

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



Motor type : 1CV3184B

SIMOTICS SD - 180 L - IM B35 - 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> |       |
| DOL duty (S1) - 155(F) to 130(B)                    |       |      |          |      |       |         |       |                 |                                                  |              |                    |                        |      |                                |                                |                                |       |
| 500                                                 | Δ     | 50   | 22.00    | -/-  | 33.00 | 1470    | 143.0 | 93.0            | 93.6                                             | 93.6         | 0.83               | 0.78                   | 0.68 | 6.8                            | 2.3                            | 3.3                            | IE3   |
|                                                     |       |      |          |      |       |         |       |                 |                                                  |              |                    |                        |      |                                |                                |                                |       |
| 575                                                 | Δ     | 60   | 25.30    | -/-  | 32.50 | 1770    | 136.0 | 93.6            | 94.1                                             | 94.0         | 0.83               | 0.78                   | 0.69 | 6.9                            | 2.2                            | 3.2                            | IE3   |
| 575                                                 | Δ     | 60   | 22.00    | -/-  | 29.00 | 1775    | 118.0 | 93.6            | 93.8                                             | 93.3         | 0.81               | 0.75                   | 0.65 | 7.7                            | 2.8                            | 3.7                            | IE3   |
| IM B35 / IM 2001                                    |       |      | FS 180 L |      |       |         | IP55  | UKCA            |                                                  | IEC/EN 60034 |                    | IEC, DIN, ISO, VDE, EN |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1000 m |       |      |          |      |       |         |       |                 | Locked rotor time (hot / cold) : 26.4 s   41.3 s |              |                    |                        |      |                                |                                |                                |       |

## Mechanical data

|                                                          |                                |                                |                                 |                                                               |
|----------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                     | 68 / 75 dB(A) <sup>2) 3)</sup> | 70 / 77 dB(A) <sup>2) 3)</sup> | External earthing terminal      | With (standard)                                               |
| Moment of inertia                                        | 0.1400 kg m <sup>2</sup>       |                                | Vibration severity grade        | A                                                             |
| Bearing DE   NDE                                         | 6310 C3                        | 6310 C3                        | Thermal class                   | F                                                             |
| bearing lifetime                                         |                                |                                | Duty type                       | S1                                                            |
| $L_{10mh}$ $F_{Rad}$ $\eta_{min}$ for coupling operation | 40000 h                        | 32000 h                        | Direction of rotation           | bidirectional                                                 |
| 50 60Hz                                                  |                                |                                | Frame material                  | cast iron                                                     |
| Relubrication interval/quantity DE   NDE                 | 15 g   15 g                    | 8000 h                         | Net weight of the motor (IM B3) | 170 kg                                                        |
| Lubricants                                               | Unirex N3                      |                                | Coating (paint finish)          | Special paint finish C3                                       |
| Regreasing device                                        | With regreasing nipple         |                                | Color, paint shade              | RAL7030                                                       |
| Grease nipple                                            | M10x1 DIN 71412 A              |                                | Motor protection                | (B) 3 PTC thermistors - for tripping (standard) (2 terminals) |
| Type of bearing                                          | Locating bearing NDE           |                                | Method of cooling               | IC411 - self ventilated, surface cooled                       |
| Condensate drainage holes                                | With (standard)                |                                |                                 |                                                               |

## Terminal box

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 16 mm <sup>2</sup>  |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 19 mm - 28 mm       |
| Type of terminal box     | TB1 J61   | Cable entry                    | 2xM40x1,5-1xM16x1,5 |
| Contact screw thread     | M5        | Cable gland                    | 3 plugs             |

## Notes:

|                                                    |                                           |                                                                  |
|----------------------------------------------------|-------------------------------------------|------------------------------------------------------------------|
| $I_A/I_N$ = 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 |
| $M_A/M_N$ = locked rotor torque / torque nominal   | 2) at rated power / at full load          |                                                                  |
| $M_K/M_N$ = 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>1LE1603-1EB44-0JB4-Z |                               |             | document number                                                                                              |                             |                                                                                                                         |             |
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Special design

|     |                                                                   |     |                               |
|-----|-------------------------------------------------------------------|-----|-------------------------------|
| H01 | Bolted on mounting feet (instead of cast)                         | R52 | Drilled removable entry plate |
| L19 | Regreasing device with regreasing nipple M10X1 acc.to DIN 71412-A |     |                               |

Notes:

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