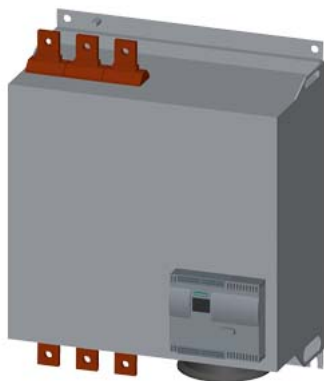




SIRIUS soft starter Values at 575 V, 50 °C standard: 693 A, 750 hp Inside-delta: 1200 A, 1350 hp 400-600 V AC, 115 V AC spring-type terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5554-2HA16<<

### 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                                                              | 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                                                             | 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                                            |               |
| • at 40 °C rated value                                         | 780 A         |
| • at 50 °C rated value                                         | 693 A         |
| • at 60 °C rated value                                         | 615 A         |
| operational current for 3-phase motors at inside-delta circuit |               |
| • at 40 °C rated value                                         | 1 351 A       |
| • at 50 °C rated value                                         | 1 200 A       |
| • at 60 °C rated value                                         | 1 065 A       |
| yielded mechanical performance for 3-phase motors              |               |
| • at 400 V                                                     |               |
| — at standard circuit at 40 °C rated value                     | 450 kW        |
| — at inside-delta circuit at 40 °C rated value                 | 800 kW        |
| • at 500 V                                                     |               |
| — at standard circuit at 40 °C rated value                     | 560 kW        |
| — at inside-delta circuit at 40 °C rated value                 | 900 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 ... 600 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       | 156 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          | 214 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                                                                            | 510 mm                                                                                                                   |
| height                                                                           | 640 mm                                                                                                                   |
| depth                                                                            | 290 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                                                       | busbar connection                                                                                                        |
| • for auxiliary and control circuit                                              | spring-loaded 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 |                                                                                                                          |
| • finely stranded                                                                | 50 ... 240 mm²                                                                                                           |
| • stranded                                                                       | 70 ... 240 mm²                                                                                                           |
| type of connectable conductor cross-sections for auxiliary contacts              |                                                                                                                          |
| • solid                                                                          | 2x (0.25 ... 1.5 mm²)                                                                                                    |
| • finely stranded with core end processing                                       | 2x (0.25 ... 1.5 mm²)                                                                                                    |

|                                                                                                         |                                     |
|---------------------------------------------------------------------------------------------------------|-------------------------------------|
| <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> | 2/0 ... 500 kcmil<br>2x (24 ... 16) |

|                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ambient conditions</b>                                                                                                                                                                       |                                                                                                                                                                                                                                                                         |
| <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> | 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>                                                                                                  | 60 °C<br>-25 ... +80 °C                                                                                                                                                                                                                                                 |
| <b>derating temperature</b>                                                                                                                                                                     | 40 °C                                                                                                                                                                                                                                                                   |
| <b>protection class IP on the front according to IEC 60529</b>                                                                                                                                  | IP00                                                                                                                                                                                                                                                                    |

|                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| <b>UL/CSA ratings</b>                                                                                                                                                                                                                                                                                                                                                                                                            |                                          |
| <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> | 600 hp<br>1 050 hp<br>750 hp<br>1 350 hp |
| <b>contact rating of auxiliary contacts according to UL</b>                                                                                                                                                                                                                                                                                                                                                                      | B300 / R300                              |

#### Approvals Certificates

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

[Environmental Confirmations](#)



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



[Special Test Certificate](#)



#### 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=3RW4456-2BC35>

**Cax online generator**

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4456-2BC35>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4456-2BC35>



