



**SIMOTICS SD - 112 M - IM B14 - 2p**

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

Remarks

## 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> |       |
| 230              | Δ     | 50   | 4.00     | -/-  | 12.80 | 2950    | 12.9 | 88.1            | 88.7 | 88.2         | 0.89               | 0.86                   | 0.78 | 8.7                            | 2.5                            | 4.0                            | IE3   |
| 400              | Y     | 50   | 4.00     | -/-  | 7.40  | 2950    | 12.9 | 88.1            | 88.7 | 88.2         | 0.89               | 0.86                   | 0.78 | 8.7                            | 2.5                            | 4.0                            | IE3   |
| 460              | Y     | 60   | 4.55     | -/-  | 7.20  | 3550    | 12.2 | 88.5            | 88.7 | 87.6         | 0.90               | 0.87                   | 0.81 | 9.0                            | 2.6                            | 4.1                            | IE3   |
| 460              | Y     | 60   | 3.70     | -/-  | 6.00  | 3560    | 9.9  | 88.5            | 88.0 | 86.2         | 0.88               | 0.84                   | 0.76 | 10.8                           | 3.2                            | 5.1                            | IE3   |
| IM B14 / IM 3601 |       |      | FS 112 M |      | 45 kg |         | IP55 |                 |      | IEC/EN 60034 |                    | IEC, DIN, ISO, VDE, EN |      |                                |                                |                                |       |

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

Locked rotor time (hot / cold) : 11.3 s | 14.9 s

## Mechanical data

|                                                                                        |                                 |                                 |                            |                                             |
|----------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|---------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                   | 69.0 / 81.0 dB(A) <sup>2)</sup> | 73.0 / 85.0 dB(A) <sup>2)</sup> | External earthing terminal | No                                          |
| Moment of inertia                                                                      | 0.0120 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                           |
| Bearing DE   NDE                                                                       | 6206 2Z C3                      | 6206 2Z C3                      | Insulation                 | 155(F) to 130(B)                            |
| bearing lifetime                                                                       |                                 |                                 | Duty type                  | S1                                          |
| L <sub>10mh</sub> F <sub>Rad min</sub><br>50 60Hz <sup>1)</sup> for coupling operation | 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                                                                        | Preloaded bearing DE            |                                 | Motor protection           | (A) without (Standard)                      |
| Condensate drainage holes                                                              | Yes (standard)                  |                                 | Method of cooling          | IC418 - without fan and without housing fan |

## Terminal box

|                          |           |                                |                   |
|--------------------------|-----------|--------------------------------|-------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 4.0 mm²           |
| Material of terminal box | cast iron | Cable diameter from ... to ... | 11.0 mm - 21.0 mm |
| Type of terminal box     | TB1 F01   | Cable entry                    | 2xM32x1,5         |
| Contact screw thread     | M4        | Cable gland                    | 2 plugs           |

**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.<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>1LE1503-1BA22-2KA4-Z |                               |             | document number             |                                                                                                              |                |             |  |
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## Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS



Motor type : 1CV3112A

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### Special design

F90 Without external fan and without external fan cover

### Notes:

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