## SIEMENS

## Data sheet

## 3RW4027-1BB05



SIRIUS soft starter S0 32 A, 18.5 k kW/500 V, 40  $^\circ\text{C}$  400-600 V AC, 24 V AC/DC Screw terminals

| General technical data   |    |                          |
|--|----|--------------------------|
| product brand name   |    | SIRIUS                   |
| product feature  |    |                          |
| <ul> <li>integrated bypass contact system</li> </ul>                             |    | Yes                      |
| thyristors   |    | Yes                      |
| product function   |    |                          |
| <ul> <li>intrinsic device protection</li> </ul>                                  |    | Yes                      |
| <ul> <li>motor overload protection</li> </ul>                                    |    | Yes                      |
| <ul> <li>evaluation of thermistor motor protection</li> </ul>                    |    | No                       |
| external reset   |    | Yes                      |
| <ul> <li>adjustable current limitation</li> </ul>                                |    | Yes                      |
| inside-delta circuit   |    | No                       |
| product component motor brake output   |    | No                       |
| insulation voltage rated value   | V  | 600                      |
| degree of pollution  |    | 3, acc. to IEC 60947-4-2 |
| reference code acc. to DIN EN 61346-2  |    | Q                        |
| reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 |    | G                        |
| Power Electronics  |    |                          |
| product designation  |    | Soft starter             |
| operational current  |    |                          |
| • at 40 °C rated value   | А  | 32                       |
| • at 50 °C rated value   | А  | 29                       |
| • at 60 °C rated value   | А  | 26                       |
| yielded mechanical performance for 3-phase motors                                |    |                          |
| ● at 400 V   |    |                          |
| <ul> <li>— at standard circuit at 40 °C rated value</li> </ul>                   | W  | 15 000                   |
| ● at 500 V   |    |                          |
| <ul> <li>— at standard circuit at 40 °C rated value</li> </ul>                   | W  | 18 500                   |
| operating frequency rated value  | Hz | 50 60                    |
| relative negative tolerance of the operating frequency                           | %  | -10                      |
| relative positive tolerance of the operating frequency                           | %  | 10                       |
| operating voltage at standard circuit rated value                                | V  | 400 600                  |
| relative negative tolerance of the operating voltage at standard circuit         | %  | -15                      |
| relative positive tolerance of the operating voltage at standard circuit         | %  | 10                       |
| minimum load [%]   | %  | 20                       |

|  | _  |   |
|--|----|---|
| adjustable motor current for motor overload<br>protection minimum rated value  | А  | 17  |
| continuous operating current [% of le] at 40 °C  | %  | 115   |
| power loss [W] at operational current at 40 °C during<br>operation typical   | W  | 13  |
| Control circuit/ Control   |    |   |
| type of voltage of the control supply voltage  |    | AC/DC   |
| control supply voltage frequency 1 rated value   | Hz | 50  |
| control supply voltage frequency 2 rated value   | Hz | 60  |
| relative negative tolerance of the control supply voltage frequency  | %  | -10   |
| relative positive tolerance of the control supply voltage frequency  | %  | 10  |
| control supply voltage 1 at AC   |    |   |
| • at 50 Hz rated value   | V  | 24  |
| • at 60 Hz rated value   | V  | 24  |
| relative negative tolerance of the control supply voltage at AC at 50 Hz   | %  | -20   |
| relative positive tolerance of the control supply voltage at AC at 50 Hz   | %  | 20  |
| relative negative tolerance of the control supply voltage at AC at 60 Hz   | %  | -20   |
| relative positive tolerance of the control supply voltage at AC at 60 Hz   | %  | 20  |
| control supply voltage 1 at DC rated value   | V  | 24  |
| relative negative tolerance of the control supply voltage at DC  | %  | -20   |
| relative positive tolerance of the control supply voltage at DC  | %  | 20  |
| display version for fault signal   |    | red   |
| Mechanical data  |    |   |
| size of engine control device  |    | SO  |
| width  | mm | 45  |
| height   | mm | 125   |
| depth  | mm | 155   |
| fastening method   | _  | screw and snap-on mounting  |
| mounting position  |    | With additional fan: With vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back Without additional fan: With vertical mounting surface +/-10° rotatable, with vertical mounting surface +/- 10° t |
| required spacing with side-by-side mounting  |    |   |
| upwards  | mm | 60  |
| • at the side  | mm | 15  |
| downwards  | mm | 40  |
| wire length maximum  | m  | 300   |
| number of poles for main current circuit   |    | 3   |
| Connections/ Terminals   |    |   |
| type of electrical connection  |    |   |
| <ul> <li>for main current circuit</li> </ul>   |    | screw-type terminals  |
| for auxiliary and control circuit  |    | screw-type terminals  |
| number of NC contacts for auxiliary contacts   | -  | 0   |
| number of NO contacts for auxiliary contacts   | _  | 2   |
| number of CO contacts for auxiliary contacts   | _  | 1   |
| type of connectable conductor cross-sections for<br>main contacts for box terminal using the front<br>clamping point |    |   |
| • solid  |    | 2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 1x 10 mm²  |
| <ul> <li>finely stranded with core end processing</li> </ul>   |    | 2x (1 2.5 mm²), 2x (2.5 6 mm²)  |
| type of connectable conductor cross-sections at AWG  |    |   |
| cables for main contacts for box terminal  |    |   |
| cables for main contacts for box terminal <ul> <li>using the front clamping point</li> </ul>                         |    | 1x 8, 2x (16 10)  |

| type of connectable auxiliary contacts  | conductor cross-sect                                   | tions for   |                   |                                 |                                 |                                     |
|---|--|---|-------------------|---------------------------------|---------------------------------|-------------------------------------|
| <ul> <li>solid</li> </ul>   |  |   |                   | 2x (0.5 2.5 ı                   | mm²)                            |                                     |
| <ul> <li>finely stranded</li> </ul>   | with core end processir                                | ng  |                   | 2x (0.5 1.5 ı                   | mm²)                            |                                     |
| type of connectable cables  | conductor cross-sect                                   | tions at AWG  |                   |                                 |                                 |                                     |
| <ul> <li>for auxiliary cor</li> </ul>   | ntacts   |   |                   | 2x (20 14)                      |                                 |                                     |
| <ul> <li>for auxiliary cor<br/>processing</li> </ul>  | • for auxiliary contacts finely stranded with core end |   |                   | 2x (20 16)                      |                                 |                                     |
| Ambient conditions  |  |   |                   |                                 |                                 |                                     |
| installation altitude   | at height above sea le                                 | evel  | m                 | 5 000                           |                                 |                                     |
| environmental categ   | gory   |   |                   |                                 |                                 |                                     |
|   | t acc. to IEC 60721                                    |   |                   | 2K2, 2C1, 2S1                   | 1, 2M2 (max. fall height        | : 0.3 m)                            |
|   | acc. to IEC 60721                                      |   |                   |                                 | asional condensation),          | ,                                   |
| 0 0   |  |   |                   |                                 | st not get inside the de        |                                     |
| <ul> <li>during operatio</li> </ul>   | n acc. to IEC 60721                                    |   |                   |                                 | tion of ice, no condens         |                                     |
|   |  |   |                   | mist), 3S2 (sa                  | nd must not get into the        | e devices), 3M6                     |
| ambient temperatur  |  |   |                   |                                 |                                 |                                     |
| <ul> <li>during operatio</li> </ul>   | n  |   | °C                | -25 +60                         |                                 |                                     |
| during storage  |  |   | °C                | -40 +80                         |                                 |                                     |
| derating temperatur   |  |   | °C                | 40                              |                                 |                                     |
|   | on the front acc. to IEC                               |   |                   | IP20                            |                                 |                                     |
| -   | the front acc. to IEC 6                                | 60529   |                   | finger-safe, for                | r vertical contact from t       | he front                            |
| Certificates/ approval  | s  |   |                   |                                 |                                 |                                     |
|   |  |   |                   |                                 |                                 | Enclose to be seend                 |
| General Product Ap  | oproval  | መ   |                   | FAL                             | EMC                             | For use in hazard-<br>ous locations |
| General Product Ap  | oproval  | (U)<br>JL   |                   | EAC                             |                                 |                                     |
| General Product Ap  | CCC  | UL<br>UL  | 95                | EAC                             | EMC<br>ECM<br>Marine / Shipping |                                     |
| SP<br>SM  | CCC  | Test Certificate  | <u>fic- Speci</u> | ERC<br>al Test Certific-<br>ate | RCM                             |                                     |
| Declaration of Cont<br>CE   | ccc  | Type Test Certil  | <u>fic- Speci</u> |                                 | Marine / Shipping               |                                     |
| Declaration of Cont<br>CEG-Konf.  | formity<br>Miscellaneous                               | Type Test Certil  | <u>fic- Speci</u> |                                 | Marine / Shipping               |                                     |
| Declaration of Cont<br>CEC<br>EG-Konf.<br>Marine / Shipping   | formity<br>Miscellaneous<br>other                      | Type Test Certil  | <u>fic- Speci</u> |                                 | Marine / Shipping               |                                     |
| Declaration of Cont<br>CEC EG-Kont<br>Marine / Shipping   | formity<br>Miscellaneous<br>other                      | <u>Type Test Certii</u><br>ates/Test Repo                 | <u>fic- Speci</u> |                                 | Marine / Shipping               |                                     |
| Declaration of Cont<br>CEC<br>EG-Konf.<br>Marine / Shipping<br>Marine / Shipping  | formity<br>Miscellaneous<br>other<br>Confirmation      | <u>Type Test Certii</u><br>ates/Test Repo                 | <u>fic- Speci</u> |                                 | Marine / Shipping               |                                     |
| Declaration of Cont<br>CEC-Konf.<br>Marine / Shipping<br>Marine / Shipping<br>UL/CSA ratings<br>yielded mechanical<br>motor<br>- at 460/480 V                     | formity<br>Miscellaneous<br>other<br>Confirmation      | Type Test Certii<br>ates/Test Repo                        | <u>fic- Speci</u> |                                 | Marine / Shipping               |                                     |
| Declaration of Cont<br>CEC-Konf.<br>Marine / Shipping<br>Marine / Shipping<br>UL/CSA ratings<br>yielded mechanical<br>motor<br>- at 460/480 V                     | formity<br>Miscellaneous<br>other<br>Confirmation      | Type Test Certii<br>ates/Test Repo                        | fic- Speci        |                                 | Marine / Shipping               |                                     |
| Declaration of Cont<br>CECE<br>EG-Kont.<br>Marine / Shipping<br>UL/CSA ratings<br>yielded mechanical<br>motor<br>• at 460/480 V<br>— at standar<br>• at 575/600 V | formity<br>Miscellaneous<br>other<br>Confirmation      | Type Test Certii<br>ates/Test Repo<br>3-phase AC<br>value | fic- Speci        |                                 | Marine / Shipping               |                                     |

Further information
Simulation Tool for Soft Starters (STS)
https://support.industry.siemens.com/cs/ww/en/view/101494917

contact rating of auxiliary contacts according to UL

B300 / R300

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10 Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4027-1BB05

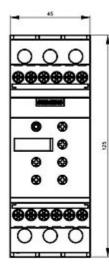
Cax online generator

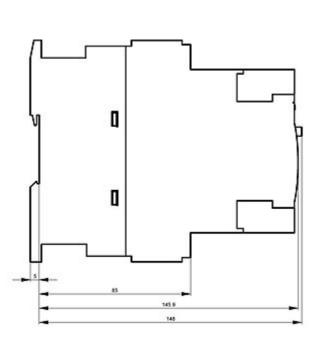
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4027-1BB05

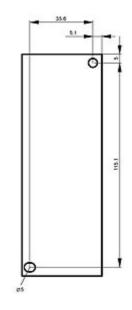
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

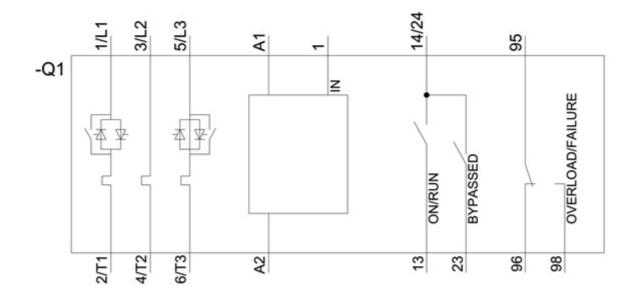
https://support.industry.siemens.com/cs/ww/en/ps/3RW4027-1BB05

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW4027-1BB05&lang=en









last modified:

12/15/2020 🖸