



**SIMOTICS SD - 280 M - IM B3 - 2p**

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

Remarks

## 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   | 90.00    | -/-  | 157.00 | 2975    | 290.0 | 94.1            | 94.2 | 93.5 | 0.88                   | 0.86 | 0.79 | 7.1                            | 2.5                            | 3.1                            | IE2   |
| 690             | Y     | 50   | 90.00    | -/-  | 91.00  | 2975    | 290.0 | 94.1            | 94.2 | 93.5 | 0.88                   | 0.86 | 0.79 | 7.1                            | 2.5                            | 3.1                            | IE2   |
| 460             | Δ     | 60   | 101.00   | -/-  | 151.00 | 3575    | 270.0 | 94.5            | 94.4 | 93.4 | 0.89                   | 0.87 | 0.81 | 7.2                            | 2.5                            | 3.1                            | IE2   |
| 460             | Δ     | 60   | 90.00    | -/-  | 136.00 | 3578    | 240.0 | 94.5            | 94.2 | 93.1 | 0.88                   | 0.86 | 0.79 | 7.9                            | 2.7                            | 3.4                            | IE2   |
| IM B3 / IM 1001 |       |      | FS 280 M |      | 530 kg |         | IP55  | IEC/EN 60034    |      |      | IEC, DIN, ISO, VDE, EN |      |      |                                |                                |                                |       |

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

Locked rotor time (hot / cold) : 25.1 s | 46.7 s

## Mechanical data

|                                                                                        |                                 |                                 |                            |                                                      |
|----------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|------------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                   | 76.0 / 89.0 dB(A) <sup>2)</sup> | 81.0 / 95.0 dB(A) <sup>2)</sup> | External earthing terminal | Yes (standard)                                       |
| Moment of inertia                                                                      | 0.8300 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                                    |
| Bearing DE   NDE                                                                       | 6315 C3                         | 6315 C3                         | Insulation                 | 155(F) to 130(B)                                     |
| bearing lifetime                                                                       |                                 |                                 | Duty type                  | S1                                                   |
| L <sub>10mh</sub> F <sub>Rad min</sub><br>50 60Hz <sup>1)</sup> for coupling operation | 40000 h                         | 32000 h                         | Direction of rotation      | bidirectional                                        |
| Relubrication interval/quantity DE   NDE                                               | 25 g   25 g<br>4000 h           |                                 | Frame material             | cast iron                                            |
| Lubricants                                                                             | Unirex N3                       |                                 | Coating (paint finish)     | Special paint finish, resistant to salt-laden air C4 |
| 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 DE             |                                 | 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 mm²           |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 34.0 mm - 42.0 mm   |
| Type of terminal box     | TB1 N01   | Cable entry                    | 2xM63x1,5-2xM20x1,5 |
| Contact screw thread     | M10       | Cable gland                    | 4 plugs             |

**Notes:**

$I_A/I_N$  = locked rotor current / current nominal  
 $M_A/M_N$  = locked rotor torque / torque nominal  
 $M_K/M_N$  = 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 |                  |  |                                                                                                              |      |  |  |
|  | document type        | document status |                  |  | customer                                                                                                     |      |  |  |
|                                                                                    | datasheet            | released        |                  |  |                                                                                                              |      |  |  |
|                                                                                    | title                | document number |                  |  |                                                                                                              |      |  |  |
|                                                                                    | 1LE1601-2DA23-4AF4-Z |                 |                  |  |                                                                                                              |      |  |  |
|                                                                                    | L51+Q01+S03          | rev.            | creation date    |  | language                                                                                                     | Page |  |  |
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## Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS



Motor type : 1CV2282A

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### Special design

|     |                                                                      |     |                                              |
|-----|----------------------------------------------------------------------|-----|----------------------------------------------|
| L51 | Bearing insulation NDE                                               | S03 | Special paint finish in sea air resistant C4 |
| Q01 | Measuring nipple for SPM shock pulse measurement to monitor bearings |     |                                              |

### Notes:

|                                                                                    |                               |                               |             |  |                                                                                                              |                                   |                |             |
|------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-------------|--|--------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------|-------------|
| responsible dep.<br>DI MC LVM                                                      | technical reference           | created by<br>DT Configurator | approved by |  | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |                                   |                |             |
|  | document type<br>datasheet    |                               |             |  | document status<br>released                                                                                  |                                   | customer       |             |
|                                                                                    | title<br>1LE1601-2DA23-4AF4-Z |                               |             |  | document number                                                                                              |                                   |                |             |
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