

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



Motor type : 1CV4184B

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 [V] | Δ / Y | f [Hz] | P [kW] | P [hp] | I [A] | n [1/min] | M [Nm] | $\eta^{3)}$ | | | $\cos\phi^{3)}$ | | | I_A/I_N I_i/I_N | M_A/M_N T_i/T_N | M_K/M_N T_B/T_N | IE-CL |
|--|--------------|-----------|-----------|-----------|----------|--------------|-----------|--------------|------|--|-----------------|------|------|------------------------|------------------------|------------------------|-------|
| | | | | | | | | 4/4 | 3/4 | 2/4 | 4/4 | 3/4 | 2/4 | | | | |
| DOL duty (S1) - 155(F) to 130(B) | | | | | | | | | | | | | | | | | |
| 400 | Δ | 50 | 22.00 | -/- | 41.50 | 1475 | 142.0 | 94.5 | 95.0 | 94.8 | 0.81 | 0.75 | 0.64 | 7.7 | 2.9 | 3.8 | IE4 |
| 690 | Y | 50 | 22.00 | -/- | 24.00 | 1475 | 142.0 | 94.5 | 95.0 | 94.8 | 0.81 | 0.75 | 0.64 | 7.7 | 2.9 | 3.8 | IE4 |
| 460 | Δ | 60 | 25.30 | -/- | 41.00 | 1775 | 136.0 | 94.5 | 94.8 | 94.6 | 0.82 | 0.77 | 0.67 | 7.8 | 2.8 | 3.7 | IE4 |
| 460 | Δ | 60 | 22.00 | -/- | 37.00 | 1778 | 118.0 | 94.5 | 94.6 | 94.0 | 0.79 | 0.73 | 0.61 | 8.9 | 3.1 | 4.3 | IE4 |
| IM B3 / IM 1001 | | FS 180 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) : 34.7 s 48.1 s | | | | | | | |

Mechanical data

| | | | | |
|---|--------------------------------|--------------------------------|---------------------------------|---|
| Sound level (SPL / SWL) at 50Hz 60Hz | 62 / 75 dB(A) ^{2) 3)} | 76 / 87 dB(A) ^{2) 3)} | External earthing terminal | Yes (standard) |
| Moment of inertia | 0.1800 kg m ² | | Vibration severity grade | A |
| Bearing DE NDE | 6310 C3 | 6310 C3 | Thermal class | F |
| bearing lifetime | | | Duty type | S1 |
| L_{10mh} , F_{Rad} _{min} 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) | 192 kg |
| Regreasing device | Yes (standard) | | Coating (paint finish) | Special paint finish C3 |
| Grease nipple | M10x1 DIN 3404 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 | Yes (standard) | | Method of cooling | IC411 - self ventilated, surface cooled |

Terminal box

| | | | |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position | top | Max. cross-sectional area | 16 mm ² |
| 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_A/I_N = locked rotor current / current nominal
 M_A/M_N = locked rotor torque / torque nominal
 M_K/M_N = 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

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|-------------------------------|-----------------------------|-------------------------------|-----------------------------|---|--------------------------------|
| responsible dep. DI MC LVM | technical reference | created by DT Configurator | approved by | <i>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</i> | Link documents |
| | document type datasheet | document status released | | | document number |
| | title 1LE1604-1EB43-4AB4 | rev. 929 | creation date 2022-10-13 | | |
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