



SIRIUS soft starter S2 45 A, 22 kW/400 V, 40 °C 200-480 V AC, 110-230 V AC/DC Screw terminals

| General technical data   |    |                          |
|--|----|--------------------------|
| product brand name   |    | SIRIUS                   |
| product designation  |    | Soft starter             |
| product feature  |    |                          |
| • integrated bypass contact system   |    | Yes                      |
| • thyristors   |    | Yes                      |
| product function   |    |                          |
| • intrinsic device protection  |    | No                       |
| • motor overload protection  |    | No                       |
| • evaluation of thermistor motor protection  |    | No                       |
| • external reset   |    | No                       |
| • adjustable current limitation  |    | No                       |
| • 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 |
| blocking voltage of the thyristor maximum  | V  | 1 600                    |
| 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  |    |                          |
| operational current  |    |                          |
| • at 40 °C rated value   | A  | 45                       |
| • at 50 °C rated value   | A  | 42                       |
| • at 60 °C rated value   | A  | 39                       |
| 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 | 22                       |
| 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 [%]   | %  | 10                       |

|  |    |  |
|--|----|--|
| 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  | 6  |
| <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                                       | %  | -10  |
| 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                                       | %  | -10  |
| 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  | %  | -10  |
| 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  |    | S2   |
| width  | mm | 55   |
| height   | mm | 160  |
| depth  | mm | 170  |
| fastening method   |    | screw and snap-on mounting   |
| mounting position  |    | With vertical mounting surface +/-10° rotatable, with vertical mounting surface +/- 10° tiltable to the front and back |
| required spacing with side-by-side mounting  |    |  |
| • upwards  | mm | 60   |
| • at the side  | mm | 30   |
| • 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   |    | 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   |    | 1  |
| number of CO contacts for auxiliary contacts   |    | 0  |
| type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point |    |  |
| • solid  |    | 2x (1.5 ... 16 mm <sup>2</sup> )   |
| • finely stranded with core end processing   |    | 1.5 ... 25 mm <sup>2</sup>   |
| • stranded   |    | 1.5 ... 35 mm <sup>2</sup>   |
| type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point  |    |  |
| • solid  |    | 2x (1.5 ... 16 mm <sup>2</sup> )   |
| • finely stranded with core end processing   |    | 1.5 ... 25 mm <sup>2</sup>   |
| • stranded   |    | 1.5 ... 35 mm <sup>2</sup>   |
| type of connectable conductor cross-sections for main contacts for box terminal using both clamping points     |    |  |
| • solid  |    | 2x (1.5 ... 16 mm <sup>2</sup> )   |
| • finely stranded with core end processing   |    | 2x (1.5 ... 16 mm <sup>2</sup> )   |
| • stranded   |    | 2x (1.5 ... 25 mm <sup>2</sup> )   |
| type of connectable conductor cross-sections for AWG cables for main contacts for box terminal                 |    |  |

|  |  |  |
|--|--|--|
| <ul style="list-style-type: none"> <li>• using the back clamping point</li> <li>• using the front clamping point</li> <li>• using both clamping points</li> </ul>  |  | 16 ... 2<br>18 ... 2<br>2x (16 ... 2)                                  |
| <b>type of connectable conductor cross-sections for auxiliary contacts</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> </ul>                                 |  | 2x (0.5 ... 2.5 mm <sup>2</sup> )<br>2x (0.5 ... 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 auxiliary contacts</li> <li>• for auxiliary contacts finely stranded with core end processing</li> </ul> |  | 2x (20 ... 14)<br>2x (20 ... 16)                                       |

| Ambient conditions  |    |   |
|---|----|---|
| <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  |

| UL/CSA ratings   |    |             |
|--|----|-------------|
| <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 | 15          |
|  | hp | 30          |
| <b>contact rating of auxiliary contacts according to UL</b>  |    | B300 / R300 |

| Approvals Certificates   |  |  |
|--------------------------|--|--|
| General Product Approval |  |  |



[Confirmation](#)



| EMV     | Test Certificates  |  |  | other                         |                              |
|---------|--------------------|--|--|-------------------------------|------------------------------|
| <br>RCM | <a href="#">KC</a> | <a href="#">Special Test Certificate</a> | <a href="#">Type Test Certificates/Test Report</a> | <a href="#">Miscellaneous</a> | <a href="#">Confirmation</a> |

| Railway                                  | Environment                  |  |   |
|--|------------------------------|--|---|
| <a href="#">Special Test Certificate</a> | <a href="#">Confirmation</a> |  | <a href="#">Environmental Confirmations</a> |

| Further information   |
|---|
| <b>Simulation Tool for Soft Starters (STS)</b><br><a href="https://support.industry.siemens.com/cs/ww/en/view/101494917">https://support.industry.siemens.com/cs/ww/en/view/101494917</a><br><b>Information on the packaging</b><br><a href="https://support.industry.siemens.com/cs/ww/en/view/109813875">https://support.industry.siemens.com/cs/ww/en/view/109813875</a><br><b>Information- and Downloadcenter (Catalogs, Brochures,...)</b><br><a href="https://www.siemens.com/ic10">https://www.siemens.com/ic10</a><br><b>Industry Mall (Online ordering system)</b> |

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW3036-1BB14>

Cax online generator

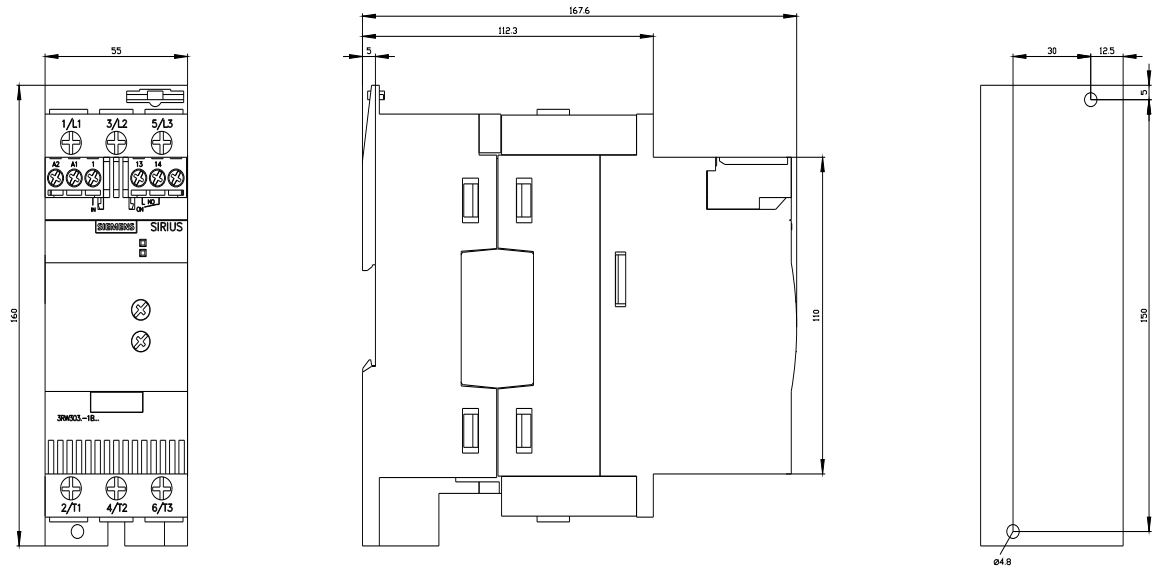
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW3036-1BB14>

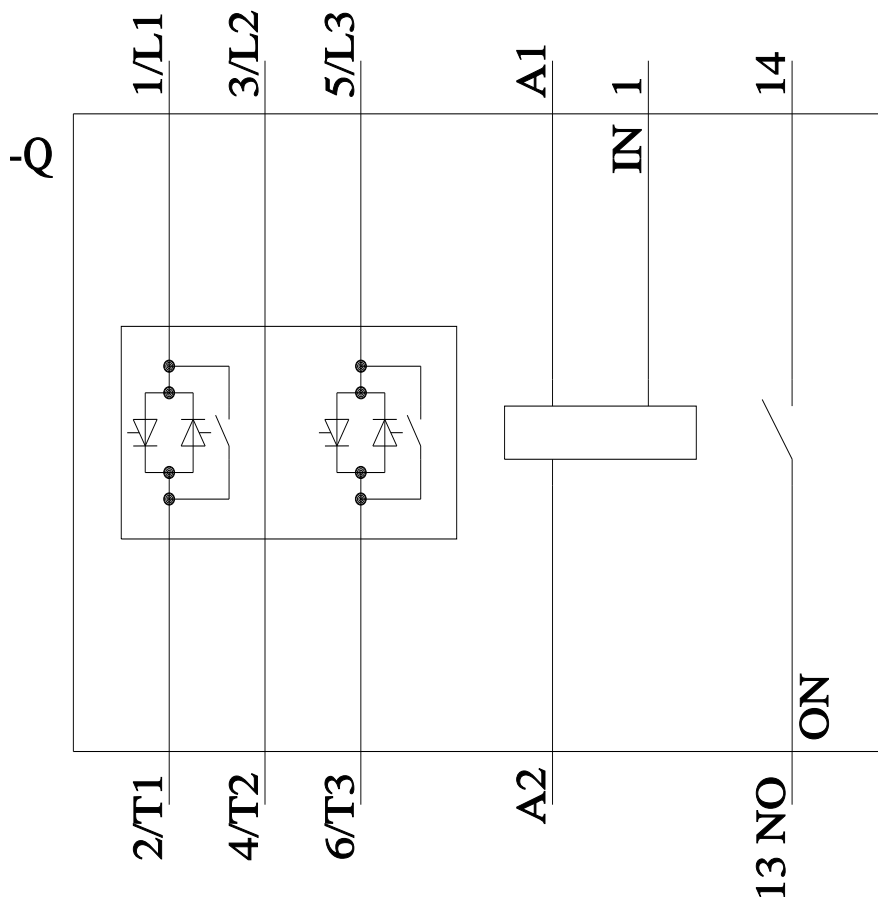
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW3036-1BB14>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW3036-1BB14&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW3036-1BB14&lang=en)





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