



**SIMOTICS GP - 90 S - IM B5 - 4p**

|                  |                 |           |
|------------------|-----------------|-----------|
| 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>I</sub> /T <sub>N</sub> |       |
| 230             | Δ     | 50   | 1.10    | -/-  | 4.20  | 1440    | 7.3  | 84.1            | 84.7 | 83.4 | 0.78                   | 0.70 | 0.58 | 6.9                            | 2.9                            | 3.6                            | IE3   |
| 400             | Y     | 50   | 1.10    | -/-  | 2.40  | 1440    | 7.3  | 84.1            | 84.7 | 83.4 | 0.78                   | 0.70 | 0.58 | 6.9                            | 2.9                            | 3.6                            | IE3   |
| 460             | Y     | 60   | 1.27    | -/-  | 2.35  | 1740    | 7.0  | 86.5            | 86.9 | 85.6 | 0.79                   | 0.72 | 0.60 | 7.4                            | 2.9                            | 3.8                            | IE3   |
| 460             | Y     | 60   | 1.10    | -/-  | 2.15  | 1750    | 6.0  | 86.5            | 86.4 | 84.2 | 0.75                   | 0.67 | 0.54 | 8.2                            | 3.4                            | 4.4                            | IE3   |
| IM B5 / IM 3001 |       |      | FS 90 S |      | 16 kg |         | IP55 | IEC/EN 60034    |      |      | IEC, DIN, ISO, VDE, EN |      |      |                                |                                |                                |       |

Locked rotor time (hot / cold) : 21.4 s | 25.8 s

## Mechanical data

|                                                                                        |                                 |                                 |                            |                                               |
|----------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|-----------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                   | 58.0 / 62.0 dB(A) <sup>2)</sup> | 58.0 / 62.0 dB(A) <sup>2)</sup> | External earthing terminal | No                                            |
| Moment of inertia                                                                      | 0.0036 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                             |
| Bearing DE   NDE                                                                       | 6205 2Z C3                      | 6004 2Z C3                      | Insulation                 | 155(F) to 130(B)                              |
| bearing lifetime                                                                       |                                 |                                 | Duty type                  | S1                                            |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation<br>50 60Hz <sup>1)</sup> | 40000 h                         | 32000 h                         | Direction of rotation      | bidirectional                                 |
| Lubricants                                                                             | Unirex N3                       |                                 | Frame material             | aluminum                                      |
| 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                                                              | -/-                             |                                 | Method of cooling          | IC416 - separately ventilated, surface cooled |

## Terminal box

|                          |           |                                |                  |
|--------------------------|-----------|--------------------------------|------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 1.5 mm²          |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 9.0 mm - 17.0 mm |
| Type of terminal box     | TB1 E00   | Cable entry                    | 1xM25x1,5        |
| Contact screw thread     | M4        | Cable gland                    | 1 plug           |

**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 |                  |                                                                                                              |          |      |  |
|                                                                                    |  | 1LE1003-0EB02-2FA4-Z |  |                 |  |                 |                  |                                                                                                              |          |      |  |
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|                                                                                    |  |                      |  |                 |  | 01              | 2021-04-22 20:58 |                                                                                                              | en       | 1/2  |  |

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



Motor type : 1AV3090B

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### Special design

F70 Mounting of separately driven fan

### Notes:

|                                                                                    |                               |                               |                                   |  |                                                                                                              |             |  |  |
|------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-----------------------------------|--|--------------------------------------------------------------------------------------------------------------|-------------|--|--|
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|                                                                                    | title<br>1LE1003-0EB02-2FA4-Z |                               |                                   |  |                                                                                                              |             |  |  |
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