

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



Motor type : 1CV3315B

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                                                    | 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> |       |         |
| DOL duty (S1) - 155(F) to 130(B)                     |       |      |          |      |        |         |        |                 |                                                  |              |                    |                        |      |                                |                                |                                |       |         |
| 400                                                  | Δ     | 50   | 200.00   | -/-  | 340.00 | 1488    | 1280.0 | 96.0            | 96.3                                             | 96.1         | 0.88               | 0.86                   | 0.79 | 7.4                            | 3.2                            | 3.0                            | IE3   |         |
| 690                                                  | Y     | 50   | 200.00   | -/-  | 198.00 | 1488    | 1280.0 | 96.0            | 96.3                                             | 96.1         | 0.88               | 0.86                   | 0.79 | 7.4                            | 3.2                            | 3.0                            | IE3   |         |
| 460                                                  | Δ     | 60   | 230.00   | -/-  | 345.00 | 1788    | 1230.0 | 95.4            | 95.6                                             | 95.3         | 0.88               | 0.86                   | 0.80 | 7.5                            | 3.1                            | 2.8                            | IE2   |         |
| 460                                                  | Δ     | 60   | 200.00   | -/-  | 300.00 | 1791    | 1070.0 | 96.2            | 96.2                                             | 95.5         | 0.87               | 0.84                   | 0.75 | 8.7                            | 3.5                            | 3.2                            | IE3   |         |
| IM B3 / IM 1001                                      |       |      | FS 315 L |      |        |         | IP55   | UKCA            |                                                  | IEC/EN 60034 |                    | IEC, DIN, ISO, VDE, EN |      |                                |                                |                                |       | Grade 3 |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |      |          |      |        |         |        |                 | Locked rotor time (hot / cold) : 25.7 s   45.4 s |              |                    |                        |      |                                |                                |                                |       |         |

## Mechanical data

|                                                                         |                                |                                |                                 |                                                  |
|-------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                    | 73 / 87 dB(A) <sup>2) 3)</sup> | 78 / 93 dB(A) <sup>2) 3)</sup> | External earthing terminal      | Yes (standard)                                   |
| Moment of inertia                                                       | 3.7000 kg m <sup>2</sup>       |                                | Vibration severity grade        | A                                                |
| Bearing DE   NDE                                                        | 6319 C3                        | 6319 C3                        | Thermal class                   | F                                                |
| bearing lifetime                                                        |                                |                                | Duty type                       | S1                                               |
| L <sub>10mh</sub> F <sub>Rad</sub> <sup>1)</sup> for coupling operation | 40000 h                        | 32000 h                        | Direction of rotation           | bidirectional                                    |
| 50 60Hz                                                                 |                                |                                | Frame material                  | cast iron                                        |
| Relubrication interval/quantity DE   NDE                                | 40 g   40 g                    | 6000 h                         | Net weight of the motor (IM B3) | 1190 kg                                          |
| 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                | (F) 1 temperature sensor KTY84-130 (2 terminals) |
| Type of bearing                                                         | Locating bearing NDE           |                                | Method of cooling               | IC416 - separately ventilated, surface cooled    |
| Condensate drainage holes                                               | Yes (standard)                 |                                |                                 |                                                  |

## Terminal box

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 240 mm <sup>2</sup> |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 38 mm - 45 mm       |
| Type of terminal box     | TB1 Q01   | Cable entry                    | 2xM63x1,5-2xM20x1,5 |
| Contact screw thread     | M12       | Cable gland                    | 4 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. | <a href="#">Link documents</a> |
| DI MC LVM         |                      | DT Configurator |             |                                                                                                              |                                |
|                   | document type        |                 |             |                                                                                                              | document status                |
|                   | datasheet            |                 |             |                                                                                                              | released                       |
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## Special design

D34 China Energy Efficiency Label F70 Mounting of separately driven fan

## Notes:

|                                                                                    |                                          |                               |             |                                                                                                              |                                                                                       |
|------------------------------------------------------------------------------------|------------------------------------------|-------------------------------|-------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
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