

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



Motor type : 1CV4315B

SIMOTICS SD - 315 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] | η ³⁾ | | | cosφ 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 | 200.00 | -/- | 350.00 | 1490 | 1280.0 | 96.7 | 96.9 | 96.8 | 0.85 | 0.82 | 0.73 | 7.8 | 3.4 | 3.1 | IE4 |
| 690 | Y | 50 | 200.00 | -/- | 205.00 | 1490 | 1280.0 | 96.7 | 96.9 | 96.8 | 0.85 | 0.82 | 0.73 | 7.8 | 3.4 | 3.1 | IE4 |
| 460 | Δ | 60 | 200.00 | -/- | 305.00 | 1791 | 1070.0 | 96.5 | 96.5 | 96.2 | 0.85 | 0.81 | 0.72 | 9.5 | 3.7 | 3.4 | IE4 |
| 460 | Δ | 60 | 230.00 | -/- | 345.00 | 1788 | 1230.0 | 96.8 | 97.0 | 96.8 | 0.86 | 0.83 | 0.75 | 8.2 | 3.2 | 3.0 | IE4 |
| IM B3 / IM1001 | | FS 315 L | | IP55 | | UKCA | | IEC/EN 60034 | | | | | | | | | |
| Environmental conditions : -20 °C - +40 °C / 1000 m | | | | | | | | | | Locked rotor time (hot / cold) : 25.9 s 40.7 s | | | | | | | |

Mechanical data

| | | | | | |
|---|---|--------------------------------|--------------------------------|--|----|
| Sound level (SPL / SWL) at 50Hz 60Hz | 69 / 83 dB(A) ^{2) 3)} | 73 / 88 dB(A) ^{2) 3)} | External earthing terminal | (Standard) Yes | |
| Moment of inertia | 4.3700 kg m ² | | Vibration severity grade | Grade A | |
| Bearing DE NDE | 6319 C3 | 6319 C3 | Thermal class | F | |
| permissible lateral force on (N) | X ₀ : 9300 | X _{0.5} : 8650 | X _{max} : 8000 | Duty type | S1 |
| bearing lifetime | | | Direction of rotation | bidirectional | |
| L _{10mh} F _{Rad} min for coupling operation 50 60Hz ¹⁾ | 40000 h | 32000 h | Frame material | cast iron | |
| Relubrication interval/quantity DE NDE | 40 g 40 g 6000 h | | Net weight of the motor | 1290 kg | |
| Lubricants | UNIREX N3 | | Coating (paint finish) | Special paint finish C3 | |
| Regreasing device | (Standard) Flat type lubricating nipple acc. DIN 3404 | | Color, paint shade | RAL7030 | |
| Grease nipple | M10x1 DIN 3404 A | | Motor protection | 3 PTC thermistors - for tripping (2 terminals) | |
| Type of bearing | Locating bearing NDE | | Method of cooling | IC411 - self ventilated, surface cooled | |
| Condensate drainage holes | (Standard) Yes | | 'SIMOTICS Connect 400' in IP65 | Yes | |

Terminal box

| | | | |
|--------------------------|----------------|--------------------------------|-----------------------|
| Terminal box position | box at the top | Max. cross-sectional area | 240 mm ² |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 34 mm - 45 mm |
| Type of terminal box | TB1Q01 | Cable entry | 2xM63x1,5 - 2xM20x1,5 |
| Contact screw thread | 6xM12 | Cable gland | 4 plugs |

Notes:

I_A/I_N = locked rotor current / current nominal
M_K/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

| | | | | | |
|-------------------------------|--|-------------------------------|-----------------------------|---|--------------------------------|
| 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 1LE5504-3AB53-4AB4-Z G81+M11+502 | rev. 929 | creation date 2023-01-10 | | |
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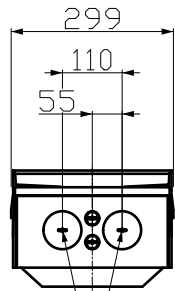
Special design

| | | | |
|-----|--------------------------------------|-----|-------------------------|
| G81 | Installation of SIMOTICS CONNECT 400 | S02 | Special paint finish C3 |
| M11 | Stainless steel rating plate | | |

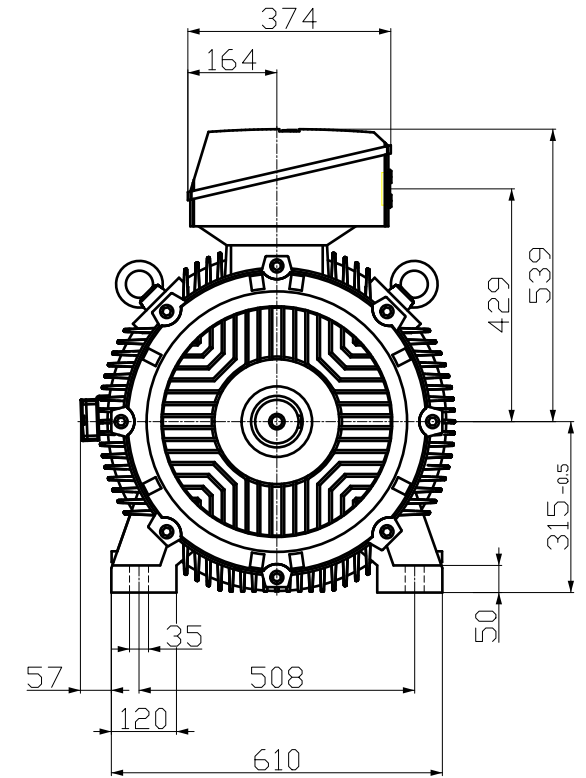
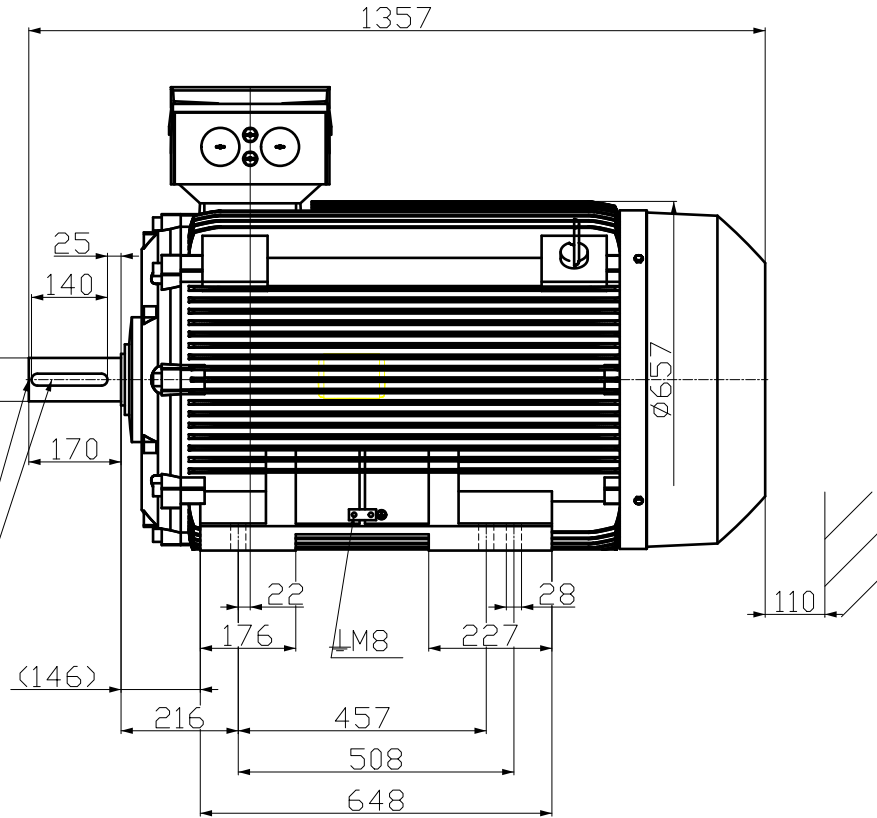
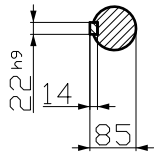
Notes:

| | | | | | |
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Terminal box -
Front view



2xM63x1.5
DIN 332-DS M20
DIN 6885-1



| | | | | |
|--|---|-----------------------|---------------------------|--|
| Tolerance | Surface | Material | Weight E | Scale |
| FŠOI í el È-OOÍ HÈ COÍ ÈZ OI FÈT FFÈUÈG | Author Creator Approval Department Change Order | ÖVS T æ : ^æ@` } * | | |
| SIEMENS | Doc. State Revision | FB-EDH Index RS | MLFB Item No Doc No | Doc Type Paper Size 1st Language 2nd Language |
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