

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



Motor type : 1AV2073B

SIMOTICS GP - 71 M - IM V1 - 4p

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

Remarks

Electrical data Safe Area  
-/-

| 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)                                                                                                      |       |         |      |      |      |         |      |                 |                                                  |                        |                    |      |      |                                |                                |                                |       |
| 230                                                                                                                                   | Δ     | 50      | 0.32 | -/-  | 1.64 | 1395    | 2.2  | 73.0            | 71.9                                             | 66.3                   | 0.67               | 0.57 | 0.41 | 4.6                            | 2.9                            | 2.9                            | IE2   |
| 400                                                                                                                                   | Y     | 50      | 0.32 | -/-  | 0.94 | 1395    | 2.2  | 73.0            | 71.9                                             | 66.3                   | 0.67               | 0.57 | 0.41 | 4.6                            | 2.9                            | 2.9                            | IE2   |
| 460                                                                                                                                   | Y     | 60      | 0.37 | -/-  | 0.96 | 1695    | 2.1  | 72.2            | 71.1                                             | 66.1                   | 0.67               | 0.58 | 0.43 | 5.2                            | 3.0                            | 3.1                            | IE2   |
| 460                                                                                                                                   | Y     | 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    | UKCA | IEC/EN 60034    |                                                  | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +55 °C / 1,000 m                                                                                  |       |         |      |      |      |         |      |                 | Locked rotor time (hot / cold) : 38.6 s   49.4 s |                        |                    |      |      |                                |                                |                                |       |
| These values are calculated. The final rating plate data will be calculated when the order is placed                                  |       |         |      |      |      |         |      |                 |                                                  |                        |                    |      |      |                                |                                |                                |       |
| The efficiency values and efficiency class according to EuP directive are valid for standard power ratings under standard conditions. |       |         |      |      |      |         |      |                 |                                                  |                        |                    |      |      |                                |                                |                                |       |

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)          | Standard paint finish C2                |
| Type of bearing                                                                     | Preloaded bearing DE           |                                | Color, paint shade              | RAL7030                                 |
| Condensate drainage holes                                                           | With                           |                                | Motor protection                | (A) without (Standard)                  |
| External earthing terminal                                                          | Without                        |                                | 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 B00   | Cable entry                    | -/-                 |
| Contact screw thread     | M4        | Cable gland                    | -/-                 |

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>B</sub>/M<sub>N</sub> = break down torque / nominal torque

1) L10mh 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><br>IN LVM                                                     | technical reference               | created by<br><br>SPC | approved by | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |                                 | <a href="#">Link documents</a><br> |                    |                 |
|  | document type<br><br>datasheet    |                       |             |                                                                                                              | document status<br><br>released |                                                                                                                         |                    |                 |
|                                                                                    | title<br><br>1LE1001-0CB32-2GA4-Z |                       |             |                                                                                                              | document number                 |                                                                                                                         |                    |                 |
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Special design

|     |                                                  |     |                                                                                                |
|-----|--------------------------------------------------|-----|------------------------------------------------------------------------------------------------|
| B02 | Acceptance test certificate 3.1 acc. to EN 10204 | N07 | Temperature class 155 (F), utilised to 130 (B), cooling medium temperature 55°C, power reduced |
| H00 | Canopy                                           | R15 | One metal cable gland                                                                          |
| H03 | Condensation drain holes in end shield           |     |                                                                                                |

Notes:

|                                                                                    |                               |                       |             |                                                                                                              |                             |                                                                                       |             |
|------------------------------------------------------------------------------------|-------------------------------|-----------------------|-------------|--------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|-------------|
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