

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



Motor type : 1CV3312D

SIMOTICS SD Premium Insulation - 315 M - IM B3 - 8p

|                  |                 |           |
|------------------|-----------------|-----------|
| 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       | 75.00 | -/-    | 145.00 | 738     | 970.0 | 93.1            | 94.1 | 94.4                   | 0.80               | 0.75 | 0.64 | 6.0                            | 2.2                            | 2.6                            | IE3   |
| 690             | Y     | 50       | 75.00 | -/-    | 84.00  | 738     | 970.0 | 93.1            | 94.1 | 94.4                   | 0.80               | 0.75 | 0.64 | 6.0                            | 2.2                            | 2.6                            | IE3   |
| 460             | Δ     | 60       | 90.00 | -/-    | 147.00 | 886     | 970.0 | 93.6            | 93.6 | 94.6                   | 0.82               | 0.78 | 0.69 | 6.0                            | 2.1                            | 2.4                            | IE2   |
| 460             | Δ     | 60       | 75.00 | -/-    | 127.00 | 891     | 800.0 | 93.6            | 94.2 | 94.2                   | 0.79               | 0.74 | 0.62 | 7.0                            | 2.4                            | 2.9                            | IE3   |
| IM B3 / IM 1001 |       | FS 315 M |       | 720 kg |        | IP55    |       | IEC/EN 60034    |      | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                | KS C IEC60034-2-1              |       |

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

Locked rotor time (hot / cold) : 16.1 s | 29.2 s

## Mechanical data

|                                                                                       |                             |                             |                            |                                         |
|---------------------------------------------------------------------------------------|-----------------------------|-----------------------------|----------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                  | 69 / 84 dB(A) <sup>2)</sup> | 73 / 88 dB(A) <sup>2)</sup> | External earthing terminal | Yes (standard)                          |
| Moment of inertia                                                                     | 2.4800 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> 50 60Hz <sup>1)</sup> for coupling operation | 40000 h                     | 32000 h                     | Direction of rotation      | bidirectional                           |
| Relubrication interval/quantity DE   NDE                                              | 40 g   40 g                 | 6000 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 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           |
| 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    |             |                                                                                                              |                  |          |      |
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