



SIRIUS soft starter S0 38 A, 18.5 kW/400 V, 40 °C 200-480 V AC, 24 V AC/DC spring-type terminals

| General technical data   |    |                          |
|--|----|--------------------------|
| product brand name   |    | SIRIUS                   |
| product feature  |    |                          |
| • integrated bypass contact system   |    | Yes                      |
| • thyristors   |    | Yes                      |
| product function   |    |                          |
| • intrinsic device protection  |    | Yes                      |
| • motor overload protection  |    | Yes                      |
| • evaluation of thermistor motor protection  |    | No                       |
| • external reset   |    | Yes                      |
| • adjustable current limitation  |    | 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 according to EN 61346-2   |    | Q                        |
| reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750                     |    | G                        |
| Power Electronics  |    |                          |
| product designation  |    | Soft starter             |
| operational current  |    |                          |
| • at 40 °C rated value   | A  | 38                       |
| • at 50 °C rated value   | A  | 34                       |
| • at 60 °C rated value   | A  | 31                       |
| yielded mechanical performance for 3-phase motors  |    |                          |
| • at 230 V   |    |                          |
| — at standard circuit at 40 °C rated value   | kW | 11                       |
| • at 400 V   |    |                          |
| — at standard circuit at 40 °C rated value   | kW | 18.5                     |
| yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value | hp | 10                       |
| 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  | 200 ... 480              |
| 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 protection minimum rated value                                     | A  | 23                       |

|  |    |   |
|--|----|---|
| continuous operating current [% of I <sub>e</sub> ] at 40 °C   | %  | 115   |
| power loss [W] at operational current at 40 °C during operation typical  | W  | 19  |
| <b>Control circuit/ Control</b>  |    |   |
| 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                                       | %  | -15   |
| relative positive tolerance of the control supply voltage at AC at 50 Hz                                       | %  | 10  |
| relative negative tolerance of the control supply voltage at AC at 60 Hz                                       | %  | -15   |
| relative positive tolerance of the control supply voltage at AC at 60 Hz                                       | %  | 10  |
| 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   |
| <b>Mechanical data</b>   |    |   |
| size of engine control device  |    | S0  |
| width  | mm | 45  |
| height   | mm | 150   |
| 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   |
| <b>Connections/ Terminals</b>  |    |   |
| type of electrical connection  |    |   |
| • for main current circuit   |    | spring-loaded terminals   |
| • for auxiliary and control circuit  |    | spring-loaded 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 main contacts for box terminal using the front clamping point |    |   |
| • solid  |    | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), max. 1x 10 mm <sup>2</sup>  |
| • finely stranded with core end processing   |    | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> )  |
| type of connectable conductor cross-sections for AWG cables for main contacts for box terminal                 |    |   |
| • using the front clamping point   |    | 1x 8, 2x (16 ... 10)  |
| type of connectable conductor cross-sections for main contacts   |    |   |
| • solid  |    | 1 ... 10 mm <sup>2</sup>  |
| • finely stranded with core end processing   |    | 1 ... 6 mm <sup>2</sup>   |
| type of connectable conductor cross-sections for auxiliary contacts  |    |   |
| • solid  |    | 2x (0.25 ... 2.5 mm <sup>2</sup> )  |

|  |    |   |
|--|----|---|
| <ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul>   |    | 2x (0.25 ... 1.5 mm <sup>2</sup> )  |
| <b>type of connectable conductor cross-sections for AWG cables</b> <ul style="list-style-type: none"> <li>for main contacts</li> <li>for auxiliary contacts</li> </ul>   |    | 16 ... 10, 1x 8<br>2x (24 ... 14)   |
| <b>Ambient conditions</b>  |    |   |
| <b>installation altitude at height above sea level</b>   | m  | 5 000   |
| <b>environmental category</b> <ul style="list-style-type: none"> <li>during transport according to IEC 60721</li> <li>during storage according to IEC 60721</li> <li>during operation according to IEC 60721</li> </ul>  |    | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)<br>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4<br>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 |
| <b>ambient temperature</b> <ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> </ul>  | °C | -25 ... +60<br>-40 ... +80  |
| <b>derating temperature</b>  | °C | 40  |
| <b>protection class IP on the front according to IEC 60529</b>   |    | IP20  |
| <b>touch protection on the front according to IEC 60529</b>  |    | finger-safe, for vertical contact from the front  |
| <b>UL/CSA ratings</b>  |    |   |
| <b>yielded mechanical performance [hp] for 3-phase AC motor</b> <ul style="list-style-type: none"> <li>at 220/230 V <ul style="list-style-type: none"> <li>at standard circuit at 50 °C rated value</li> </ul> </li> <li>at 460/480 V <ul style="list-style-type: none"> <li>at standard circuit at 50 °C rated value</li> </ul> </li> </ul> | hp | 10<br>25  |
| <b>contact rating of auxiliary contacts according to UL</b>  |    | B300 / R300   |

#### Approvals Certificates

##### General Product Approval



[Confirmation](#)



|                          |     |                                |                   |
|--------------------------|-----|--------------------------------|-------------------|
| General Product Approval | EMV | For use in hazardous locations | Test Certificates |
|--------------------------|-----|--------------------------------|-------------------|



[KC](#)



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

|                   |       |         |             |
|-------------------|-------|---------|-------------|
| Marine / Shipping | other | Railway | Environment |
|-------------------|-------|---------|-------------|



[Confirmation](#)

[Confirmation](#)

[Environmental Confirmations](#)

#### Further information

##### Simulation Tool for Soft Starters (STS)

<https://support.industry.siemens.com/cs/ww/en/view/101494917>

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### 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=3RW4028-2BB04>

##### Cax online generator

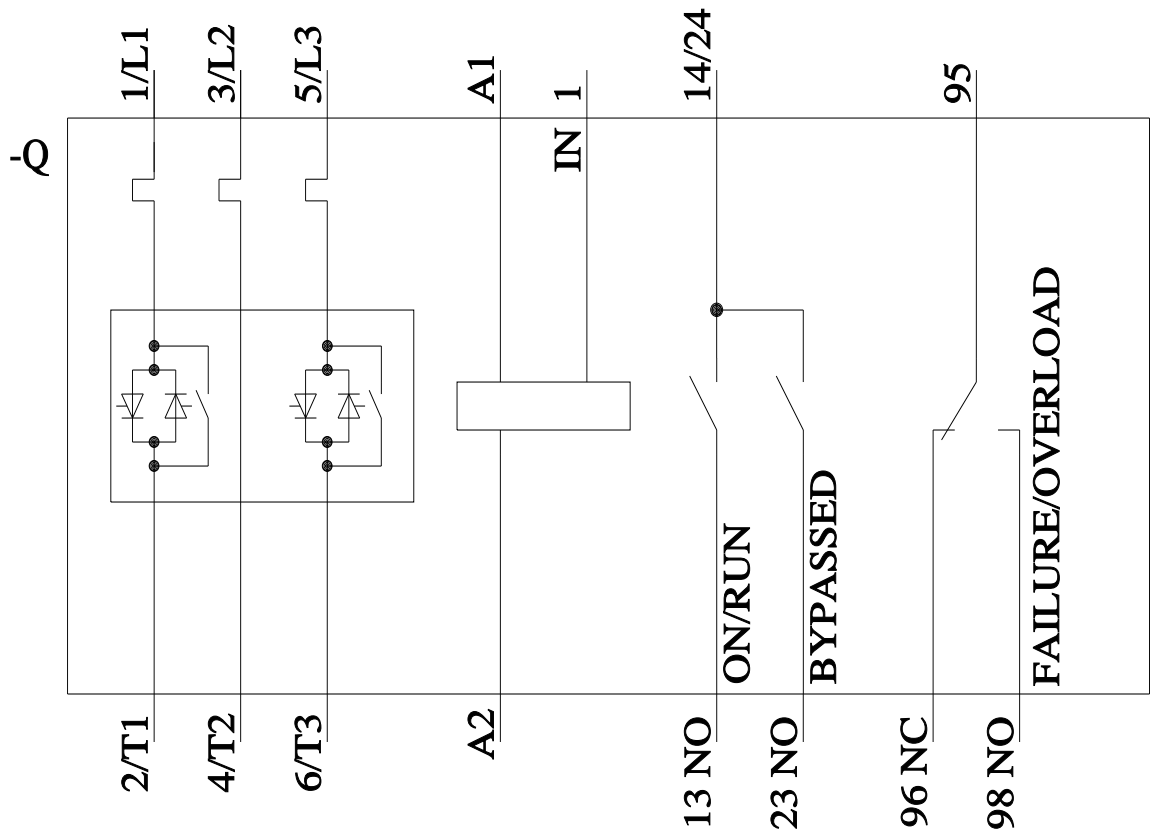
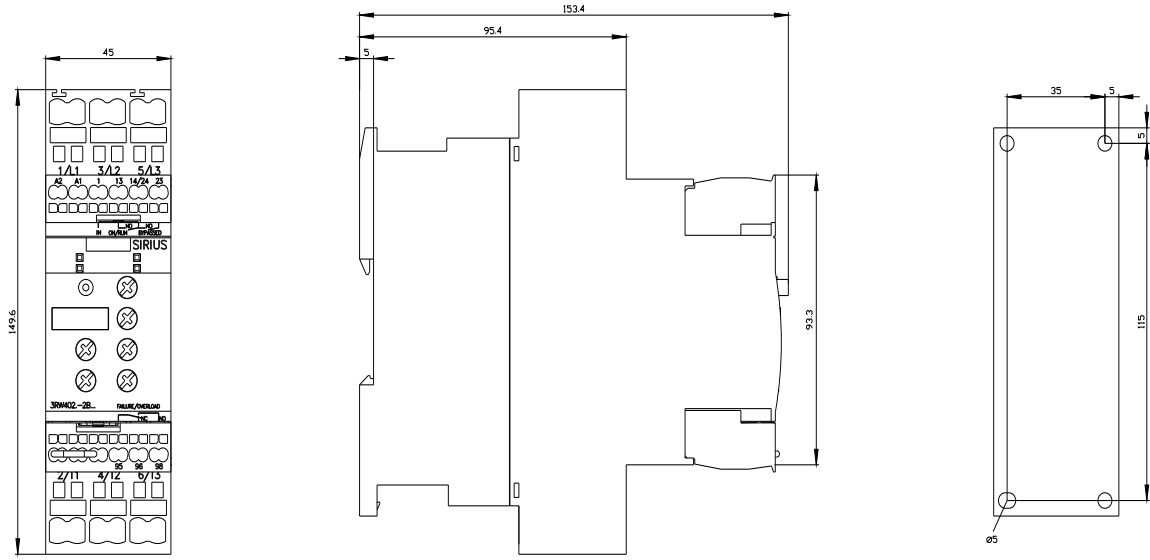
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4028-2BB04>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4028-2BB04>

##### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4028-2BB04&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4028-2BB04&lang=en)



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