

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



Motor type : 1CV1184B

SIMOTICS SD - 180 L - 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> |       |
| DOL duty (S1) - 155(F) to 130(B)                     |       |      |          |      |       |         |       |                 |                                                |              |                    |                        |      |                                |                                |                                |       |
| 400                                                  | Δ     | 50   | 22.00    | -/-  | 42.50 | 1465    | 143.0 | 89.9            | 90.8                                           | 90.7         | 0.83               | 0.78                   | 0.67 | 8.0                            | 2.7                            | 3.6                            | IE1   |
| 690                                                  | Y     | 50   | 22.00    | -/-  | 24.50 | 1465    | 143.0 | 89.9            | 90.8                                           | 90.7         | 0.83               | 0.78                   | 0.67 | 8.0                            | 2.7                            | 3.6                            | IE1   |
| 460                                                  | Δ     | 60   | 25.30    | -/-  | 41.50 | 1765    | 137.0 | 91.0            | 91.7                                           | 91.5         | 0.84               | 0.79                   | 0.69 | 8.2                            | 2.7                            | 3.6                            | IE1   |
|                                                      |       |      |          |      |       |         |       |                 |                                                |              |                    |                        |      |                                |                                |                                |       |
| IM B35 / IM 2001                                     |       |      | FS 180 L |      |       | IP55    |       |                 |                                                | IEC/EN 60034 |                    | IEC, DIN, ISO, VDE, EN |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |      |          |      |       |         |       |                 | Locked rotor time (hot / cold) : 7.76 s   14 s |              |                    |                        |      |                                |                                |                                |       |

## Mechanical data

|                                                                                        |                             |                             |                                 |                                                    |
|----------------------------------------------------------------------------------------|-----------------------------|-----------------------------|---------------------------------|----------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                   | 63 / 76 dB(A) <sup>2)</sup> | 66 / 79 dB(A) <sup>2)</sup> | Vibration severity grade        | A                                                  |
| Moment of inertia                                                                      | 0.1300 kg m <sup>2</sup>    |                             | Thermal class                   | F                                                  |
| Bearing DE   NDE                                                                       | 6210 Z C3                   | 6210 Z C3                   | Duty type                       | S1                                                 |
| bearing lifetime                                                                       |                             |                             | Direction of rotation           | bidirectional                                      |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation<br>50 60Hz <sup>1)</sup> | 40000 h                     | 32000 h                     | Frame material                  | cast iron                                          |
| Lubricants                                                                             | Unirex N3                   |                             | Net weight of the motor (IM B3) | 170 kg                                             |
| 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            |
| External earthing terminal                                                             | Yes (standard)              |                             |                                 |                                                    |

## Terminal box

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 16 mm <sup>2</sup>  |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 19 mm - 28 mm       |
| Type of terminal box     | TB1 J01   | Cable entry                    | 2xM40x1,5-1xM16x1,5 |
| Contact screw thread     | M5        | Cable gland                    | 3 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>A</sub> /M <sub>N</sub> = locked rotor torque / torque nominal   | 2) at rated power / at full load          |                                                                  |
| M <sub>K</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. | <a href="#">Link documents</a> |
| DI MC LVM         |                      | DT Configurator |             |                                                                                                              |                                |
|                   | document type        |                 |             |                                                                                                              | document status                |
|                   | datasheet            |                 |             |                                                                                                              | released                       |
|                   | title                |                 |             |                                                                                                              | document number                |
|                   | 1LE1502-1EB43-4JB4-Z |                 |             |                                                                                                              |                                |
|                   | B02+D22+Q02          |                 |             |                                                                                                              |                                |
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|                   | 01                   | 2022-01-20      | en          | 1/2                                                                                                          |                                |

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### Special design

|     |                                                                                     |     |                                                   |
|-----|-------------------------------------------------------------------------------------|-----|---------------------------------------------------|
| B02 | Acceptance test certificate 3.1 acc. to EN 10204                                    | Q02 | Anti-condensation heating for 230 V (2 terminals) |
| D22 | Motor without CE character for export outside the EEA (see EU regulation 2019/1781) |     |                                                   |

### Additional information:

#### Space heaters

Technical data: 1-phase, 230 V 50W

### 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. |                                                                                       | <a href="#">Link documents</a> |             |
|  | document type<br>datasheet                   | document status<br>released   |             |                                                                                                              |  |                                |             |
|                                                                                    | title<br>1LE1502-1EB43-4JB4-Z<br>B02+D22+Q02 |                               |             |                                                                                                              |                                                                                       |                                |             |
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