

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)                     |       |          |       |      |       |         |      |                 |                                                  |                        |                    |      |      |                                |                                |                                |       |
| 380                                                  | Δ     | 60       | 12.60 | -/-  | 25.00 | 1765    | 68.0 | 92.4            | 92.9                                             | 92.6                   | 0.83               | 0.78 | 0.68 | 8.1                            | 3.3                            | 3.5                            | IE3   |
| 660                                                  | Y     | 60       | 12.60 | -/-  | 14.40 | 1765    | 68.0 | 92.4            | 92.9                                             | 92.6                   | 0.83               | 0.78 | 0.68 | 8.1                            | 3.3                            | 3.5                            | IE3   |
| 380                                                  | Δ     | 60       | 11.00 | -/-  | 22.50 | 1775    | 59.0 | 92.4            | 92.6                                             | 92.0                   | 0.81               | 0.75 | 0.63 | 9.0                            | 3.8                            | 4.0                            | IE3   |
| 660                                                  | Y     | 60       | 11.00 | -/-  | 12.90 | 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 / 1,000 m |       |          |       |      |       |         |      |                 | Locked rotor time (hot / cold) : 26.5 s   34.3 s |                        |                    |      |      |                                |                                |                                |       |

Mechanical data

|                                                                                     |                                |                                |                                 |                                                    |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|----------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 65 / 77 dB(A) <sup>2) 3)</sup> | 69 / 81 dB(A) <sup>2) 3)</sup> | Vibration severity grade        | A                                                  |
| Moment of inertia                                                                   | 0.0583 kg m <sup>2</sup>       |                                | Thermal class                   | F                                                  |
| Bearing DE   NDE                                                                    | 6209 2Z C3                     | 6209 2Z C3                     | Duty type                       | S1                                                 |
| bearing lifetime                                                                    |                                |                                | Direction of rotation           | bidirectional                                      |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation 50 60Hz <sup>1)</sup> | 40000 h                        | 32000 h                        | Frame material                  | cast iron                                          |
| Regreasing device                                                                   | No                             |                                | Net weight of the motor (IM B3) | 105 kg                                             |
| Grease nipple                                                                       | -/-                            |                                | Coating (paint finish)          | Standard paint finish C2                           |
| Type of bearing                                                                     | Locating bearing NDE           |                                | Color, paint shade              | RAL7030                                            |
| Condensate drainage holes                                                           | Yes (standard)                 |                                | Motor protection                | (B) 3 PTC thermistors - for tripping (2 terminals) |
| External earthing terminal                                                          | No                             |                                | 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  
M<sub>K</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
M<sub>K</sub>/M<sub>N</sub> = break down torque / nominal torque

1) L10mh according to DIN ISO 281 10/2010  
2) at rated power / at full load

3) Value is valid only for DOL operation with motor design IC411

|                               |                                      |                               |             |                                                                                                              |                                |
|-------------------------------|--------------------------------------|-------------------------------|-------------|--------------------------------------------------------------------------------------------------------------|--------------------------------|
| 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           |                               |             |                                                                                                              |                                |
|                               | title<br>1LE1503-1DB23-0AB4-Z<br>D22 |                               |             |                                                                                                              |                                |
| © Siemens AG 2023             |                                      |                               | rev.<br>935 | creation date<br>2023-01-31                                                                                  | language<br>en                 |
|                               |                                      |                               |             |                                                                                                              | Page<br>1/2                    |



**SIMOTICS SD - 160 M - IM B3 - 4p**

## Special design

|     |                                                                                     |
|-----|-------------------------------------------------------------------------------------|
| D22 | Motor without CE character for export outside the EEA (see EU regulation 2019/1781) |
|-----|-------------------------------------------------------------------------------------|

Notes:

|                                                                                    |                      |                 |             |                                                                                                              |               |                                                                                       |      |
|------------------------------------------------------------------------------------|----------------------|-----------------|-------------|--------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------|------|
| 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                                                                                              |               |                                                                                       |      |
|                                                                                    | 1LE1503-1DB23-0AB4-Z |                 |             |                                                                                                              |               |                                                                                       |      |
|                                                                                    | D22                  |                 |             | rev.                                                                                                         | creation date | language                                                                              | Page |
| © Siemens AG 2023                                                                  |                      |                 |             | 935                                                                                                          | 2023-01-31    | en                                                                                    | 2/2  |