

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

Motor type: **7CV4314B** SIMOTICS SD - 315L - IM B3 - 4 p

| | | |
|------------------|-----------------|-----------|
| 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 | M | $\eta^{3)}$ | | | $\cos\phi^{3)}$ | | | I_A/I_N | M_A/M_N | M_K/M_N | IE-CL |
|--------------------------------|------------|---------|---------|------|---------|---------|---------|--------|------------------------|------|------|-----------------|------|------|-----------|-----------|-----------|-------|
| [V]±10% | | [Hz]±5% | [kW] | [hp] | [A] | [1/min] | [kgf.m] | [Nm] | 4/4 | 3/4 | 2/4 | 4/4 | 3/4 | 2/4 | | | | |
| Motordaten / Motor Data | | | | | | | | | | | | | | | | | | |
| 415 | Δ | 50 | 160.00 | -/- | 265.00 | 1489 | 105.0 | 1026.0 | 96.6 | 96.6 | 96.3 | 0.87 | 0.84 | 0.77 | 8.9 | 3.1 | 3.4 | IE4 |
| IM B3 / IM 1001 | | | FS 315L | | 1212 kg | | SF:1 | | IS 12615 / IEC 60034-1 | | | | | | | | | |

Environmental conditions : -20 °C - +50 °C / 1,000 m

Locked rotor time (hot / cold) : 11 s | 23 s

Mechanical data

| | | | |
|---|---|-----------------------------------|---|
| Sound pressure level 50Hz 60Hz | 80 dB(A) 83 dB(A) | External earthing terminal | Yes (standard) |
| Moment of inertia Rotor GD ² | 3.8900 kg m ² 15.5600 kgf.m ² | Vibration severity grade | A (Standard) |
| Bearing DE NDE | 6319 C3 6319 C3 | Insulation | 155(F) utilized to 130(B) |
| bearing lifetime | | Duty type | S1 |
| L _{10mh} F _{Rad max} according catalogue 50 60Hz ¹⁾ | 20.000 h 16.000 h | Direction of rotation | Bidirectional |
| L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾ | 50.000 h 40.000 h | Frame material | Cast iron |
| Type of bearing | Locating (fixed) bearing, NDE | Forced ventilation motor details | - / - |
| Relubrication interval/quantity DE NDE | 40 g 40 g 6.000 h | Net weight of the motor (IM B3) | 1212 kg |
| Type of construction | IM B3 / IM 1001 | Rotor weight | 368 kg |
| Degree of protection | IP55 | Data of anti condensation heating | -/ V, -/ W |
| Lubricants | Esso Unirex N3 | Coating (paint finish) | Standard paint finish |
| Regreasing device | Yes (standard) | Color, paint shade | RAL7030 |
| Grease nipple | M10x1 DIN 3404 A | Motor protection | (A) without |
| Condensate drainage holes | Yes | Method of cooling | IC411 - Self ventilated, surface cooled |

Terminal box



| | | | |
|---------------------------|---------------------|--------------------------------|-------------------|
| Terminal box position | Top | Cable diameter from ... to ... | 38.0 mm - 45.0 mm |
| Material of terminal box | Cast iron | Cable entry | 2xM63x1.5 |
| Type of terminal box | TB1 Q01 | Cable gland | 2 Plugs |
| Contact screw thread | M12 | | |
| Max. cross-sectional area | 185 mm ² | | |

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

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

1) L10mh according to DIN ISO 281 10/2010

| | | | | | |
|-------------------------------|---|--|-----------------------------|--|---|
| responsible dep. DI MC LVM | technical reference | created by DT Configurator | approved by | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. | Link documents |
| SIEMENS | document type datasheet |  | | document status released |  |
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