

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



Motor type : 1CV3164A

SIMOTICS SD - 160 L - IM B3 - 2p

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

Remarks

Safe Area

Electrical data

-/-

| 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)                    |       |          |       |      |       |         |      |                 |                                                  |                        |                    |      |      |                                |                                |                                |       |
| 400                                                 | Δ     | 50       | 18.50 | -/-  | 32.00 | 2955    | 60.0 | 92.4            | 92.8                                             | 92.4                   | 0.90               | 0.87 | 0.80 | 9.0                            | 2.8                            | 4.2                            | IE3   |
| 690                                                 | Y     | 50       | 18.50 | -/-  | 18.60 | 2955    | 60.0 | 92.4            | 92.8                                             | 92.4                   | 0.90               | 0.87 | 0.80 | 9.0                            | 2.8                            | 4.2                            | IE3   |
| 460                                                 | Δ     | 60       | 21.30 | -/-  | 32.00 | 3555    | 57.0 | 91.7            | 91.5                                             | 90.3                   | 0.91               | 0.88 | 0.80 | 9.0                            | 2.6                            | 4.2                            | IE3   |
| 460                                                 | Δ     | 60       | 18.50 | -/-  | 28.50 | 3560    | 49.5 | 91.7            | 91.5                                             | 90.3                   | 0.89               | 0.86 | 0.78 | 10.2                           | 3.0                            | 4.8                            | IE3   |
| IM B3 / IM 1001                                     |       | 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) : 13.5 s   19.9 s |                        |                    |      |      |                                |                                |                                |       |

Mechanical data

|                                                                                     |                                |                                |                                 |                                         |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|-----------------------------------------|
| Sound level (SPL / SWL) at 50Hz 60Hz                                                | 70 / 82 dB(A) <sup>2) 3)</sup> | 77 / 89 dB(A) <sup>2) 3)</sup> | Vibration severity grade        | A                                       |
| Moment of inertia                                                                   | 0.0680 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> 50 60Hz <sup>1)</sup> for coupling operation | 40000 h                        | 32000 h                        | Frame material                  | cast iron                               |
| Regreasing device                                                                   | Without                        |                                | Net weight of the motor (IM B3) | 127 kg                                  |
| Grease nipple                                                                       | -/-                            |                                | Coating (paint finish)          | Standard paint finish C2                |
| Type of bearing                                                                     | Locating bearing NDE           |                                | Color, paint shade              | RAL7030                                 |
| Condensate drainage holes                                                           | With (standard)                |                                | Motor protection                | (A) without (Standard)                  |
| 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 | cast iron | Cable diameter from ... to ... | 19 mm - 28 mm      |
| Type of terminal box     | TB1 J01   | Cable entry                    | 2xM40x1,5          |
| Contact screw thread     | M5        | Cable gland                    | 2 plugs            |

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>B</sub>/M<sub>N</sub> = break down torque / nominal torque

1) L<sub>10mh</sub> 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

Transmittal, reproduction, dissemination and/or editing of this document as well as utilization of its contents and communication thereof to others without express authorization are prohibited. Offenders will be held liable for payment of damages. All rights created by patent grant or registration of a utility model or design patent are reserved.

|                                                                                     |                                        |                   |                                      |                                                                                                              |                             |                                                                                       |             |
|-------------------------------------------------------------------------------------|----------------------------------------|-------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|-------------|
| Responsible department<br>IN LVM                                                    | Technical reference                    | Created by<br>SPC | Approved by<br>Created automatically | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |                             | <a href="#">Link documents</a>                                                        |             |
|  | Document type<br>Technical data sheet  |                   |                                      | Document status<br>Released                                                                                  |                             |  |             |
|                                                                                     | Document title<br>1LE1503-1DA43-4AA4-Z |                   |                                      | Document number<br>TDS-240710-103816                                                                         |                             |                                                                                       |             |
| Restricted<br>© Innomotics 2024                                                     | M11                                    |                   |                                      | Revision<br>AA                                                                                               | Creation date<br>2024-07-10 | Language<br>en                                                                        | Page<br>1/2 |

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



Motor type : 1CV3164A

SIMOTICS SD - 160 L - IM B3 - 2p

Special design

M11      Stainless steel rating plate

Transmittal, reproduction, dissemination and/or editing of this document as well as utilization of its contents and communication thereof to others without express authorization are prohibited. Offenders will be held liable for payment of damages. All rights created by patent grant or registration of a utility model or design patent are reserved.

|                                  |                                        |                   |                                      |                                                                                                              |                             |                                                                                       |             |
|----------------------------------|----------------------------------------|-------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|-------------|
| Responsible department<br>IN LVM | Technical reference                    | Created by<br>SPC | Approved by<br>Created automatically | Technical data are subject to change! There may be discrepancies between calculated and rating plate values. |                             | <a href="#">Link documents</a>                                                        |             |
| <div>SIEMENS</div>               | Document type<br>Technical data sheet  |                   |                                      | Document status<br>Released                                                                                  |                             |  |             |
|                                  | Document title<br>1LE1503-1DA43-4AA4-Z |                   |                                      | Document number<br>TDS-240710-103816                                                                         |                             |                                                                                       |             |
| Restricted<br>© Innomotics 2024  | M11                                    |                   |                                      | Revision<br>AA                                                                                               | Creation date<br>2024-07-10 | Language<br>en                                                                        | Page<br>2/2 |