

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



Motor type : 1CV3164B

SIMOTICS SD - 160 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   | 15.00    | -/-  | 28.50 | 1465    | 98.0 | 92.1            | 92.7                                             | 92.0                   | 0.83               | 0.78 | 0.67 | 7.9                            | 2.8                            | 3.4                            | IE3   |
| 690                                                  | Y     | 50   | 15.00    | -/-  | 16.40 | 1465    | 98.0 | 92.1            | 92.7                                             | 92.0                   | 0.83               | 0.78 | 0.67 | 7.9                            | 2.8                            | 3.4                            | IE3   |
| 460                                                  | Δ     | 60   | 17.30    | -/-  | 28.50 | 1765    | 94.0 | 92.4            | 92.5                                             | 92.0                   | 0.83               | 0.79 | 0.69 | 7.9                            | 2.7                            | 3.3                            | IE2   |
| 460                                                  | Δ     | 60   | 15.00    | -/-  | 25.00 | 1775    | 81.0 | 93.0            | 92.9                                             | 92.1                   | 0.81               | 0.75 | 0.64 | 8.9                            | 3.1                            | 3.8                            | IE3   |
| IM B35 / IM 2001                                     |       |      | FS 160 L |      |       | IP55    | UKCA | IEC/EN 60034    |                                                  | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |      |          |      |       |         |      |                 | Locked rotor time (hot / cold) : 24.6 s   33.3 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> | External earthing terminal      | No                                                           |
| Moment of inertia                                                       | 0.0890 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 | 40000 h                        | 32000 h                        | Direction of rotation           | bidirectional                                                |
| 50 60Hz                                                                 |                                |                                | Frame material                  | cast iron                                                    |
| Relubrication interval/quantity DE   NDE                                | 10 g   10 g                    | 8000 h                         | Net weight of the motor (IM B3) | 133 kg                                                       |
| Lubricants                                                              | Unirex N3                      |                                | Coating (paint finish)          | Special paint finish C3                                      |
| Regreasing device                                                       | Yes (standard)                 |                                | Color, paint shade              | RAL7030                                                      |
| Grease nipple                                                           | M8x1 DIN 71412                 |                                | Motor protection                | (C) 6 PTC thermistors - for alarm and tripping (4 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      | 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                |
|                   | 1LE1603-1DB43-4JC4  |                 |               |                                                                                                              |                                |
| © Siemens AG 2022 |                     | rev.            | creation date | language                                                                                                     | Page                           |
|                   |                     | 929             | 2022-10-05    | en                                                                                                           | 1/1                            |

