

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



Motor type : 1CV3222B

SIMOTICS SD - 225 M - IM B3 - 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)                     |       |          |       |      |       |         |       |                 |                                                  |                        |                    |      |      |                                |                                |                                |       |
| 400                                                  | Δ     | 50       | 45.00 | -/-  | 80.00 | 1478    | 290.0 | 94.2            | 94.9                                             | 95.0                   | 0.86               | 0.83 | 0.75 | 6.6                            | 2.6                            | 2.6                            | IE3   |
| 690                                                  | Y     | 50       | 45.00 | -/-  | 46.50 | 1478    | 290.0 | 94.2            | 94.9                                             | 95.0                   | 0.86               | 0.83 | 0.75 | 6.6                            | 2.6                            | 2.6                            | IE3   |
| 460                                                  | Δ     | 60       | 52.00 | -/-  | 81.00 | 1778    | 280.0 | 94.1            | 94.7                                             | 94.8                   | 0.86               | 0.84 | 0.77 | 6.8                            | 2.6                            | 2.6                            | IE2   |
| 460                                                  | Δ     | 60       | 45.00 | -/-  | 70.00 | 1782    | 240.0 | 95.0            | 95.3                                             | 95.1                   | 0.85               | 0.81 | 0.73 | 7.7                            | 3.0                            | 3.0                            | IE3   |
| IM B3 / IM 1001                                      |       | FS 225 M |       |      |       | IP55    | UKCA  | IEC/EN 60034    |                                                  | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                | Grade 3                        |       |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |          |       |      |       |         |       |                 | Locked rotor time (hot / cold) : 33.7 s   53.2 s |                        |                    |      |      |                                |                                |                                |       |

Mechanical data

|                                                                                     |                                |                                |                                 |                                                    |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|----------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 65 / 78 dB(A) <sup>2) 3)</sup> | 68 / 82 dB(A) <sup>2) 3)</sup> | Vibration severity grade        | A                                                  |
| Moment of inertia                                                                   | 0.5200 kg m <sup>2</sup>       |                                | Thermal class                   | F                                                  |
| Bearing DE   NDE                                                                    | 6213 Z C3                      | 6213 Z 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> | 40000 h                        | 32000 h                        | Frame material                  | cast iron                                          |
| Regreasing device                                                                   | Without                        |                                | Net weight of the motor (IM B3) | 340 kg                                             |
| Grease nipple                                                                       | -/-                            |                                | Coating (paint finish)          | Standard paint finish C2                           |
| Type of bearing                                                                     | Locating bearing NDE           |                                | Color, paint shade              | RAL7030                                            |
| Condensate drainage holes                                                           | With (standard)                |                                | Motor protection                | (B) 3 PTC thermistors - for tripping (2 terminals) |
| External earthing terminal                                                          | With (standard)                |                                | Method of cooling               | IC411 - self ventilated, surface cooled            |

Terminal box

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | left      | Max. cross-sectional area      | 35 mm <sup>2</sup>  |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 27 mm - 35 mm       |
| Type of terminal box     | TB1 L01   | Cable entry                    | 2xM50x1,5-2xM20x1,5 |
| Contact screw thread     | M8        | Cable gland                    | 4 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>K</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. |                 | <a href="#">Link documents</a>                                                        |          |      |
| DI MC LVM                                                                          |                     | DT Configurator      |             |                                                                                                              |                 |  |          |      |
|  | document type       | datasheet            |             |                                                                                                              | document status |                                                                                       |          |      |
|                                                                                    |                     |                      |             |                                                                                                              | released        |                                                                                       |          |      |
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| © Siemens AG 2023                                                                  | D34+R11             |                      |             |                                                                                                              | rev.            | creation date                                                                         | language | Page |
|                                                                                    |                     |                      |             |                                                                                                              | 943             | 2023-04-04                                                                            | en       | 1/2  |



**SIMOTICS SD - 225 M - IM B3 - 4p**

|     |                               |     |                                                        |
|-----|-------------------------------|-----|--------------------------------------------------------|
| D34 | China Energy Efficiency Label | R11 | Terminal box rotated through 90°, cable entry from NDE |
|-----|-------------------------------|-----|--------------------------------------------------------|

China Energy Efficiency Label

R11

Terminal box rotated through 90°, cable entry from NDE

Notes:

Link documents

DT Configurator

released

document number

D34+R11

rev.

creation date

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