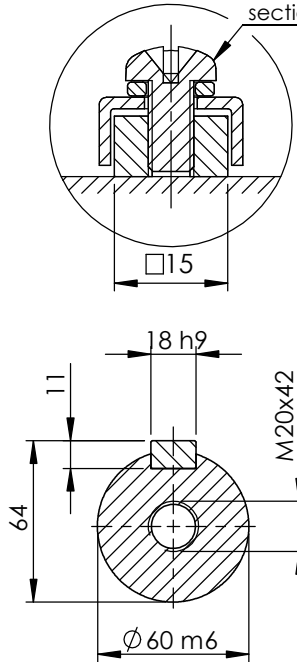
## Technical Specifications

|                       |                  |                       |                |
|-----------------------|------------------|-----------------------|----------------|
| Electrical Type       | Squirrel Cage    | Starting Method       | Direct On Line |
| Poles                 | 4                | 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        | 1125.00 mm       | Frame Length          | 535.00 mm      |
| Shaft Diameter        | 60.000 mm        | Shaft Extension       | 140 mm         |
| Assembly/Box Mounting | Top              |                       |                |
| Outline Drawing       | B3A04E8220021A01 | Connection Drawing    | SC-01-T-1v-1a  |

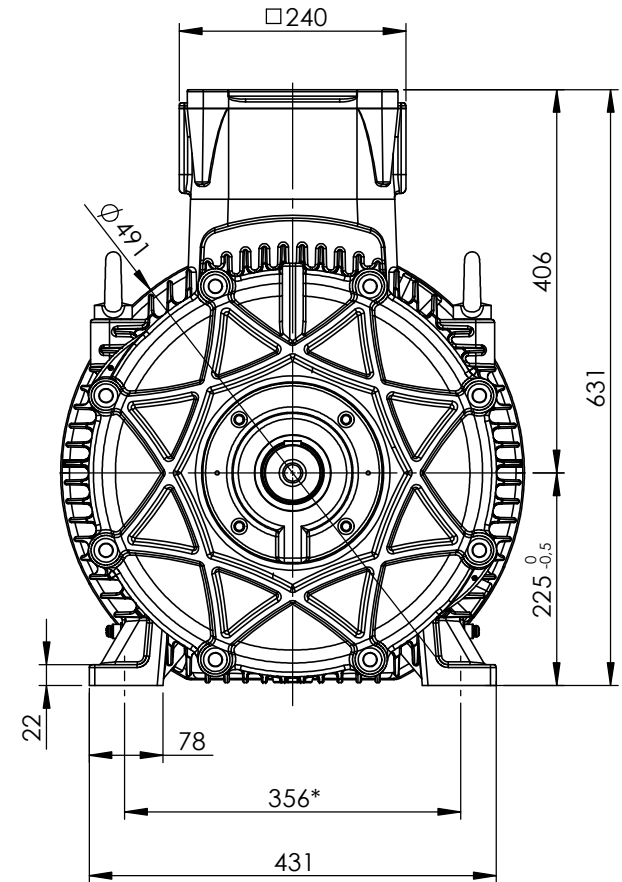
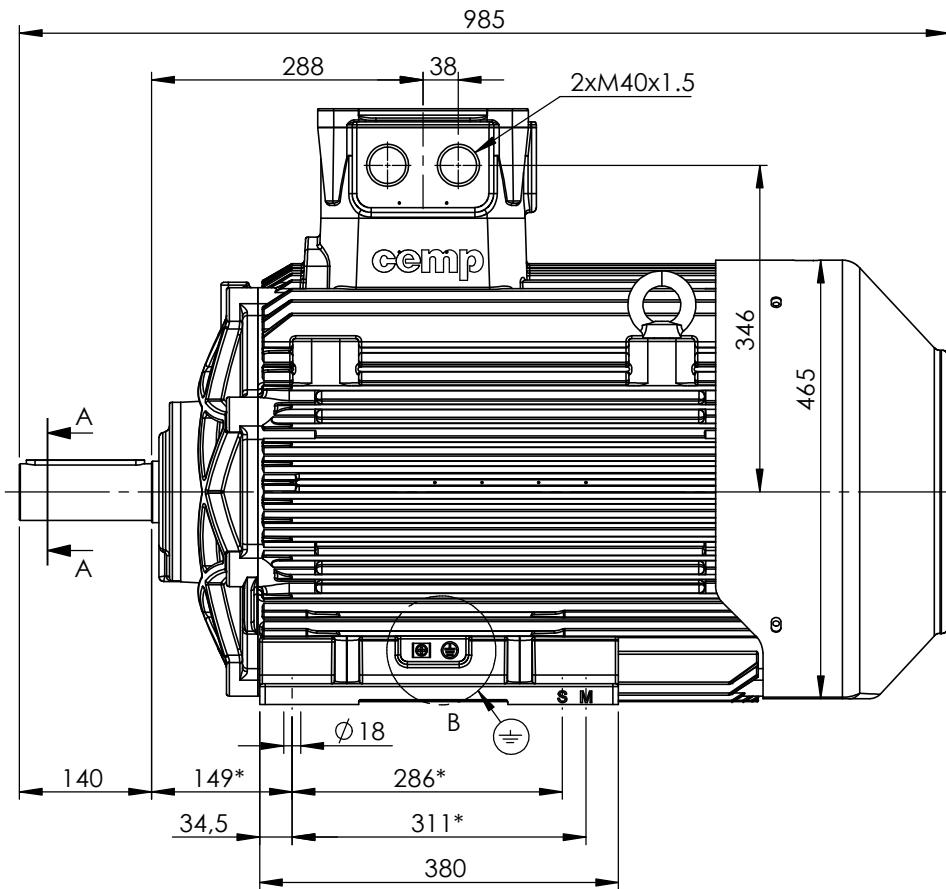
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DETAIL B  
SCALE 1 : 1

Earth Terminal  
suitable for cable  
section 2.5-35mm<sup>2</sup>



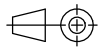
SECTION A-A  
SCALE 1 : 3



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)<br>TOLERANCES: $\pm 2$<br>* TOLERANCES: $\pm 0.8$<br><br>DIMENSIONS ARE IN mm<br>ACCORDING TO IEC 60072 | DRAWN BY<br>LP                                                                        | <div> </div> |                                               |                 |
| ECO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | APPROVED BY | DATE |                                                                                                                                      | DATE<br>27/12/2016                                                                    |                                                                                                                                                                                        |                                               |                 |
| ECO DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |      |                                                                                                                                      | APPROVED BY<br>DP                                                                     | DESCRIPTION<br><br><b>Motor A225 MB (L) 4-6-8 P B3<br/>IE3</b>                                                                                                                         |                                               |                 |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |      | SERIAL NUMBER                                                                                                                        | REFERENCE                                                                             |                                                                                                                                                                                        |                                               |                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |      | FIRST ANGLE<br>PROJECTION                                                                                                            |  | SIZE<br><b>A4</b>                                                                                                                                                                      | DRAWING NUMBER<br><br><b>B3A04E8220021A01</b> | SHEET<br>1 OF 2 |

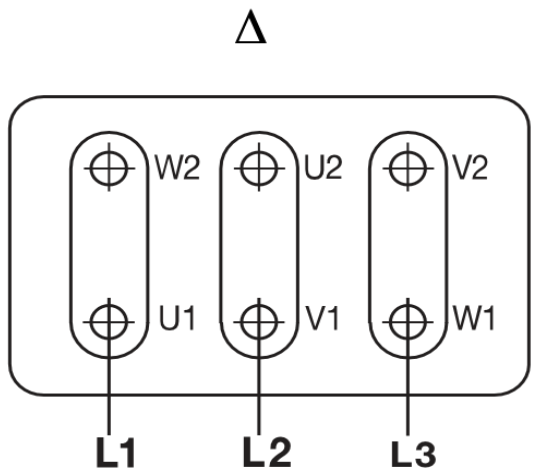
Schema di collegamento - *Connection diagram*  
Schemas de branchement - *Schaltplan*  
Esquemas de conexión



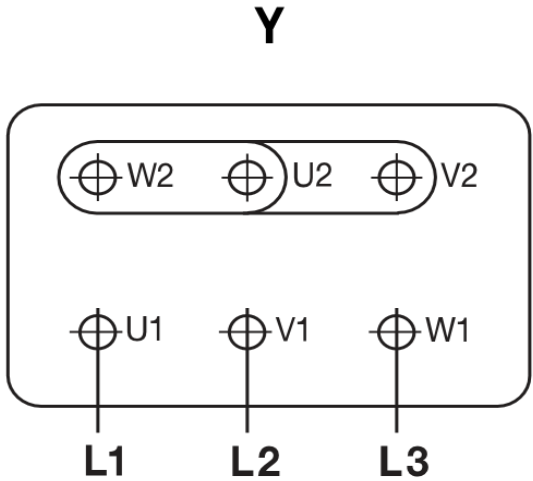
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**Motori trifase una velocità - *Single speed, three phase motors* - Moteurs triphasé une vitesse  
*Drehstrommotor Eine Drehzahlstufe* - Motores trifásico una velocidad**

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<br><i>Marking</i>                                                     | No. morsetti<br><i>terminals</i> | Morsetto ausiliare per:<br><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 -<br><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 225M 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        | 55,00             |
| 9                                                   | Corrente nominale / Rated current          | A         | 97,69             |
| 10                                                  | Velocità nominale / Full Load speed        | 1/min     | 1488              |
| 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     | 1488              |
| 19                                                  | Corr. / Curr.                              | A         | 97,69             |
| 20                                                  | Rend / Eff                                 | %         | 94,6              |
| 21                                                  | cos φ                                      | -         | 0,86              |
| Performances all'avviamento / Starting performances |                                            |           |                   |
| 22                                                  | Ia/In - LRC/FLC                            | %         | 710               |
| 23                                                  | Cosphi a rotore bloccato / LR power factor |           | 0,39              |
|                                                     | Tempo a rotore bloccato / LRWT             |           |                   |
| 24                                                  | 100% Un (A caldo / Warm)                   | sec       | 8                 |
| 25                                                  | (A freddo / Cold)                          | sec       | 30                |
| 26                                                  | 80% Un (A caldo / Warm)                    | sec       | 12                |
| 27                                                  | (A freddo / Cold)                          | sec       | 47                |
|                                                     | Tempo di avviamento ammissibile / ART      |           |                   |
| 28                                                  | 100% Un                                    | sec       | 26                |
| 29                                                  | 80% Un                                     | sec       | 40                |
| Curva di coppia / Speed-torque values               |                                            |           |                   |
| 30                                                  | Coppia nominale / Rated Torque             | Nm        | 352,96            |
| 31                                                  | Ca/Cn - LRT/FLT                            | %         | 200               |
| 32                                                  | Cmax/Cn - BDT/FLT                          | %         | 310               |
| 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 | 4900                    |
| 47                                                          | Carico assiale max / Max axial load        | 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                      |
| 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                 | 2xM40                   |
| 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

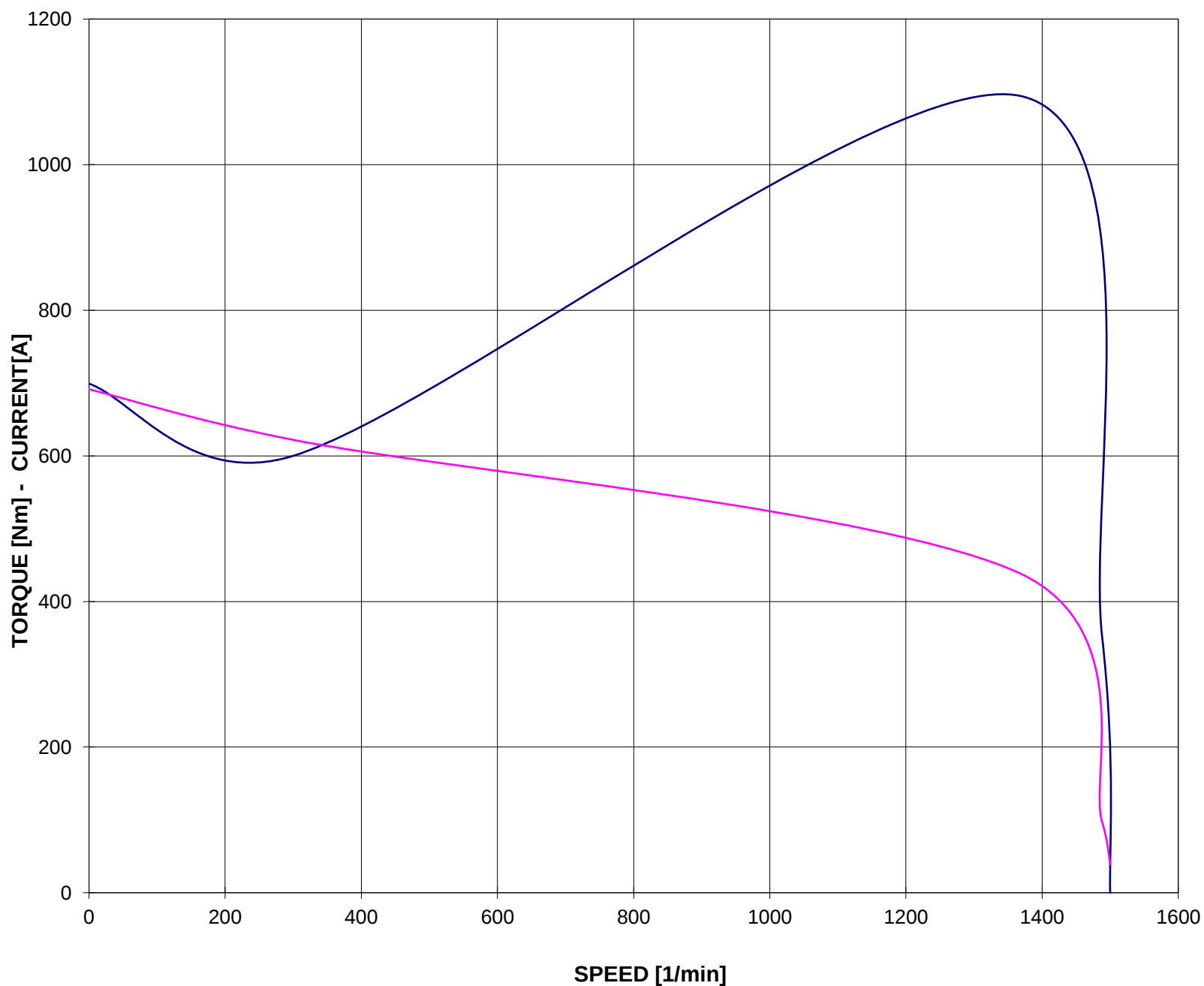
 Impianto / Plant -  
 ITEM -

 Numero d'offerta / Offer Number 2021.  
 -

**Motore / Motor E3AB30 225M 4**

|                                            |          |        |
|--------------------------------------------|----------|--------|
| Potenza nominale / Rated power             | 55,00    | kW     |
| Poli / Pole                                | 4        |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50 | V - Hz |
| Corrente / Rated current                   | 97,69    | A      |
| Velocità / Speed                           | 1488     | rpm    |
| Coppia / Torque                            | 352,96   | Nm     |

— COPPIA - TORQUE — CORRENTE - CURRENT

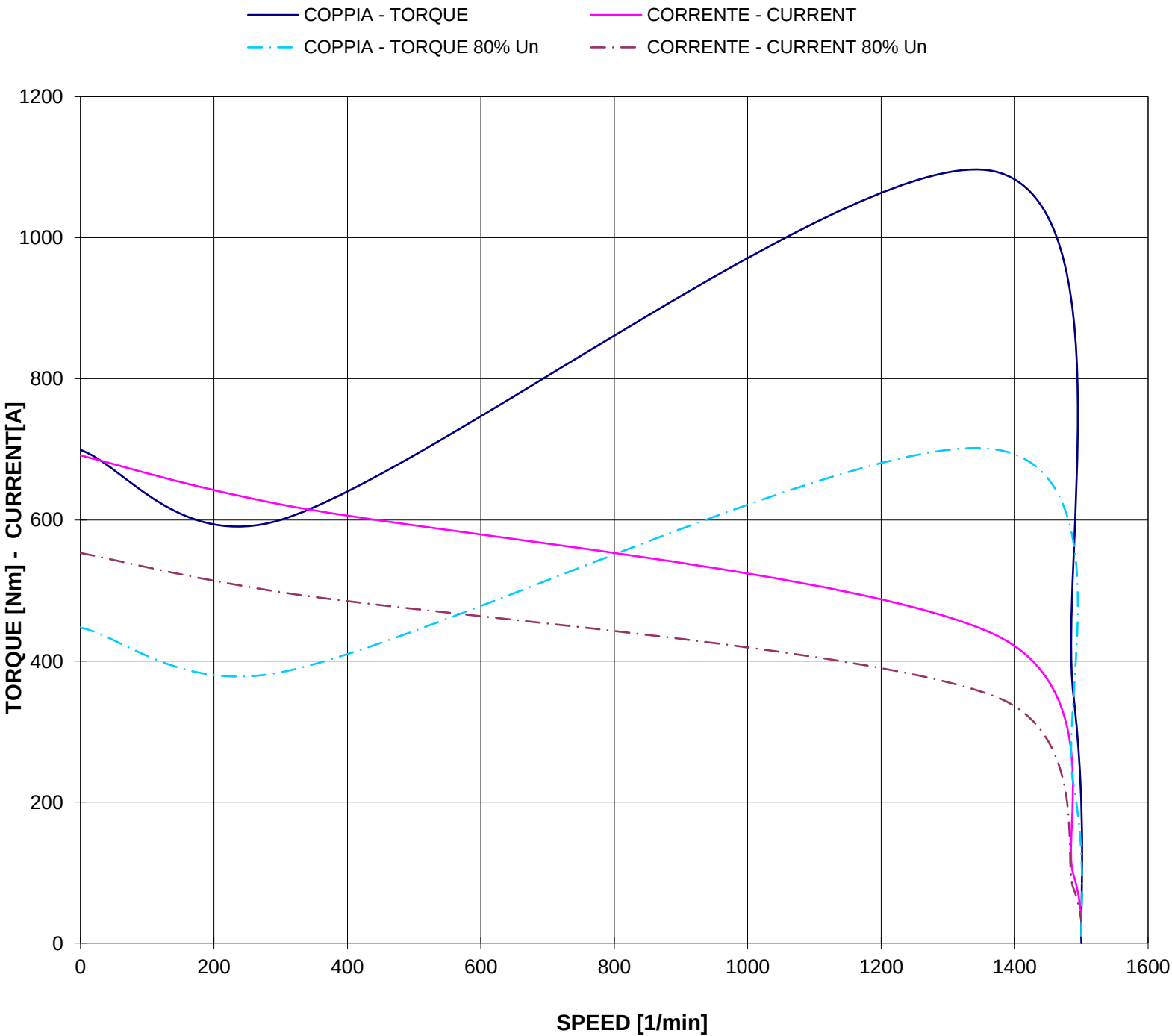


Valori calcolati - Data obtained by calculation method

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

|                                 |       |
|---------------------------------|-------|
| Cliente / Customer              | CEMP  |
| Impianto / Plant                | -     |
| <b>ITEM</b>                     | -     |
| Numero d'offerta / Offer Number | 2021. |
|                                 | -     |

|                                            |                      |        |
|--------------------------------------------|----------------------|--------|
| <b>Motore / Motor</b>                      | <b>E3AB30 225M 4</b> |        |
| Potenza nominale / Rated power             | 55,00                | kW     |
| Poli / Pole                                | 4                    |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50             | V - Hz |
| Corrente / Rated current                   | 97,69                | A      |
| Velocità / Speed                           | 1488                 | rpm    |
| Coppia / Torque                            | 352,96               | Nm     |



Valori calcolati - Data obtained by calculation method

## CURVE CARATTERISTICHE PERFORMANCE CURVES

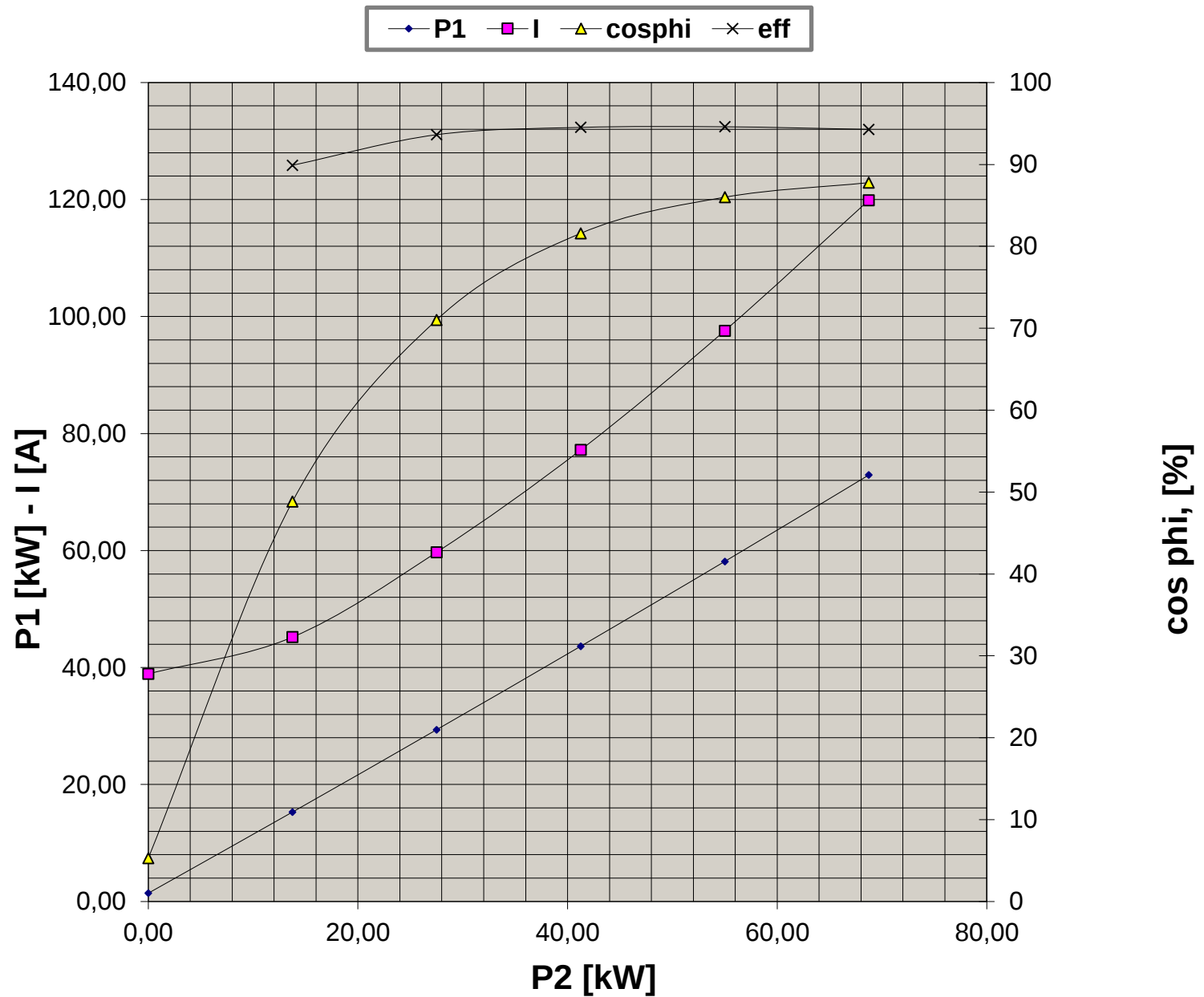
Cliente / Customer CEMP

Impianto / Plant  
**ITEM** -

Numero d'offerta / Offer Number 2021.  
-

### Motore / Motor **E3AB30 225M 4**

|                                            |          |        |
|--------------------------------------------|----------|--------|
| Potenza nominale / Rated power             | 55,00    | kW     |
| Poli / Pole                                | 4        |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50 | V - Hz |
| Corrente / Rated current                   | 97,69    | A      |
| Velocità / Speed                           | 1488     | rpm    |
| Coppia / Torque                            | 352,96   | 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 225M 4**

Potenza nominale / Rated power 55,00 kW

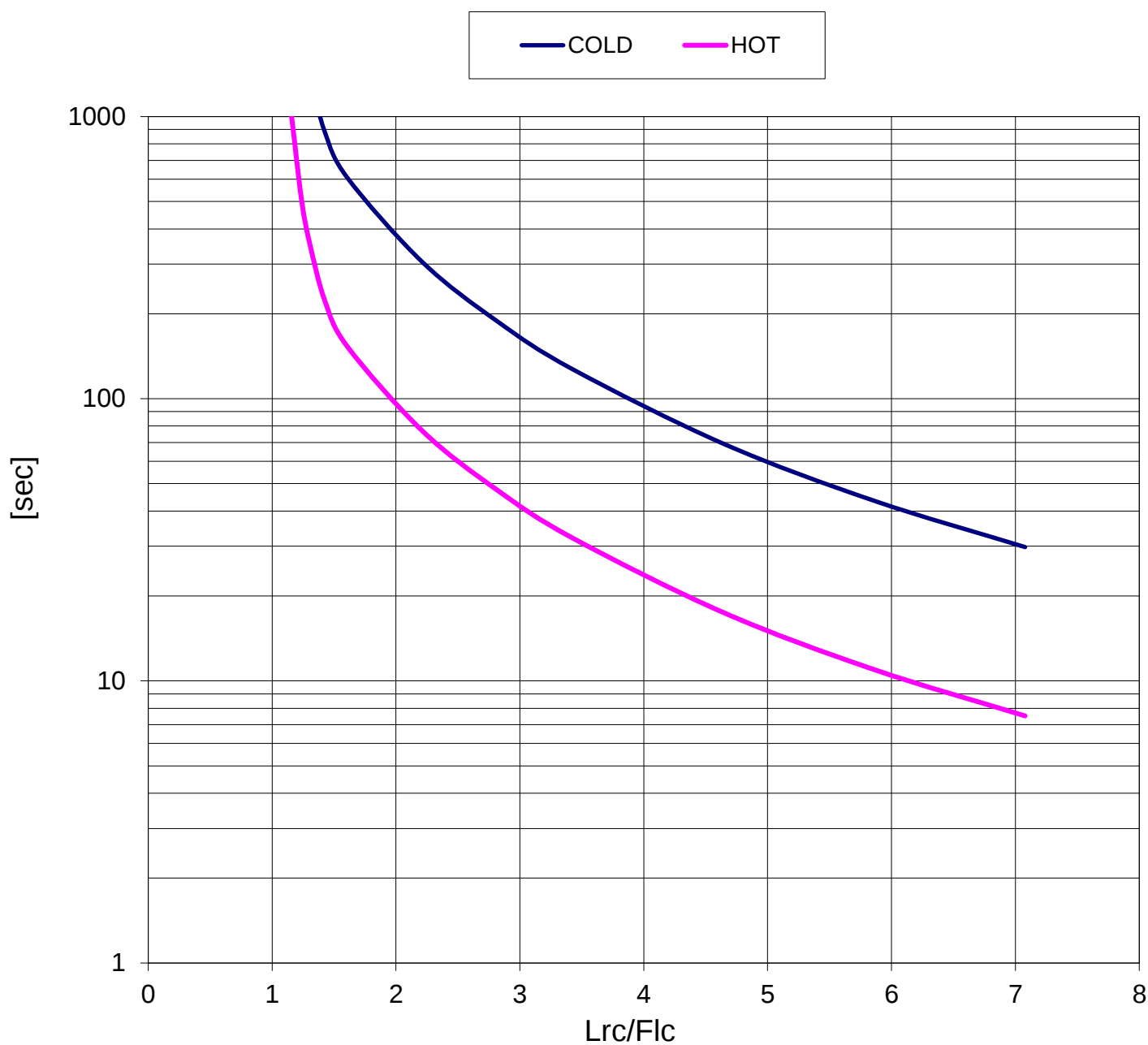
Poli / Pole 4

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

Corrente / Rated current 97,69 A

Velocità / Speed 1488 rpm

Coppia / Torque 352,96 Nm



Valori calcolati - Data obtained by calculation method

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

Cliente / Customer CEMP

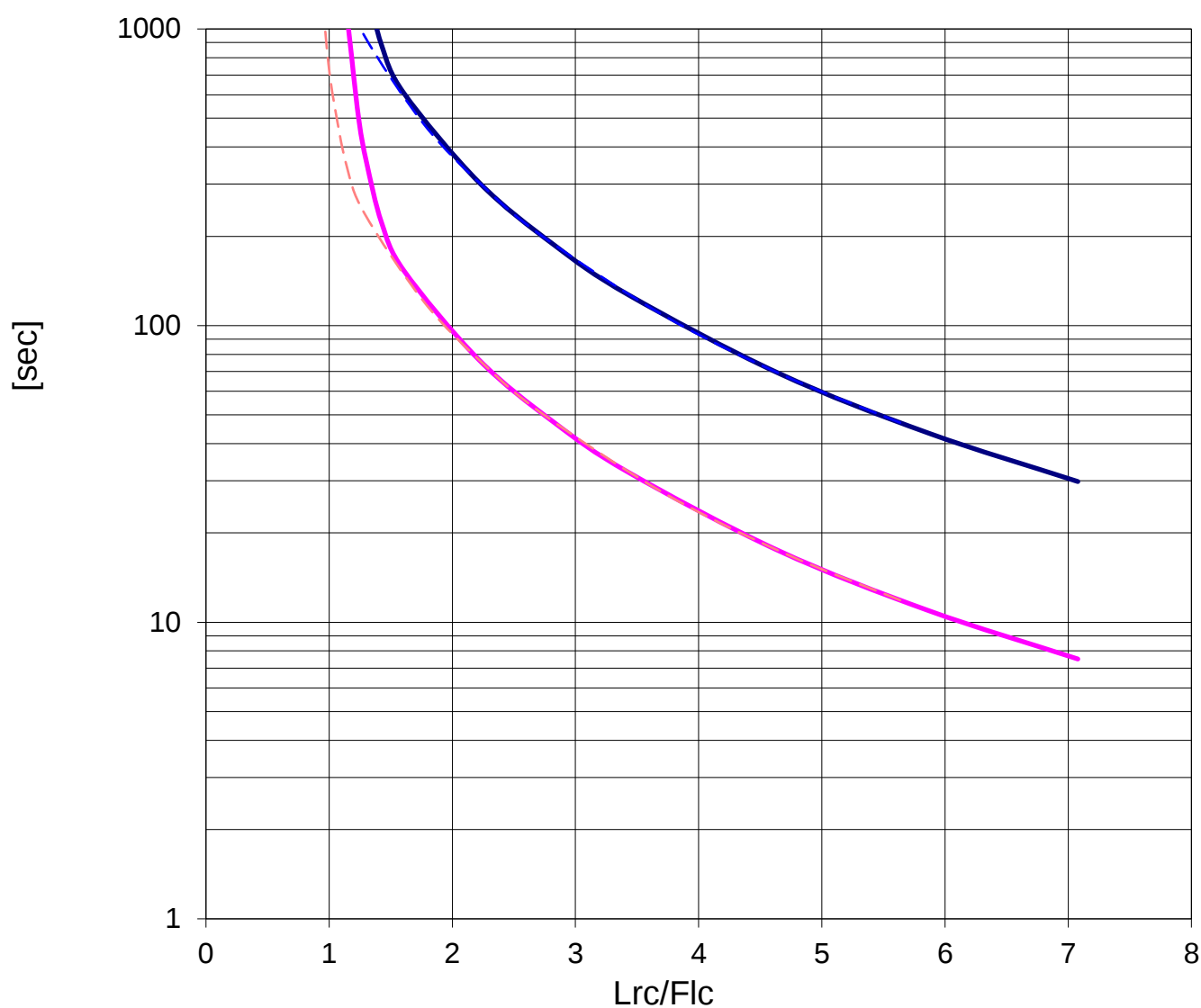
Impianto / Plant -  
**ITEM** -

Numero d'offerta / Offer Number 2021.  
 -

**Motore / Motor E3AB30 225M 4**

|                                            |          |        |
|--------------------------------------------|----------|--------|
| Potenza nominale / Rated power             | 55,00    | kW     |
| Poli / Pole                                | 4        |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50 | V - Hz |
| Corrente / Rated current                   | 97,69    | A      |
| Velocità / Speed                           | 1488     | rpm    |
| Coppia / Torque                            | 352,96   | Nm     |

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



Valori calcolati - Data obtained by calculation method