

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



Motor type : 1AV2073B

SIMOTICS XP - 71 M - IM V1 - 4p

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

Remarks

II 3G Ex ec IIB T3 Gc

Electrical data

-/-

| U                                                   | Δ / Y | f       | P    | P    | I    | n       | M    | η <sup>3)</sup> |                                                  |      | cosφ <sup>3)</sup>     |      |      | I <sub>A</sub> /I <sub>N</sub> | M <sub>A</sub> /M <sub>N</sub> | M <sub>K</sub> /M <sub>N</sub> | IE-CL |
|-----------------------------------------------------|-------|---------|------|------|------|---------|------|-----------------|--------------------------------------------------|------|------------------------|------|------|--------------------------------|--------------------------------|--------------------------------|-------|
| [V]                                                 |       | [Hz]    | [kW] | [hp] | [A]  | [1/min] | [Nm] | 4/4             | 3/4                                              | 2/4  | 4/4                    | 3/4  | 2/4  | I <sub>I</sub> /I <sub>N</sub> | T <sub>I</sub> /T <sub>N</sub> | T <sub>B</sub> /T <sub>N</sub> |       |
| DOL duty (S1) - 155(F) to 130(B)                    |       |         |      |      |      |         |      |                 |                                                  |      |                        |      |      |                                |                                |                                |       |
| 400                                                 | Δ     | 50      | 0.37 | -/-  | 1.02 | 1380    | 2.5  | 72.7            | 73.2                                             | 69.9 | 0.72                   | 0.63 | 0.49 | 4.0                            | 2.5                            | 2.5                            | IE2   |
| 690                                                 | Y     | 50      | 0.37 | -/-  | 0.59 | 1380    | 2.5  | 72.7            | 73.2                                             | 69.9 | 0.72                   | 0.63 | 0.49 | 4.0                            | 2.5                            | 2.5                            | IE2   |
| 460                                                 | Δ     | 60      | 0.43 | -/-  | 1.04 | 1680    | 2.5  | 72.0            | 72.4                                             | 69.4 | 0.72                   | 0.63 | 0.50 | 4.5                            | 2.6                            | 2.7                            | IE2   |
| 460                                                 | Δ     | 60      | 0.37 | -/-  | 0.96 | 1705    | 2.0  | 72.0            | 71.2                                             | 66.9 | 0.67                   | 0.58 | 0.45 | 5.0                            | 3.0                            | 3.2                            | IE2   |
| IM V1 / IM 3011                                     |       | FS 71 M |      |      |      | IP55    |      |                 | IEC/EN 60034                                     |      | IEC, DIN, ISO, VDE, EN |      |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1000 m |       |         |      |      |      |         |      |                 | Locked rotor time (hot / cold) : 38.6 s   49.4 s |      |                        |      |      |                                |                                |                                |       |

Mechanical data

|                                                                                     |                                |                                |                                 |                                         |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 44 / 55 dB(A) <sup>2) 3)</sup> | 47 / 58 dB(A) <sup>2) 3)</sup> | Vibration severity grade        | A                                       |
| Moment of inertia                                                                   | 0.0009 kg m <sup>2</sup>       |                                | Thermal class                   | F                                       |
| Bearing DE   NDE                                                                    | 6202 2Z C3                     | 6202 2Z C3                     | Duty type                       | S1                                      |
| bearing lifetime                                                                    |                                |                                | Direction of rotation           | bidirectional                           |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation 50 60Hz <sup>1)</sup> | 20000 h                        | 16000 h                        | Frame material                  | aluminum                                |
| Regreasing device                                                                   | Without                        |                                | Net weight of the motor (IM B3) | 7 kg                                    |
| Grease nipple                                                                       | -/-                            |                                | Coating (paint finish)          | Special paint finish C3                 |
| 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      | 4 mm <sup>2</sup> |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 9 mm - 17 mm      |
| Type of terminal box     | TB1 B20   | Cable entry                    | 1xM25x1,5         |
| Contact screw thread     | M4        |                                |                   |

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>B</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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|  | Document type<br>Technical data sheet  |                   |                                      | Document status<br>Released                                                                                  |                             |                                                                                                                         |             |
|                                                                                    | Document title<br>1MB1031-0CB33-4GA4-Z |                   |                                      | Document number<br>TDS-240618-120936                                                                         |                             |                                                                                                                         |             |
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## Special design

|     |                             |     |                     |
|-----|-----------------------------|-----|---------------------|
| B31 | Design IIC with marking IIB | H00 | Canopy              |
| C02 | VIK version                 | P02 | Next smaller flange |

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