

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



Motor type : 1AV1083A

SIMOTICS GP - 80 M - IM B3 - 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> |       |
| 230                                                  | Δ     | 50      | 1.10 | -/-  | 4.30 | 2840    | 3.7  | 75.0            | 75.7                                             | 73.4 | 0.86                   | 0.79 | 0.66 | 5.7                            | 2.5                            | 2.5                            | IE1   |
| 400                                                  | Y     | 50      | 1.10 | -/-  | 2.45 | 2840    | 3.7  | 75.0            | 75.7                                             | 73.4 | 0.86                   | 0.79 | 0.66 | 5.7                            | 2.5                            | 2.5                            | IE1   |
| 460                                                  | Y     | 60      | 1.27 | -/-  | 2.35 | 3435    | 3.5  | 78.5            | 78.9                                             | 77.0 | 0.87                   | 0.81 | 0.69 | 6.5                            | 2.7                            | 2.6                            | IE1   |
|                                                      |       |         |      |      |      |         |      |                 |                                                  |      |                        |      |      |                                |                                |                                |       |
| IM B3 / IM 1001                                      |       | FS 80 M |      | kg   |      | IP55    |      | IEC/EN 60034    |                                                  |      | IEC, DIN, ISO, VDE, EN |      |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |         |      |      |      |         |      |                 | Locked rotor time (hot / cold) : 8.14 s   16.2 s |      |                        |      |      |                                |                                |                                |       |

Mechanical data

|                                                                                     |                                 |                                 |                            |                                         |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 58.0 / 69.0 dB(A) <sup>2)</sup> | 62.0 / 73.0 dB(A) <sup>2)</sup> | External earthing terminal | No                                      |
| Moment of inertia                                                                   | 0.0022 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                       |
| Bearing DE   NDE                                                                    | 6004 2Z C3                      | 6004 2Z C3                      | Insulation                 | 155(F) to 130(B)                        |
| 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           | (A) without (Standard)                  |
| Condensate drainage holes                                                           | -/-                             |                                 | 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 ... | 9.0 mm - 17.0 mm    |
| Type of terminal box     | TB1 E00   | Cable entry                    | 1xM25x1,5           |
| Contact screw thread     | M4        | Cable gland                    | 1 plug              |

Notes:

I<sub>A</sub>/I<sub>N</sub> = locked rotor current / current nominal      1) L10mh according to DIN ISO 281 10/2010      3) Value is valid only for DOL operation with motor design IC411  
M<sub>K</sub>/M<sub>N</sub> = locked rotor torque / torque nominal      2) at rated power / at full load  
M<sub>B</sub>/M<sub>N</sub> = break down torque / nominal torque

|                                                                                    |                               |                               |             |                                   |                                                                                                              |             |          |  |
|------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------|-------------|----------|--|
| responsible dep.<br>DI MC LVM                                                      | technical reference           | created by<br>DT Configurator | approved by |                                   | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |             |          |  |
|  | document type<br>datasheet    |                               |             |                                   | document status<br>released                                                                                  |             | customer |  |
|                                                                                    | title<br>1LE1002-0DA32-2AA4-Z |                               |             |                                   | document number                                                                                              |             |          |  |
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### Special design

D47 TR CU product safety certificate EAC for the Eurasian Customs Union

### Notes:

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