

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

Motor type: 7CV3310A SIMOTICS SD - 315S - IM B3 - 2 p

|                  |                 |           |
|------------------|-----------------|-----------|
| 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       | 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]±10%  |       | [Hz]±5% | [kW]    | [hp] | [A]    | [1/min] | [kgf.m] | [Nm]  | 4/4                    | 3/4  | 2/4  | 4/4                | 3/4  | 2/4  |                                |                                |                                |       |  |
| Motordaten / Motor Data                              |       |         |         |      |        |         |         |       |                        |  |      |                    |      |      |                                |                                |                                |       |  |
| 415  | Δ     | 50      | 110.00  | -/-  | 178.00 | 2982    | 36.0    | 352.0 | 95.5                   | 95.7   | 95.4 | 0.90               | 0.89 | 0.84 | 7.0                            | 2.4                            | 2.8                            | IE3   |  |
|  |       |         |         |      |        |         |         |       |                        |  |      |                    |      |      |                                |                                |                                |       |  |
|  |       |         |         |      |        |         |         |       |                        |  |      |                    |      |      |                                |                                |                                |       |  |
|  |       |         |         |      |        |         |         |       |                        |  |      |                    |      |      |                                |                                |                                |       |  |
| IM B3 / IM 1001                                      |       |         | FS 315S |      | 810 kg |         | SF:1    |       | IS 12615 / IEC 60034-1 |  |      | -                  |      |      |                                |                                |                                |       |  |
| Environmental conditions : -20 °C - +50 °C / 1,000 m |       |         |         |      |        |         |         |       |                        | Locked rotor time (hot / cold) : 18 s   30 s |      |                    |      |      |                                |                                |                                |       |  |


Mechanical data

|   |  |          |                                   |   |
|---|--|----------|-----------------------------------|---|
| Sound pressure level 50Hz   60Hz  | 84 dB(A)   | 88 dB(A) | External earthing terminal        | Yes (standard)                          |
| Moment of inertia   Rotor GD <sup>2</sup>   | 1.3961 kg m <sup>2</sup>   5.5845 kgf.m <sup>2</sup> |          | Vibration severity grade          | A (Standard)                            |
| Bearing DE   NDE  | 6316 C3  | 6316 C3  | Insulation                        | 155(F) utilized to 130(B)               |
| bearing lifetime  |  |          | Duty type                         | S1                                      |
| L <sub>10mh</sub> F <sub>Rad max</sub> according catalogue 50 60Hz <sup>1)</sup>    | 20,000 h   | 16,000 h | Direction of rotation             | Bidirectional                           |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation 50 60Hz <sup>1)</sup> | 50,000 h   | 40,000 h | Frame material                    | Cast iron                               |
| Type of bearing   | Locating (fixed) bearing, NDE                        |          | Forced ventilation motor details  | - / -                                   |
| Relubrication interval/quantity DE   NDE  | 30 g   30 g<br>3,000 h                               |          | Net weight of the motor (IM B3)   | 810 kg                                  |
| Type of construction  | IM B3 / IM 1001                                      |          | Rotor weight                      | 170 kg                                  |
| Degree of protection  | IP55   |          | Data of anti condensation heating | -/- V, -/- W                            |
| Lubricants  | Esso Unirex N3                                       |          | Coating (paint finish)            | Standard paint finish                   |
| Regreasing device   | Yes (standard)                                       |          | Color, paint shade                | RAL7030                                 |
| Grease nipple   | M10x1 DIN 71412 A                                    |          | Motor protection                  | (A) without                             |
| Condensate drainage holes   | Yes  |          | Method of cooling                 | IC411 - Self ventilated, surface cooled |

Terminal box

|                           |                     |                                |                   |
|---------------------------|---------------------|--------------------------------|-------------------|
| Terminal box position     | Top                 | Cable diameter from ... to ... | 38.0 mm - 45.0 mm |
| Material of terminal box  | Cast iron           | Cable entry                    | 2xM63x1.5         |
| Type of terminal box      | TB1 Q01             | Cable gland                    | 2 Plugs           |
| Contact screw thread      | M12                 |                                |                   |
| Max. cross-sectional area | 185 mm <sup>2</sup> |                                |                   |

|   |  |  |  |
|---|--|--|--|
| <b>Notes:</b>   |  |  |  |
| I <sub>A</sub> /I <sub>N</sub> = locked rotor current / current nominal |  |  |  |
| M <sub>A</sub> /M <sub>N</sub> = locked rotor torque / torque nominal   |  |  |  |
| M <sub>K</sub> /M <sub>N</sub> = break down torque / nominal torque     |  |  |  |
| 3) Efficiency value is valid only for sinusoidal line supply operation. |  |  |  |
| 1) L <sub>10mh</sub> according to DIN ISO 281 10/2010                   |  |  |  |

|                                  |   |                   |             |  |                             |   |             |
|----------------------------------|---|-------------------|-------------|--|-----------------------------|---|-------------|
| Responsible department<br>IN LVM | Technical reference                       | Created by<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>  |             |
| SIEMENS                          | Document type<br>Datasheet                |                   |             | Document status<br>Released  |                             |  |             |
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