

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



Motor type : 1AV2205B

SIMOTICS GP - 200 L - IM B5 - 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> |       |
| 400 | Δ     | 50   | 30.00 | -/-  | 56.00 | 1470    | 195.0 | 92.3            | 92.9 | 92.6 | 0.84               | 0.80 | 0.70 | 6.7                            | 2.5                            | 3.3                            | IE2   |
| 690 | Y     | 50   | 30.00 | -/-  | 32.50 | 1470    | 195.0 | 92.3            | 92.9 | 92.6 | 0.84               | 0.80 | 0.70 | 6.7                            | 2.5                            | 3.3                            | IE2   |
| 460 | Δ     | 60   | 34.50 | -/-  | 55.00 | 1770    | 186.0 | 93.0            | 93.5 | 93.1 | 0.85               | 0.81 | 0.73 | 7.2                            | 2.7                            | 3.2                            | IE2   |
| 460 | Δ     | 60   | 30.00 | -/-  | 48.00 | 1778    | 161.0 | 93.0            | 93.1 | 92.3 | 0.84               | 0.79 | 0.69 | 8.2                            | 3.2                            | 3.7                            | IE2   |

|                 |  |          |        |      |  |              |                        |  |  |
|-----------------|--|----------|--------|------|--|--------------|------------------------|--|--|
| IM B5 / IM 3001 |  | FS 200 L | 173 kg | IP55 |  | IEC/EN 60034 | IEC, DIN, ISO, VDE, EN |  |  |
|-----------------|--|----------|--------|------|--|--------------|------------------------|--|--|

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

Locked rotor time (hot / cold) : 13.4 s | 24.5 s

## Mechanical data

|                                                                                     |                                 |                                 |                            |                                                    |
|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------|----------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 70.0 / 77.0 dB(A) <sup>2)</sup> | 72.0 / 79.0 dB(A) <sup>2)</sup> | External earthing terminal | No                                                 |
| Moment of inertia                                                                   | 0.2000 kg m <sup>2</sup>        |                                 | Vibration severity grade   | A                                                  |
| Bearing DE   NDE                                                                    | 6212 Z C3                       | 6212 Z 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          | IC411 - self ventilated, surface cooled            |

## Terminal box

|                          |           |                                |                      |
|--------------------------|-----------|--------------------------------|----------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 25.0 mm <sup>2</sup> |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 27.0 mm - 35.0 mm    |
| Type of terminal box     | TB1 L00   | Cable entry                    | 2xM50x1,5-2xM20x1,5  |
| Contact screw thread     | M6        | Cable gland                    | 4 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 |             |                                                                                                              |

|                   |                      |                 |          |                  |
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### Special design

Q11 1/3 PTC thermistors - for tripping (2 terminals)

### Notes:

|                                                                                    |                               |                               |                                   |  |                                                                                                              |             |  |                 |
|------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-----------------------------------|--|--------------------------------------------------------------------------------------------------------------|-------------|--|-----------------|
| 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. |             |  |                 |
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