

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



Motor type : 1AV1112B

- 112 M - IM B3 - 4p

Motor Code 17022

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

Remarks

## Electrical data

| U               | Δ / Y | f        | P    | P     | I     | n       | M    | $\eta^{3)}$  |     |                        | $\cos\varphi^{3)}$ |     |     | $I_A/I_N$            | $M_A/M_N$ | $M_K/M_N$ | IE-CL |
|-----------------|-------|----------|------|-------|-------|---------|------|--------------|-----|------------------------|--------------------|-----|-----|----------------------|-----------|-----------|-------|
| [V]             |       | [Hz]     | [kW] | [hp]  | [A]   | [1/min] | [Nm] | 4/4          | 3/4 | 2/4                    | 4/4                | 3/4 | 2/4 | $I_i/I_N$            | $T_i/T_N$ | $T_B/T_N$ |       |
| 220             | Δ     | 52.3     | 4.00 | -/-   | 14.90 | 1500    | 25.5 | 83.1         | -/- | -/-                    | 0.85               | -/- | -/- | -/-                  | -/-       | 2.6       | -/-   |
| 380             | Y     | 52.3     | 4.00 | -/-   | 8.70  | 1500    | 25.5 | 83.1         | -/- | -/-                    | 0.85               | -/- | -/- | -/-                  | -/-       | 2.6       | -/-   |
| 440             | Y     | 62.2     | 4.55 | -/-   | 8.30  | 1800    | 24.0 | 85.0         | -/- | -/-                    | 0.85               | -/- | -/- | -/-                  | -/-       | 2.7       | -/-   |
| 380             | Δ     | 89       | 6.60 | -/-   | 14.60 | 2610    | 24.0 | 85.0         | -/- | -/-                    | 0.81               | -/- | -/- | -/-                  | -/-       | 3.7       | -/-   |
| IM B3 / IM 1001 |       | FS 112 M |      | 27 kg |       | IP55    |      | IEC/EN 60034 |     | IEC, DIN, ISO, VDE, EN |                    |     |     | $n_{max}$ 4200 1/min |           |           |       |

Environmental conditions : -20 °C - +40 °C / 1,000 m

These values are calculated. The final rating plate data will be calculated when the order is placed  
The efficiency values and efficiency class according to EuP directive are valid for standard power ratings under standard conditions.

## Mechanical data

|                                          |                             |                             |                                   |                                         |
|------------------------------------------|-----------------------------|-----------------------------|-----------------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz     | 77 / 89 dB(A) <sup>2)</sup> | 77 / 89 dB(A) <sup>2)</sup> | Insulation                        | 155(F) to 155(F)                        |
| Moment of inertia                        | 0.0100 kg m <sup>2</sup>    |                             | Duty type                         | S9                                      |
| Bearing DE   NDE                         | 6206 2ZC3                   | 6206 2ZC3                   | Direction of rotation             | bidirectional                           |
| Relubrication interval/quantity DE   NDE | 40000 h                     |                             | Frame material                    | aluminum                                |
| Lubricants                               | Esso Unirex N3              |                             | Data of anti condensation heating | -/- V, -/- W                            |
| Regreasing device                        | No                          |                             | Coating (paint finish)            |                                         |
| Grease nipple                            | -/-                         |                             | Color, paint shade                |                                         |
| Type of bearing                          | Preloaded bearing NDE       |                             | Motor protection                  | (F) 1 temperature sensor KTY84-130      |
| Condensate drainage holes                | No                          |                             | Method of cooling                 | IC411 - self ventilated, surface cooled |
| External earthing terminal               | No                          |                             |                                   |                                         |
| Vibration severity grade                 | A                           |                             |                                   |                                         |

## Converter data

|                       |                                   |
|-----------------------|-----------------------------------|
| Feeding               | SINAMICS with uncontrolled supply |
| Recommended converter | -/-                               |

## Terminal box

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | top       | Contact screw thread           | M4                  |
| Material of terminal box | Aluminium | Max. cross-sectional area      | 4.0 mm <sup>2</sup> |
| Type of terminal box     | TB1 F00   | Cable diameter from ... to ... | 11.0 mm - 21.0 mm   |

### Notes:

$I_A/I_N$  = locked rotor current / current nominal  
 $M_A/M_N$  = locked rotor torque / torque nominal  
 $M_K/M_N$  = break down torque / nominal torque  
 1) L10mh according to DIN ISO 281 10/2010  
 2) at rated power / at full load  
 3) Value is valid only for DOL operation with motor design IC411

|                                                                                    |                     |                 |                  |                                                                                                              |      |  |  |
|------------------------------------------------------------------------------------|---------------------|-----------------|------------------|--------------------------------------------------------------------------------------------------------------|------|--|--|
| responsible dep.                                                                   | technical reference | created by      | approved by      | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |      |  |  |
| DI MC LVM                                                                          |                     | DT Configurator |                  |                                                                                                              |      |  |  |
|  | document type       | document status |                  | customer                                                                                                     |      |  |  |
|                                                                                    | datasheet           | released        |                  |                                                                                                              |      |  |  |
|                                                                                    | title               | document number |                  |                                                                                                              |      |  |  |
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Cable entry 2xM32x1,5-1xM16x1,5

Cable gland 3 plugs  
-/-

### Notes:

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