



SIRIUS soft starter Values at 575 V, 50 °C standard: 82 A, 75 hp Inside-delta: 142 A, 125 hp 400-690 V AC, 115 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5527-1HA16<<

| General technical data   |                          |
|--|--------------------------|
| product brand name   | SIRIUS                   |
| product designation  | Soft starter             |
| product feature  |                          |
| <ul style="list-style-type: none"> <li>integrated bypass contact system</li> </ul>   | Yes                      |
| <ul style="list-style-type: none"> <li>thyristors</li> </ul>   | Yes                      |
| product function   |                          |
| <ul style="list-style-type: none"> <li>intrinsic device protection</li> </ul>  | Yes                      |
| <ul style="list-style-type: none"> <li>motor overload protection</li> </ul>  | Yes                      |
| <ul style="list-style-type: none"> <li>evaluation of thermistor motor protection</li> </ul>  | Yes                      |
| <ul style="list-style-type: none"> <li>external reset</li> </ul>   | Yes                      |
| <ul style="list-style-type: none"> <li>adjustable current limitation</li> </ul>  | Yes                      |
| <ul style="list-style-type: none"> <li>inside-delta circuit</li> </ul>   | Yes                      |
| product component motor brake output   | Yes                      |
| insulation voltage rated value   | 690 V                    |
| 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  |                          |
| operational current  |                          |
| <ul style="list-style-type: none"> <li>at 40 °C rated value</li> </ul>   | 93 A                     |
| <ul style="list-style-type: none"> <li>at 50 °C rated value</li> </ul>   | 82 A                     |
| <ul style="list-style-type: none"> <li>at 60 °C rated value</li> </ul>   | 72 A                     |
| operational current for 3-phase motors at inside-delta circuit   |                          |
| <ul style="list-style-type: none"> <li>at 40 °C rated value</li> </ul>   | 161 A                    |
| <ul style="list-style-type: none"> <li>at 50 °C rated value</li> </ul>   | 142 A                    |
| <ul style="list-style-type: none"> <li>at 60 °C rated value</li> </ul>   | 125 A                    |
| 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> <li>at inside-delta circuit at 40 °C rated value</li> </ul> </li> </ul> | 45 kW<br>90 kW           |
| <ul style="list-style-type: none"> <li>at 500 V                             <ul style="list-style-type: none"> <li>at standard circuit at 40 °C rated value</li> <li>at inside-delta circuit at 40 °C rated value</li> </ul> </li> </ul> | 55 kW<br>110 kW          |
| <ul style="list-style-type: none"> <li>at 690 V at standard circuit at 40 °C rated value</li> </ul>  | 90 kW                    |
| operating frequency rated value  | 50 ... 60 Hz             |
| relative negative tolerance of the operating frequency   | -10 %                    |
| relative positive tolerance of the operating frequency   | 10 %                     |

|  |  |
|--|--|
| operating voltage at standard circuit rated value  | 400 ... 690 V  |
| relative negative tolerance of the operating voltage at standard circuit                                       | -15 %  |
| relative positive tolerance of the operating voltage at standard circuit                                       | 10 %   |
| operating voltage at inside-delta circuit rated value  | 400 ... 600 V  |
| relative negative tolerance of the operating voltage at inside-delta circuit                                   | -15 %  |
| relative positive tolerance of the operating voltage at inside-delta circuit                                   | 10 %   |
| minimum load [%]   | 8 %  |
| adjustable motor current for motor overload protection minimum rated value                                     | 18 A   |
| continuous operating current [% of I <sub>e</sub> ] at 40 °C   | 115 %  |
| power loss [W] at operational current at 40 °C during operation typical  | 55 W   |
| <b>Control circuit/ Control</b>  |  |
| type of voltage of the control supply voltage  | AC   |
| control supply voltage frequency 1 rated value   | 50 Hz  |
| control supply voltage frequency 2 rated value   | 60 Hz  |
| 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   | 115 V  |
| • at 60 Hz rated value   | 115 V  |
| 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 %   |
| display version for fault signal   | Display  |
| <b>Mechanical data</b>   |  |
| width  | 170 mm   |
| height   | 192 mm   |
| depth  | 270 mm   |
| fastening method   | screw fixing   |
| mounting position  | with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back |
| required spacing with side-by-side mounting  |  |
| • upwards  | 100 mm   |
| • at the side  | 5 mm   |
| • downwards  | 75 mm  |
| wire length maximum  | 500 m  |
| number of poles for main current circuit   | 3  |
| <b>Connections/ Terminals</b>  |  |
| type of electrical connection  |  |
| • for main current circuit   | box terminal   |
| • for auxiliary and control circuit  | screw-type terminals   |
| number of NC contacts for auxiliary contacts   | 0  |
| number of NO contacts for auxiliary contacts   | 3  |
| 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  | 2.5 ... 16 mm <sup>2</sup>   |
| • finely stranded with core end processing   | 2.5 ... 35 mm <sup>2</sup>   |
| • finely stranded without core end processing  | 4 ... 50 mm <sup>2</sup>   |
| • stranded   | 4 ... 70 mm <sup>2</sup>   |
| type of connectable conductor cross-sections for main  |  |

|  |   |
|--|---|
| <b>contacts for box terminal using the back clamping point</b>   |   |
| <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> <li>• stranded</li> </ul> | <p>2,5 ... 16 mm<sup>2</sup></p> <p>2.5 ... 50 mm<sup>2</sup></p> <p>10 ... 50 mm<sup>2</sup></p> <p>10 ... 70 mm<sup>2</sup></p>                   |
| <b>type of connectable conductor cross-sections for main contacts for box terminal using both clamping points</b>  |   |
| <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> <li>• stranded</li> </ul> | <p>2x (2.5 ... 16 mm<sup>2</sup>)</p> <p>2x (2.5 ... 35 mm<sup>2</sup>)</p> <p>2x (4 ... 35 mm<sup>2</sup>)</p> <p>2x (4 ... 50 mm<sup>2</sup>)</p> |
| <b>type of connectable conductor cross-sections for AWG cables for main contacts for box terminal</b>  |   |
| <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>                        | <p>10 ... 2/0</p> <p>10 ... 2/0</p> <p>2x (10 ... 1/0)</p>  |
| <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>  | <p>2x (0.5 ... 2.5 mm<sup>2</sup>)</p> <p>2x (0.5 ... 1.5 mm<sup>2</sup>)</p>   |
| <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>                                    | <p>2x (20 ... 14)</p> <p>2x (20 ... 16)</p>   |

#### Ambient conditions

|   |  |
|---|--|
| <b>installation altitude at height above sea level</b>  | 5 000 m  |
| <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> | <p>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</p> <p>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</p> <p>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</p> |
| <b>ambient temperature</b>  |  |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> </ul>  | <p>60 °C</p> <p>-25 ... +80 °C</p>   |
| <b>derating temperature</b>   | 40 °C  |
| <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 460/480 V <ul style="list-style-type: none"> <li>— at standard circuit at 50 °C rated value</li> <li>— at inside-delta 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> <li>— at inside-delta circuit at 50 °C rated value</li> </ul> </li> </ul> | <p>60 hp</p> <p>100 hp</p> <p>75 hp</p> <p>125 hp</p> |
| <b>contact rating of auxiliary contacts according to UL</b>  | B300 / R300   |

#### Approvals Certificates

|                    |                                 |
|--------------------|---------------------------------|
| <b>Environment</b> | <b>General Product Approval</b> |
|--------------------|---------------------------------|

[Environmental Con-  
firmations](#)



|            |                          |                             |
|------------|--------------------------|-----------------------------|
| <b>EMV</b> | <b>Test Certificates</b> | <b>Maritime application</b> |
|------------|--------------------------|-----------------------------|



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Maritime application

other



[Confirmation](#)

[Confirmation](#)



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 for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RW4427-1BC36>

Cax online generator

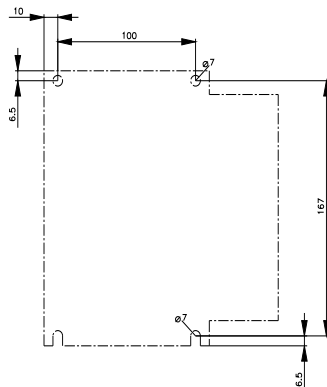
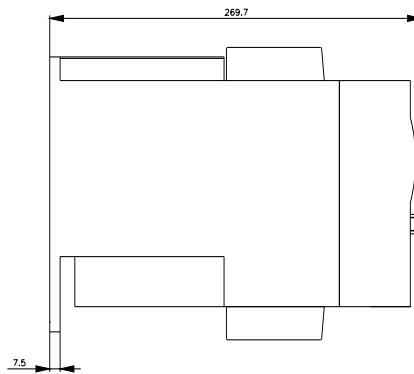
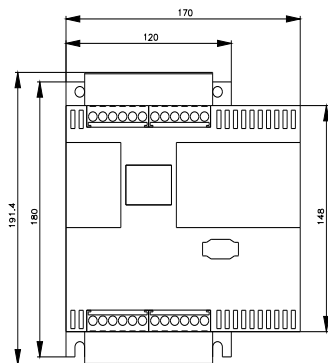
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4427-1BC36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4427-1BC36>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4427-1BC36&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4427-1BC36&lang=en)





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