



**SIMOTICS SD - 280 S - IM B5 - 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> |       |
| <b>DOL duty (S1) - 155(F) to 130(B)</b>             |       |      |          |      |        |         |       |                 |                                              |                        |                    |      |      |                                |                                |                                |       |
| 400                                                 | Δ     | 50   | 75.00    | -/-  | 127.00 | 2980    | 240.0 | 95.6            | 95.6                                         | 95.0                   | 0.89               | 0.87 | 0.80 | 8.4                            | 2.7                            | 3.5                            | IE4   |
| 690                                                 | Y     | 50   | 75.00    | -/-  | 74.00  | 2980    | 240.0 | 95.6            | 95.6                                         | 95.0                   | 0.89               | 0.87 | 0.80 | 8.4                            | 2.7                            | 3.5                            | IE4   |
| 460                                                 | Δ     | 60   | 84.00    | -/-  | 123.00 | 3580    | 225.0 | 95.4            | 95.2                                         | 94.2                   | 0.90               | 0.88 | 0.82 | 8.7                            | 3.0                            | 3.3                            | IE4   |
| 460                                                 | Δ     | 60   | 75.00    | -/-  | 111.00 | 3582    | 200.0 | 95.0            | 94.6                                         | 93.4                   | 0.89               | 0.87 | 0.79 | 9.5                            | 3.3                            | 3.7                            | IE4   |
| IM B5 / IM 3001                                     |       |      | FS 280 S |      |        | IP55    | UKCA  | IEC/EN 60034    |                                              | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1000 m |       |      |          |      |        |         |       |                 | Locked rotor time (hot / cold) : 37 s   50 s |                        |                    |      |      |                                |                                |                                |       |

|                                                                                        |                                |                                |                                 |                                                               |
|----------------------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                   | 72 / 86 dB(A) <sup>2) 3)</sup> | 81 / 94 dB(A) <sup>2) 3)</sup> | External earthing terminal      | With (standard)                                               |
| Moment of inertia                                                                      | 0.9400 kg m²                   |                                | Vibration severity grade        | A                                                             |
| Bearing DE   NDE                                                                       | 6315 C3                        | 6315 C3                        | Thermal class                   | F                                                             |
| <b>bearing lifetime</b>                                                                |                                |                                | Duty type                       | S1                                                            |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation<br>50 60Hz <sup>1)</sup> | 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                      |                                | Net weight of the motor (IM B3) | 600 kg                                                        |
| Regreasing device                                                                      | With regreasing nipple         |                                | Coating (paint finish)          | Special paint finish C3                                       |
| Grease nipple                                                                          | M10x1 DIN 71412 A              |                                | Color, paint shade              | RAL7030                                                       |
| Type of bearing                                                                        | Locating bearing DE            |                                | Motor protection                | (B) 3 PTC thermistors - for tripping (standard) (2 terminals) |
| Bearing insulation DE / Bearing insulation NDE                                         | Yes (non-drive end)            |                                | Method of cooling               | IC411 - self ventilated, surface cooled                       |
| Condensate drainage holes                                                              | With (standard)                |                                |                                 |                                                               |

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 120 mm²             |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 34 mm - 45 mm       |
| Type of terminal box     | TB1 N61   | Cable entry                    | 2xM63x1,5-2xM20x1,5 |
| Contact screw thread     | M10       | Cable gland                    | 4 plugs             |

|                                                          |                                           |                                                                  |
|----------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------|
| $I_{lr}/I_{ln}$ = 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 |
| $M_{lr}/M_{ln}$ = locked rotor torque / torque nominal   | 2) at rated power / at full load          |                                                                  |
| $M_b/M_{ln}$ = break down torque / nominal torque        |                                           |                                                                  |

|                                                                                    |                               |                               |             |                                                                                                              |                             |                                                                                                                         |             |
|------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-------------|--------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------|
| 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. |                             | <a href="#">Link documents</a><br> |             |
|  | document type<br>datasheet    |                               |             | document status<br>released                                                                                  |                             |                                    |             |
|                                                                                    | title<br>1LE1604-2DA03-4FB4-Z |                               |             | document number                                                                                              |                             |                                                                                                                         |             |
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Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS



Motor type : 1CV4280A

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Special design

|     |                                                                   |     |                               |
|-----|-------------------------------------------------------------------|-----|-------------------------------|
| L19 | Regreasing device with regreasing nipple M10X1 acc.to DIN 71412-A | R52 | Drilled removable entry plate |
| L51 | Bearing insulation NDE                                            |     |                               |

Notes:

|                                                                                    |                                              |                               |             |                                                                                                              |                                |
|------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------|-------------|--------------------------------------------------------------------------------------------------------------|--------------------------------|
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