

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



Motor type : 1AV3104A

SIMOTICS GP - 100 L - IM V1 - 2p

|                  |                 |           |
|------------------|-----------------|-----------|
| 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> |       |
| 400             | Δ     | 50       | 3.00 | -/-   | 5.70 | 2910    | 9.8  | 87.1            | 87.7 | 87.0                   | 0.87               | 0.82 | 0.72 | 9.4                            | 4.4                            | 4.5                            | IE3   |
| 690             | Y     | 50       | 3.00 | -/-   | 3.30 | 2910    | 9.8  | 87.1            | 87.7 | 87.0                   | 0.87               | 0.82 | 0.72 | 9.4                            | 4.4                            | 4.5                            | IE3   |
| 460             | Δ     | 60       | 3.45 | -/-   | 5.60 | 3505    | 9.4  | 88.5            | 88.5 | 87.5                   | 0.87               | 0.83 | 0.73 | 10.0                           | 4.0                            | 4.8                            | IE3   |
| 460             | Δ     | 60       | 3.00 | -/-   | 5.00 | 3525    | 8.1  | 88.5            | 88.2 | 86.7                   | 0.85               | 0.80 | 0.69 | 11.2                           | 4.6                            | 5.6                            | IE3   |
| IM V1 / IM 3011 |       | FS 100 L |      | 26 kg |      | IP55    |      | IEC/EN 60034    |      | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                |                                |       |

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

Locked rotor time (hot / cold) : 9 s | 12 s

Mechanical data

|                                                                                     |                                 |                                 |                            |                                                    |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|----------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 67.0 / 79.0 dB(A) <sup>2)</sup> | 71.0 / 83.0 dB(A) <sup>2)</sup> | External earthing terminal | No                                                 |
| Moment of inertia                                                                   | 0.0041 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                                  |
| Bearing DE   NDE                                                                    | 6206 2Z C3                      | 6206 2Z C3                      | Insulation                 | 155(F) to 155(F)                                   |
| bearing lifetime                                                                    |                                 |                                 | Duty type                  | S1                                                 |
| L <sub>10mh</sub> F <sub>Rad min</sub> 50 60Hz <sup>1)</sup> for coupling operation | 40000 h                         | 32000 h                         | Direction of rotation      | bidirectional                                      |
| Lubricants                                                                          | Unirex N3                       |                                 | Frame material             | aluminum                                           |
| Regreasing device                                                                   | No                              |                                 | Coating (paint finish)     | Standard paint finish C2                           |
| Grease nipple                                                                       | -/-                             |                                 | Color, paint shade         | RAL7030                                            |
| Type of bearing                                                                     | Preloaded bearing DE            |                                 | Motor protection           | (B) 3 PTC thermistors - for tripping (2 terminals) |
| Condensate drainage holes                                                           | No                              |                                 | Method of cooling          | IC411 - self ventilated, surface cooled            |

Terminal box

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 4.0 mm <sup>2</sup> |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 11.0 mm - 21.0 mm   |
| Type of terminal box     | TB1 F00   | Cable entry                    | 2xM32x1,5-1xM16x1,5 |
| Contact screw thread     | M4        | Cable gland                    | 3 plugs             |

**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.                                                                   | technical reference | created by           | approved by | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |                  |          |      |
| DI MC LVM                                                                          |                     | DT Configurator      |             |                                                                                                              |                  |          |      |
|  | document type       | datasheet            |             | document status                                                                                              |                  | customer |      |
|                                                                                    |                     |                      |             | released                                                                                                     |                  |          |      |
|                                                                                    | title               | 1LE1003-1AA43-4GB4-Z |             | document number                                                                                              |                  |          |      |
|                                                                                    | H00+N03             |                      |             |                                                                                                              |                  |          |      |
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### Special design

|     |        |     |                                                                                           |
|-----|--------|-----|-------------------------------------------------------------------------------------------|
| H00 | Canopy | N03 | Temperature class 155 (F), utilised to 155 (F), with increased cooling medium temperature |
|-----|--------|-----|-------------------------------------------------------------------------------------------|

### Notes:

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