

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



Motor type : 1CV2315A

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] | Δ / Y | f<br>[Hz] | P<br>[kW] | P<br>[hp] | I<br>[A] | n<br>[1/min] | M<br>[Nm] | 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 |
|----------|-------|-----------|-----------|-----------|----------|--------------|-----------|-----------------|------|------|--------------------|------|------|--------------------------------|--------------------------------|--------------------------------|-------|
|          |       |           |           |           |          |              |           | 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        | 200.00    | -/-       | 330.00   | 2982         | 640.0     | 95.0            | 95.2 | 94.8 | 0.92               | 0.92 | 0.88 | 7.3                            | 2.5                            | 3.0                            | IE2   |
| 690      | Y     | 50        | 200.00    | -/-       | 191.00   | 2982         | 640.0     | 95.0            | 95.2 | 94.8 | 0.92               | 0.92 | 0.88 | 7.3                            | 2.5                            | 3.0                            | IE2   |
| 460      | Δ     | 60        | 224.00    | -/-       | 320.00   | 3580         | 600.0     | 95.4            | 95.4 | 94.8 | 0.92               | 0.92 | 0.88 | 7.4                            | 2.9                            | 3.0                            | IE2   |
| 460      | Δ     | 60        | 200.00    | -/-       | 285.00   | 3585         | 530.0     | 95.4            | 95.2 | 94.2 | 0.92               | 0.91 | 0.86 | 8.3                            | 3.1                            | 3.2                            | IE2   |

|                 |  |          |         |      |  |              |                        |  |  |
|-----------------|--|----------|---------|------|--|--------------|------------------------|--|--|
| IM B3 / IM 1001 |  | FS 315 L | 1130 kg | IP55 |  | IEC/EN 60034 | IEC, DIN, ISO, VDE, EN |  |  |
|-----------------|--|----------|---------|------|--|--------------|------------------------|--|--|

Environmental conditions : -20 °C - +40 °C / 1,000 m

Locked rotor time (hot / cold) : 37.9 s | 64.1 s

## Mechanical data

|                                                                                     |                                 |                                 |                            |                                         |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 80.0 / 95.0 dB(A) <sup>2)</sup> | 84.0 / 99.0 dB(A) <sup>2)</sup> | External earthing terminal | Yes (standard)                          |
| Moment of inertia                                                                   | 2.2000 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 50 60Hz <sup>1)</sup> | 40000 h                         | 32000 h                         | Direction of rotation      | bidirectional                           |
| Relubrication interval/quantity DE   NDE                                            | 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<sub>A</sub>/I<sub>N</sub> = locked rotor current / current nominal  
M<sub>K</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
M<sub>K</sub>/M<sub>N</sub> = 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. | 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 |             |                                                                                                              |

|                                                                                    |                    |                  |          |      |
|------------------------------------------------------------------------------------|--------------------|------------------|----------|------|
|  | document type      | document status  | customer |      |
|                                                                                    | datasheet          | released         |          |      |
|                                                                                    | title              | document number  |          |      |
|                                                                                    | 1LE1501-3AA53-4AA4 |                  |          |      |
| © Siemens AG 2021                                                                  | rev.               | creation date    | language | Page |
|                                                                                    | 01                 | 2021-04-23 11:38 | en       | 1/1  |