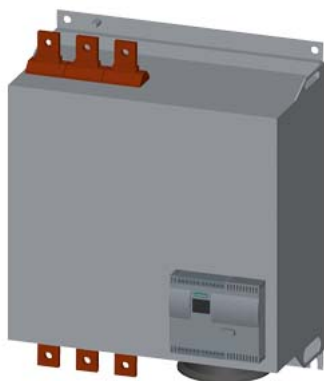




SIRIUS soft starter Values at 460 V, 50 °C standard: 780 A, 700 hp Inside-delta: 1351 A, 1200 hp 200-460 V AC, 115 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5556-6HA14<<

| 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                                                                    |    | Yes                      |
| • external reset                                                                                               |    | Yes                      |
| • adjustable current limitation                                                                                |    | Yes                      |
| • inside-delta circuit                                                                                         |    | Yes                      |
| product component motor brake output                                                                           |    | Yes                      |
| insulation voltage rated value                                                                                 | V  | 690                      |
| 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                                                                                         | A  | 880                      |
| • at 50 °C rated value                                                                                         | A  | 780                      |
| • at 60 °C rated value                                                                                         | A  | 693                      |
| operational current for 3-phase motors at inside-delta circuit                                                 |    |                          |
| • at 40 °C rated value                                                                                         | A  | 1 524                    |
| • at 50 °C rated value                                                                                         | A  | 1 351                    |
| • at 60 °C rated value                                                                                         | A  | 1 200                    |
| yielded mechanical performance for 3-phase motors                                                              |    |                          |
| • at 230 V                                                                                                     |    |                          |
| — at standard circuit at 40 °C rated value                                                                     | W  | 250 000                  |
| — at inside-delta circuit at 40 °C rated value                                                                 | W  | 500 000                  |
| • at 400 V                                                                                                     |    |                          |
| — at standard circuit at 40 °C rated value                                                                     | W  | 500 000                  |
| — at inside-delta circuit at 40 °C rated value                                                                 | W  | 900 000                  |
| yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value | hp | 250                      |

|                                                                                  |    |                                                                                                                          |
|----------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------|
| 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 ... 460                                                                                                              |
| 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                            | V  | 200 ... 460                                                                                                              |
| 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       | A  | 176                                                                                                                      |
| 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  | 250                                                                                                                      |
| <b>Control circuit/ Control</b>                                                  |    |                                                                                                                          |
| type of voltage of the control supply voltage                                    |    | AC                                                                                                                       |
| 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  | 115                                                                                                                      |
| • at 60 Hz rated value                                                           | V  | 115                                                                                                                      |
| 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                                                                            | mm | 510                                                                                                                      |
| height                                                                           | mm | 640                                                                                                                      |
| depth                                                                            | mm | 290                                                                                                                      |
| 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                                                                        | mm | 100                                                                                                                      |
| • at the side                                                                    | mm | 5                                                                                                                        |
| • downwards                                                                      | mm | 75                                                                                                                       |
| wire length maximum                                                              | m  | 500                                                                                                                      |
| number of poles for main current circuit                                         |    | 3                                                                                                                        |
| <b>Connections/ Terminals</b>                                                    |    |                                                                                                                          |
| type of electrical connection                                                    |    |                                                                                                                          |
| • for main current circuit                                                       |    | busbar connection                                                                                                        |
| • 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 DIN cable lug for main contacts |    |                                                                                                                          |

|                                                                                                                                                                                                                                                |  |                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>finely stranded</li> <li>stranded</li> </ul>                                                                                                                                                            |  | 50 ... 240 mm <sup>2</sup><br>70 ... 240 mm <sup>2</sup>               |
| <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 at AWG cables</b> <ul style="list-style-type: none"> <li>for main contacts</li> <li>for auxiliary contacts</li> <li>for auxiliary contacts finely stranded with core end processing</li> </ul> |  | 2/0 ... 500 kcmil<br>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 acc. to IEC 60721</li> <li>during storage acc. to IEC 60721</li> <li>during operation acc. 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 | 60<br>-25 ... +80                                                                                                                                                                                                                                                       |
| <b>derating temperature</b>                                                                                                                                                                              | °C | 40                                                                                                                                                                                                                                                                      |
| <b>protection class IP on the front acc. to IEC 60529</b>                                                                                                                                                |    | IP00                                                                                                                                                                                                                                                                    |

#### Certificates/ approvals

|                          |     |                           |
|--------------------------|-----|---------------------------|
| General Product Approval | EMC | Declaration of Conformity |
|--------------------------|-----|---------------------------|



|                   |                   |       |
|-------------------|-------------------|-------|
| Test Certificates | Marine / Shipping | other |
|-------------------|-------------------|-------|

[Special Test Certificate](#)



[Confirmation](#)

#### UL/CSA ratings

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------|
| <b>yielded mechanical performance [hp] for 3-phase AC motor</b> <ul style="list-style-type: none"> <li>at 200/208 V           <ul style="list-style-type: none"> <li>at inside-delta circuit at 50 °C rated value</li> </ul> </li> <li>at 220/230 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 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> </ul> | hp | 450<br>300<br>600<br>700<br>1 200 |
| <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?mlfb=3RW4457-6BC34>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4457-6BC34>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4457-6BC34>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4457-6BC34&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4457-6BC34&lang=en)

