

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



Motor type : 1CV1314A

SIMOTICS SD - 315 L - IM B3 - 2p

|                  |                 |           |
|------------------|-----------------|-----------|
| Client order no. | Item-No.        | Offer no. |
| Order no.        | Consignment no. | project   |

Remarks

## Electrical data

## Safe Area

| U<br>[V] | $\Delta / Y$ | f<br>[Hz] | P<br>[kW] | P<br>[hp] | I<br>[A] | n<br>[1/min] | M<br>[Nm] | $\eta$ <sup>3)</sup> |      |      | $\cos\phi$ <sup>3)</sup> |      |      | $I_A/I_N$<br>$I_i/I_N$ | $M_A/M_N$<br>$T_i/T_N$ | $M_K/M_N$<br>$T_B/T_N$ | IE-CL |
|----------|--------------|-----------|-----------|-----------|----------|--------------|-----------|----------------------|------|------|--------------------------|------|------|------------------------|------------------------|------------------------|-------|
|          |              |           |           |           |          |              |           | 4/4                  | 3/4  | 2/4  | 4/4                      | 3/4  | 2/4  |                        |                        |                        |       |
| 400      | $\Delta$     | 50        | 160.00    | -/-       | 270.00   | 2982         | 510.0     | 93.8                 | 93.6 | 93.1 | 0.91                     | 0.90 | 0.85 | 7.4                    | 2.3                    | 2.9                    | IE1   |
| 690      | Y            | 50        | 160.00    | -/-       | 157.00   | 2982         | 510.0     | 93.8                 | 93.6 | 93.1 | 0.91                     | 0.90 | 0.85 | 7.4                    | 2.3                    | 2.9                    | IE1   |
| 460      | $\Delta$     | 60        | 180.00    | -/-       | 265.00   | 3582         | 480.0     | 94.1                 | 93.6 | 92.6 | 0.90                     | 0.89 | 0.86 | 7.7                    | 2.4                    | 3.0                    | IE1   |

IM B3 / IM 1001      FS 315 L      880 kg      IP55      IEC/EN 60034      IEC, DIN, ISO, VDE, EN  
 Environmental conditions : -20 °C - +40 °C / 1,000 m

## Mechanical data

|  |                                 |                                 |                            |   |
|--|---------------------------------|---------------------------------|----------------------------|---|
| Sound level (SPL / SWL) at 50Hz 60Hz   | 80.0 / 94.0 dB(A) <sup>2)</sup> | 84.0 / 98.0 dB(A) <sup>2)</sup> | External earthing terminal | Yes (standard)                          |
| Moment of inertia  | 1.6000 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                       |
| Bearing DE   NDE   | 6316 C3                         | 6316 C3                         | Insulation                 | 155(F) to 130(B)                        |
| <b>bearing lifetime</b>  |                                 |                                 | Duty type                  | S1                                      |
| L <sub>10mh</sub> F <sub>rad min</sub> for coupling operation<br>50 60Hz <sup>1)</sup> | 40000 h                         | 32000 h                         | Direction of rotation      | bidirectional                           |
| Relubrication interval/quantity (AS BS)  | 30 g   30 g<br>3000 h           |                                 | Frame material             | cast iron                               |
| Lubricants   | Unirex N3                       |                                 | Coating (paint finish)     | Standard paint finish C2                |
| Regreasing device  | Yes (standard)                  |                                 | Color, paint shade         | RAL7030                                 |
| Grease nipple  | M10x1 DIN 3404 A                |                                 | Motor protection           | (A) without (Standard)                  |
| 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      | 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             |
| Contact screw thread     | M12       | Cable gland                    | 2 plugs               |

### Notes:

$I_A/I_N$  = 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  
 $M_A/M_N$  = locked rotor torque / torque nominal      2) at rated power / at full load  
 $M_K/M_N$  = break down torque / nominal torque

|                               |                     |                               |             |   |
|-------------------------------|---------------------|-------------------------------|-------------|---|
| responsible dep.<br>DI MC LVM | technical reference | created by<br>DT Configurator | approved by | <i>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</i> |
|-------------------------------|---------------------|-------------------------------|-------------|---|

|                   |                             |                             |             |                                   |
|-------------------|-----------------------------|-----------------------------|-------------|-----------------------------------|
| <b>SIEMENS</b>    | document type<br>datasheet  | document status<br>released | customer    |                                   |
|                   | title<br>1LE1502-3AA43-4AA4 | document number             | rev.<br>01  | creation date<br>2021-01-17 19:26 |
| © Siemens AG 2021 |                             | language<br>en              | Page<br>1/1 |                                   |