

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



Motor type : 1CD3112B

SIMOTICS XP - 112 M - IM B5 - 4p

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

Remarks

II 2G Ex db eb IIC T4 Gb

-/-

## Electrical data

| U<br>[V]                                | Δ / Y | f<br>[Hz] | P<br>[kW] | P<br>[hp] | I<br>[A] | n<br>[1/min] | M<br>[Nm] | η <sup>3)</sup> |      |      | cosφ <sup>3)</sup> |      |      | I <sub>A</sub> /I <sub>N</sub><br>I <sub>I</sub> /I <sub>N</sub> | M <sub>A</sub> /M <sub>N</sub><br>T <sub>I</sub> /T <sub>N</sub> | M <sub>K</sub> /M <sub>N</sub><br>T <sub>B</sub> /T <sub>N</sub> | IE-CL |
|---|-------|-----------|-----------|-----------|----------|--------------|-----------|-----------------|------|------|--------------------|------|------|--|--|--|-------|
|   |       |           |           |           |          |              |           | 4/4             | 3/4  | 2/4  | 4/4                | 3/4  | 2/4  |  |  |  |       |
| <b>DOL duty (S1) - 155(F) to 130(B)</b> |       |           |           |           |          |              |           |                 |      |      |                    |      |      |  |  |  |       |
| 400                                     | Δ     | 50        | 4.00      | -/-       | 7.90     | 1460         | 26.0      | 88.6            | 89.2 | 88.6 | 0.82               | 0.76 | 0.65 | 7.1  | 2.4  | 3.7  | IE3   |
| 690                                     | Y     | 50        | 4.00      | -/-       | 4.60     | 1460         | 26.0      | 88.6            | 89.2 | 88.6 | 0.82               | 0.76 | 0.65 | 7.1  | 2.4  | 3.7  | IE3   |
| 460                                     | Δ     | 60        | 4.00      | -/-       | 6.90     | 1770         | 21.5      | 89.5            | 90.0 | 88.3 | 0.81               | 0.72 | 0.60 | 8.2  | 2.9  | 4.3  | IE3   |
| IM B5 / IM 3001                         |       | FS 112 M  |           | IP55      |          | IEC/EN 60034 |           |                 |      |      |                    |      |      |  |  |  |       |

Environmental conditions : -20 °C - +40 °C / 1,000 m

Locked rotor time (hot / cold) : 16.1 s | 21.8 s

## Mechanical data

|  |                                |                                |                            |   |
|--|--------------------------------|--------------------------------|----------------------------|---|
| Sound level (SPL / SWL) at 50Hz 60Hz   | 62 / 70 dB(A) <sup>2) 3)</sup> | 62 / 74 dB(A) <sup>2) 3)</sup> | Thermal class              | F                                       |
| Moment of inertia  | 0.0146 kg m <sup>2</sup>       |                                | Duty type                  | S1                                      |
| Bearing DE   NDE   | 6306 2Z C3                     | 6306 2Z C3                     | Direction of rotation      | bidirectional                           |
| <b>bearing lifetime</b>  |                                |                                | Frame material             | cast iron                               |
| L <sub>10mh</sub> , F <sub>Rad min</sub><br>50 60Hz <sup>1)</sup> for coupling operation | 40000 h                        | 32000 h                        | Net weight of the motor    | 78 kg                                   |
| Regreasing device  | Without                        |                                | Motor weight incl. options | 78 kg                                   |
| Grease nipple  | -/-                            |                                | Coating (paint finish)     | Standard paint finish C2                |
| Type of bearing  | Locating bearing DE            |                                | Color, paint shade         | RAL7030                                 |
| Condensate drainage holes  | Without                        |                                | Motor protection           | (A) without (Standard)                  |
| External earthing terminal   | With (standard)                |                                | Method of cooling          | IC411 - self ventilated, surface cooled |
| Vibration severity grade   | A                              |                                |                            |   |

## Terminal box

|                          |           |                                |                   |
|--------------------------|-----------|--------------------------------|-------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 4 mm <sup>2</sup> |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 11 mm - 21 mm     |
| Type of terminal box     | TB1 F21   | Cable entry                    | -/-               |
| Contact screw thread     | M4        |                                |                   |

## Notes:

I<sub>A</sub>/I<sub>N</sub> = locked rotor current / current nominal  
 M<sub>K</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
 M<sub>K</sub>/M<sub>N</sub> = break down torque / nominal torque

1) L<sub>10mh</sub> according to DIN ISO 281 10/2010  
 2) at rated power / at full load

3) Value is valid only for DOL operation with motor design IC411

|                            |                             |                             |                             |   |                                |
|----------------------------|-----------------------------|-----------------------------|-----------------------------|---|--------------------------------|
| responsible dep.<br>IN LVM | technical reference         | created by<br>SPC           | approved by                 | <i>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</i> | <a href="#">Link documents</a> |
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