

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



Motor type : 1CV3162B

SIMOTICS SD - 160 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> |       |
| DOL duty (S1) - 155(F) to 130(B)                    |       |          |       |      |       |         |      |                 |                                                  |      |                        |      |      |                                |                                |                                |       |
| 500                                                 | Δ     | 50       | 11.00 | -/-  | 16.90 | 1470    | 71.0 | 91.4            | 91.9                                             | 91.9 | 0.82                   | 0.76 | 0.65 | 8.0                            | 2.5                            | 3.5                            | IE3   |
|                                                     |       |          |       |      |       |         |      |                 |                                                  |      |                        |      |      |                                |                                |                                |       |
| 575                                                 | Δ     | 60       | 12.60 | -/-  | 16.50 | 1765    | 68.0 | 92.4            | 92.9                                             | 92.6 | 0.83                   | 0.78 | 0.68 | 8.1                            | 3.3                            | 3.5                            | IE3   |
| 575                                                 | Δ     | 60       | 11.00 | -/-  | 14.80 | 1775    | 59.0 | 92.4            | 92.6                                             | 92.0 | 0.81                   | 0.75 | 0.63 | 9.0                            | 3.8                            | 4.0                            | IE3   |
| IM B3 / IM 1001                                     |       | FS 160 M |       |      |       | IP55    | UKCA | IEC/EN 60034    |                                                  |      | IEC, DIN, ISO, VDE, EN |      |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1000 m |       |          |       |      |       |         |      |                 | Locked rotor time (hot / cold) : 26.5 s   34.3 s |      |                        |      |      |                                |                                |                                |       |

Mechanical data

|                                                                                 |                                |                                |                                 |                                                               |
|---------------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                            | 67 / 75 dB(A) <sup>2) 3)</sup> | 70 / 75 dB(A) <sup>2) 3)</sup> | External earthing terminal      | Without                                                       |
| Moment of inertia                                                               | 0.0583 kg m <sup>2</sup>       |                                | Vibration severity grade        | A                                                             |
| Bearing DE   NDE                                                                | 6309 Z C3                      | 6309 Z 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                                        | 10 g   10 g                    | 8000 h                         | Frame material                  | cast iron                                                     |
| Lubricants                                                                      | Unirex N3                      |                                | Net weight of the motor (IM B3) | 105 kg                                                        |
| Regreasing device                                                               | With (standard)                |                                | Coating (paint finish)          | Special paint finish C3                                       |
| Grease nipple                                                                   | M8x1 DIN 71412                 |                                | 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 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>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               | 1LE1603-1DB24-0AB4-Z |             |                                                                                                              | document number |                                                                                       |          |      |
|                                                                                    |                     |                      |             |                                                                                                              |                 |                                                                                       |          |      |
| © Siemens AG 2023                                                                  | H01                 |                      |             |                                                                                                              | rev.            | creation date                                                                         | language | Page |
|                                                                                    |                     |                      |             |                                                                                                              | 943             | 2023-06-27                                                                            | en       | 1/2  |



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## Special design

|     |                                           |
|-----|-------------------------------------------|
| H01 | Bolted on mounting feet (instead of cast) |
|-----|-------------------------------------------|

Notes:

|                                                                                    |                      |                 |             |                                                                                                              |               |                                                                                       |      |
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|                                                                                    | 1LE1603-1DB24-0AB4-Z |                 |             |                                                                                                              |               |                                                                                       |      |
|                                                                                    | H01                  |                 |             | rev.                                                                                                         | creation date | language                                                                              | Page |
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