

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



Motor type : 1AV3082A

SIMOTICS XP - 80 M - IM B14 - 2p

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

Remarks II 3G Ex ec IIC T3 Gc

**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>             |       |           |           |           |          |              |           |                        |      |  |                    |      |      |  |  |  |       |
| 230   | Δ     | 50        | 0.75      | -/-       | 2.70     | 2850         | 2.5       | 80.7                   | 82.2 | 81.9   | 0.86               | 0.82 | 0.73 | 6.2  | 2.6  | 3.0  | IE3   |
| 400   | Y     | 50        | 0.75      | -/-       | 1.56     | 2850         | 2.5       | 80.7                   | 82.2 | 81.9   | 0.86               | 0.82 | 0.73 | 6.2  | 2.6  | 3.0  | IE3   |
| 460   | Y     | 60        | 0.86      | -/-       | 1.63     | 3450         | 2.4       | 77.0                   | 78.0 | 77.2   | 0.86               | 0.82 | 0.73 | 6.4  | 2.6  | 3.1  | IE3   |
| 460   | Y     | 60        | 0.75      | -/-       | 1.45     | 3480         | 2.0       | 77.0                   | 77.2 | 75.7   | 0.84               | 0.79 | 0.70 | 7.1  | 3.0  | 3.6  | IE3   |
| IM B14 / IM 3601                                    |       | FS 80 M   |           | IP56      |          | IEC/EN 60034 |           | IEC, DIN, ISO, VDE, EN |      |  |                    |      |      |  |  |  |       |
| Environmental conditions : -20 °C - +40 °C / 1000 m |       |           |           |           |          |              |           |                        |      | Locked rotor time (hot / cold) : 21.2 s   27.9 s |                    |      |      |  |  |  |       |

**Mechanical data**

|  |                                |                                |                                 |  |
|--|--------------------------------|--------------------------------|---------------------------------|--|
| Sound level (SPL / SWL) at 50Hz 60Hz   | 60 / 71 dB(A) <sup>2) 3)</sup> | 64 / 75 dB(A) <sup>2) 3)</sup> | Vibration severity grade        | A  |
| Moment of inertia  | 0.0011 kg m <sup>2</sup>       |                                | Thermal class                   | F  |
| Bearing DE   NDE   | 6004 2Z C3                     | 6004 2Z C3                     | Duty type                       | S1   |
| <b>bearing lifetime</b>  |                                |                                | Direction of rotation           | bidirectional  |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation<br>50 60Hz <sup>1)</sup> | 40000 h                        | 32000 h                        | Frame material                  | aluminum   |
| Regreasing device  | Without                        |                                | Net weight of the motor (IM B3) | 11 kg  |
| Grease nipple  | -/-                            |                                | Coating (paint finish)          | Special paint finish, resistant to salt-laden air C4 |
| Type of bearing  | Preloaded 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              |

**Terminal box**

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 1.5 mm <sup>2</sup> |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 9 mm - 17 mm        |
| Type of terminal box     | TB1 E00   | Cable entry                    | 1xM25x1,5           |
| Contact screw thread     | M4        |                                |                     |

I<sub>A</sub>/I<sub>N</sub> = locked rotor current / current nominal  
 M<sub>A</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

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## Special design

H22 IP 56 degree of protection S03 Special paint finish in sea air resistant C4

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