

# PRODUCT INFORMATION PACKET

Model No: E3AC3006285B35D41100

Catalog No: E3AC3006285B35D41100

Made in Italy E3AC30 Series, General Purpose Low Voltage IEC motor IE3, Flameproof, 55,00kW,  
3 phase, 989 RPM, D400/Y690V 50Hz, 280SM Frame B35, 6 Poles, IC411



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### Nameplate Specifications

|                        |         |                            |                             |
|------------------------|---------|----------------------------|-----------------------------|
| Phase                  | 3       | Output HP                  | 75.0 Hp                     |
| Output KW              | 55.0 kW | Voltage                    | 400/690 V                   |
| Speed                  | 989 rpm | Service Factor             | 1                           |
| Frame                  | 280SM   | Enclosure                  | Totally Enclosed Fan Cooled |
| Efficiency             | 94.1 %  | Ambient Temperature        | 40 °C                       |
| Frequency              | 50 Hz   | Power Factor               | 0.84                        |
| 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                 | 6                | 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        | 1389.00 mm       | Frame Length          | 675.00 mm      |
| Shaft Diameter        | 75.000 mm        | Shaft Extension       | 140 mm         |
| Assembly/Box Mounting | Top              |                       |                |
| Outline Drawing       | B3A04E8285011D01 | Connection Drawing    | SC-01-T-1v-1a  |

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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

| <b>Marcatura Morsetti Ausiliari - <i>Additional terminals marking</i> (IEC60034-8)</b> |                                              |                                                                                                  |
|----------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Marcatura<br/><i>Marking</i></b>                                                    | <b>No.<br/>morsetti<br/><i>terminals</i></b> | <b>Morsetto ausiliare per:<br/><i>Additional terminal for:</i></b>                               |
| 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 -<br><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 -<br><i>NC brake bi-metallic switch</i> (**) |
| TM1 - TM2 (allarme- <i>warning</i> )                                                   | 2                                            | Protettore bimetallico normalmente aperto -<br><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              |
| 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 280SM 6    |
| 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°        | 6                 |
| 8                                                   | Potenza nominale / Rated power             |       |        | kW        | 55,00             |
| 9                                                   | Corrente nominale / Rated current          |       |        | A         | 100,91            |
| 10                                                  | Velocità nominale / Full Load speed        |       |        | 1/min     | 989               |
| 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 | 989    | 992       | 995               |
| 19                                                  | Corr. / Curr.                              | A     | 100,91 | 78,54     | 59,82             |
| 20                                                  | Rend / Eff                                 | %     | 94,1   | 94,3      | 93,6              |
| 21                                                  | cos φ                                      | -     | 0,84   | 0,80      | 0,71              |
| Performances all'avviamento / Starting performances |                                            |       |        |           |                   |
| 22                                                  | Ia/In - LRC/FLC                            |       |        | %         | 605               |
| 23                                                  | Cosphi a rotore bloccato / LR power factor |       |        |           | 0,34              |
|                                                     | Tempo a rotore bloccato / LRWT             |       |        |           |                   |
| 24                                                  | 100% Un (A caldo / Warm)                   |       |        | sec       | 5                 |
| 25                                                  | (A freddo / Cold)                          |       |        | sec       | 16                |
| 26                                                  | 80% Un (A caldo / Warm)                    |       |        | sec       | 9                 |
| 27                                                  | (A freddo / Cold)                          |       |        | sec       | 25                |
|                                                     | Tempo di avviamento ammissibile / ART      |       |        |           |                   |
| 28                                                  | 100% Un                                    |       |        | sec       | 14                |
| 29                                                  | 80% Un                                     |       |        | sec       | 21                |
| Curva di coppia / Speed-torque values               |                                            |       |        |           |                   |
| 30                                                  | Coppia nominale / Rated Torque             |       |        | Nm        | 531,09            |
| 31                                                  | Ca/Cn - LRT/FLT                            |       |        | %         | 180               |
| 32                                                  | Cmax/Cn - BDT/FLT                          |       |        | %         | 240               |
| 33                                                  |                                            |       |        |           |                   |
| 34                                                  |                                            |       |        |           |                   |
| 35                                                  |                                            |       |        |           |                   |
| Varie / Other                                       |                                            |       |        |           |                   |
| 36                                                  |                                            |       |        |           |                   |
| 37                                                  |                                            |       |        |           |                   |
| 38                                                  |                                            |       |        |           |                   |
| 39                                                  |                                            |       |        |           |                   |

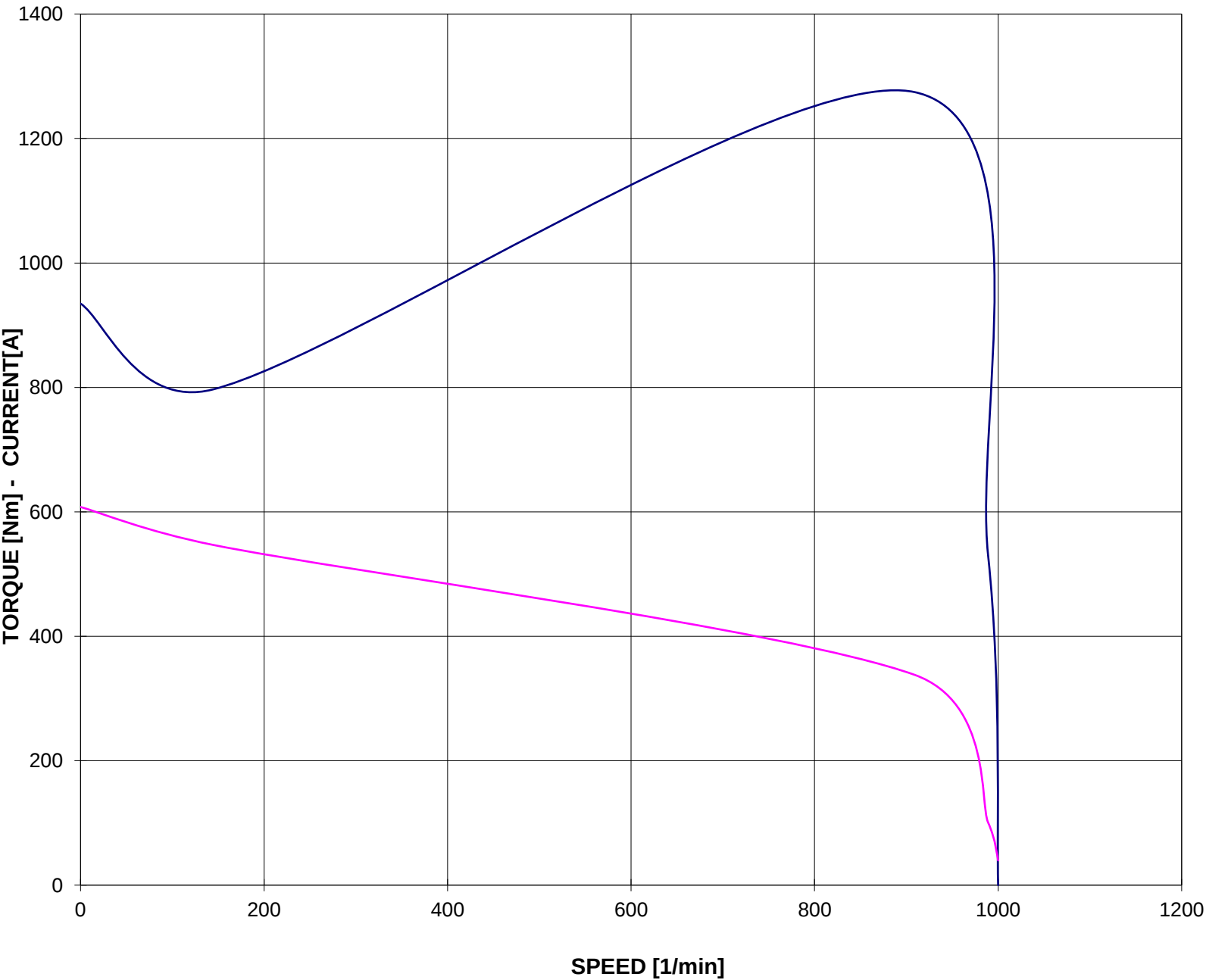
|                                                                    |                                            |                         |            |
|--------------------------------------------------------------------|--------------------------------------------|-------------------------|------------|
| <b>Servizio / Duty</b>                                             |                                            |                         |            |
| 40                                                                 | Servizio / Duty type                       | -                       | S1         |
| 41                                                                 | Intermittenza / Cyclic duration factor     | -                       | -          |
| 42                                                                 | Avviamenti-ora / Starting-hour             | -                       | -          |
| 43                                                                 | Tempo ciclo / Time                         |                         | -          |
| <b>Cuscinetti / Bearings</b>                                       |                                            |                         |            |
| 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 | N                       | 6300       |
| 47                                                                 | Carico assiale max / Max axial load        | N                       | 4550       |
| 48                                                                 | Tipo grasso / Grease type                  | LGHP2 SKF or equivalent |            |
| 49                                                                 | Intervallo lubrificazione / Lubrication    | h                       | -          |
| 50                                                                 | Quantità grasso / Quantity grease          | gr                      | -          |
| <b>Caratteristiche meccaniche / mechanical specification</b>       |                                            |                         |            |
| 51                                                                 | Massa / Mass                               | kg                      | 990,4      |
| 52                                                                 | Momento d'inerzia / Moment of inertia      | kgm2                    | 2,3543     |
| 53                                                                 | Rumore a vuoto / Noise at no load (1 m)    | Lp dB(A)                | 72         |
| 54                                                                 | Vibrazioni / Vibration level               | IEC 34-14               | A          |
| 55                                                                 | Limite norma / Vibration limit             | mm/sec                  | 2,20       |
| 56                                                                 |                                            |                         |            |
| 57                                                                 |                                            |                         |            |
| <b>Dati entrata cavi - verniciatura / Cable entry and painting</b> |                                            |                         |            |
| 63                                                                 | Entrata cavi / Cable entry                 |                         | 2xM63      |
| 64                                                                 | Ciclo verniciatura / Painting cycle        |                         | STD        |
| 65                                                                 | Colore finale / Final colour               | RAL                     | 5010       |
|                                                                    |                                            |                         |            |
| 66                                                                 |                                            |                         |            |
| 67                                                                 |                                            |                         |            |
| 68                                                                 |                                            |                         |            |
| 69                                                                 |                                            |                         |            |
| 70                                                                 |                                            |                         |            |
| 71                                                                 |                                            |                         |            |
| <b>Ausiliari - Auxiliaries</b>                                     |                                            |                         |            |
| 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               | - |
| Ordine cliente / Customer order  | - |
| Impianto / Plant                 | - |
| ITEM                             | - |
| Conferma ordine / Acknowledgment | - |
| Numero di serie / Serial Number  | - |

|                                            |                       |        |
|--------------------------------------------|-----------------------|--------|
| <b>Motore / Motor</b>                      | <b>E3AC30 280SM 6</b> |        |
| Potenza nominale / Rated power             | 55,00                 | kW     |
| Poli / Pole                                | 6                     |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50              | V - Hz |
| Corrente / Rated current                   | 100,91                | A      |
| Velocità / Speed                           | 989                   | rpm    |
| Coppia / Torque                            | 531,09                | Nm     |

— COPPIA - TORQUE — CORRENTE - CURRENT



Valori calcolati - Data obtained by calculation method

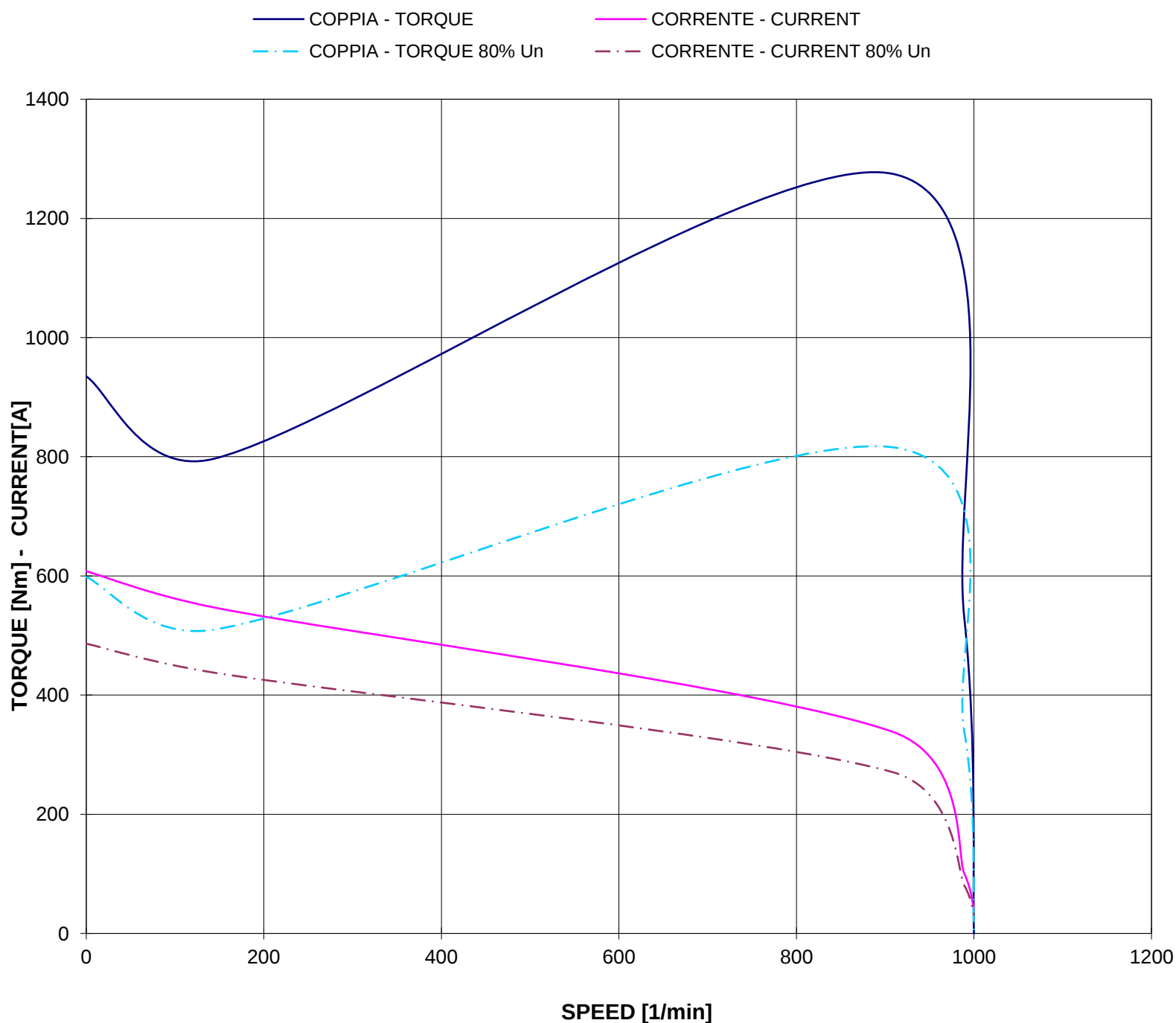
**CURVA COPPIA/CORRENTE-GIRI (Tensione ridotta)**  
**TORQUE/CURRENT-SPEED DIAGRAM (Reduced voltage)**

Cliente / Customer -  
Ordine cliente / Customer order -  
Impianto / Plant -  
**ITEM** -

Conferma ordine / Acknowledgment -  
Numero di serie / Serial Number -

**Motore / Motor E3AC30 280SM 6**

|                                            |          |        |
|--------------------------------------------|----------|--------|
| Potenza nominale / Rated power             | 55,00    | kW     |
| Poli / Pole                                | 6        |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50 | V - Hz |
| Corrente / Rated current                   | 100,91   | A      |
| Velocità / Speed                           | 989      | rpm    |
| Coppia / Torque                            | 531,09   | Nm     |

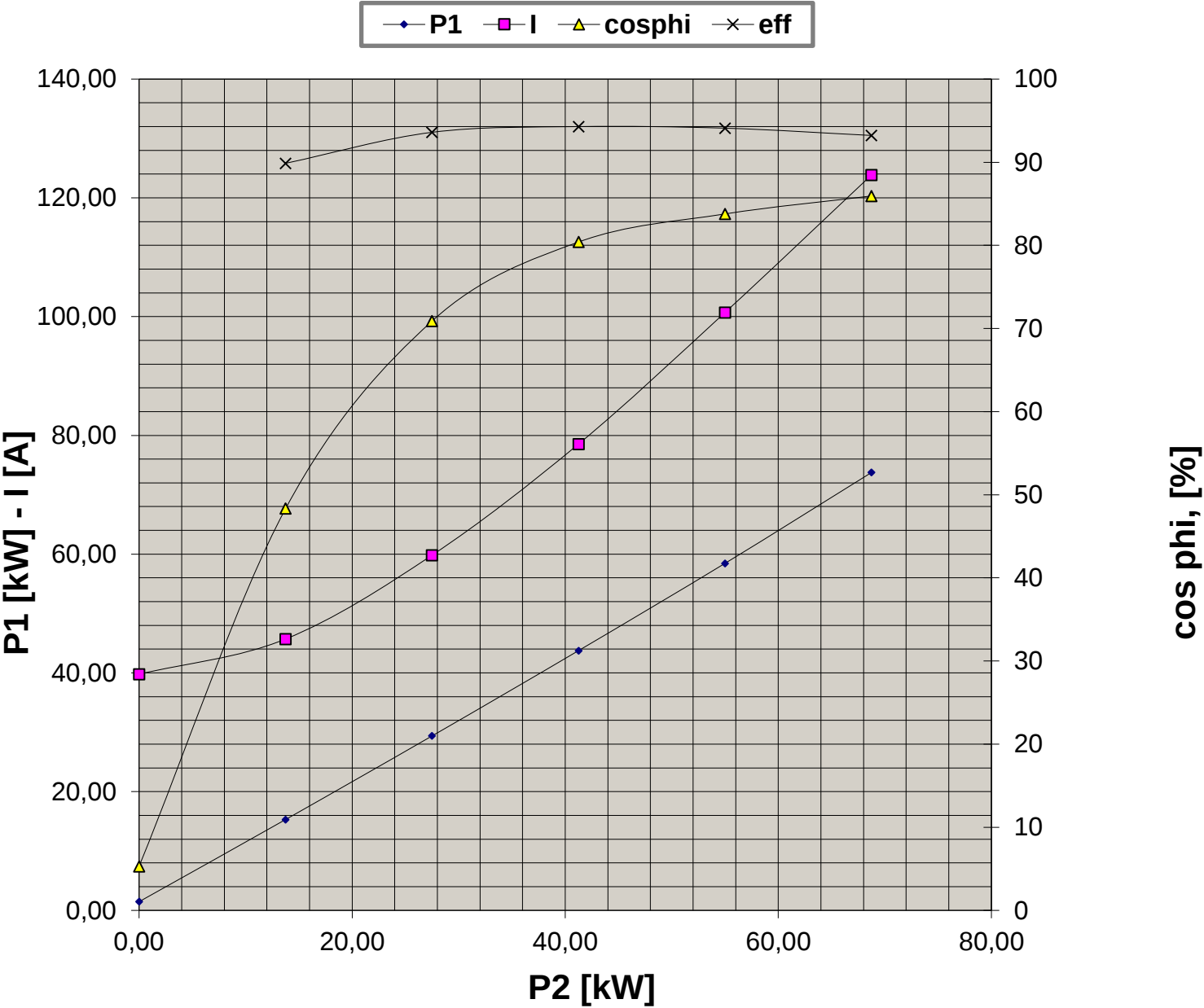


Valori calcolati - Data obtained by calculation method

CURVE CARATTERISTICHE  
PERFORMANCE CURVES

Cliente / Customer -  
Ordine cliente / Customer order -  
Impianto / Plant -  
**ITEM** -  
  
Conferma ordine / Acknowledgment -  
Numero di serie / Serial Number -

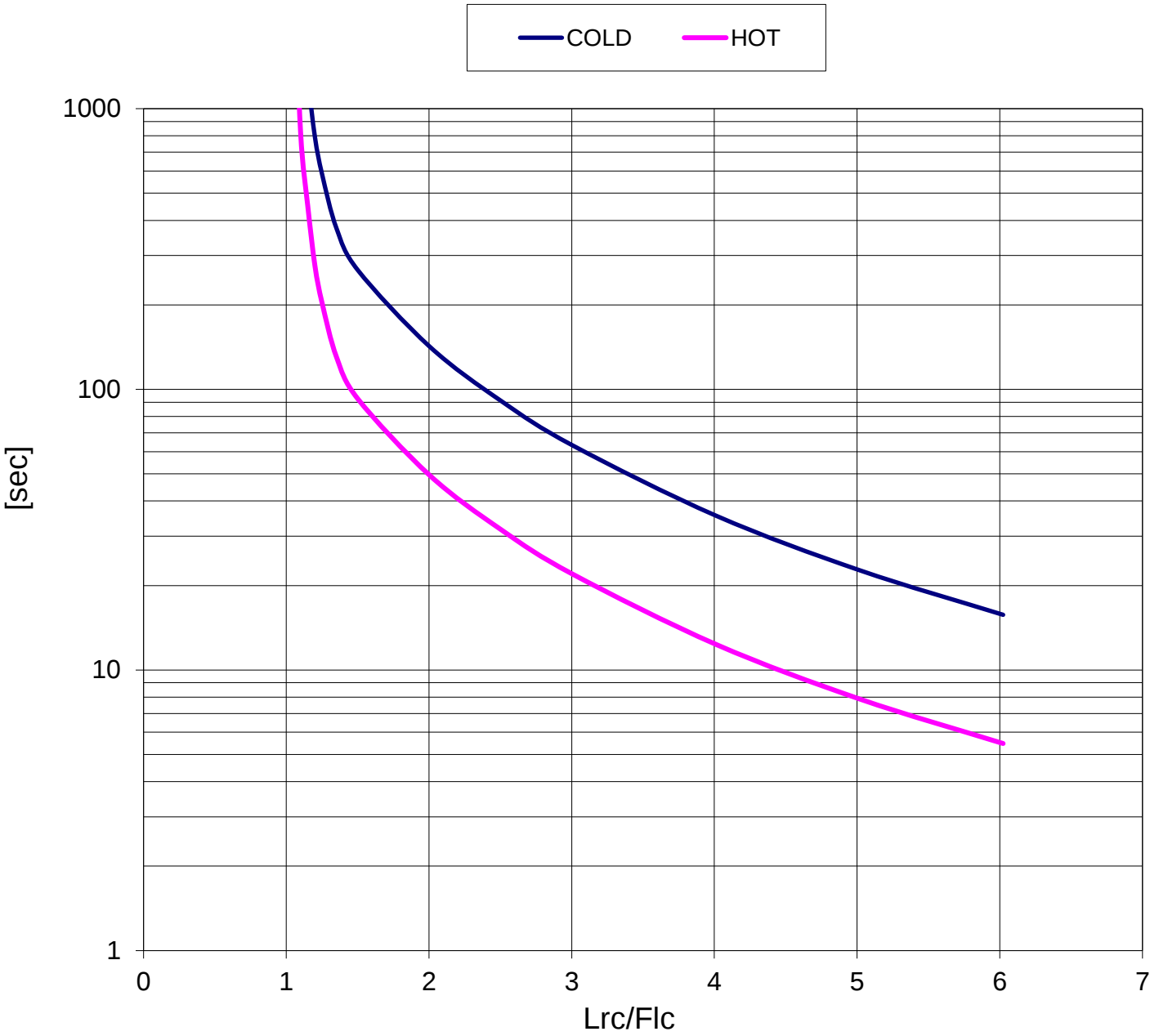
|                                            |                       |        |
|--------------------------------------------|-----------------------|--------|
| <b>Motore / Motor</b>                      | <b>E3AC30 280SM 6</b> |        |
| Potenza nominale / Rated power             | 55,00                 | kW     |
| Poli / Pole                                | 6                     |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50              | V - Hz |
| Corrente / Rated current                   | 100,91                | A      |
| Velocità / Speed                           | 989                   | rpm    |
| Coppia / Torque                            | 531,09                | Nm     |



Valori calcolati - Data obtained by calculation method

CURVA LIMITE CORRENTE TEMPO  
THERMAL WITHSTAND CURVE

|                                            |                       |
|--------------------------------------------|-----------------------|
| Cliente / Customer                         | -                     |
| Ordine cliente / Customer order            | -                     |
| Impianto / Plant                           | -                     |
| ITEM                                       | -                     |
| Conferma ordine / Acknowledgment           | -                     |
| Numero di serie / Serial Number            | -                     |
| <b>Motore / Motor</b>                      | <b>E3AC30 280SM 6</b> |
| Potenza nominale / Rated power             | 55,00 kW              |
| Poli / Pole                                | 6                     |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50 V - Hz       |
| Corrente / Rated current                   | 100,91 A              |
| Velocità / Speed                           | 989 rpm               |
| Coppia / Torque                            | 531,09 Nm             |



Valori calcolati - Data obtained by calculation method

Data / Date 25 January 2022

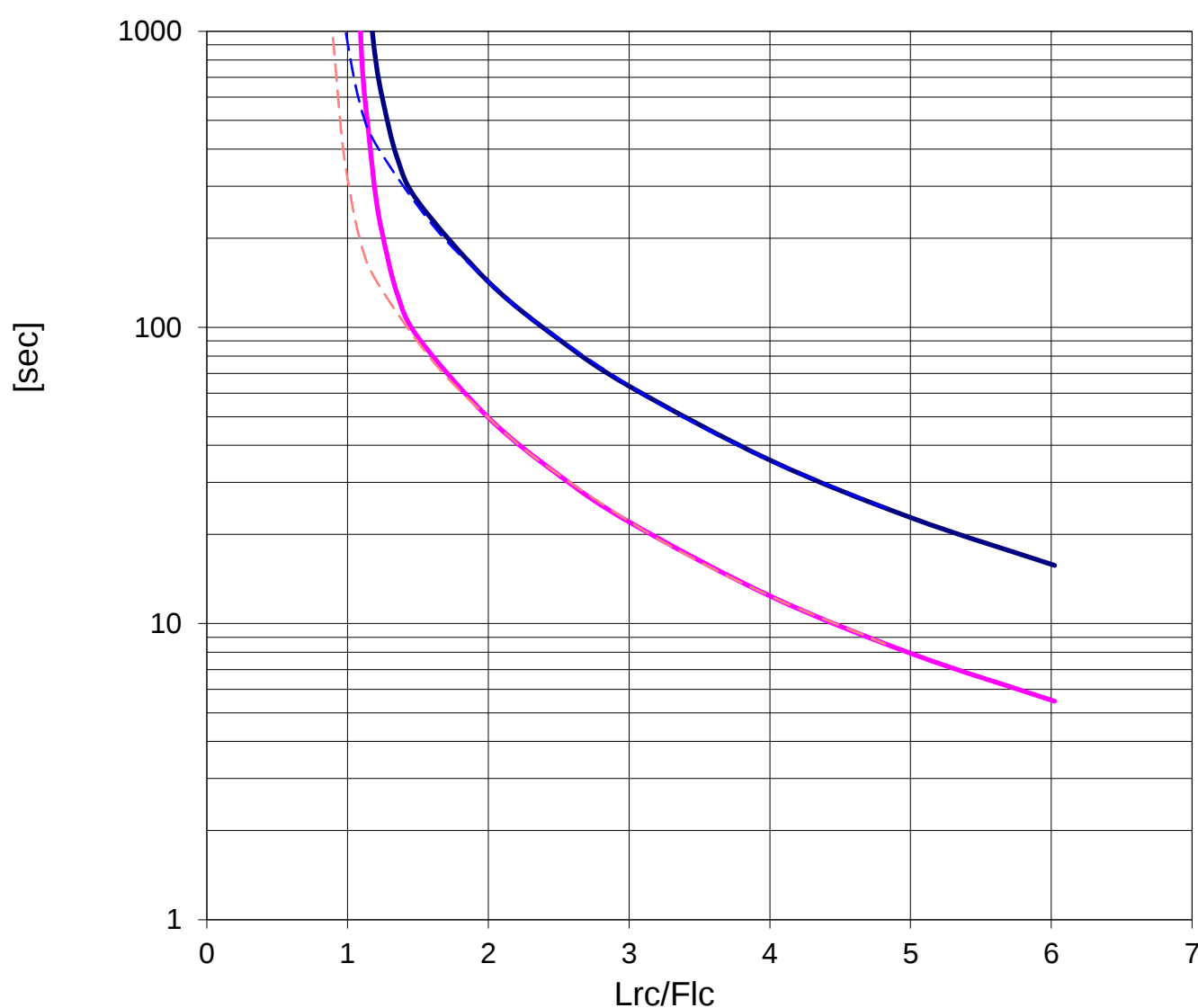
**CURVA LIMITE CORRENTE TEMPO (Tensione ridotta)**  
**THERMAL WITHSTAND CURVE (Reduced voltage)**

Cliente / Customer -  
Ordine cliente / Customer order -  
Impianto / Plant -  
**ITEM** -

Conferma ordine / Acknowledgment -  
Numero di serie / Serial Number -

|                                            |                       |        |
|--------------------------------------------|-----------------------|--------|
| <b>Motore / Motor</b>                      | <b>E3AC30 280SM 6</b> |        |
| Potenza nominale / Rated power             | 55,00                 | kW     |
| Poli / Pole                                | 6                     |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50              | V - Hz |
| Corrente / Rated current                   | 100,91                | A      |
| Velocità / Speed                           | 989                   | rpm    |
| Coppia / Torque                            | 531,09                | Nm     |

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



Valori calcolati - Data obtained by calculation method