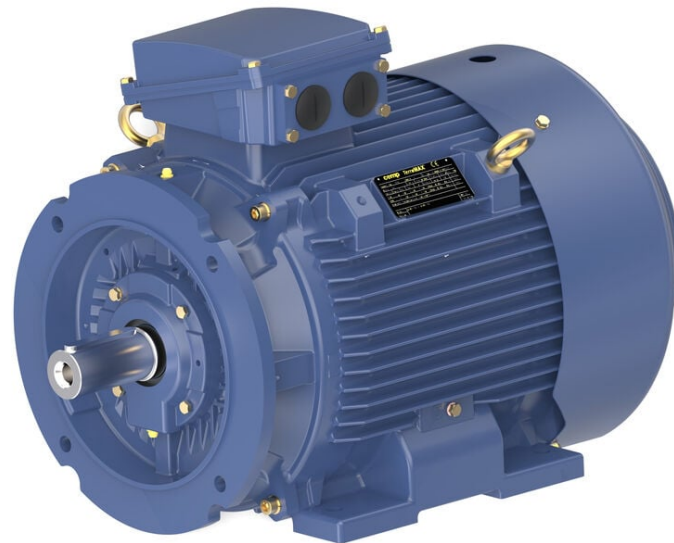


PRODUCT INFORMATION PACKET

Model No: E3TI3002285B35D41100

Catalog No: E3TI3002285B35D41100

Made in Italy TCI Series, General Purpose Low Voltage IEC motor, Safe Area, 90,00 kW, 3 phase,
2981 RPM, D400/Y690V 50Hz, 280MA Frame B35, 2 Poles, IC411



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Nameplate Specifications

| | | | |
|----------------------------|---------|------------------------|-----------------------------|
| Output HP | 120 Hp | Output KW | 90.0 kW |
| Frequency | 50 Hz | Voltage | 400/690 V |
| Current | 150.9 A | Speed | 2981 rpm |
| Service Factor | 1 | Phase | 3 |
| Efficiency | 95 % | Power Factor | 0.9 |
| Duty | S1 | Insulation Class | F |
| Frame | 280MA | Enclosure | Totally Enclosed Fan Cooled |
| Ambient Temperature | 40 °C | Drive End Bearing Size | 6314 |
| Opp Drive End Bearing Size | 6314 | UL | No |
| CSA | No | CE | Yes |
| IP Code | IP55 | Number of Speeds | 1 |

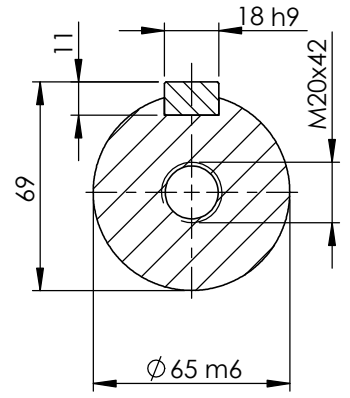
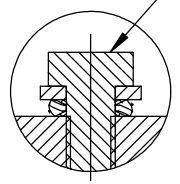
Technical Specifications

| | | | |
|-----------------------|---------------|-----------------------|------------------|
| Electrical Type | Squirrel Cage | Starting Method | Direct On Line |
| Poles | 2 | Rotation | Bi-Directional |
| Mounting | B35 | Motor Orientation | Horizontal |
| Drive End Bearing | C3 | Opp Drive End Bearing | C3 |
| Frame Material | Cast Iron | Shaft Type | Keyed |
| Overall Length | 1111.00 mm | Frame Length | 600.00 mm |
| Shaft Diameter | 65.000 mm | Shaft Extension | 140 mm |
| Assembly/Box Mounting | Top | | |
| Connection Drawing | SC-01-T-1v-1a | Outline Drawing | B3A04T8280001D01 |

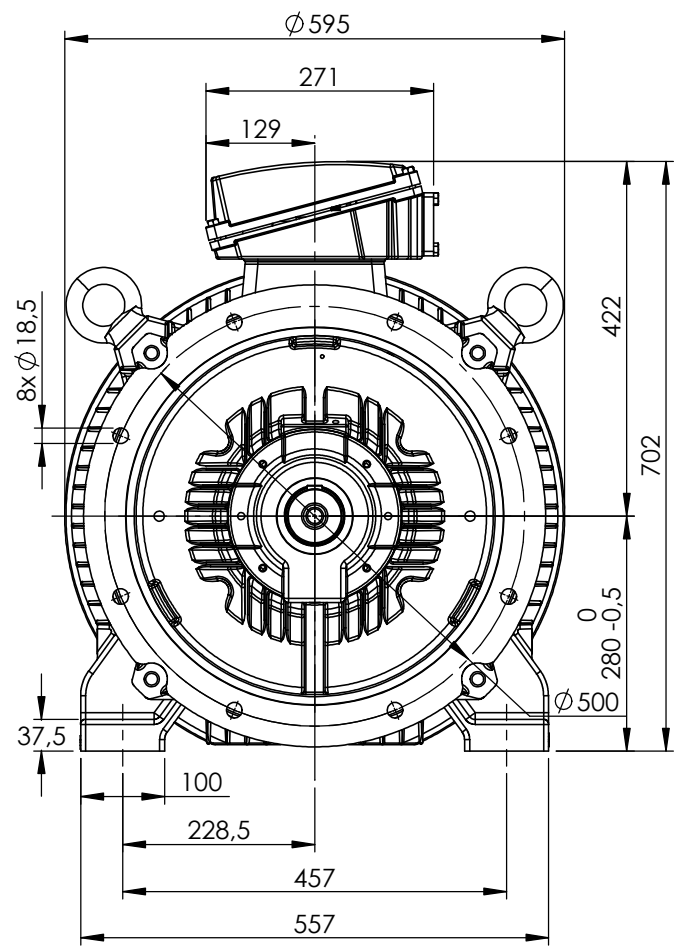
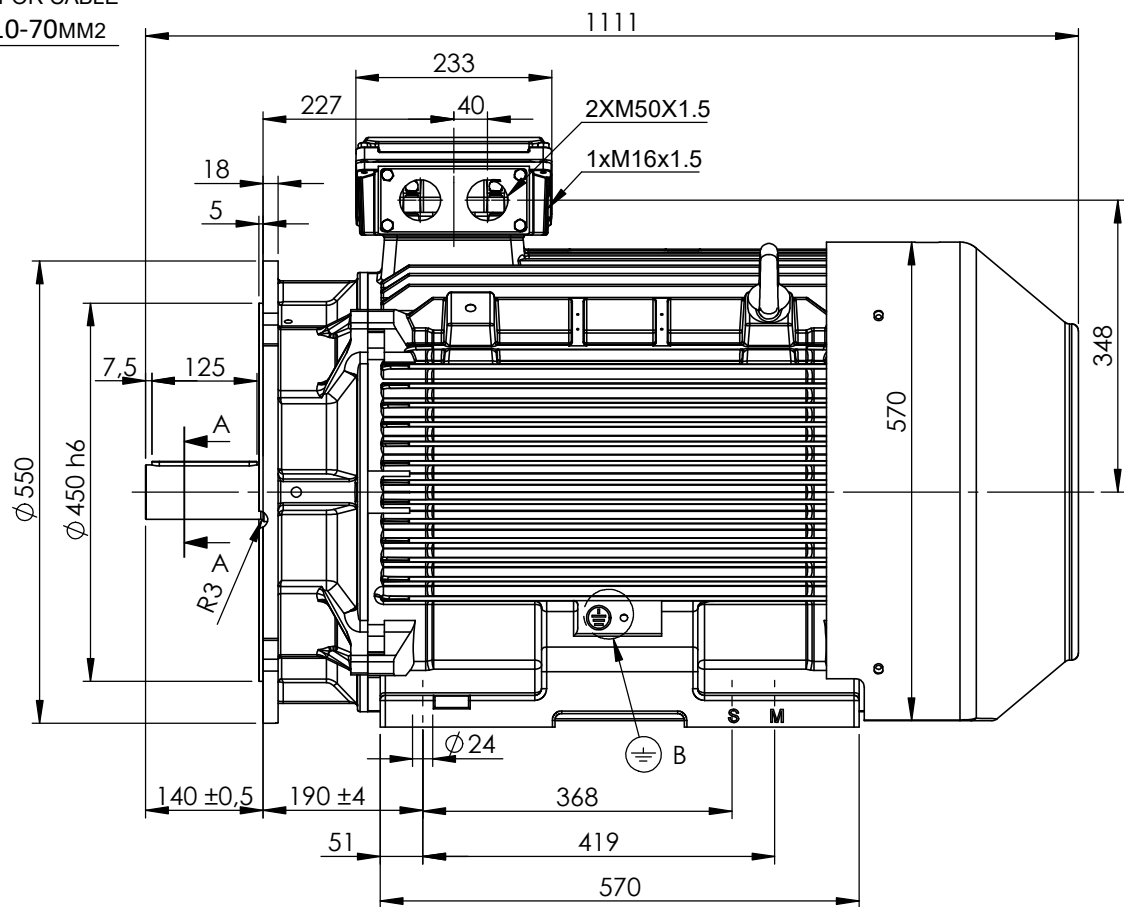
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EARTH TERMINAL
SUITABLE FOR CABLE
SECTION 10-70MM²

DETAIL B



SECTION A-A
SCALE 1 : 2.5



 Earth terminal: 1 in the terminal box, 2 on the frame.

CUSTOMER REFERENCE AND ADDITIONAL INFORMATION:

MOTOR TYPE AND DESCRIPTION:

| | | |
|-----------------------|-------------------|--------------------|
| DRAWING REVISION 1 | REVISION BY TN | DATE 10/05/2022 |
| ECO | APPROVED BY LP | DATE 11/05/2022 |

TOLERANCES (EXCEPT AS NOTED)
TOLERANCES: ±2
* TOLERANCES: ±0.8
DIMENSIONS ARE IN mm
ACCORDING TO IEC 60072

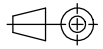
| |
|--------------------|
| DRAWN BY TN |
| DATE 29/11/2021 |
| APPROVED BY LP |
| DATE 30/11/2021 |
| REFERENCE |



DESCRIPTION
Motor 280 2P TC (L) B35

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SERIAL NUMBER

FIRST ANGLE PROJECTION 

SIZE
A4

DRAWING NUMBER
B3A04T8280001D01

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**



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 | |
| R4 - R5 - R6 (II sensore - <i>sensor</i>) | 3 | Termistore PT100 3 fili - <i>Thermistor PT 100 with 3 wires</i> |
| R7 - R8 - R9 (III sensore - <i>sensor</i>) | 3 | |
| R11 - R12 - R13 (anteriore - <i>DE</i>) | 3 | |
| R21 - R22 - R23 (posteriore - <i>NDE</i>) | 3 | Termistore PT100 su cuscinetto - <i>Thermistor PT 100 on bearing</i> |
| TB1 - TB2 (allarme- <i>warning</i>) | 2 | Protettore bimetallico normalmente chiuso - |
| TB3 - TB4 (intervento- <i>switch off</i>) | 2 | <i>Normally closed bi-metallic switch (**)</i> |
| | | |
| 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 - |
| TM3 - TM4 (intervento- <i>switch off</i>) | 2 | <i>Normally open bi-metallic switch (**)</i> |
| 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 | | 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 +/- 10% | |

| | |
|---------------------------------|--------------------|
| | IP55 |
| | IP55 |
| Tem. Amb. Max. / Max Amb. Temp. | 40 °C |
| Altitudine / Altitude | < 1000 mslm / masl |
| Frequenza / Frequency | 50 Hz +/- 3% |

DATI FUNZIONALI E COSTRUTTIVI - PERFORMANCE AND CONSTRUCTION DATA

| | | | |
|--|--|-----------|------------|
| 1 | Quantità / Quantity | | 01 |
| 2 | Motore tipo / Motor type | | TCI 280MA2 |
| 3 | Numero di serie / Serial Number | | |
| 4 | Forma costruttiva / Shape | | B35 |
| 5 | | | |
| 6 | | | |
| Dati nominali / Rated data | | | |
| 7 | Poli / Pole | n° | 2 |
| 8 | Potenza nominale / Rated power | kW | 90,00 |
| 9 | Corrente nominale / Rated current | A | 150,94 |
| 10 | Velocità nominale / Full Load speed | 1/min | 2981 |
| 11 | Collegamento / Winding connection | | D |
| 12 | Isolamento / Insulation class | | F |
| 13 | Sovratemperatura / Temperature rise | | DT80K |
| 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 | 150,94 |
| 20 | Rend / Eff | % | 95,0 |
| 21 | cos φ | - | 0,91 |
| Performances all'avviamento / Starting performances | | | |
| 22 | Ia/In - LRC/FLC | % | 730 |
| 23 | Cosphi a rotore bloccato / LR power factor | | 0,36 |
| | Tempo a rotore bloccato / LRWT | | |
| 24 | 100% Un (A caldo / Warm) | sec | 11 |
| 25 | (A freddo / Cold) | sec | 32 |
| 26 | 80% Un (A caldo / Warm) | sec | 17 |
| 27 | (A freddo / Cold) | sec | 50 |
| | Tempo di avviamento ammissibile / ART | | |
| 28 | 100% Un | sec | 28 |
| 29 | 80% Un | sec | 44 |
| Curva di coppia / Speed-torque values | | | |
| 30 | Coppia nominale / Rated Torque | Nm | 288,33 |
| 31 | Ca/Cn - LRT/FLT | % | 180 |
| 32 | Cmax/Cn - BDT/FLT | % | 300 |
| 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 | - | 6314 C3 |
| 45 | Cuscinetto post / NDE bearing | - | 6314 C3 |
| 46 | Carico radiale max / Max radial load in X1 | N | 4780 |
| 47 | Carico assiale max / Max axial load | N | 3277 |
| 48 | Tipo grasso / Grease type | | LGHP2 SKF or equivalent |
| 49 | Intervallo lubrificazione / Lubrication | h | 1500 |
| 50 | Quantità grasso / Quantity grease | gr | 26 |
| Caratteristiche meccaniche / mechanical specification | | | |
| 51 | Massa / Mass | kg | 718 |
| 52 | Momento d'inerzia / Moment of inertia | kgm2 | 1,1746 |
| 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 | IEC 60423 | 2xM50+1xM16 |
| 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 | PTC |
| 73 | Sonde termiche / Temperature detector | bearing | - |
| 74 | Scaldiglie / Heaters | V / W | - |
| 75 | Preparation for SPM sensor | | - |
| 76 | Pressacavi / Cable glands | | NO |
| 77 | | | |

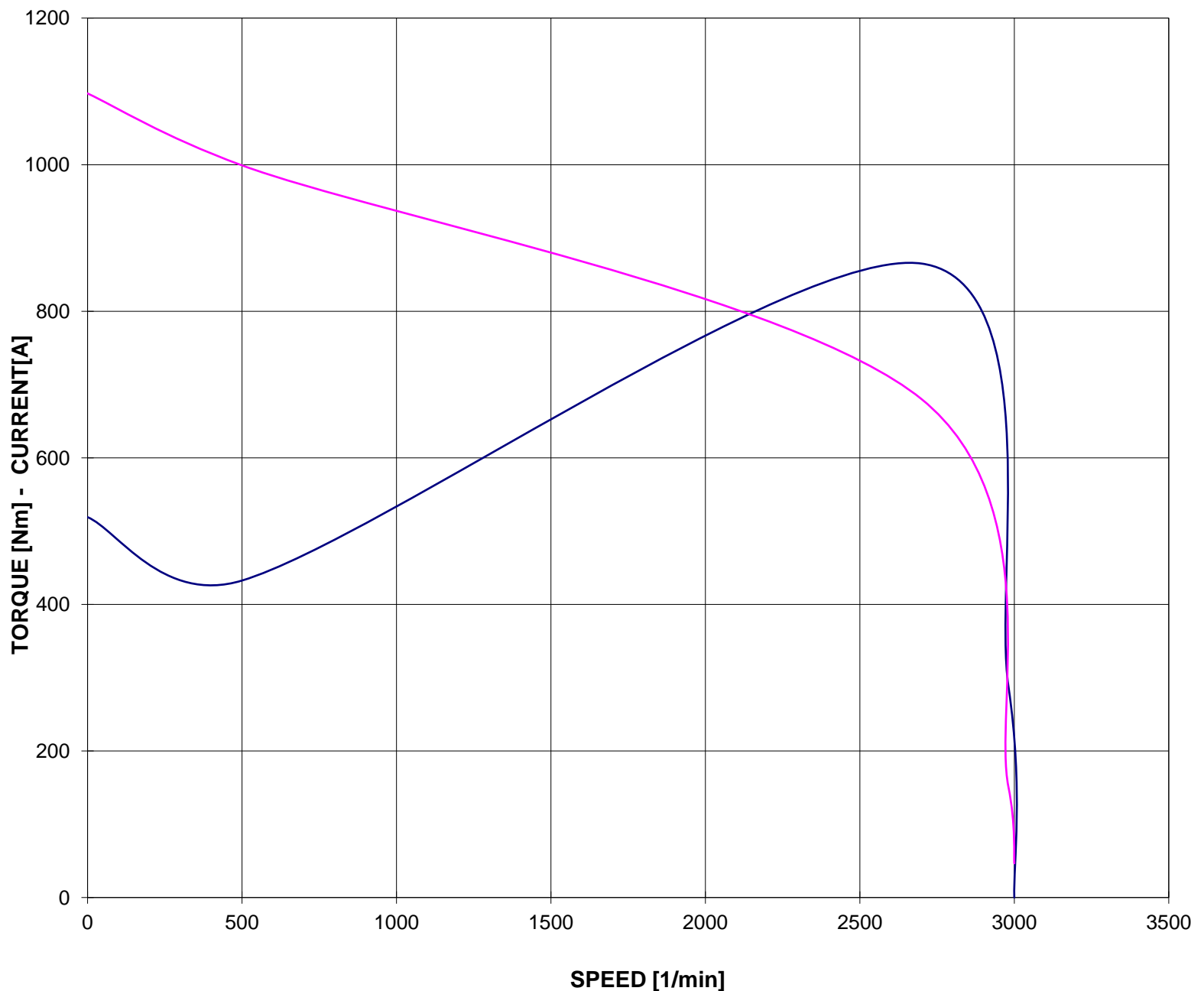
Documento preliminare - Preliminary data sheet

**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 -

Motore / Motor **TCI 280MA2**
 Potenza nominale / Rated power 90,00 kW
 Poli / Pole 2
 Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz
 Corrente / Rated current 150,94 A
 Velocità / Speed 2981 rpm
 Coppia / Torque 288,33 Nm

— COPPIA - TORQUE — CORRENTE - CURRENT



Valori calcolati - Data obtained by calculation method
 Documento preliminare - Preliminary document

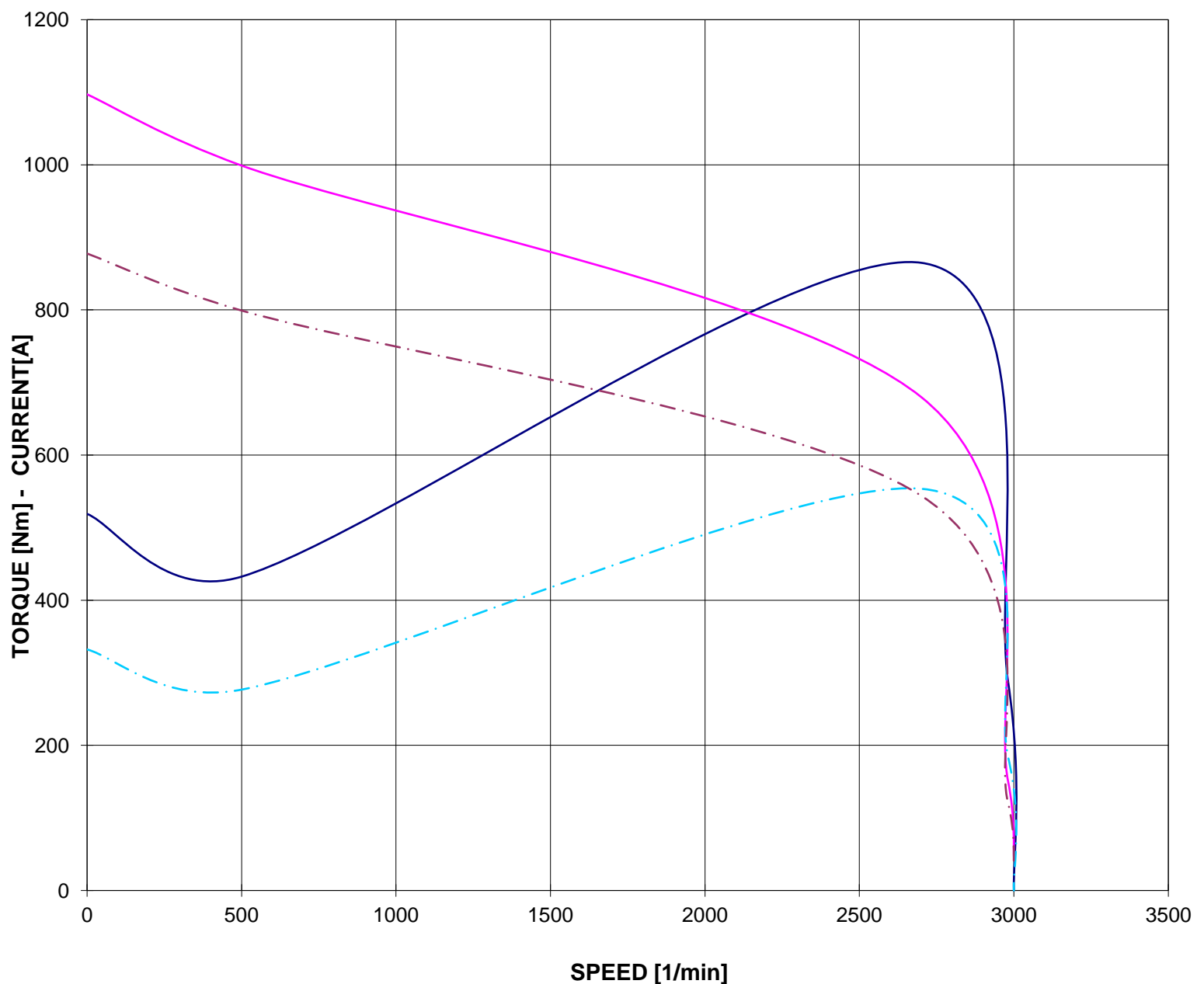
Data / Date 24-feb-22

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 **TCI 280MA2**
Potenza nominale / Rated power 90,00 kW
Poli / Pole 2
Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz
Corrente / Rated current 150,94 A
Velocità / Speed 2981 rpm
Coppia / Torque 288,33 Nm

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



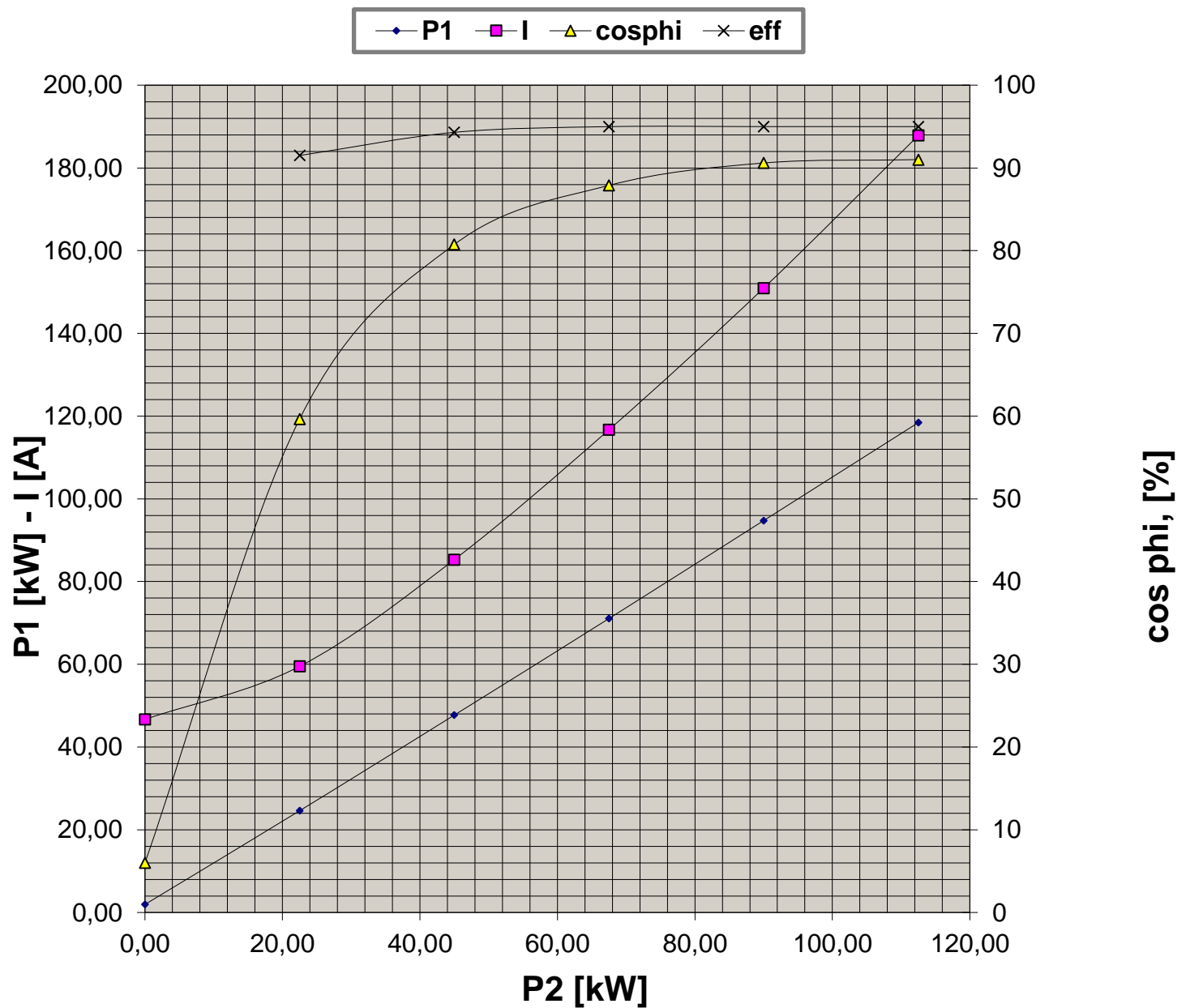
Valori calcolati - Data obtained by calculation method
Documento preliminare - Preliminary document

Data / Date 24-feb-22

**CURVE CARATTERISTICHE
PERFORMANCE CURVES**

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

Motore / Motor **TCI 280MA2**
 Potenza nominale / Rated power 90,00 kW
 Poli / Pole 2
 Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz
 Corrente / Rated current 150,94 A
 Velocità / Speed 2981 rpm
 Coppia / Torque 288,33 Nm



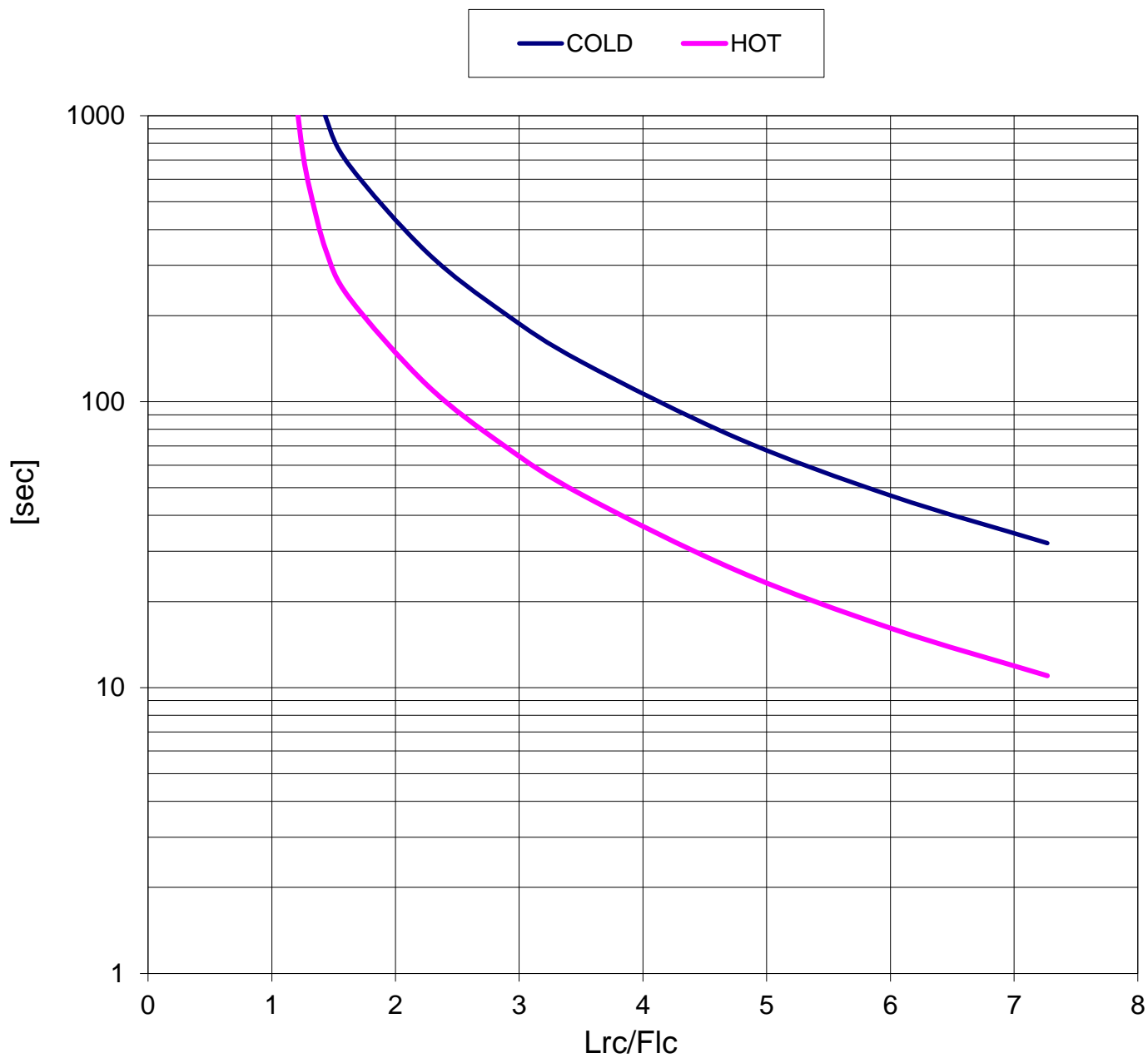
Valori calcolati - Data obtained by calculation method
 Documento preliminare - Preliminary document

Data / Date 24-feb-22

**CURVA LIMITE CORRENTE TEMPO
THERMAL WITHSTAND CURVE**

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

Motore / Motor **TCI 280MA2**
 Potenza nominale / Rated power 90,00 kW
 Poli / Pole 2
 Tensione - Frequenza / Voltage - Frequency 400 - 50 V - Hz
 Corrente / Rated current 150,94 A
 Velocità / Speed 2981 rpm
 Coppia / Torque 288,33 Nm



Valori calcolati - Data obtained by calculation method
 Documento preliminare - Preliminary document

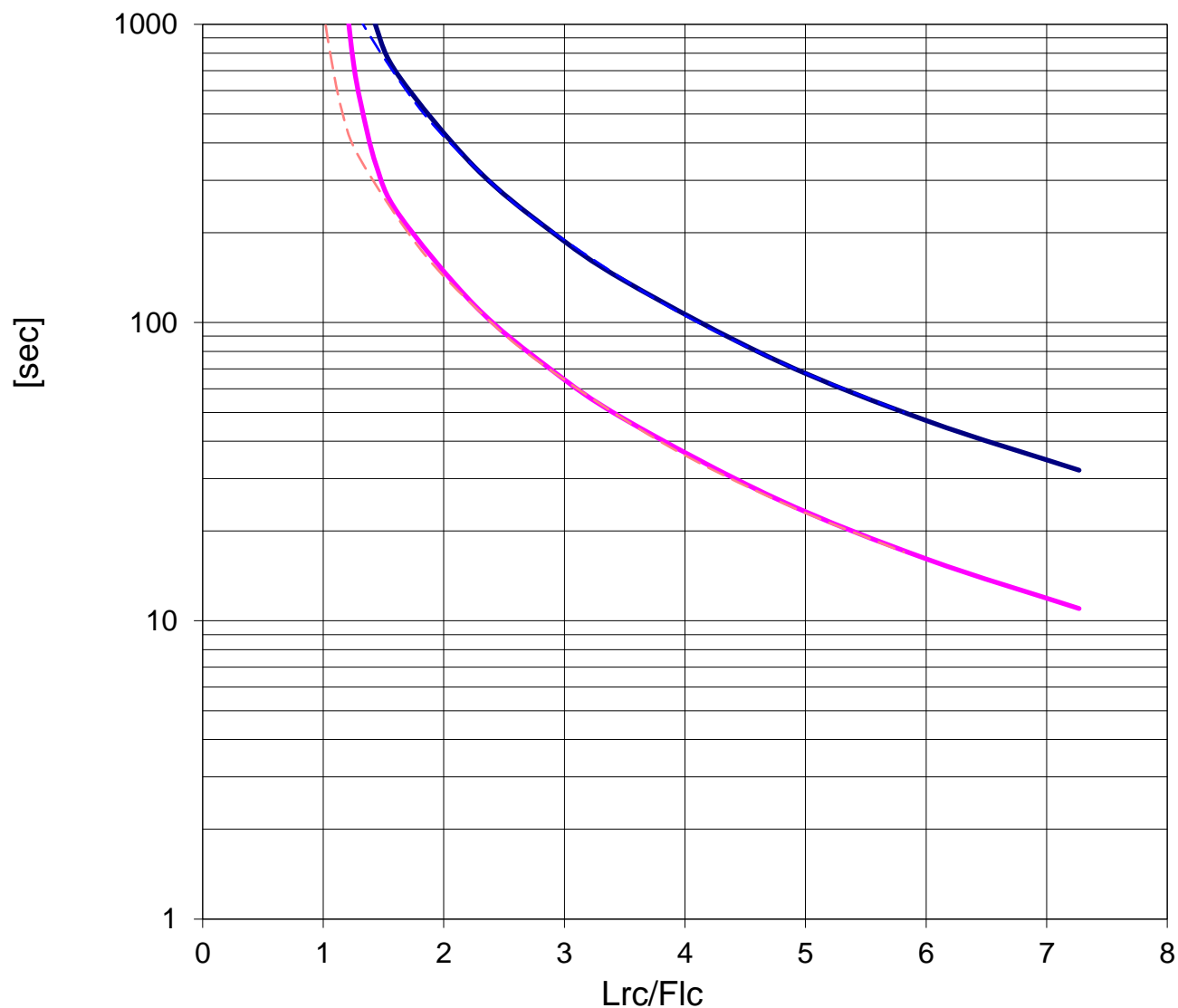
Data / Date 24-feb-22

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 -

| | | |
|--|-------------------|--------|
| Motore / Motor | TCI 280MA2 | |
| Potenza nominale / Rated power | 90,00 | kW |
| Poli / Pole | 2 | |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50 | V - Hz |
| Corrente / Rated current | 150,94 | A |
| Velocità / Speed | 2981 | rpm |
| Coppia / Torque | 288,33 | Nm |

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



Valori calcolati - Data obtained by calculation method
 Documento preliminare - Preliminary document

Data / Date 24-feb-22