

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



Motor type : 1CV3112A

SIMOTICS SD - 112 M - IM B3 - 2p

|                  |                 |           |
|------------------|-----------------|-----------|
| 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)                     |       |      |          |      |      |         |      |                 |                                               |              |                    |                        |      |                                |                                |                                |       |
| 415                                                  | Δ     | 50   | 4.00     | -/-  | 7.10 | 2945    | 13.0 | 88.1            | 88.8                                          | 87.9         | 0.89               | 0.84                   | 0.76 | 9.1                            | 2.6                            | 3.6                            | IE3   |
|                                                      |       |      |          |      |      |         |      |                 |                                               |              |                    |                        |      |                                |                                |                                |       |
| 480                                                  | Δ     | 60   | 4.55     | -/-  | 6.90 | 3545    | 12.3 | 88.5            | 88.5                                          | 87.2         | 0.89               | 0.85                   | 0.78 | 9.7                            | 2.7                            | 3.8                            | IE3   |
| 480                                                  | Δ     | 60   | 4.00     | -/-  | 6.20 | 3550    | 10.8 | 88.5            | 88.4                                          | 86.7         | 0.88               | 0.83                   | 0.75 | 10.9                           | 3.1                            | 4.3                            | IE3   |
| IM B3 / IM 1001                                      |       |      | FS 112 M |      |      |         | IP65 |                 |                                               | IEC/EN 60034 |                    | IEC, DIN, ISO, VDE, EN |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |       |      |          |      |      |         |      |                 | Locked rotor time (hot / cold) : 7 s   10.2 s |              |                    |                        |      |                                |                                |                                |       |

## Mechanical data

|                                                                                     |                                |                                |                                 |                                         |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 69 / 81 dB(A) <sup>2) 3)</sup> | 73 / 85 dB(A) <sup>2) 3)</sup> | Vibration severity grade        | A                                       |
| Moment of inertia                                                                   | 0.0079 kg m <sup>2</sup>       |                                | Thermal class                   | F                                       |
| Bearing DE   NDE                                                                    | 6206 2Z C3                     | 6206 2Z C3                     | Duty type                       | S1                                      |
| bearing lifetime                                                                    |                                |                                | Direction of rotation           | bidirectional                           |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation 50 60Hz <sup>1)</sup> | 40000 h                        | 32000 h                        | Frame material                  | cast iron                               |
| Lubricants                                                                          | Unirex N3                      |                                | Net weight of the motor (IM B3) | 41 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                | (A) without (Standard)                  |
| Condensate drainage holes                                                           | Yes (standard)                 |                                | Method of cooling               | IC411 - self ventilated, surface cooled |
| External earthing terminal                                                          | No                             |                                |                                 |                                         |

## Terminal box

|                          |           |                                |                   |
|--------------------------|-----------|--------------------------------|-------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 4 mm <sup>2</sup> |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 11 mm - 21 mm     |
| Type of terminal box     | TB1 F01   | Cable entry                    | 2xM32x1,5         |
| Contact screw thread     | M4        | Cable gland                    | 2 plugs           |

## Notes:

|                                                                         |                                           |                                                                  |
|-------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------|
| I <sub>A</sub> /I <sub>N</sub> = 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 <sub>K</sub> /M <sub>N</sub> = locked rotor torque / torque nominal   | 2) at rated power / at full load          |                                                                  |
| M <sub>B</sub> /M <sub>N</sub> = 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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## Special design

B02      Acceptance test certificate 3.1 acc. to EN 10204      H20      IP 65 degree of protection

## Notes:

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