

# PRODUCT INFORMATION PACKET

Model No: E3TI3006091B30S41100

Catalog No: E3TI3006091B30S41100

Made in Italy TCI Series, General Purpose Low Voltage IEC motor, Safe Area, 0,75 kW, 3 phase,  
961 RPM, D230/Y400V 50Hz, 90S Frame B3, 6 Poles, IC411



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## Nameplate Specifications

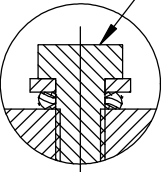
|                        |               |                            |                             |
|------------------------|---------------|----------------------------|-----------------------------|
| Output HP              | 1 Hp          | Output KW                  | 0.75 kW                     |
| Frequency              | 50 Hz         | Voltage                    | 230/400 V                   |
| Current                | 2.0 A         | Speed                      | 961 rpm                     |
| Service Factor         | 1             | Phase                      | 3                           |
| Efficiency             | 79.1 %        | Power Factor               | 0.65                        |
| Duty                   | S1            | Insulation Class           | F                           |
| Frame                  | 90S           | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection | Ambient Temperature        | 40 °C                       |
| Drive End Bearing Size | 6205          | Opp Drive End Bearing Size | 6205                        |
| UL                     | No            | CSA                        | No                          |
| CE                     | Yes           | IP Code                    | IP55                        |
| Number of Speeds       | 1             | Efficiency Class           | IE3                         |

## Technical Specifications

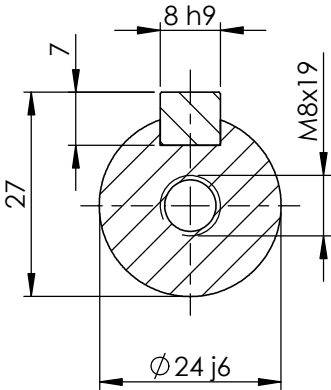
|                       |               |                       |                  |
|-----------------------|---------------|-----------------------|------------------|
| Electrical Type       | Squirrel Cage | Starting Method       | Direct On Line   |
| Poles                 | 6             | Rotation              | Bi-Directional   |
| Mounting              | B3            | Motor Orientation     | Horizontal       |
| Drive End Bearing     | 2z-C3         | Opp Drive End Bearing | 2z-C3            |
| Frame Material        | Cast Iron     | Shaft Type            | Keyed            |
| Overall Length        | 307.00 mm     | Frame Length          | 128.00 mm        |
| Shaft Diameter        | 24.000 mm     | Shaft Extension       | 50 mm            |
| Assembly/Box Mounting | Top           |                       |                  |
| Connection Drawing    | SC-01-T-1v-1a | Outline Drawing       | B3A04T8090001A01 |

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DETAIL B



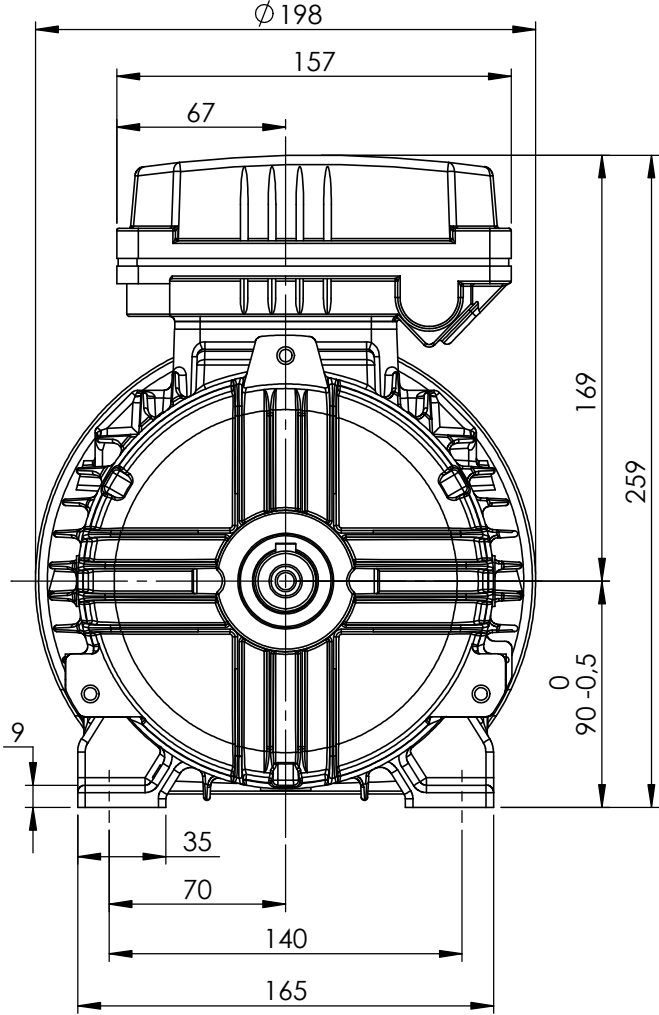
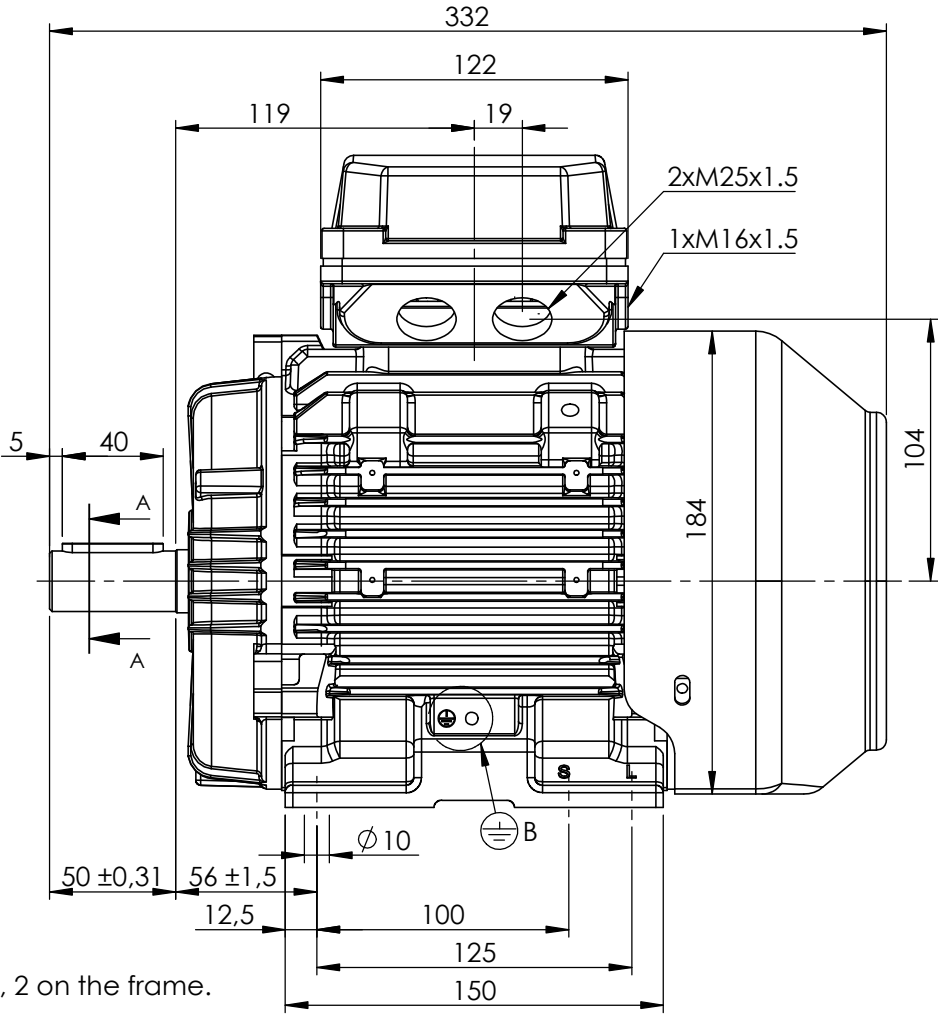
EARTH TERMINAL  
SUITABLE FOR CABLE  
SECTION 1.5-10MM<sup>2</sup>



SECTION A-A  
SCALE 1 : 1



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



CUSTOMER REFERENCE AND ADDITIONAL INFORMATION:

MOTOR TYPE AND DESCRIPTION:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                    |                                                                                                                            |                                                                                       |                                                                     |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------|--|--|--|
| DRAWING REVISION<br>1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | REVISION BY<br>TN | DATE<br>20/04/2022 | TOLERANCES (EXCEPT AS NOTED)<br>TOLERANCES: ±2<br>* TOLERANCES: ±0.8<br><br>DIMENSIONS ARE IN mm<br>ACCORDING TO IEC 60072 | DRAWN BY<br>TN                                                                        | <div><div><div>REGAL™</div></div><div>cemp</div></div>              |  |  |  |
| ECO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | APPROVED BY<br>LP | DATE<br>21/04/2022 |                                                                                                                            | DATE<br>25/10/2021                                                                    |                                                                     |  |  |  |
| ECO DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                    |                                                                                                                            | APPROVED BY<br>LP                                                                     | DESCRIPTION<br><br>Motor 90 TC (L) B3                               |  |  |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                    | SERIAL NUMBER                                                                                                              | REFERENCE                                                                             | SIZE<br>A4<br>DRAWING NUMBER<br>B3A04T8090001A01<br>SHEET<br>1 OF 2 |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                    | FIRST ANGLE<br>PROJECTION                                                                                                  |  |                                                                     |  |  |  |

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



DTE 01/01/2004  
SC - 01 - T - 1v.doc

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

Collegamento - *Connection* - Connexion - *Schaltung* - Conexión



Collegamento - *Connection* - Connexion - *Schaltung* - Conexión



L1 - L2 - L3 = Linea - *Supply* - Reseau - *Netz* - Red

Per invertire la rotazione invertire due fasi - *To change the rotation reverse two phases* - Pour changer le sens de rotation inverser deux phases - *Zur Drehrichtungsänderung zwei Phasen vertauschen* - Para invertir el sentido de rotación invertir dos fases

| Marcatura Morsetti Ausiliari - <i>Additional terminals marking (IEC60034-8)</i> |                                  |                                                                                               |
|---------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------|
| Marcatura<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              | - |
| 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                        |           | -        |
| 2                                                   | Motore tipo / Motor type                   |           | TCI 90S6 |
| 3                                                   | Numero di serie / Serial Number            |           |          |
| 4                                                   | Forma costruttiva / Shape                  |           | B3       |
| 5                                                   |                                            |           |          |
| 6                                                   |                                            |           |          |
| Dati nominali / Rated data                          |                                            |           |          |
| 7                                                   | Poli / Pole                                | n°        | 6        |
| 8                                                   | Potenza nominale / Rated power             | kW        | 0,75     |
| 9                                                   | Corrente nominale / Rated current          | A         | 2,02     |
| 10                                                  | Velocità nominale / Full Load speed        | 1/min     | 961      |
| 11                                                  | Collegamento / Winding connection          |           | Y        |
| 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     | 961      |
| 19                                                  | Corr. / Curr.                              | A         | 2,02     |
| 20                                                  | Rend / Eff                                 | %         | 79,1     |
| 21                                                  | cos φ                                      | -         | 0,68     |
| Performances all'avviamento / Starting performances |                                            |           |          |
| 22                                                  | Ia/In - LRC/FLC                            | %         | 600      |
| 23                                                  | Cosphi a rotore bloccato / LR power factor |           | 0,66     |
|                                                     | Tempo a rotore bloccato / LRWT             |           |          |
| 24                                                  | 100% Un (A caldo / Warm)                   | sec       | 22       |
| 25                                                  | (A freddo / Cold)                          | sec       | 46       |
| 26                                                  | 80% Un (A caldo / Warm)                    | sec       | 35       |
| 27                                                  | (A freddo / Cold)                          | sec       | 73       |
|                                                     | Tempo di avviamento ammissibile / ART      |           |          |
| 28                                                  | 100% Un                                    | sec       | 40       |
| 29                                                  | 80% Un                                     | sec       | 63       |
| Curva di coppia / Speed-torque values               |                                            |           |          |
| 30                                                  | Coppia nominale / Rated Torque             | Nm        | 7,45     |
| 31                                                  | Ca/Cn - LRT/FLT                            | %         | 290      |
| 32                                                  | Cmax/Cn - BDT/FLT                          | %         | 340      |
| 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                | - 6205 ZZ C3            |
| 45                                                          | Cuscinetto post / NDE bearing              | - 6205 ZZ C3            |
| 46                                                          | Carico radiale max / Max radial load in X1 | N 745                   |
| 47                                                          | Carico assiale max / Max axial load        | N 415                   |
| 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 28                   |
| 52                                                          | Momento d'inerzia / Moment of inertia      | kgm2 0,0032             |
| 53                                                          | Rumore a vuoto / Noise at no load (1 m)    | Lp dB(A) 60             |
| 54                                                          | Vibrazioni / Vibration level               | IEC 34-14 A             |
| 55                                                          | Limite norma / Vibration limit             | mm/sec 1,60             |
| 56                                                          |                                            |                         |
| 57                                                          |                                            |                         |
| 58                                                          |                                            |                         |
| 59                                                          |                                            |                         |
| 60                                                          |                                            |                         |
| 61                                                          |                                            |                         |
| 62                                                          |                                            |                         |
| Dati entrata cavi - verniciatura / Cable entry and painting |                                            |                         |
| 63                                                          | Entrata cavi / Cable entry                 | IEC 60423 2xM25+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                  | -                       |
| 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**

Potenza nominale / Rated power

Poli / Pole

Tensione - Frequenza / Voltage - Frequency

Corrente / Rated current

Velocità / Speed

Coppia / Torque

**TCI 90S6**

0,75 kW

6

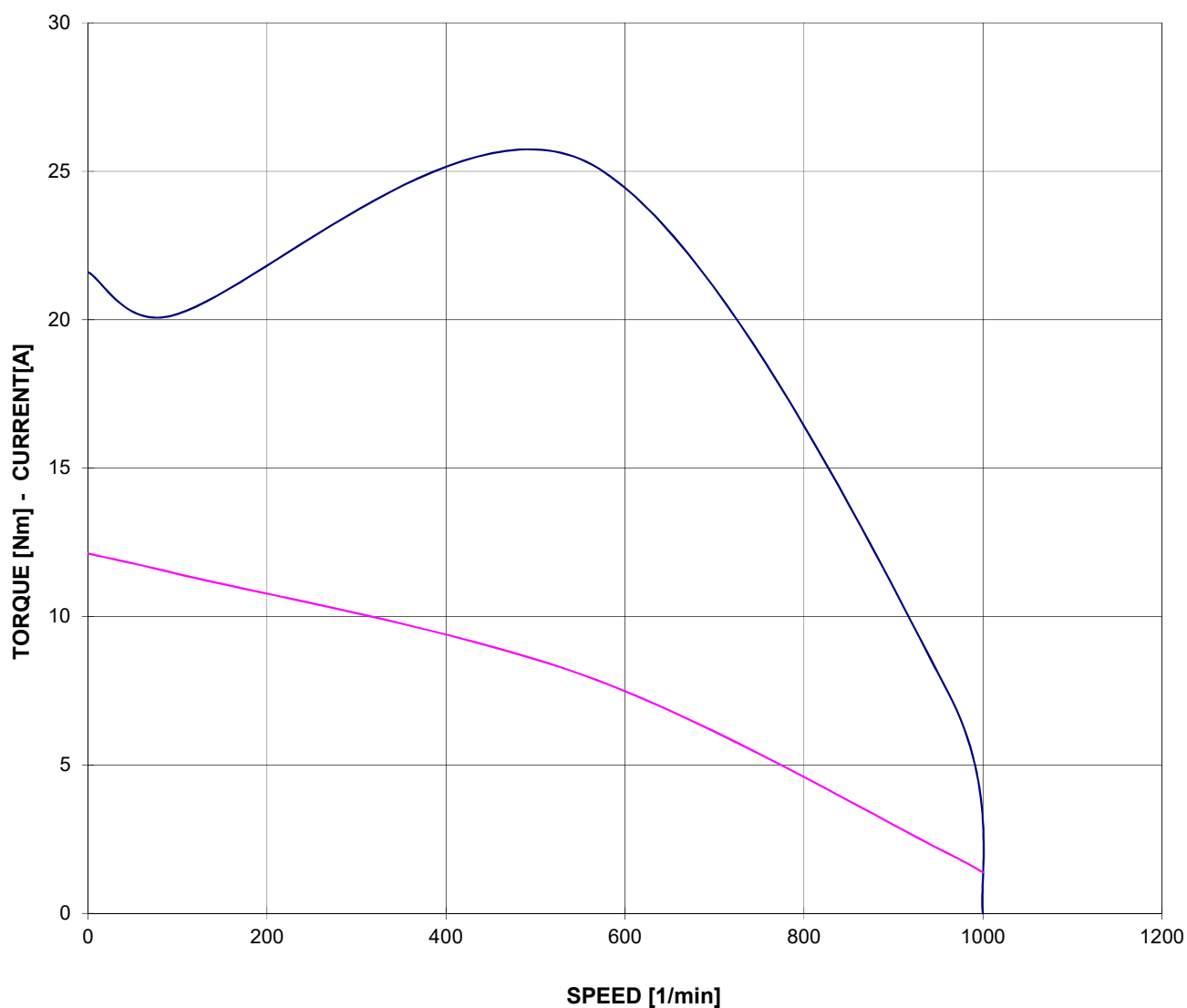
400 - 50 V - Hz

2,02 A

961 rpm

7,45 Nm

— COPPIA - TORQUE    — CORRENTE - CURRENT



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

Data / Date 01-feb-21

## 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

Potenza nominale / Rated power

0,75

kW

Poli / Pole

6

Tensione - Frequenza / Voltage - Frequency

400 - 50

V - Hz

Corrente / Rated current

2,02

A

Velocità / Speed

961

rpm

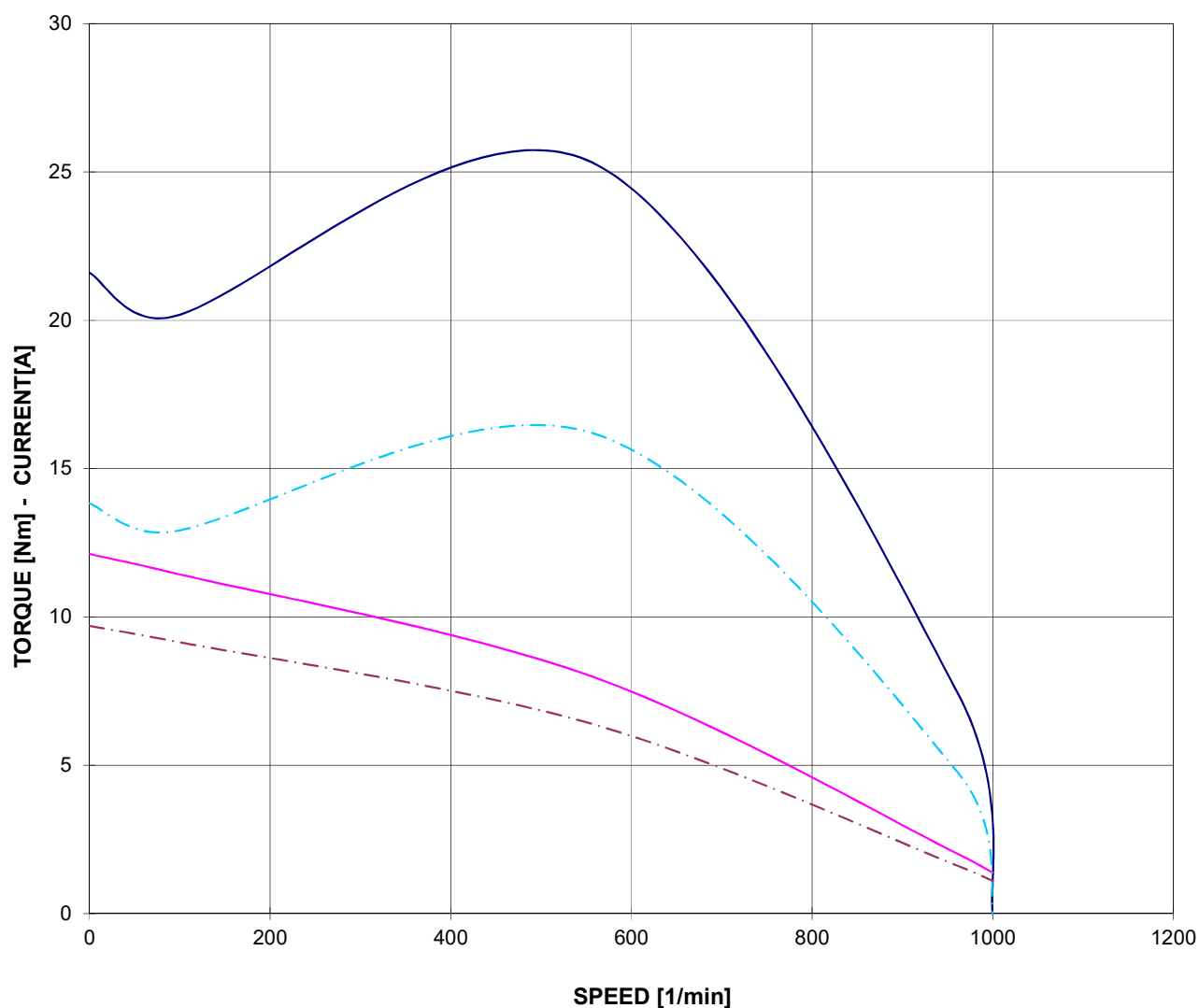
Coppia / Torque

7,45

Nm

### TCI 90S6

— 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 01-feb-21

## CURVE CARATTERISTICHE PERFORMANCE CURVES

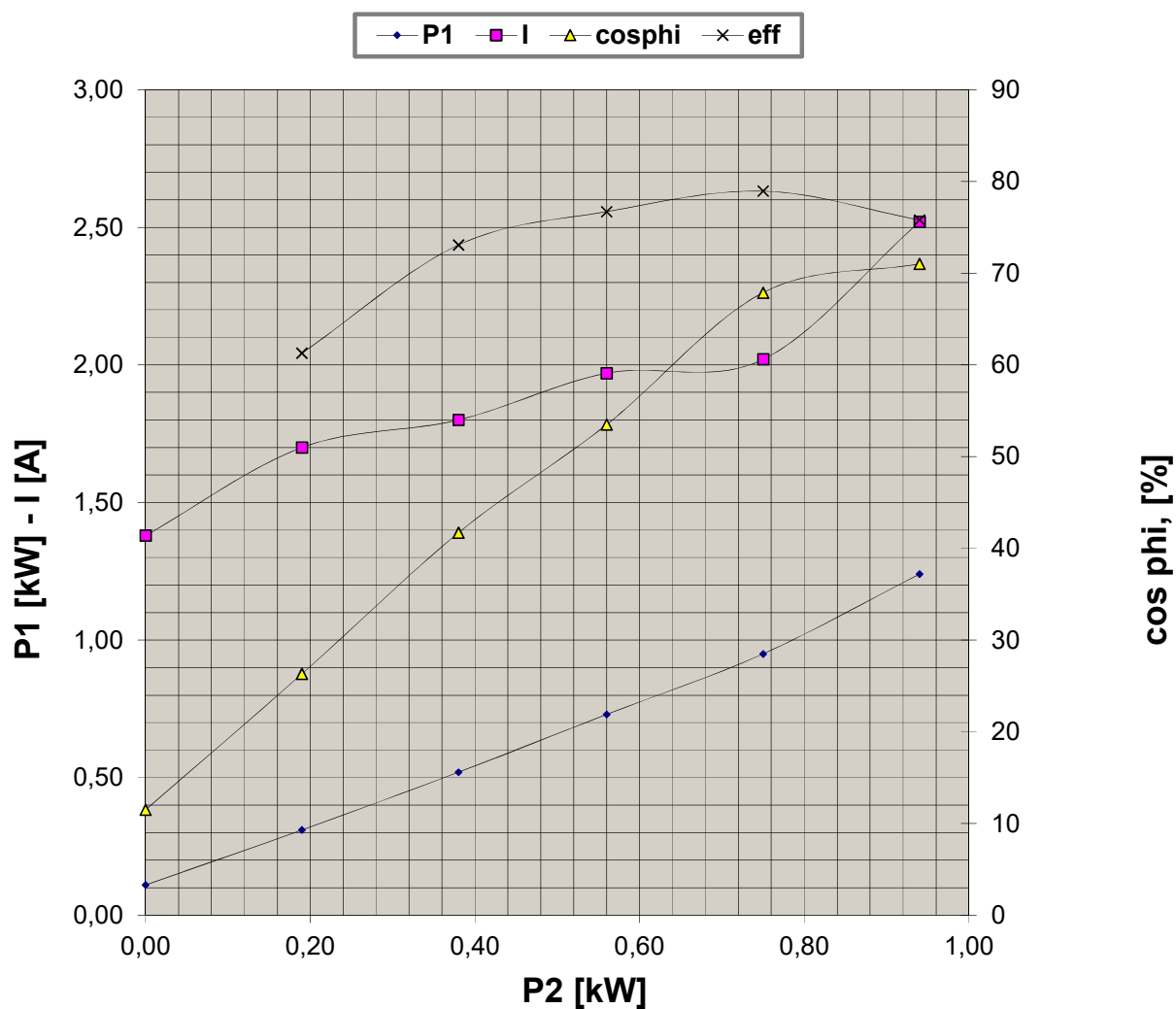
Cliente / Customer -  
 Ordine cliente / Customer order -  
 Impianto / Plant -  
**ITEM** -

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

### Motore / Motor

### TCI 90S6

|                                            |          |        |
|--------------------------------------------|----------|--------|
| Potenza nominale / Rated power             | 0,75     | kW     |
| Poli / Pole                                | 6        |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50 | V - Hz |
| Corrente / Rated current                   | 2,02     | A      |
| Velocità / Speed                           | 961      | rpm    |
| Coppia / Torque                            | 7,45     | Nm     |



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

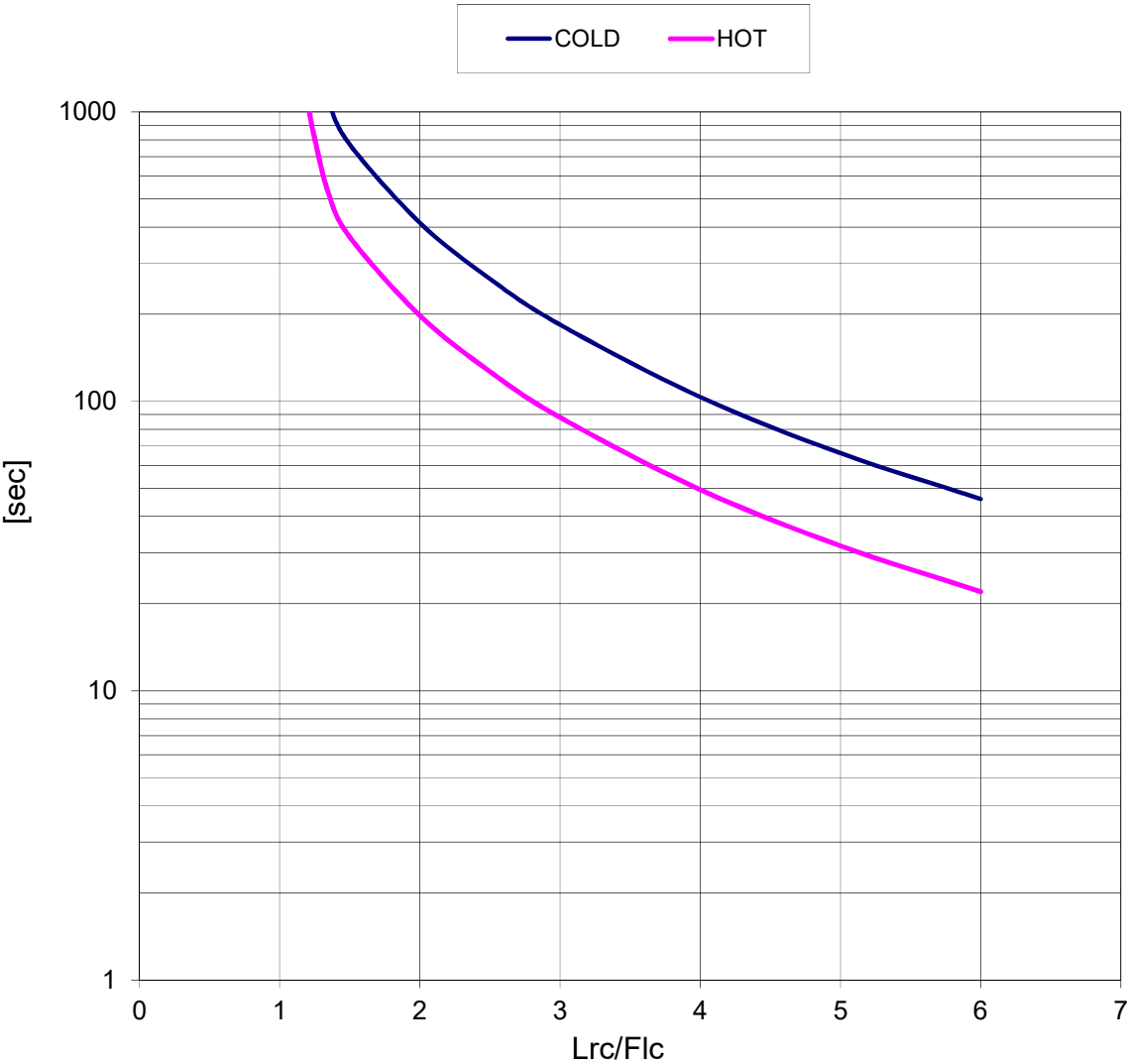
Data / Date 01-feb-21



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>TCI 90S6</b> |        |
| Potenza nominale / Rated power             | 0,75            | kW     |
| Poli / Pole                                | 6               |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50        | V - Hz |
| Corrente / Rated current                   | 2,02            | A      |
| Velocità / Speed                           | 961             | rpm    |
| Coppia / Torque                            | 7,45            | Nm     |



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

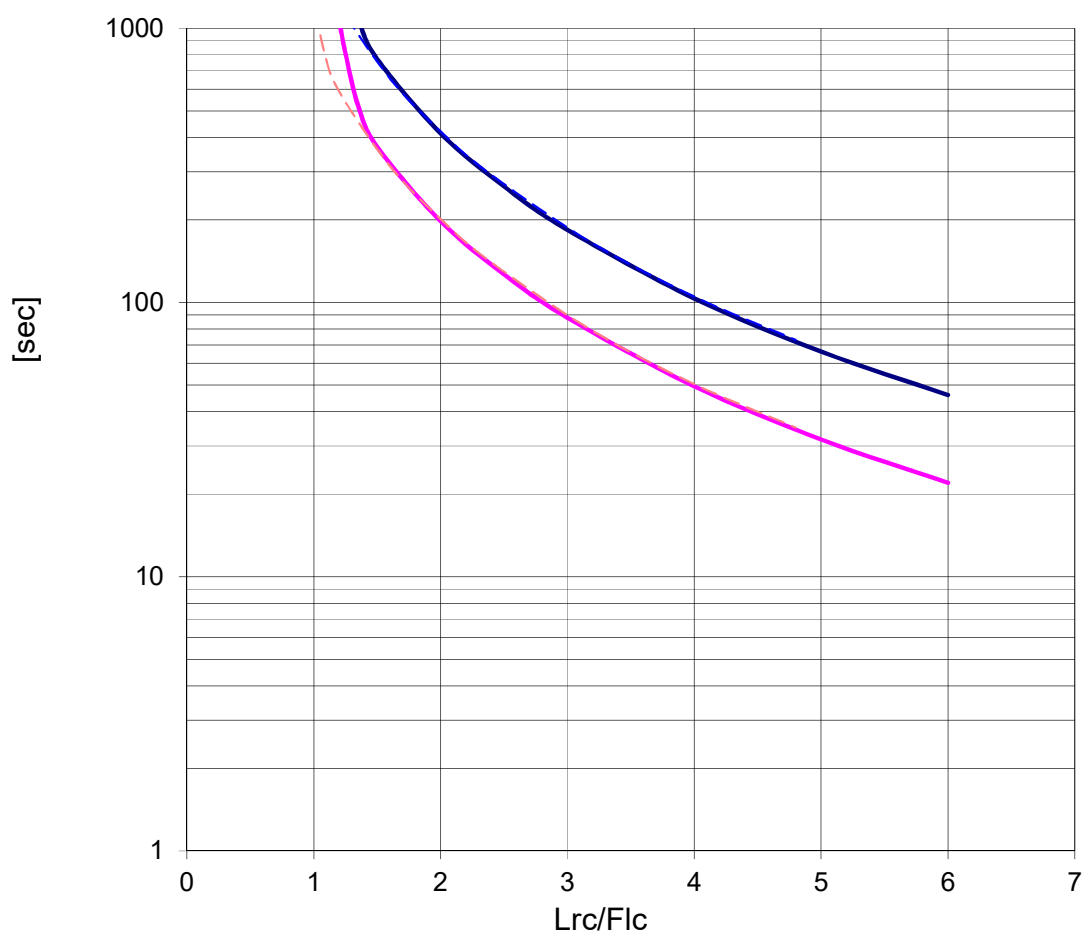
Cliente / Customer -  
 Ordine cliente / Customer order -  
 Impianto / Plant -  
**ITEM** -

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

**Motore / Motor**
**TCI 90S6**

|                                            |          |        |
|--------------------------------------------|----------|--------|
| Potenza nominale / Rated power             | 0,75     | kW     |
| Poli / Pole                                | 6        |        |
| Tensione - Frequenza / Voltage - Frequency | 400 - 50 | V - Hz |
| Corrente / Rated current                   | 2,02     | A      |
| Velocità / Speed                           | 961      | rpm    |
| Coppia / Torque                            | 7,45     | 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 01-feb-21