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

| Motor  | tvpe :                    | 1CV31       | 62A                        |                                     |                  | SI   | MOTICS SD                        | ) - 160 N                  | - IM V1   | - 2p              |  |                         |                  |                                |                                |                                |         |  |
|--|---------------------------|-------------|----------------------------|-------------------------------------|------------------|--|----------------------------------|----------------------------|---|-------------------|--|-------------------------|------------------|--------------------------------|--------------------------------|--------------------------------|---------|--|
| Motor type : 1CV3162A<br>Client order no.  |                           |             |                            |                                     |                  | SIMOTICS SD - 160 M - IM V1 - 2p<br>em-No. |                                  |                            |   |                   | Offer  | Offer no.               |                  |                                |                                |                                |         |  |
|  |                           |             |                            |                                     |                  | Consignment to                             |                                  |                            |   |                   | Proio  | ct                      |                  |                                |                                |                                |         |  |
| Order no.  |                           |             |                            |                                     |                  | Consignment no.                            |                                  |                            |   |                   | rioje  | Project                 |                  |                                |                                |                                |         |  |
| Remarks  |                           |             |                            |                                     |                  |  |                                  |                            |   |                   |  |                         |                  |                                |                                |                                |         |  |
| <b>_</b>   |                           |             |                            |                                     |                  |  |                                  |                            |   |                   |  | e Area                  | а                |                                |                                |                                |         |  |
| Electric   |                           |             |                            |                                     |                  |  |                                  | 1                          |   |                   | -/-  |                         |                  | 1                              | 1                              |                                | 1       |  |
| U  | Δ/Υ                       | f           | Р                          | P                                   |                  | n<br>[1/min]                               | M                                |                            | η <sup>3)</sup>   | 24                |  | cosφ                    | 1                | 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> | $T_B/T_N$                      |         |  |
| 400  | ^                         | 50          | 11.00                      | 1                                   | 19.60            |  | OL duty (S1)<br>35.5             | ) - 155(F                  | 91.4  |                   | 0.89   | 0.86                    | 5 0.79           | 0.2                            | 2.5                            | <u>э</u> Е                     | 152     |  |
| 400<br>690   | ∆<br>Y                    | 50          | 11.00                      | -/-                                 | 19.60            | 2945<br>2945                               | 35.5                             | 91.2                       | 91.4  | 90.6<br>90.6      | 0.89   | 0.80                    |                  | 8.3                            | 2.5                            | 3.5<br>3.5                     | IE3     |  |
| 460  | Δ                         | 60          | 12.60                      | -/-                                 | 19.30            | 3540                                       | 34.0                             | 91.0                       | 90.9  | 89.5              | 0.89   | 0.80                    |                  | 8.4                            | 2.5                            | 3.5                            | IE3     |  |
| 460  | Δ                         | 60          | 11.00                      | -/-                                 | 17.20            | 3555                                       | 29.5                             | 91.0                       | 90.9  | 88.4              | 0.88   | 0.85                    |                  | 9.5                            | 2.9                            | 4.0                            | IE3     |  |
| IM V1 / IN   |                           | 00          | FS 160 F                   |                                     | 17.20            | IP55                                       | UKCA                             |                            | 60034   | 00.1              | IEC, DIN, IS   |                         |                  | 5.5                            | 2.5                            | 1.0                            |         |  |
| Environmental conditions : -20 °C - +40 °C / 1000 m Locked rotor time (hot / cold) : 21.3 s   29.7 s   |                           |             |                            |                                     |                  |  |                                  |                            |   |                   |  |                         |                  |                                |                                |                                |         |  |
| Mecha  | nical d                   |             |                            |                                     |                  |  |                                  |                            |   |                   |  |                         | - (              | .,                             |                                |                                |         |  |
| wiecha   | incaru                    | ata         |                            |                                     |                  |  |                                  | _                          |   |                   |  |                         |                  |                                |                                |                                |         |  |
| Sound  | level (SI                 | PL / SWL)   | at 50Hz 60                 | )Hz 77                              | / 85 dB(A) 2     | ) 3) 82 /                                  | 90 dB(A) <sup>2)3)</sup>         | External earthing terminal |   |                   |  |                         |                  | With                           |                                |                                |         |  |
| Moment of inertia  |                           |             |                            |                                     | 0.               | 0370 kg m²                                 |                                  | Vibr                       | ation seve  | erity grad        | е  | A                       |                  |                                |                                |                                |         |  |
| Bearing DE   NDE 6309 Z C  |                           |             |                            |                                     |                  | 3 6309 Z C3 Thermal class                  |                                  |                            |   |                   |  | F                       |                  |                                |                                |                                |         |  |
| bearing lifetime   |                           |             |                            |                                     |                  |  |                                  | Duty                       | / type  |                   |  | S1                      |                  |                                |                                |                                |         |  |
| $      L_{10mh}  F_{\text{Rad}\min}  \text{for coupling operation} \qquad 20000 \ h \\ 50 [60Hz^{-1}] $  |                           |             |                            |                                     |                  | 16000 h Direction of rotation              |                                  |                            |   |                   | bidirectional  |                         |                  |                                |                                |                                |         |  |
| Relubri<br>NDE   | cation ii                 | nterval/q   | uantity DE                 |                                     | 1                | 10 g   10 g<br>8000 h Frame material       |                                  |                            |   |                   | cast iron  |                         |                  |                                |                                |                                |         |  |
| Lubricants   |                           |             |                            |                                     | I                | Unirex N3 Net weight of the motor (        |                                  |                            |   | or (IM B3)        | B3) 97 kg  |                         |                  |                                |                                |                                |         |  |
| Regreasing device Wi   |                           |             |                            |                                     | With             | th (standard) Coating (paint finish)       |                                  |                            |   |                   |  | Special paint finish C3 |                  |                                |                                |                                |         |  |
| Grease nipple M  |                           |             |                            |                                     | M8>              | 8x1 DIN 71412 Color, paint shade           |                                  |                            |   |                   | RAL7030  |                         |                  |                                |                                |                                |         |  |
| Type of bearing Loc  |                           |             |                            |                                     | Locat            | ating bearing DE Motor protection          |                                  |                            |   |                   | (B) 3 PTC thermistors - for tripping (standard) (2<br>terminals) |                         |                  |                                |                                |                                |         |  |
|  |                           |             |                            |                                     | Wit              | /ith (standard) Method of cooling          |                                  |                            |   |                   | IC411 - self ventilated, surface cooled                          |                         |                  |                                |                                |                                |         |  |
| Termin   | al box                    |             |                            |                                     |                  |  |                                  |                            |   |                   |  |                         |                  |                                |                                |                                |         |  |
| Terminal box position  |                           |             |                            |                                     |                  | top Max. cross-sectional area              |                                  |                            |   | rea               | 16 mm²   |                         |                  |                                |                                |                                |         |  |
| Material of terminal box   |                           |             |                            |                                     |                  | cast iron Cable diameter from to           |                                  |                            |   |                   | . to   | 19 mm - 28 mm           |                  |                                |                                |                                |         |  |
| Type of terminal box   |                           |             |                            |                                     |                  | TB1 J01 Cable entry                        |                                  |                            |   |                   |  | 2xM40x1,5-1xM16x1,5     |                  |                                |                                |                                |         |  |
| Contact screw thread   |                           |             |                            |                                     |                  | M5 Cable gland                             |                                  |                            |   |                   |  |                         |                  | 2 gla                          | ınds, 1 plu                    | ıg                             |         |  |
|  |                           |             |                            |                                     |                  |  |                                  |                            |   |                   |  |                         |                  |                                |                                |                                |         |  |
| $M_A/M_N = loc$<br>$M_K/M_N = bre$   | ked rotor t<br>eak down t | orque / nom | ue nominal<br>ninal torque | 2)                                  | ) at rated power |  | 10/2010<br>of its contents and o | communicatio               | on thereof to   |                   |  |                         | OCL operation wi |                                |                                | able for pav                   | ment of |  |
|  |                           |             |                            |                                     | damages. All i   | rights created by                          | patent grant or re               | gistration of a            | a utility mode  | l or design p     | atent are rese   | rved.                   |                  |                                | _                              |                                |         |  |
| Responsible department Technical reference   |                           |             |                            | SPC Croated automatically discrepan |                  |  |                                  | repancies be               | l data are subject to change! There may be<br>ncies between calculated and rating plate |                   |  |                         | Link documents   |                                |                                |                                |         |  |
| IN LVM   |                           |             |                            |                                     | 20               | SPC Created automatically values.          |                                  |                            |   |                   |  | Document status         |                  |                                |                                |                                |         |  |
| Document type           SIEMENS         Technical data sher           Document title         1LE1603-1DA23-4           H04+L20+Q02+R18         H04+L20+Q02+R18 |                           |             |                            |                                     | et               |  |                                  |                            |   |                   | Released Document number   |                         |                  |                                |                                |                                |         |  |
|  |                           |             |                            |                                     |                  |  |                                  |                            |   |                   |  |                         |                  |                                |                                |                                |         |  |
|  |                           |             |                            |                                     | GB4-Z            |  |                                  |                            |   | TDS-240516-120848 |  |                         | 614 P.4          |                                |                                |                                |         |  |
|  |                           |             |                            |                                     |                  |  |                                  |                            | Revisi  |                   | Creation date  |                         | Languag          | e Page                         |                                |                                |         |  |
| © Innomotics 2024  |                           |             |                            |                                     |                  |  |                                  |                            |   |                   | AA   |                         | 2024-05-1        | 6                              | en                             | 1/2                            |         |  |

Branding disclaimer applies

| Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|--|---|--|----------------------------------|---------------|---|----------------------------------|--------------------|----------------|--|--|--|--|
| Motor type :1CV3162A                                     |   | SIMOTICS SE  | SIMOTICS SD - 160 M - IM V1 - 2p |               |   |                                  |                    |                |  |  |  |  |
| Special design   |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
| H04 External grounding a                                 | t housing   |  | Q02                              | Anti-condens  | ation heatin  | g for 230 V (2 termina           | s)                 |                |  |  |  |  |
| L20 Locating bearing, DE                                 |   |  | R18                              | Cable gland r | metal, max. r   | number                           |                    |                |  |  |  |  |
| Additional information:                                  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
| Space heaters  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
| Technical data:  | 1-phase, 230 V 50   | W  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
|  |   |  |                                  |               |   |                                  |                    |                |  |  |  |  |
| Transmittal, reproduction, dissemination an              |   | Il as utilization of its contents and<br>ights created by patent grant or re |                                  |               |   | tion are prohibited. Offenders w | ill be held liable | for payment of |  |  |  |  |
| Responsible department                                   | Technical reference                                       | Created by   |                                  |               | l data are subject to change! There may be<br>ncies between calculated and rating plate |                                  | ents               |                |  |  |  |  |
| IN LVM   |   | SPC  | Created automatically values.    |               |   |                                  |                    |                |  |  |  |  |
|  | Document type Document status                             |  |                                  |               |   | status                           |                    |                |  |  |  |  |
| SIEMENS  | Technical data sheet                                      | :  |                                  |               |   | Released<br>Document number      |                    |                |  |  |  |  |
| JILIVILIUJ   | Document title<br>1LE1603-1DA23-4GB4-Z<br>H04+L20+Q02+R18 |  |                                  |               |   |                                  |                    |                |  |  |  |  |
| Destricted   |   |  |                                  |               |   | 516-120848                       |                    |                |  |  |  |  |
| Restricted   |   |  |                                  |               | Revision<br>AA  | Creation date 2024-05-16         | Language           | Page<br>2/2    |  |  |  |  |
| © Innomotics 2024  | ļ   |  |                                  |               |   | 2024-03-10                       | en                 | 212            |  |  |  |  |

Branding disclaimer applies