

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



Motor type : 1AV3130B

SIMOTICS GP - 132 S - IM B5 - 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)                     |       |      |          |      |       |         |      |                 |                                                |              |                    |                        |      |                                |                                |                                |       |
| 220                                                  | Δ     | 50   | 5.50     | -/-  | 19.60 | 1470    | 35.5 | 89.6            | 90.0                                           | 89.4         | 0.82               | 0.77                   | 0.67 | 8.5                            | 2.9                            | 3.7                            | IE3   |
| 380                                                  | Y     | 50   | 5.50     | -/-  | 11.40 | 1470    | 35.5 | 89.6            | 90.0                                           | 89.4         | 0.82               | 0.77                   | 0.67 | 8.5                            | 2.9                            | 3.7                            | IE3   |
| 440                                                  | Y     | 60   | 6.30     | -/-  | 10.90 | 1770    | 34.0 | 91.7            | 92.0                                           | 91.3         | 0.83               | 0.79                   | 0.69 | 8.7                            | 2.7                            | 3.7                            | IE3   |
| 440                                                  | Y     | 60   | 5.50     | -/-  | 9.70  | 1775    | 29.5 | 91.7            | 91.6                                           | 90.5         | 0.81               | 0.76                   | 0.65 | 10.0                           | 3.1                            | 4.2                            | IE3   |
| IM B5 / IM 3001                                      |       |      | FS 132 S |      |       |         | IP55 |                 |                                                | IEC/EN 60034 |                    | IEC, DIN, ISO, VDE, EN |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |      |          |      |       |         |      |                 | Locked rotor time (hot / cold) : 22 s   28.1 s |              |                    |                        |      |                                |                                |                                |       |

## Mechanical data

|                                               |                                |                                |                                 |                                                  |
|-----------------------------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz          | 64 / 76 dB(A) <sup>2) 3)</sup> | 68 / 80 dB(A) <sup>2) 3)</sup> | Vibration severity grade        | A                                                |
| Moment of inertia                             | 0.0340 kg m <sup>2</sup>       |                                | Thermal class                   | F                                                |
| Bearing DE   NDE                              | 6208 2Z C3                     | 6208 2Z C3                     | Duty type                       | S1                                               |
| bearing lifetime                              |                                |                                | Direction of rotation           | bidirectional                                    |
| $L_{10mh} F_{Rad min}$ for coupling operation | 40000 h                        | 32000 h                        | Frame material                  | aluminum                                         |
| Lubricants                                    | Unirex N3                      |                                | Net weight of the motor (IM B3) | 54 kg                                            |
| Regreasing device                             | No                             |                                | Coating (paint finish)          | Standard paint finish C2                         |
| Grease nipple                                 | -/-                            |                                | Color, paint shade              | RAL7030                                          |
| Type of bearing                               | Preloaded bearing DE           |                                | Motor protection                | (F) 1 temperature sensor KTY84-130 (2 terminals) |
| Condensate drainage holes                     | No                             |                                | Method of cooling               | IC411 - self ventilated, surface cooled          |
| External earthing terminal                    | No                             |                                |                                 |                                                  |

## Terminal box

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 6 mm <sup>2</sup>   |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 11 mm - 21 mm       |
| Type of terminal box     | TB1 H00   | Cable entry                    | 2xM32x1,5-1xM16x1,5 |
| Contact screw thread     | M4        | 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.                                                                   | technical reference  | created by      | approved by   | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. | <a href="#">Link documents</a> |
| DI MC LVM                                                                          |                      | DT Configurator |               |                                                                                                              |                                |
|  | document type        |                 |               |                                                                                                              | document status                |
|                                                                                    | datasheet            |                 |               |                                                                                                              | released                       |
|                                                                                    | title                |                 |               |                                                                                                              | document number                |
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|                                                                                    | F01+F11+F50+G11+H07  |                 |               |                                                                                                              |                                |
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### Special design

|     |                                                               |     |                                                      |
|-----|---------------------------------------------------------------|-----|------------------------------------------------------|
| F01 | Mounting a brake                                              | G11 | Rotary pulse encoder Sendix 5020 (HTL)               |
| F11 | Brake supply voltage, 230 V AC, 50/60 Hz                      | H07 | Stainless steel screws and bolts (outside the motor) |
| F50 | Mechanical manual brake release with lever (cannot be locked) |     |                                                      |

### Additional information:

#### Brake:

|              |           |                    |                           |
|--------------|-----------|--------------------|---------------------------|
| Description: | BFK458-16 | Current:           | .27 A                     |
| Voltage:     | AC 230 V  | Moment of inertia: | 0.001500 kgm <sup>2</sup> |

#### Notes:

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