

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



Motor type : 1CV1220B

SIMOTICS SD - 225 S - IM B35 - 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> |       |
| 400              | Δ     | 50       | 37.00 | -/-    | 69.00 | 1475    | 240.0 | 91.2            | 91.6 | 91.1                   | 0.85               | 0.81 | 0.71 | 7.0                            | 2.3                            | 3.2                            | IE1   |
| 690              | Y     | 50       | 37.00 | -/-    | 40.00 | 1475    | 240.0 | 91.2            | 91.6 | 91.1                   | 0.85               | 0.81 | 0.71 | 7.0                            | 2.3                            | 3.2                            | IE1   |
| 460              | Δ     | 60       | 42.50 | -/-    | 67.00 | 1775    | 230.0 | 93.0            | 93.3 | 92.5                   | 0.86               | 0.83 | 0.74 | 7.0                            | 2.3                            | 3.2                            | IE1   |
|                  |       |          |       |        |       |         |       |                 |      |                        |                    |      |      |                                |                                |                                |       |
| IM B35 / IM 2001 |       | FS 225 S |       | 260 kg |       | IP55    |       | IEC/EN 60034    |      | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                |                                |       |

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

Locked rotor time (hot / cold) : 13.1 s | 22.7 s

Mechanical data

|                                                                                     |                                 |                                 |                            |                                                    |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|----------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 68.0 / 82.0 dB(A) <sup>2)</sup> | 72.0 / 86.0 dB(A) <sup>2)</sup> | External earthing terminal | Yes (standard)                                     |
| Moment of inertia                                                                   | 0.3700 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           | (B) 3 PTC thermistors - for tripping (2 terminals) |
| 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                    | 2xM50x1,5-2xM20x1,5  |
| Contact screw thread     | M8        | Cable gland                    | 4 plugs              |

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.  | 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               | 1LE1502-2BB03-4JB4-Z |             | document number                                                                                              |                  |          |      |
| © Siemens AG 2021 | D22                 |                      |             | rev.                                                                                                         | creation date    | language | Page |
|                   |                     |                      |             | 01                                                                                                           | 2021-04-22 16:18 | en       | 1/2  |

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



Motor type : 1CV1220B

SIMOTICS SD - 225 S - IM B35 - 4p

### Special design

D22 motor without CE character for export outside the EEA (see EU regulation 640/2009)

### Notes:

|                                                                                    |                               |                               |             |  |                                                                                                              |                                   |                |             |
|------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-------------|--|--------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------|-------------|
| 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>1LE1502-2BB03-4JB4-Z |                               |             |  | document number                                                                                              |                                   |                |             |
| © Siemens AG 2021                                                                  | D22                           |                               |             |  | rev.<br>01                                                                                                   | creation date<br>2021-04-22 16:18 | language<br>en | Page<br>2/2 |