

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



Motor type : 1CV3184B

SIMOTICS SD - 180 L - 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)                    |       |          |       |      |       |         |       |                 |                                                  |                        |                    |      |      |                                |                                |                                |       |
| 500                                                 | Δ     | 50       | 22.00 | -/-  | 33.00 | 1470    | 143.0 | 93.0            | 93.6                                             | 93.6                   | 0.83               | 0.78 | 0.68 | 6.8                            | 2.3                            | 3.3                            | IE3   |
|                                                     |       |          |       |      |       |         |       |                 |                                                  |                        |                    |      |      |                                |                                |                                |       |
| 575                                                 | Δ     | 60       | 25.30 | -/-  | 32.50 | 1770    | 136.0 | 93.6            | 94.1                                             | 94.0                   | 0.83               | 0.78 | 0.69 | 6.9                            | 2.2                            | 3.2                            | IE3   |
| 575                                                 | Δ     | 60       | 22.00 | -/-  | 29.00 | 1775    | 118.0 | 93.6            | 93.8                                             | 93.3                   | 0.81               | 0.75 | 0.65 | 7.7                            | 2.8                            | 3.7                            | IE3   |
| IM B3 / IM 1001                                     |       | FS 180 L |       |      |       | IP55    | UKCA  | IEC/EN 60034    |                                                  | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1000 m |       |          |       |      |       |         |       |                 | Locked rotor time (hot / cold) : 26.4 s   41.3 s |                        |                    |      |      |                                |                                |                                |       |

Mechanical data

|                                                                                 |                                |                                |                                 |                                                               |
|---------------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                            | 68 / 75 dB(A) <sup>2) 3)</sup> | 70 / 77 dB(A) <sup>2) 3)</sup> | External earthing terminal      | With (standard)                                               |
| Moment of inertia                                                               | 0.1400 kg m <sup>2</sup>       |                                | Vibration severity grade        | A                                                             |
| Bearing DE   NDE                                                                | 6310 C3                        | 6310 C3                        | Thermal class                   | F                                                             |
| bearing lifetime                                                                |                                |                                | Duty type                       | S1                                                            |
| L <sub>10mh</sub> F <sub>Rad</sub> <sup>1)</sup> for coupling operation 50 60Hz | 40000 h                        | 32000 h                        | Direction of rotation           | bidirectional                                                 |
| Relubrication interval/quantity DE   NDE                                        | 15 g   15 g                    | 8000 h                         | Frame material                  | cast iron                                                     |
| Lubricants                                                                      | Unirex N3                      |                                | Net weight of the motor (IM B3) | 170 kg                                                        |
| Regreasing device                                                               | With regreasing nipple         |                                | Coating (paint finish)          | Special paint finish C3                                       |
| Grease nipple                                                                   | M10x1 DIN 71412 A              |                                | Color, paint shade              | RAL7030                                                       |
| Type of bearing                                                                 | Locating bearing NDE           |                                | Motor protection                | (B) 3 PTC thermistors - for tripping (standard) (2 terminals) |
| Condensate drainage holes                                                       | With (standard)                |                                | Method of cooling               | IC411 - self ventilated, surface cooled                       |

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 J61   | 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>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. |                 | <a href="#">Link documents</a>                                                        |          |      |
| DI MC LVM                                                                          |                     | DT Configurator      |             |                                                                                                              |                 |  |          |      |
|  | document type       | datasheet            |             |                                                                                                              | document status |                                                                                       |          |      |
|                                                                                    |                     |                      |             |                                                                                                              | released        |                                                                                       |          |      |
|                                                                                    | title               | 1LE1603-1EB44-0AB4-Z |             |                                                                                                              | document number |                                                                                       |          |      |
|                                                                                    |                     |                      |             |                                                                                                              |                 |                                                                                       |          |      |
| © Siemens AG 2023                                                                  | H01+L19+R52         |                      |             |                                                                                                              | rev.            | creation date                                                                         | language | Page |
|                                                                                    |                     |                      |             |                                                                                                              | 943             | 2023-06-27                                                                            | en       | 1/2  |



**SIMOTICS SD - 180 L - IM B3 - 4p**

|     |                                                                   |     |                               |
|-----|-------------------------------------------------------------------|-----|-------------------------------|
| H01 | Bolted on mounting feet (instead of cast)                         | R52 | Drilled removable entry plate |
| L19 | Regreasing device with regreasing nipple M10X1 acc.to DIN 71412-A |     |                               |

|                                                                                    |  |                               |                               |             |                                                                                                              |                             |                                |                                                                                       |
|------------------------------------------------------------------------------------|--|-------------------------------|-------------------------------|-------------|--------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------|---------------------------------------------------------------------------------------|
| 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>1LE1603-1EB44-0AB4-Z |                               |             | document number                                                                                              |                             |                                |                                                                                       |
| © Siemens AG 2023                                                                  |  | H01+L19+R52                   |                               |             | rev.<br>943                                                                                                  | creation date<br>2023-06-27 | language<br>en                 | Page<br>2/2                                                                           |