

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> |       |
| 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 |       | 340 kg |       | IP55    |       | IEC/EN 60034    |      | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                |                                |       |

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

Locked rotor time (hot / cold) : 33.7 s | 53.1 s

Mechanical data

|                                                                                     |                                 |                                 |                            |                                                    |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|----------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 65.0 / 78.0 dB(A) <sup>2)</sup> | 68.0 / 82.0 dB(A) <sup>2)</sup> | External earthing terminal | Yes (standard)                                     |
| Moment of inertia                                                                   | 0.5200 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                                  |
| Bearing DE   NDE                                                                    | NU 213                          | 6213 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                                      |
| Relubrication interval/quantity DE   NDE                                            | 20 g   20 g                     | 8000 h                          | Frame material             | cast iron                                          |
| Lubricants                                                                          | Unirex N3                       |                                 | Coating (paint finish)     | Standard paint finish C2                           |
| Regreasing device                                                                   | Yes                             |                                 | Color, paint shade         | RAL7030                                            |
| Grease nipple                                                                       | M10x1 DIN 3404 A                |                                 | Motor protection           | (B) 3 PTC thermistors - for tripping (2 terminals) |
| Type of bearing                                                                     | Locating bearing NDE            |                                 | Method of cooling          | IC411 - self ventilated, surface cooled            |
| Condensate drainage holes                                                           | Yes (standard)                  |                                 |                            |                                                    |

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                                                                                              |               | customer |      |
|                                                                                    |                     |                      |             | released                                                                                                     |               |          |      |
|                                                                                    | title               | 1LE1503-2BB23-4AB4-Z |             | document number                                                                                              |               |          |      |
|                                                                                    |                     |                      |             |                                                                                                              |               |          |      |
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### Special design

|     |                                                |     |                                         |
|-----|------------------------------------------------|-----|-----------------------------------------|
| L22 | Bearing design for increased cantilever forces | Y82 | Auxiliary name plate with customer data |
| L23 | Regreasing system                              |     |                                         |

### Notes:

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