

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



Motor type : 1CV3162A

SIMOTICS SD - 160 M - IM B3 - 2p

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

Remarks

## Electrical data

## Safe Area

| U<br>[V]                                             | Δ / Y | f<br>[Hz] | P<br>[kW] | P<br>[hp] | I<br>[A] | n<br>[1/min] | M<br>[Nm] | η <sup>3)</sup> |                                                  |     | cos φ <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 |  |
|------------------------------------------------------|-------|-----------|-----------|-----------|----------|--------------|-----------|-----------------|--------------------------------------------------|-----|---------------------|-----|------------------------|--------------------------------|--------------------------------|--------------------------------|-------|--|
|                                                      |       |           |           |           |          |              |           | 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> |       |  |
| IM B3 / IM 1001                                      |       |           | FS 160 M  |           | 100 kg   |              | IP55      |                 |                                                  |     | IEC/EN 60034        |     | IEC, DIN, ISO, VDE, EN |                                |                                |                                |       |  |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |           |           |           |          |              |           |                 | Locked rotor time (hot / cold) : 23.3 s   31.7 s |     |                     |     |                        |                                |                                |                                |       |  |

## Mechanical data

|                                                                                     |                                 |                                 |                            |                                         |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 70.0 / 82.0 dB(A) <sup>2)</sup> | 77.0 / 89.0 dB(A) <sup>2)</sup> | External earthing terminal | Yes                                     |
| Moment of inertia                                                                   | 0.0530 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                       |
| Bearing DE   NDE                                                                    | 6309 2Z C3                      | 6309 2Z C3                      | Insulation                 | 155(F) to 130(B)                        |
| <b>bearing lifetime</b>                                                             |                                 |                                 | Duty type                  | S1                                      |
| L <sub>10mh</sub> F <sub>rad min</sub> for coupling operation 50 60Hz <sup>1)</sup> | 40000 h                         | 32000 h                         | Direction of rotation      | bidirectional                           |
| Lubricants                                                                          | Unirex N3                       |                                 | Frame material             | cast iron                               |
| Regreasing device                                                                   | No                              |                                 | Coating (paint finish)     | Standard paint finish C2                |
| Grease nipple                                                                       | -/-                             |                                 | Color, paint shade         | RAL7030                                 |
| Type of bearing                                                                     | Locating bearing NDE            |                                 | Motor protection           | (A) without (Standard)                  |
| Condensate drainage holes                                                           | Yes (standard)                  |                                 | Method of cooling          | IC411 - self ventilated, surface cooled |

## Terminal box

|                          |           |                                |                      |
|--------------------------|-----------|--------------------------------|----------------------|
| Terminal box position    | right     | Max. cross-sectional area      | 16.0 mm <sup>2</sup> |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 19.0 mm - 28.0 mm    |
| Type of terminal box     | TB1 J01   | 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. |             |  |  |
|  | document type<br>datasheet                           | document status<br>released   |                                   | customer                                                                                                     |             |  |  |
|                                                                                    | title<br>1LE1503-1DA29-0AA5-Z<br>H02+H04+L25+M1Y+Q02 | document number               |                                   |                                                                                                              |             |  |  |
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### Special design

|     |                                                          |     |                                                   |
|-----|----------------------------------------------------------|-----|---------------------------------------------------|
| H02 | Vibration-proof version                                  | M1Y | Non-standard winding:                             |
| H04 | External grounding at housing                            | Q02 | Anti-condensation heating for 230 V (2 terminals) |
| L25 | Double sides reinforced bearings for DE and NDE, Type 63 |     |                                                   |

### Additional information:

#### Space heaters

Technical data: 1-phase, 230 V 50W

### Notes:

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