

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



Motor type : 1CV2315C

SIMOTICS SD - 315 L - IM B3 - 6p

|                  |                 |           |
|------------------|-----------------|-----------|
| 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> |       |
| 400                                                  | Δ     | 50       | 132.00 | -/-    | 235.00 | 988     | 1280.0 | 94.6            | 94.9                                             | 94.7                   | 0.86               | 0.82 | 0.74 | 7.5                            | 3.0                            | 2.9                            | IE2   |
| 690                                                  | Y     | 50       | 132.00 | -/-    | 136.00 | 988     | 1280.0 | 94.6            | 94.9                                             | 94.7                   | 0.86               | 0.82 | 0.74 | 7.5                            | 3.0                            | 2.9                            | IE2   |
| 460                                                  | Δ     | 60       | 158.00 | -/-    | 240.00 | 1188    | 1270.0 | 95.0            | 95.4                                             | 95.2                   | 0.87               | 0.85 | 0.77 | 7.8                            | 3.1                            | 2.9                            | IE2   |
| 460                                                  | Δ     | 60       | 132.00 | -/-    | 205.00 | 1190    | 1060.0 | 95.0            | 95.0                                             | 94.4                   | 0.85               | 0.81 | 0.73 | 9.2                            | 3.7                            | 3.6                            | IE2   |
| IM B3 / IM 1001                                      |       | FS 315 L |        | 990 kg |        | IP55    |        | IEC/EN 60034    |                                                  | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |          |        |        |        |         |        |                 | Locked rotor time (hot / cold) : 22.7 s   39.3 s |                        |                    |      |      |                                |                                |                                |       |

Mechanical data

|                                                                                     |                                 |                                 |                            |                                                      |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|------------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 69.0 / 84.0 dB(A) <sup>2)</sup> | 69.0 / 84.0 dB(A) <sup>2)</sup> | External earthing terminal | Yes (standard)                                       |
| Moment of inertia                                                                   | 4.0200 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                                    |
| Bearing DE   NDE                                                                    | 6319 C3                         | 6319 C3                         | Insulation                 | 155(F) to 130(B)                                     |
| bearing lifetime                                                                    |                                 |                                 | Duty type                  | S1                                                   |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation 50 60Hz <sup>1)</sup> | 40000 h                         | 32000 h                         | Direction of rotation      | bidirectional                                        |
| Relubrication interval/quantity DE   NDE                                            | 40 g   40 g<br>6000 h           |                                 | Frame material             | cast iron                                            |
| Lubricants                                                                          | Unirex N3                       |                                 | Coating (paint finish)     | Special paint finish, resistant to salt-laden air C4 |
| Regreasing device                                                                   | Yes (standard)                  |                                 | Color, paint shade         | RAL7030                                              |
| Grease nipple                                                                       | M10x1 DIN 3404 A                |                                 | Motor protection           | (F) 1 temperature sensor KTY84-130 (2 terminals)     |
| Type of bearing                                                                     | Locating bearing DE             |                                 | Method of cooling          | IC411 - self ventilated, surface cooled              |
| Condensate drainage holes                                                           | Yes (standard)                  |                                 |                            |                                                      |

Terminal box

|                          |           |                                |                       |
|--------------------------|-----------|--------------------------------|-----------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 240.0 mm <sup>2</sup> |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 38.0 mm - 45.0 mm     |
| Type of terminal box     | TB1 Q01   | Cable entry                    | 2xM63x1,5-2xM20x1,5   |
| Contact screw thread     | M12       | Cable gland                    | 2 glands, 2 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>K</sub> /M <sub>N</sub> = locked rotor torque / torque nominal   | 2) at rated power / at full load          |                                                                  |
| M <sub>B</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. |                  |          |          |  |
| DI MC LVM               |                     | DT Configurator      |             |                                                                                                              |                  |          |          |  |
| SIEMENS                 | document type       | datasheet            |             |                                                                                                              | document status  |          | customer |  |
|                         | released            |                      |             |                                                                                                              |                  |          |          |  |
|                         | title               | 1LE1601-3AC53-4AF4-Z |             |                                                                                                              | document number  |          |          |  |
| D22+D47+L51+Q01+R16+S03 |                     |                      |             |                                                                                                              |                  |          |          |  |
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### Special design

|     |                                                                                    |     |                                                                      |
|-----|------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------|
| D22 | motor without CE character for export outside the EEA (see EU regulation 640/2009) | Q01 | Measuring nipple for SPM shock pulse measurement to monitor bearings |
| D47 | TR CU product safety certificate EAC for the Eurasian Customs Union                | R16 | EMC cable gland, maximum number                                      |
| L51 | Bearing insulation NDE                                                             | S03 | Special paint finish in sea air resistant C4                         |

### Notes:

|                                                                                    |                               |                               |             |                             |                                                                                                              |                |             |  |
|------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-------------|-----------------------------|--------------------------------------------------------------------------------------------------------------|----------------|-------------|--|
| 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. |                |             |  |
|  | document type<br>datasheet    |                               |             | document status<br>released |                                                                                                              | customer       |             |  |
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