

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



Motor type : 1AV1104B

SIMOTICS GP - 100 L - IM B3 - 4p

|                  |                 |           |
|------------------|-----------------|-----------|
| Client order no. | Item-No.        | Offer no. |
| Order no.        | Consignment no. | project   |
| Remarks          |                 |           |

## Electrical data

## Safe Area

| U<br>[V]        | $\Delta / Y$ | f<br>[Hz] | P<br>[kW] | P<br>[hp] | I<br>[A]     | n<br>[1/min] | M<br>[Nm] | $\eta$ <sup>3)</sup>   |      |      | $\cos\phi$ <sup>3)</sup> |      |      | $I_A/I_N$<br>$I_i/I_N$ | $M_A/M_N$<br>$T_i/T_N$ | $M_K/M_N$<br>$T_B/T_N$ | IE-CL |
|-----------------|--------------|-----------|-----------|-----------|--------------|--------------|-----------|------------------------|------|------|--------------------------|------|------|------------------------|------------------------|------------------------|-------|
|                 |              |           |           |           |              |              |           | 4/4                    | 3/4  | 2/4  | 4/4                      | 3/4  | 2/4  |                        |                        |                        |       |
| 230             | $\Delta$     | 50        | 2.20      | -/-       | 8.60         | 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        | 2.20      | -/-       | 4.90         | 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        | 2.54      | -/-       | 4.70         | 1720         | 14.2      | 83.0                   | 83.7 | 82.1 | 0.82                     | 0.75 | 0.62 | 5.8                    | 2.2                    | 2.4                    | IE1   |
| IM B3 / IM 1001 |              | FS 100 L  | 18 kg     | IP55      | IEC/EN 60034 |              |           | IEC, DIN, ISO, VDE, EN |      |      |                          |      |      |                        |                        |                        |       |

Environmental conditions : -20 °C - +40 °C / 1,000 m

## Mechanical data

|  |                                 |                                 |                            |   |
|--|---------------------------------|---------------------------------|----------------------------|---|
| Sound level (SPL / SWL) at 50Hz 60Hz   | 60.0 / 72.0 dB(A) <sup>2)</sup> | 62.0 / 74.0 dB(A) <sup>2)</sup> | External earthing terminal | No                                      |
| Moment of inertia  | 0.0059 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                       |
| Bearing DE   NDE   | 6206 2Z C3                      | 6206 2Z C3                      | Insulation                 | 155(F) to 130(B)                        |
| <b>bearing lifetime</b>  |                                 |                                 | Duty type                  | S1                                      |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation<br>50 60Hz <sup>1)</sup> | 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           | (A) without (Standard)                  |
| 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           |
| Contact screw thread     | M4        | Cable gland                    | 2 plugs             |

### Notes:

$I_A/I_N$  = locked rotor current / current nominal  
 $M_A/M_N$  = locked rotor torque / torque nominal  
 $M_K/M_N$  = 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 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> |  |  |  |
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