

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



Motor type : 1AV3164B

SIMOTICS GP - 160 L - IM V1 - 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> |       |
| DOL duty (S1) - 155(F) to 130(B)                    |       |          |       |      |       |         |      |                 |                                                  |                        |                    |      |      |                                |                                |                                |       |
| 380                                                 | Δ     | 50       | 15.00 | -/-  | 30.00 | 1465    | 98.0 | 92.1            | 92.7                                             | 92.0                   | 0.83               | 0.78 | 0.67 | 7.9                            | 2.8                            | 3.4                            | IE3   |
| 660                                                 | Y     | 50       | 15.00 | -/-  | 17.20 | 1465    | 98.0 | 92.1            | 92.7                                             | 92.0                   | 0.83               | 0.78 | 0.67 | 7.9                            | 2.8                            | 3.4                            | IE3   |
| 440                                                 | Δ     | 60       | 17.30 | -/-  | 29.50 | 1765    | 94.0 | 92.4            | 92.5                                             | 92.0                   | 0.83               | 0.79 | 0.69 | 7.9                            | 2.7                            | 3.3                            | IE2   |
| 440                                                 | Δ     | 60       | 15.00 | -/-  | 26.00 | 1775    | 81.0 | 93.0            | 92.9                                             | 92.1                   | 0.81               | 0.75 | 0.64 | 8.9                            | 3.1                            | 3.8                            | IE3   |
| IM V1 / IM 3011                                     |       | FS 160 L |       |      |       | IP55    | UKCA | IEC/EN 60034    |                                                  | IEC, DIN, ISO, VDE, EN |                    |      |      |                                |                                |                                |       |
| Environmental conditions : -20 °C - +40 °C / 1000 m |       |          |       |      |       |         |      |                 | Locked rotor time (hot / cold) : 24.6 s   33.3 s |                        |                    |      |      |                                |                                |                                |       |

Mechanical data

|                                                                                     |                                |                                |                                 |                                                    |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|----------------------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 58 / 66 dB(A) <sup>2) 3)</sup> | 66 / 74 dB(A) <sup>2) 3)</sup> | Vibration severity grade        | A                                                  |
| Moment of inertia                                                                   | 0.0890 kg m <sup>2</sup>       |                                | Thermal class                   | F                                                  |
| Bearing DE   NDE                                                                    | 6209 2Z C3                     | 6209 2Z C3                     | Duty type                       | S1                                                 |
| bearing lifetime                                                                    |                                |                                | Direction of rotation           | bidirectional                                      |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation 50 60Hz <sup>1)</sup> | 20000 h                        | 16000 h                        | Frame material                  | aluminum                                           |
| Regreasing device                                                                   | Without                        |                                | Net weight of the motor (IM B3) | 106 kg                                             |
| Grease nipple                                                                       | -/-                            |                                | Coating (paint finish)          | Standard paint finish C2                           |
| Type of bearing                                                                     | Locating bearing NDE           |                                | Color, paint shade              | RAL7030                                            |
| Condensate drainage holes                                                           | Without                        |                                | Motor protection                | (B) 3 PTC thermistors - for tripping (2 terminals) |
| External earthing terminal                                                          | Without                        |                                | Method of cooling               | IC411 - self ventilated, surface cooled            |

Terminal box

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 16 mm <sup>2</sup>  |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 19 mm - 28 mm       |
| Type of terminal box     | TB1 J00   | Cable entry                    | 2xM40x1,5-1xM16x1,5 |
| Contact screw thread     | M5        | Cable gland                    | 3 plugs             |

|                                                    |                                                |                                                                  |
|----------------------------------------------------|------------------------------------------------|------------------------------------------------------------------|
| <b>Notes:</b>                                      |                                                |                                                                  |
| $I_A/I_N$ = locked rotor current / current nominal | 1) $L_{10mh}$ according to DIN ISO 281 10/2010 | 3) Value is valid only for DOL operation with motor design IC411 |
| $M_A/M_N$ = locked rotor torque / torque nominal   | 2) at rated power / at full load               |                                                                  |
| $M_B/M_N$ = break down torque / nominal torque     |                                                |                                                                  |

|                                |                                   |                       |             |                                                                                                              |                                 |                                                                                       |                 |
|--------------------------------|-----------------------------------|-----------------------|-------------|--------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------|-----------------|
| responsible dep.<br><br>IN LVM | technical reference               | created by<br><br>SPC | approved by | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |                                 | <a href="#">Link documents</a>                                                        |                 |
| SIEMENS                        | document type<br><br>datasheet    |                       |             | document status<br><br>released                                                                              |                                 |  |                 |
|                                | title<br><br>1LE1003-1DB43-3GB4-Z |                       |             | document number                                                                                              |                                 |                                                                                       |                 |
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Special design

D47

TR CU product safety certificate EAC for the Eurasian Customs Union

Notes:

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