



SIRIUS soft starter S0 38 A, 22 kW/500 V, 40 °C 400-600 V AC, 110-230 V AC/DC spring-type terminals

| General technical data   |             |                                      |
|--|-------------|--------------------------------------|
| product brand name   |             | SIRIUS                               |
| product feature  |             |                                      |
| <ul style="list-style-type: none"> <li>integrated bypass contact system</li> <li>thyristors</li> </ul>   |             | Yes<br>Yes                           |
| product function   |             |                                      |
| <ul style="list-style-type: none"> <li>intrinsic device protection</li> <li>motor overload protection</li> <li>evaluation of thermistor motor protection</li> <li>external reset</li> <li>adjustable current limitation</li> <li>inside-delta circuit</li> </ul>     |             | Yes<br>Yes<br>No<br>Yes<br>Yes<br>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  |             |                                      |
| <ul style="list-style-type: none"> <li>at 40 °C rated value</li> <li>at 50 °C rated value</li> <li>at 60 °C rated value</li> </ul>   | A<br>A<br>A | 38<br>34<br>31                       |
| yielded mechanical performance for 3-phase motors  |             |                                      |
| <ul style="list-style-type: none"> <li>at 400 V <ul style="list-style-type: none"> <li>at standard circuit at 40 °C rated value</li> </ul> </li> <li>at 500 V <ul style="list-style-type: none"> <li>at standard circuit at 40 °C rated value</li> </ul> </li> </ul> | kW<br>kW    | 18.5<br>22                           |
| 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 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  | V  | 110 ... 230   |
| control supply voltage 1 at AC at 60 Hz  | V  | 110 ... 230   |
| 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   | V  | 110 ... 230   |
| relative negative tolerance of the control supply voltage at DC  | %  | -15   |
| relative positive tolerance of the control supply voltage at DC  | %  | 10  |
| 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 at 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   |    |   |



|   |    |   |
|---|----|---|
| <b>auxiliary contacts</b>   |    |   |
| <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> </ul>   |    | 2x (0 ... 2.5 mm <sup>2</sup> )<br>2x (0 ... 5 mm <sup>2</sup> )  |
| <b>type of connectable conductor cross-sections at 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   |
|   | °C | -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>Certificates/ approvals</b>  |            |
| <b>General Product Approval</b> | <b>EMC</b> |



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|                                  |                          |                          |
|----------------------------------|--------------------------|--------------------------|
| <b>Declaration of Conformity</b> | <b>Test Certificates</b> | <b>Marine / Shipping</b> |
|----------------------------------|--------------------------|--------------------------|



EG-Konf.

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



LRS



PRS



DNV-GL

|              |                |
|--------------|----------------|
| <b>other</b> | <b>Railway</b> |
|--------------|----------------|

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**UL/CSA ratings**

|  |    |             |
|--|----|-------------|
| <b>yielded mechanical performance [hp] for 3-phase AC motor</b>  |    |             |
| <ul style="list-style-type: none"> <li>• at 460/480 V                             <ul style="list-style-type: none"> <li>— at standard circuit at 50 °C rated value</li> </ul> </li> <li>• at 575/600 V                             <ul style="list-style-type: none"> <li>— at standard circuit at 50 °C rated value</li> </ul> </li> </ul> | hp | 25          |
|  | hp | 30          |
| <b>contact rating of auxiliary contacts according to UL</b>  |    | B300 / R300 |

**Further information**

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

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

**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?mfb=3RW4028-2BB15>

Cax online generator

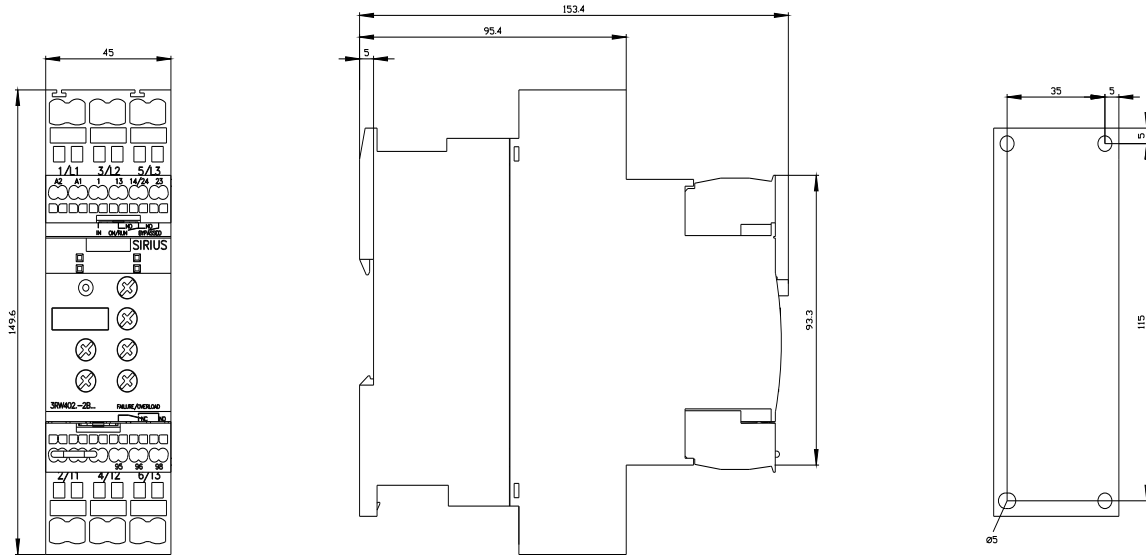
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4028-2BB15>

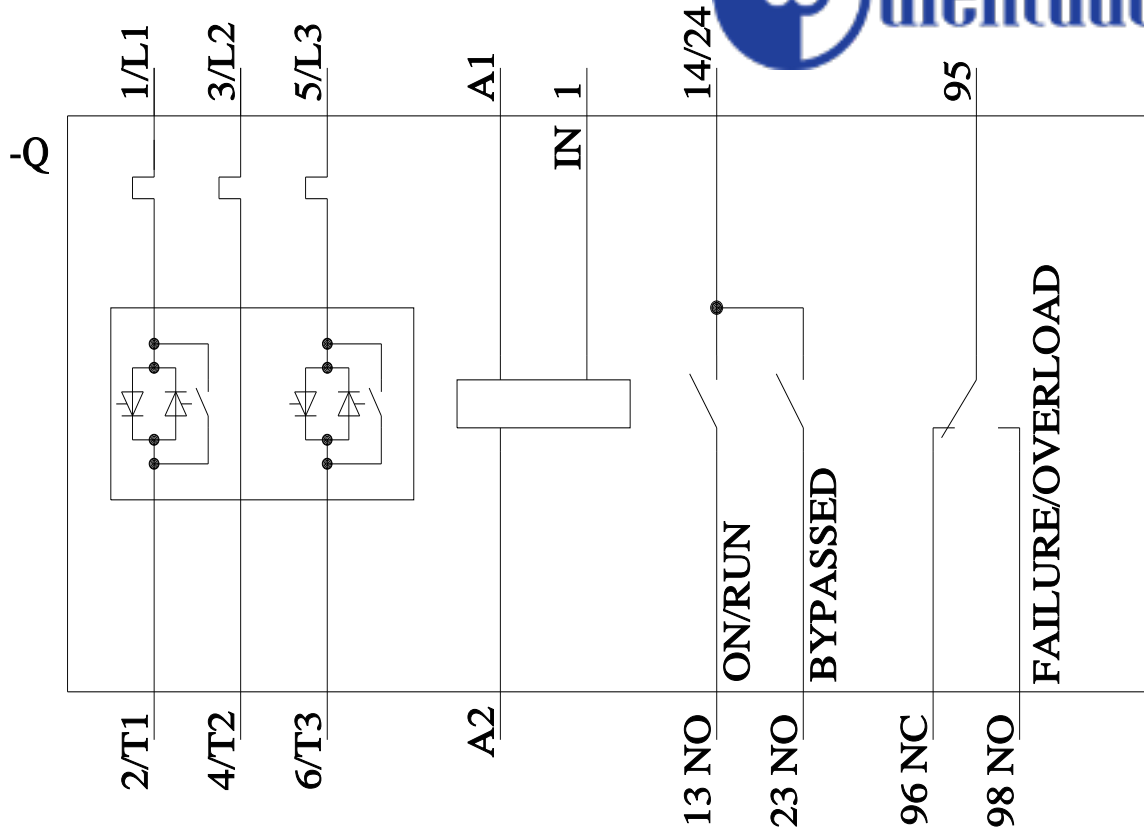
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4028-2BB15>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4028-2BB15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4028-2BB15&lang=en)





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