

# Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS

**Motor type:** FS: 182TC - 4p - 3 hp -

|                  |                 |           |
|------------------|-----------------|-----------|
| Client order no. | Item-No.        | Offer no. |
| Order no.        | Consignment no. | Project   |

Remarks

**Electrical data** **Class I Division 1 Groups D**

| U [V] | $\Delta/Y$ | f [Hz] | P [HP] | P [kW] | n [rpm] | I Load [Amps] |      |      |      |      | LRC  | Nom. Eff Load [%] |      |      | Pwr. Factor Load [%] |      |     | Torque [lb-ft] | T <sub>A</sub> /T <sub>N</sub> LRT [%] | T <sub>k</sub> /T <sub>N</sub> BDT [%] |
|-------|------------|--------|--------|--------|---------|---------------|------|------|------|------|------|-------------------|------|------|----------------------|------|-----|----------------|--|--|
|       |            |        |        |        |         | 4/4           | 3/4  | 1/2  | 0    | 4/4  |      | 3/4               | 2/4  | 4/4  | 3/4                  | 2/4  |     |                |  |  |
| 460   |            | 60     | 3.00   | -/-    | 1,760   | 4.00          | 3.30 | 2.70 | 2.10 | 33.0 | 89.5 | 89.4              | 87.8 | 78.5 | 71.7                 | 59.5 | 9.0 | 233            | 356                                    |  |
| 230   |            | 60     | 3.00   | -/-    | 1,760   | 8.00          |      |      |      |      | 89.5 | 89.4              | 87.8 | 78.5 | 71.7                 | 59.5 | 9.0 | 233            | 356                                    |  |

|                   |  |                             |                                       |              |            |
|-------------------|--|-----------------------------|---------------------------------------|--------------|------------|
| Frame Type: 182TC | Type of constr.: ( G ) Round body - C-Face | Ins. Cl.:Insulation class F | Motor Prot.:(A) No winding protection | NEMA Des.: B | S.F.: 1.15 |
| Mtr. WT:120       |  | Temp. Rise Cl.: B           | Amb. Temp.: + to -20 °C @1000 m       | kVA: K       | IP IP65    |

**Mechanical data**


|                                      |                                |                         |                  |
|--------------------------------------|--------------------------------|-------------------------|------------------|
| Sound level (SPL / SWL) at 60 Hz     | 57.0 dB(A) / 67.0 dB(A)        | Thickener               | Polyurea         |
| Octave Band Center Frequencies Hertz | 250 500 1000 2000 4000 8000 Hz | Safe Stall Time Hot     | 17 s             |
| SPL@3                                | dB(A)                          | Safe Stall Time Cold    | 29 s             |
| Moment of inertia                    | 0.3 Lb-ft <sup>2</sup>         | Frame material          | cast iron        |
| Ext Load Inertia Capability:         | 17.0 Lb ft <sup>2</sup>        | Color, paint shade      |                  |
| <b>Bearings</b>                      |                                | Coating (paint finish)  |                  |
| Bearing DE   NDE                     | 6206 Z C3 S0   6206 Z C3 S0    | <b>Ventilation Type</b> |                  |
| Bearing_Type                         | Ball Bearing   Ball Bearing    | Method of cooling       | TEFC             |
| AFBMA:                               | 30BC02JP30   30BC02JP30        | Direction of rotation   | Bidirectional    |
| <b>Grease</b>                        |                                | Fan Material            | Polypropylen ESD |
| Capacity                             | 0.2 oz   0.2 oz                | VFD                     | CT: 4:1 VT: 20:1 |
| Grease Type:                         | Exxon Mobile EM                | Space heaters           | without          |
|                                      |                                | Brake:                  | -/-              |

**Terminal box**

|                      |                             |                          |                    |
|----------------------|-----------------------------|--------------------------|--------------------|
| Lead Wire Connection | 9 LEAD - WYE                | Terminal box position    | (3) Mounting - F-1 |
| Voltage              | L1 L1 L1 Connected together | Material of terminal box |                    |
| LOW                  | T1 T7 T2 T8 T3 T9 T4 T5 T6  | Cable entry              | -/-                |
| HIGH                 | T1 T2 T3 T4 T7-T5 T8-T6 T9  |                          |                    |

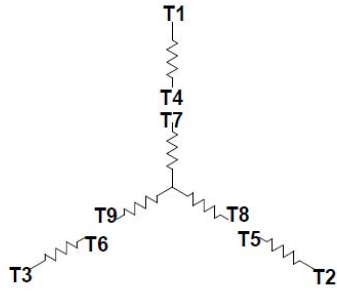
**Notes:**  
 I<sub>L</sub>/I<sub>N</sub> = locked rotor current / current nominal  
 M<sub>L</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
 M<sub>d</sub>/M<sub>N</sub> = break down torque / nominal torque  
 3) Value is valid only for DOL operation with motor design IC411  
 2) at rated power / at full load

|                               |                     |                               |             |   |
|-------------------------------|---------------------|-------------------------------|-------------|---|
| responsible dep.<br>DI MC LVM | technical reference | created by<br>DT Configurator | approved by | <i>Technical data are subject to change! There may be discrepancies between software and hardware versions.</i> |
|-------------------------------|---------------------|-------------------------------|-------------|---|

|  |                             |                             |            |                                   |
|--|-----------------------------|-----------------------------|------------|-----------------------------------|
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Main terminal diagram



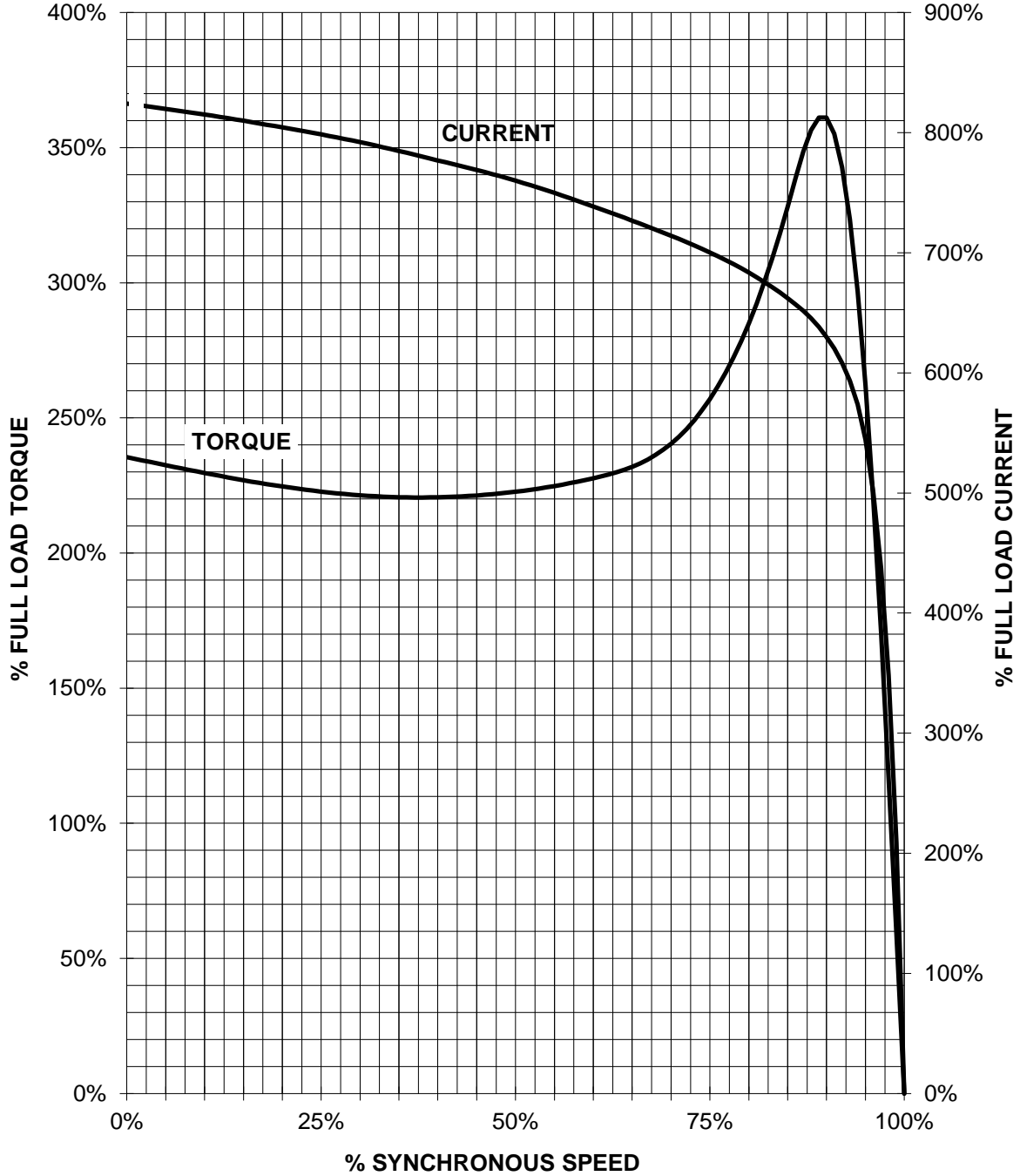
| 9 LEAD WYE |          |          |          |                    |       |
|------------|----------|----------|----------|--------------------|-------|
| Volts      | LINES    |          |          | CONNECTED TOGETHER | CONN. |
|            | L1       | L2       | L3       |                    |       |
| LOW        | T1<br>T7 | T2<br>T6 | T3<br>T9 | T4 T5 T6           | YY    |
| HIGH       | T1       | T2       | T3       | T4 T7-T5 T8-T6 T9  | Y     |

|                               |                                 |                             |                |             |  |
|-------------------------------|---------------------------------|-----------------------------|----------------|-------------|--|
| responsible dep.<br>DI MC LVM | technical reference             | created by                  | approved by    | Project     |  |
| <b>SIEMENS</b>                | document type<br>Wiring Diagram | document status<br>free     |                | customer    |  |
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# SIEMENS INDUSTRY, INC.

HP 3 VOLTS <600 RPM 1800 TYPE XP100 1D1  
HZ 60 PHASE 3 FRAME 182T NEMA B

## TORQUE & CURRENT VS. SPEED



CUSTOMER: \_\_\_\_\_ ORDER#: \_\_\_\_\_