

| Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS  Motor type +10/21120  SIMOTICS GR. 112 M. IM PS. 20   |                      |   |               |        |   |                           |                                   |                        |                                |  |   |                     |               |                                |                                |                                |      |
|---|----------------------|---|---------------|--------|---|---------------------------|-----------------------------------|------------------------|--------------------------------|--|---|---------------------|---------------|--------------------------------|--------------------------------|--------------------------------|------|
| Motor type: 1AV3112A  SIMOTICS GP - 112 M - IM B5 - 2p  Client order no.  Offer no.   |                      |   |               |        |   |                           |                                   |                        |                                |  |   |                     |               |                                |                                |                                |      |
|   |                      |   |               |        |   |                           |                                   |                        |                                |  |   | one no.             |               |                                |                                |                                |      |
| Order no.   |                      |   |               |        | C   | Consignment               | no.                               |                        |                                |  | Proje                                   | Project             |               |                                |                                |                                |      |
| Remarks Seefa Avea  |                      |   |               |        |   |                           |                                   |                        |                                |  |   |                     |               |                                |                                |                                |      |
| Electrical data   |                      |   |               |        |   |                           |                                   |                        |                                | Saf<br>-/-   | Safe Area<br>-/-                        |                     |               |                                |                                |                                |      |
| U   | U A/Y f P P I        |   |               |        | ı   | n M η <sup>3)</sup>       |                                   |                        |                                |  | cosφ <sup>3)</sup>                      |                     |               |                                | 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> |      |
|   |                      |   |               |        |   | DO                        | DL duty (S1)                      | ) - 155(F              | ) to 130                       | (B)  |   |                     |               |                                | <u>'</u>                       |                                |      |
| 230   | Δ                    | 50  | 4.00          | -/-    | 12.80   | 2945                      | 13.0                              | 88.1                   | 88.8                           | 87.9   | 0.89                                    | 0.84                | 0.76          | 9.1                            | 2.6                            | 3.6                            | IE3  |
| 400   | Y                    | 50  | 4.00          | -/-    | 7.40  | 2945                      | 13.0                              | 88.1                   | 88.8                           | 87.9   | 0.89                                    | 0.84                | 0.76          | 9.1                            | 2.6                            | 3.6                            | IE3  |
| 460   | Y                    | 60  | 4.55          | -/-    | 7.30  | 3545                      | 12.3                              | 88.5                   | 88.5                           | 87.2   | 0.89                                    | 0.85                | 0.78          | 9.7                            | 2.7                            | 3.8                            | IE3  |
| 460   | Y                    | 60  | 3.70          | 5.00   | 6.00  | 3555                      | 9.9                               | 88.5                   | 88.4                           | 86.7   | 0.87                                    | 0.83                | 0.75          | 11.8                           | 3.3                            | 4.7                            | MG1  |
| IM B5 / I   | M 3001               | F   | FS 1121       |        | C032A   | 1P55                      | UKCA                              | IEC/EN                 | 60034                          |  | N, UL, CSA,                             |                     |               |                                | ode: P                         |                                | de 3 |
| Environmental conditions : -20 °C - +40 °C / 1000 m  Locked rotor time (hot / cold) : 7 s   10.2 s  |                      |   |               |        |   |                           |                                   |                        |                                |  |   |                     |               |                                |                                |                                |      |
| Mechanical data   |                      |   |               |        |   |                           |                                   |                        |                                |  |   |                     |               |                                |                                |                                |      |
|   |                      |   | at 50Hz 60    | Hz 73  | / 81 dB(A) <sup>2</sup>                           |                           | 88 dB(A) <sup>2) 3)</sup>         |                        | ation seve                     | , ,  | de                                      |                     |               |                                |                                |                                |      |
| Mome  | nt of ine            | ertia   |               |        | 0.  | 0079 kg m²                | Ther                              | Thermal class          |                                |  | F                                       |                     |               |                                |                                |                                |      |
| Bearing   | g DE   N             | DE  |               | (      | 5206 2Z C3  | 6206 2Z C3                |                                   |                        | Duty type                      |  |   | S1                  |               |                                |                                |                                |      |
| bearin  | g lifetir            | me <sub>!</sub> .                               |               |        |   |                           | Dire                              | Direction of rotation  |                                |  | bidirectional                           |                     |               |                                |                                |                                |      |
| L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation 40000<br>50 60Hz <sup>1)</sup>  |                      |   |               |        | 40000 h   |                           | Fran                              | Frame material         |                                |  | aluminum                                |                     |               |                                |                                |                                |      |
| Regreasing device   |                      |   |               |        | ١   | Without                   |                                   |                        | Net weight of the motor (IM B. |  |   | •                   |               |                                |                                |                                |      |
| Grease nipple   |                      |   |               |        | -/-   |                           |                                   | Coating (paint finish) |                                |  | Standard paint finish C2                |                     |               |                                |                                |                                |      |
| Type of bearing Lo  |                      |   |               |        | Locat   | ing bearing               | DE                                | Colo                   | Color, paint shade             |  |   | RAL7030             |               |                                |                                |                                |      |
| Condensate drainage holes   |                      |   |               |        | Without Motor prote                               |                           |                                   |                        | ion (B) 3 PTC thermistors      |  |   |                     | istors - f    | for tripping (2 terminals)     |                                |                                |      |
| External earthing terminal  |                      |   |               |        |   | Without Method of cooling |                                   |                        |                                |  | IC411 - self ventilated, surface cooled |                     |               |                                |                                |                                |      |
| Termir  | nal box              | (   |               |        |   |                           |                                   |                        |                                |  |   |                     |               |                                |                                |                                |      |
| Terminal box position   |                      |   |               |        | top Max. cross-sectional area                     |                           |                                   |                        | area                           | 4 mm <sup>2</sup>  |   |                     |               |                                |                                |                                |      |
| Material of terminal box  |                      |   |               | Α      | Aluminium Cable diameter from to                  |                           |                                   |                        |                                | to   | 11 mm - 21 mm                           |                     |               |                                |                                |                                |      |
| Type o  | Type of terminal box |   |               |        |   | TB1 F00 Cable entry       |                                   |                        |                                |  |   | 2xM32x1,5-1xM16x1,5 |               |                                |                                |                                |      |
| Contac  | t screw              | thread  |               |        |   | M4 Cable gland            |                                   |                        |                                |  |   | 3 plugs             |               |                                |                                |                                |      |
| $M_A/M_N = lo$  | cked rotor           | urrent / curre<br>torque / torc<br>torque / non | que nominal   |        | ) L <sub>10mh</sub> according<br>) at rated power |                           | 10/2010                           |                        |                                | 3) \   | Value is valid                          | only for DOL        | operation wit | th motor des                   | ign IC411                      |                                |      |
| M <sub>K</sub> /M <sub>N</sub> = break down torque / nominal torque  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. |                      |   |               |        |   |                           |                                   |                        |                                |  |   |                     |               |                                |                                |                                |      |
| Do  | ا باد مام            | rtmc=1  | 1             | Tock-i | arone-  | Crosts II                 | 1                                 | Anere                  |                                | Te-  | chnical data -                          | re subject to       | change! Th    | are may be                     | I para de                      | ume=+:                         |      |
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## Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS

Special design

China Energy Efficiency Label

D34



Motor type : 1AV3112A SIMOTICS GP - 112 M - IM B5 - 2p

| L20            | Locating bearing, DE |   |                                     |                                    |            |                  |  |                            |              |  |
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Additional rating plate, loose