

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



Motor type : 1CV3318C

SIMOTICS SD Pro - 315 L - IM B3 - 6p

|                  |                 |           |
|------------------|-----------------|-----------|
| Client order no. | Item-No.        | Offer no. |
| Order no.        | Consignment no. | Project   |
| Remarks          |                 |           |

| Safe Area                                            |       |      |          |      |        |         |        |                 |                                                  |                               |                    |      |      |                                |                                |                                |       |
|------------------------------------------------------|-------|------|----------|------|--------|---------|--------|-----------------|--------------------------------------------------|-------------------------------|--------------------|------|------|--------------------------------|--------------------------------|--------------------------------|-------|
| Electrical data                                      |       |      |          |      |        |         |        | -/-             |                                                  |                               |                    |      |      |                                |                                |                                |       |
| 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 155(F)                     |       |      |          |      |        |         |        |                 |                                                  |                               |                    |      |      |                                |                                |                                |       |
| 380                                                  | Δ     | 50   | 250.00   | -/-  | 490.00 | 993     | 2400.0 | 95.8            | 95.9                                             | 95.6                          | 0.81               | 0.75 | 0.64 | 8.8                            | 3.4                            | 3.3                            | IE3   |
| 660                                                  | Y     | 50   | 250.00   | -/-  | 280.00 | 993     | 2400.0 | 95.8            | 95.9                                             | 95.6                          | 0.81               | 0.75 | 0.64 | 8.8                            | 3.4                            | 3.3                            | IE3   |
| 440                                                  | Δ     | 60   | 250.00   | -/-  | 430.00 | 1194    | 2000.0 | 95.8            | 95.8                                             | 95.3                          | 0.80               | 0.74 | 0.63 | 9.9                            | 3.7                            | 3.7                            | IE3   |
| 440                                                  | Δ     | 60   | 300.00   | -/-  | 495.00 | 1192    | 2400.0 | 95.8            | 96.0                                             | 95.7                          | 0.83               | 0.79 | 0.69 | 8.6                            | 3.1                            | 3.1                            | IE3   |
| 440                                                  | Δ     | 60   |          | 300  | 386.82 | 1195    | 1760.0 | 95.8            | 95.7                                             | 95.0                          | 0.80               | 0.74 | 0.63 | 11.0                           | 4.2                            | 4.2                            | MG1   |
| IM B3 / IM1001                                       |       |      | FS 315 L |      |        | IP55    | UKCA   | IEC/EN 60034    |                                                  | IEC, EN, UL, CSA, NEMA MG1-12 |                    |      |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |      |          |      |        |         |        |                 | Locked rotor time (hot / cold) : 26.4 s   42.1 s |                               |                    |      |      |                                |                                |                                |       |

Mechanical data

|                                                                                     |                                |                                |                            |                                                |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|----------------------------|------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 70 / 84 dB(A) <sup>2) 3)</sup> | 73 / 87 dB(A) <sup>2) 3)</sup> | Condensate drainage holes  | (Standard) Yes                                 |
| Moment of inertia                                                                   | 8.0000 kg m <sup>2</sup>       |                                | External earthing terminal | (Standard) Yes                                 |
| Bearing DE   NDE                                                                    | 6319 C4                        | 6319 C4                        | Vibration severity grade   | Grade A                                        |
| permissible lateral force on (N) (N)                                                | X <sub>0</sub> : 10600         | X <sub>0.5</sub> : 9900        | Thermal class              | F                                              |
| 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                    | 6000 h                         | Frame material             | cast iron                                      |
| Lubricants                                                                          | UNIREX N3                      |                                | Net weight of the motor    | 1630 kg                                        |
| Regreasing device                                                                   | -/-                            |                                | Coating (paint finish)     | Special paint finish C3                        |
| Grease nipple                                                                       | -/-                            |                                | Color, paint shade         | RAL7030                                        |
| Type of bearing                                                                     | Locating bearing DE            |                                | Motor protection           | 3 PTC thermistors - for tripping (2 terminals) |
| Bearing insulation DE / Bearing insulation NDE                                      | Yes (Non-drive end)            |                                | Method of cooling          | IC416 - separately ventilated, surface cooled  |

Terminal box

|                          |              |                                |                     |
|--------------------------|--------------|--------------------------------|---------------------|
| Terminal box position    | at the right | Max. cross-sectional area      | 240 mm <sup>2</sup> |
| Material of terminal box | cast iron    | Cable diameter from ... to ... | 34 mm - 45 mm       |
| Type of terminal box     | TB3Q01       | Cable entry                    | 2xM80x2 - 2xM20x1,5 |
| Contact screw thread     | 6xM12        | Cable gland                    | -/-                 |

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) L<sub>10mh</sub> 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. |                 | Link documents |                 |
| IN LVM            |                     | SPC                  |             |                                                                                                              |                 |                |                 |
| SIEMENS           | document type       | datasheet            |             |                                                                                                              | document status |                |                 |
|                   | title               | 1LE5683-3AC83-3AB5-Z |             |                                                                                                              | released        |                |                 |
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|                   |                     |                      |             |                                                                                                              | 951             | 2023-12-14     | en   1/2        |

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Special design

|     |                                                                     |     |                                                 |
|-----|---------------------------------------------------------------------|-----|-------------------------------------------------|
| D47 | TR CU product safety certificate EAC for the Eurasian Customs Union | G06 | Mounting a rotary pulse encoder HOG 10 D 1024 I |
| F70 | Mounting of separately driven fan                                   | L51 | Bearing insulation NDE                          |

Notes:

|                                                                                    |                                   |                       |             |                                                                                                              |                                 |                                                                                       |                 |
|------------------------------------------------------------------------------------|-----------------------------------|-----------------------|-------------|--------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------|-----------------|
| responsible dep.<br><br>IN LVM                                                     | technical reference               | created by<br><br>SPC | approved by | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |                                 | <a href="#">Link documents</a>                                                        |                 |
|  | document type<br><br>datasheet    |                       |             | document status<br><br>released                                                                              |                                 |  |                 |
|                                                                                    | title<br><br>1LE5683-3AC83-3AB5-Z |                       |             | document number                                                                                              |                                 |                                                                                       |                 |
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