

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



Motor type : 1AV1104B

SIMOTICS GP - 100 L - IM B35 - 4p

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

Remarks

## Electrical data

## Safe Area

| 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>R</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 (S6 60%) - 155(F) to 130(B)</b>          |       |           |           |           |          |              |           |                 |   |                        |                    |      |      |  |  |  |       |
| 230  | Δ     | 50        | 2.50      | -/-       | 9.40     | 1425         | 14.7      | 79.7            | 80.3  | 78.1                   | 0.81               | 0.72 | 0.58 | 5.1  | 2.3  | 2.7  | IE1   |
| 400  | Y     | 50        | 2.50      | -/-       | 5.3      | 1425         | 14.7      | 79.7            | 80.3  | 78.1                   | 0.81               | 0.72 | 0.58 | 5.1  | 2.3  | 2.7  | IE1   |
| 460  | Y     | 60        | 2.80      | -/-       | 5.20     | 1720         | 14.2      | 83.0            | 83.7  | 82.1                   | 0.82               | 0.75 | 0.62 | 5.8  | 2.2  | 2.4  | IE1   |
| IM B35 / IM 2001                                     |       | FS 100 L  |           | IP55      |          | UKCA         |           | IEC/EN 60034    |   | IEC, DIN, ISO, VDE, EN |                    |      |      |  |  |  |       |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |           |           |           |          |              |           |                 | Locked rotor time (hot / cold) : 9.2 s   17.7 s |                        |                    |      |      |  |  |  |       |

## Mechanical data

|   |                                |                                |                                 |   |
|---|--------------------------------|--------------------------------|---------------------------------|---|
| Sound level (SPL / SWL) at 50Hz/60Hz  | 60 / 72 dB(A) <sup>2) 3)</sup> | 62 / 74 dB(A) <sup>2) 3)</sup> | Vibration severity grade        | A                                       |
| Moment of inertia   | 0.0059 kg m <sup>2</sup>       |                                | Thermal class                   | F                                       |
| Bearing DE   NDE  | 6206 2Z C3                     | 6206 2Z C3                     | Duty type                       | S6 60%                                  |
| <b>bearing lifetime</b>   |                                |                                | Direction of rotation           | bidirectional                           |
| L <sub>10mh</sub> F <sub>Rad</sub> min for coupling operation 50 60Hz <sup>1)</sup> | 40000 h                        | 32000 h                        | Frame material                  | aluminum                                |
| Regreasing device   | Without                        |                                | Net weight of the motor (IM B3) | 18 kg                                   |
| Grease nipple   | -/-                            |                                | Coating (paint finish)          | Standard paint finish C2                |
| Type of bearing   | Preloaded bearing DE           |                                | Color, paint shade              | RAL7030                                 |
| Condensate drainage holes   | Without                        |                                | 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      | 4 mm <sup>2</sup> |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 11 mm - 21 mm     |
| Type of terminal box     | TB1 F00   | Cable entry                    | 2xM32x1,5         |
| Contact screw thread     | M4        | Cable gland                    | 2 plugs           |

**Notes:**  
 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>R</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>DI MC LVM | technical reference                  | created by<br>DT Configurator     | 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> |
|                               | document type<br>datasheet           | document status<br>released       |                |   |                                |
|                               | title<br>1LE1002-1AB42-2JA4-Z<br>Y99 | document number                   |                |   |                                |
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## Special design


Y99 special motor design S6 60%

### Notes:

$I_L/I_N$  = locked rotor current / current nominal  
 $M_L/M_N$  = locked rotor torque / torque nominal  
 $M_b/M_N$  = 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 1C411

|                               |                                      |                                   |                |   |                                |
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