

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



Motor type : 1CV1280B

SIMOTICS SD - 280 S - 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> |       |  |
| 440                                                  | Δ     | 60   | 86.00    | -/-  | 141.00 | 1785    | 460.0 | 93.2            | 93.2 | 92.4                                             | 0.86               | 0.83 | 0.76                   | 7.0                            | 2.3                            | 2.8                            | IE1   |  |
|                                                      |       |      |          |      |        |         |       |                 |      |                                                  |                    |      |                        |                                |                                |                                |       |  |
|                                                      |       |      |          |      |        |         |       |                 |      |                                                  |                    |      |                        |                                |                                |                                |       |  |
|                                                      |       |      |          |      |        |         |       |                 |      |                                                  |                    |      |                        |                                |                                |                                |       |  |
| IM B3 / IM 1001                                      |       |      | FS 280 S |      | 540 kg |         | IP55  |                 |      |                                                  | IEC/EN 60034       |      | IEC, DIN, ISO, VDE, EN |                                |                                |                                |       |  |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |      |          |      |        |         |       |                 |      | Locked rotor time (hot / cold) : 17.7 s   29.7 s |                    |      |                        |                                |                                |                                |       |  |

Mechanical data

|                                                                                     |                                 |                                 |                            |                                         |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 72.0 / 86.0 dB(A) <sup>2)</sup> | 76.0 / 90.0 dB(A) <sup>2)</sup> | External earthing terminal | Yes (standard)                          |
| Moment of inertia                                                                   | 1.2000 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                       |
| Bearing DE   NDE                                                                    | 6317 C3                         | 6317 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                                            | 30 g   30 g                     | 8000 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      | 120.0 mm <sup>2</sup> |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 34.0 mm - 42.0 mm     |
| Type of terminal box     | TB1 N01   | Cable entry                    | 2xM63x1,5             |
| Contact screw thread     | M10       | Cable gland                    | 2 plugs               |

|                                                                         |                                           |                                                                  |
|-------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------|
| <b>Notes:</b>                                                           |                                           |                                                                  |
| I <sub>L</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>L</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. |                  |          |          |  |
| DI MC LVM                                                                          |                      | DT Configurator |             |                                                                                                              |                  |          |          |  |
|  | document type        | datasheet       |             |                                                                                                              | document status  |          | customer |  |
|                                                                                    |                      |                 |             |                                                                                                              | released         |          |          |  |
|                                                                                    |                      | title           |             |                                                                                                              | document number  |          |          |  |
|                                                                                    | 1LE1502-2DB09-0AA4-Z |                 |             |                                                                                                              |                  |          |          |  |
|                                                                                    | B02+D22+M1D          |                 |             | rev.                                                                                                         | creation date    | language | Page     |  |
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## Special design

|     |                                                                                    |     |                               |
|-----|------------------------------------------------------------------------------------|-----|-------------------------------|
| B02 | Acceptance test certificate 3.1 acc. to EN 10204                                   | M1D | 440 VD for 60 Hz, 60-Hz power |
| D22 | motor without CE character for export outside the EEA (see EU regulation 640/2009) |     |                               |

**Notes:**

|                                                                                    |                      |                 |             |                                                                                                              |                  |          |      |
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|                                                                                    | 1LE1502-2DB09-0AA4-Z |                 |             |                                                                                                              |                  |          |      |
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