

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



Motor type : 1CV2222A

SIMOTICS SD - 225 M - IM B35 - 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       | 45.00 | -/-    | 79.00 | 2965    | 145.0 | 92.9            | 93.1 | 92.5                   | 0.88               | 0.85 | 0.76 | 7.8                            | 2.7                            | 3.7                            | IE2   |
| 690              | Y     | 50       | 45.00 | -/-    | 46.00 | 2965    | 145.0 | 92.9            | 93.1 | 92.5                   | 0.88               | 0.85 | 0.76 | 7.8                            | 2.7                            | 3.7                            | IE2   |
| 460              | Δ     | 60       | 51.00 | -/-    | 78.00 | 3565    | 137.0 | 93.0            | 93.0 | 92.0                   | 0.88               | 0.85 | 0.78 | 7.6                            | 2.7                            | 3.7                            | IE2   |
| 460              | Δ     | 60       | 45.00 | -/-    | 69.00 | 3570    | 120.0 | 93.0            | 92.7 | 91.3                   | 0.88               | 0.84 | 0.76 | 8.7                            | 3.1                            | 3.8                            | IE2   |
| IM B35 / IM 2001 |       | FS 225 M |       | 295 kg |       | IP55    |       | IEC/EN 60034    |      | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                |                                |       |

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

Locked rotor time (hot / cold) : 20.2 s | 33.6 s

## Mechanical data

|                                                                                     |                                 |                                 |                            |                                         |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 76.0 / 89.0 dB(A) <sup>2)</sup> | 77.0 / 90.0 dB(A) <sup>2)</sup> | External earthing terminal | Yes (standard)                          |
| Moment of inertia                                                                   | 0.2300 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                       |
| Bearing DE   NDE                                                                    | 6213 Z C3                       | 6213 Z 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             | cast iron                               |
| Regreasing device                                                                   | No                              |                                 | Coating (paint finish)     | Standard paint finish C2                |
| Grease nipple                                                                       | -/-                             |                                 | Color, paint shade         | RAL7030                                 |
| Type of bearing                                                                     | Locating bearing NDE            |                                 | Motor protection           | (A) without (Standard)                  |
| Condensate drainage holes                                                           | Yes (standard)                  |                                 | Method of cooling          | IC411 - self ventilated, surface cooled |

## Terminal box

|                          |           |                                |                      |
|--------------------------|-----------|--------------------------------|----------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 35.0 mm <sup>2</sup> |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 27.0 mm - 35.0 mm    |
| Type of terminal box     | TB1 L01   | Cable entry                    | 2xM50x1,5            |
| Contact screw thread     | M8        | Cable gland                    | 2 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                                                                                              | released         |          |      |
|                                                                                    | title               | 1LE1501-2BA23-4JA4 |             | document number                                                                                              |                  |          |      |
| © Siemens AG 2021                                                                  |                     |                    |             | rev.                                                                                                         | creation date    | language | Page |
|                                                                                    |                     |                    |             | 01                                                                                                           | 2021-06-16 09:51 | en       | 1/1  |