

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



Motor type : 1AV3083A

SIMOTICS GP - 80 M - IM B5 - 2p

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

## Electrical data

## Safe Area

| U<br>[V]   | $\Delta / Y$ | f<br>[Hz] | P<br>[kW] | P<br>[hp] | I<br>[A] | n<br>[1/min] | M<br>[Nm]    | $\eta$ <sup>3)</sup> |  |      | $\cos\phi$ <sup>3)</sup> |      |      | $I_A/I_N$<br>$I_f/I_N$ | $M_A/M_N$<br>$T_f/T_N$ | $M_K/M_N$<br>$T_B/T_N$ | IE-CL |
|--|--------------|-----------|-----------|-----------|----------|--------------|--------------|----------------------|--|------|--------------------------|------|------|------------------------|------------------------|------------------------|-------|
|  |              |           |           |           |          |              |              | 4/4                  | 3/4  | 2/4  | 4/4                      | 3/4  | 2/4  |                        |                        |                        |       |
| <b>DOL duty (S1) - 155(F) to 130(B)</b>              |              |           |           |           |          |              |              |                      |  |      |                          |      |      |                        |                        |                        |       |
| 400  | $\Delta$     | 50        | 1.10      | -/-       | 2.25     | 2885         | 3.6          | 82.7                 | 83.9   | 83.1 | 0.85                     | 0.80 | 0.69 | 7.1                    | 3.0                    | 3.3                    | IE3   |
| 690  | Y            | 50        | 1.10      | -/-       | 1.31     | 2885         | 3.6          | 82.7                 | 83.9   | 83.1 | 0.85                     | 0.80 | 0.69 | 7.1                    | 3.0                    | 3.3                    | IE3   |
| 460  | $\Delta$     | 60        | 1.27      | -/-       | 2.25     | 3480         | 3.5          | 84.0                 | 84.6   | 83.4 | 0.85                     | 0.80 | 0.71 | 7.4                    | 2.8                    | 3.4                    | IE3   |
| 460  | $\Delta$     | 60        | 1.10      | -/-       | 1.98     | 3500         | 3.0          | 84.0                 | 84.0   | 82.0 | 0.83                     | 0.77 | 0.67 | 8.4                    | 3.3                    | 4.0                    | IE3   |
| IM B5 / IM 3001                                      |              | FS 80 M   |           |           |          | IP55         | IEC/EN 60034 |                      | IEC, DIN, ISO, VDE, EN                         |      |                          |      |      |                        |                        |                        |       |
| Environmental conditions : -20 °C - +40 °C / 1,000 m |              |           |           |           |          |              |              |                      | Locked rotor time (hot / cold) : 14.7 s   20 s |      |                          |      |      |                        |                        |                        |       |

## Mechanical data

|  |                                |                                |                                 |   |
|--|--------------------------------|--------------------------------|---------------------------------|---|
| Sound level (SPL / SWL) at 50Hz 60Hz                                       | 60 / 71 dB(A) <sup>2) 3)</sup> | 64 / 75 dB(A) <sup>2) 3)</sup> | Vibration severity grade        | A                                       |
| Moment of inertia  | 0.0013 kg m <sup>2</sup>       |                                | Thermal class                   | F                                       |
| Bearing DE   NDE   | 6004 2Z C3                     | 6004 2Z C3                     | Duty type                       | S1                                      |
| <b>bearing lifetime</b>  |                                |                                | Direction of rotation           | bidirectional                           |
| $L_{10mh}$ , $F_{Rad min}$<br>50 60Hz <sup>1)</sup> for coupling operation | 40000 h                        | 32000 h                        | Frame material                  | aluminum                                |
| Lubricants   | Unirex N3                      |                                | Net weight of the motor (IM B3) | 12 kg                                   |
| Regreasing device  | No                             |                                | Coating (paint finish)          | Special paint finish C3                 |
| Grease nipple  | -/-                            |                                | Color, paint shade              | RAL7030                                 |
| Type of bearing  | Preloaded bearing DE           |                                | Motor protection                | (A) without (Standard)                  |
| Condensate drainage holes  | No                             |                                | Method of cooling               | IC411 - self ventilated, surface cooled |
| External earthing terminal   | No                             |                                |                                 |   |

## Terminal box

|                          |           |                                |                     |
|--------------------------|-----------|--------------------------------|---------------------|
| Terminal box position    | top       | Max. cross-sectional area      | 1.5 mm <sup>2</sup> |
| Material of terminal box | Aluminium | Cable diameter from ... to ... | 9 mm - 17 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.<br>DI MC LVM | technical reference                      | created by<br>DT Configurator | approved by    | <i>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</i> | <a href="#">Link documents</a> |
|                               | document type<br>datasheet               | document status<br>released   |                |   |                                |
|                               | title<br>1LE1003-0DA33-4FA4-Z<br>S02+Y56 | document number               |                |   |                                |
| © Siemens AG 2022             | rev.<br>01                               | creation date<br>2022-06-23   | language<br>en |   |                                |

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



Motor type : 1AV3083A

SIMOTICS GP - 80 M - IM B5 - 2p

**Special design**

S02 Special paint finish C3 Y56 Paint finish in special RAL colours

**Notes:**

|                               |  |                               |                |   |                                |
|-------------------------------|--|-------------------------------|----------------|---|--------------------------------|
| responsible dep.<br>DI MC LVM | technical reference                      | created by<br>DT Configurator | approved by    | <i>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</i> | <a href="#">Link documents</a> |
| <b>SIEMENS</b>                | document type<br>datasheet               | document status<br>released   |                |   |                                |
|                               | title<br>1LE1003-ODA33-4FA4-Z<br>S02+Y56 | document number               |                |   |                                |
| © Siemens AG 2022             | rev.<br>01                               | creation date<br>2022-06-23   | language<br>en | Page<br>2/2   |                                |