

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



Motor type : 1AV1162B

SIMOTICS GP - 160 M - IM B35 - 4p

|                  |                 |           |
|------------------|-----------------|-----------|
| 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> |       |
| 230              | Δ     | 50   | 11.00    | -/-  | 39.00 | 1460    | 72.0 | 87.6            | 87.9         | 86.7 | 0.81               | 0.74                   | 0.61 | 6.9                            | 2.7                            | 3.3                            | IE1   |
| 400              | Y     | 50   | 11.00    | -/-  | 22.50 | 1460    | 72.0 | 87.6            | 87.9         | 86.7 | 0.81               | 0.74                   | 0.61 | 6.9                            | 2.7                            | 3.3                            | IE1   |
| 460              | Y     | 60   | 12.60    | -/-  | 22.00 | 1760    | 68.0 | 88.5            | 88.7         | 87.6 | 0.82               | 0.76                   | 0.64 | 7.3                            | 2.5                            | 3.4                            | IE1   |
| IM B35 / IM 2001 |       |      | FS 160 M |      | 62 kg |         | IP55 |                 | IEC/EN 60034 |      |                    | IEC, DIN, ISO, VDE, EN |      |                                |                                |                                |       |

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

Locked rotor time (hot / cold) : 9.24 s | 17 s

## Mechanical data

|                                                                                     |                                 |                                 |                            |                                                    |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|----------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 75.0 / 79.0 dB(A) <sup>2)</sup> | 75.0 / 79.0 dB(A) <sup>2)</sup> | External earthing terminal | No                                                 |
| Moment of inertia                                                                   | 0.0440 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                                  |
| Bearing DE   NDE                                                                    | 6209 2Z C3                      | 6209 2Z C3                      | Insulation                 | 155(F) to 130(B)                                   |
| bearing lifetime                                                                    |                                 |                                 | Duty type                  | S1                                                 |
| L <sub>10mh</sub> F <sub>Rad min</sub> 50 60Hz <sup>1)</sup> for coupling operation | 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                                                                     | Locating bearing NDE            |                                 | Motor protection           | (B) 3 PTC thermistors - for tripping (2 terminals) |
| Condensate drainage holes                                                           | -/-                             |                                 | Method of cooling          | IC416 - separately ventilated, surface cooled      |

## Terminal box

|                          |           |                                |                      |
|--------------------------|-----------|--------------------------------|----------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 16.0 mm <sup>2</sup> |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 19.0 mm - 28.0 mm    |
| Type of terminal box     | TB1 J00   | Cable entry                    | 2xM40x1,5-1xM16x1,5  |
| Contact screw thread     | M5        | Cable gland                    | 3 plugs              |

## Notes:

I<sub>A</sub>/I<sub>N</sub> = locked rotor current / current nominal  
M<sub>K</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
M<sub>K</sub>/M<sub>N</sub> = 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       | datasheet            |             | document status                                                                                              | released         |          |      |
|                                                                                    | title               | 1LE1002-1DB22-2JB4-Z |             | document number                                                                                              |                  |          |      |
| © Siemens AG 2021                                                                  |                     | F01+F12+F70          |             | rev.                                                                                                         | creation date    | language | Page |
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## Special design

|     |                                         |     |                                   |
|-----|-----------------------------------------|-----|-----------------------------------|
| F01 | Mounting a brake                        | F70 | Mounting of separately driven fan |
| F12 | Brake supply voltage 400 V AC, 50/60 Hz |     |                                   |

**Additional information:**

## Brake:

|              |           |                    |          |
|--------------|-----------|--------------------|----------|
| Description: | BFK458-20 | Current:           | .47 A    |
| Voltage:     | AC 400 V  | Moment of inertia: | .0073 Nm |

## Notes:

|                                                                                    |                      |                 |             |                                                                                                              |                  |          |      |
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