



SIRIUS soft starter Values at 400 V, 40 °C standard: 162 A, 90 kW Inside-delta: 281 A, 160 kW 200-460 V AC, 230 V AC spring-type terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5536-2HA14<<

### 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                                                                                         | 162 A        |
| • at 50 °C rated value                                                                                         | 145 A        |
| • at 60 °C rated value                                                                                         | 125 A        |
| operational current for 3-phase motors at inside-delta circuit                                                 |              |
| • at 40 °C rated value                                                                                         | 281 A        |
| • at 50 °C rated value                                                                                         | 251 A        |
| • at 60 °C rated value                                                                                         | 217 A        |
| yielded mechanical performance for 3-phase motors                                                              |              |
| • at 230 V                                                                                                     |              |
| — at standard circuit at 40 °C rated value                                                                     | 45 kW        |
| — at inside-delta circuit at 40 °C rated value                                                                 | 90 kW        |
| • at 400 V                                                                                                     |              |
| — at standard circuit at 40 °C rated value                                                                     | 90 kW        |
| — at inside-delta circuit at 40 °C rated value                                                                 | 160 kW       |
| yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value | 40 hp        |
| 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                                                              | 200 ... 460 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                                                          | 200 ... 460 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                                     | 32 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                                        | 95 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                                                                                         | 230 V                                                                                                                    |
| • at 60 Hz rated value                                                                                         | 230 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                                                                                                         | 200 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                                                                                     | 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 main contacts for box terminal using the front clamping point |                                                                                                                          |
| • finely stranded with core end processing                                                                     | 16 ... 70 mm <sup>2</sup>                                                                                                |
| • finely stranded without core end processing                                                                  | 16 ... 70 mm <sup>2</sup>                                                                                                |
| • stranded                                                                                                     | 16 ... 70 mm <sup>2</sup>                                                                                                |
| type of connectable conductor cross-sections for main                                                          |                                                                                                                          |

|                                                                                                                   |                                                    |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>contacts for box terminal using the back clamping point</b>                                                    |                                                    |
| • finely stranded with core end processing                                                                        | 16 ... 70 mm <sup>2</sup>                          |
| • finely stranded without core end processing                                                                     | 16 ... 70 mm <sup>2</sup>                          |
| • stranded                                                                                                        | 16 ... 70 mm <sup>2</sup>                          |
| <b>type of connectable conductor cross-sections for main contacts for box terminal using both clamping points</b> |                                                    |
| • finely stranded with core end processing                                                                        | max. 1x 50 mm <sup>2</sup> , 1x 70 mm <sup>2</sup> |
| • finely stranded without core end processing                                                                     | max. 1x 50 mm <sup>2</sup> , 1x 70 mm <sup>2</sup> |
| • stranded                                                                                                        | max. 2x 70 mm <sup>2</sup>                         |
| <b>type of connectable conductor cross-sections for AWG cables for main contacts for box terminal</b>             |                                                    |
| • using the back clamping point                                                                                   | 6 ... 2/0                                          |
| • using the front clamping point                                                                                  | 6 ... 2/0                                          |
| • using both clamping points                                                                                      | max. 2x 1/0                                        |
| <b>type of connectable conductor cross-sections for DIN cable lug for main contacts</b>                           |                                                    |
| • finely stranded                                                                                                 | 16 ... 95 mm <sup>2</sup>                          |
| • stranded                                                                                                        | 25 ... 120 mm <sup>2</sup>                         |
| <b>type of connectable conductor cross-sections for auxiliary contacts</b>                                        |                                                    |
| • solid                                                                                                           | 2x (0.25 ... 1.5 mm <sup>2</sup> )                 |
| • finely stranded with core end processing                                                                        | 2x (0.25 ... 1.5 mm <sup>2</sup> )                 |
| <b>type of connectable conductor cross-sections for AWG cables</b>                                                |                                                    |
| • for main contacts                                                                                               | 4 ... 250 kcmil                                    |
| • for auxiliary contacts                                                                                          | 2x (24 ... 16)                                     |

#### Ambient conditions

|                                                                |                                                                                                               |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>installation altitude at height above sea level</b>         | 5 000 m                                                                                                       |
| <b>environmental category</b>                                  |                                                                                                               |
| • during transport according to IEC 60721                      | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)                                                                   |
| • during storage according to IEC 60721                        | 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4       |
| • during operation according to IEC 60721                      | 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 |
| <b>ambient temperature</b>                                     |                                                                                                               |
| • during operation                                             | 60 °C                                                                                                         |
| • during storage                                               | -25 ... +80 °C                                                                                                |
| <b>derating temperature</b>                                    | 40 °C                                                                                                         |
| <b>protection class IP on the front according to IEC 60529</b> | IP00; IP20 with box terminal/cover                                                                            |
| <b>touch protection on the front according to IEC 60529</b>    | finger-safe, for vertical contact from the front with box terminal/cover                                      |

#### UL/CSA ratings

|                                                                 |             |
|-----------------------------------------------------------------|-------------|
| <b>yielded mechanical performance [hp] for 3-phase AC motor</b> |             |
| • at 200/208 V                                                  |             |
| — at inside-delta circuit at 50 °C rated value                  | 75 hp       |
| • at 220/230 V                                                  |             |
| — at standard circuit at 50 °C rated value                      | 50 hp       |
| — at inside-delta circuit at 50 °C rated value                  | 100 hp      |
| • at 460/480 V                                                  |             |
| — at standard circuit at 50 °C rated value                      | 100 hp      |
| — at inside-delta circuit at 50 °C rated value                  | 200 hp      |
| <b>contact rating of auxiliary contacts according to UL</b>     | B300 / R300 |

#### Approvals Certificates

|             |                          |
|-------------|--------------------------|
| Environment | General Product Approval |
|-------------|--------------------------|

[Environmental Conformations](#)



|     |                   |                      |
|-----|-------------------|----------------------|
| EMV | Test Certificates | Maritime application |
|-----|-------------------|----------------------|



[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=3RW4436-2BC44>

Cax online generator

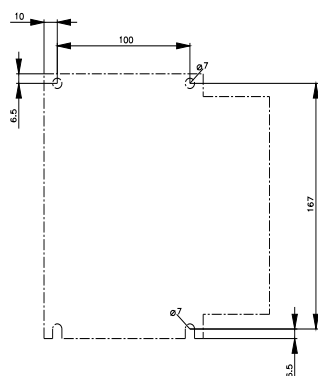
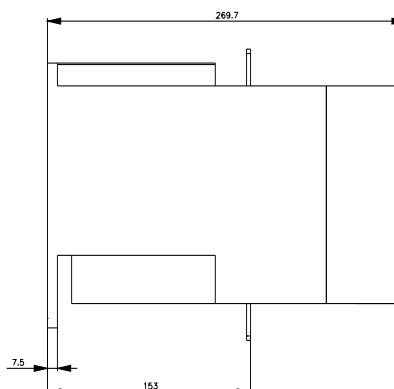
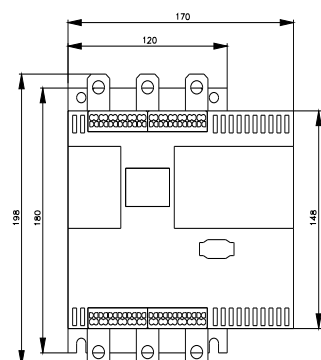
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4436-2BC44>

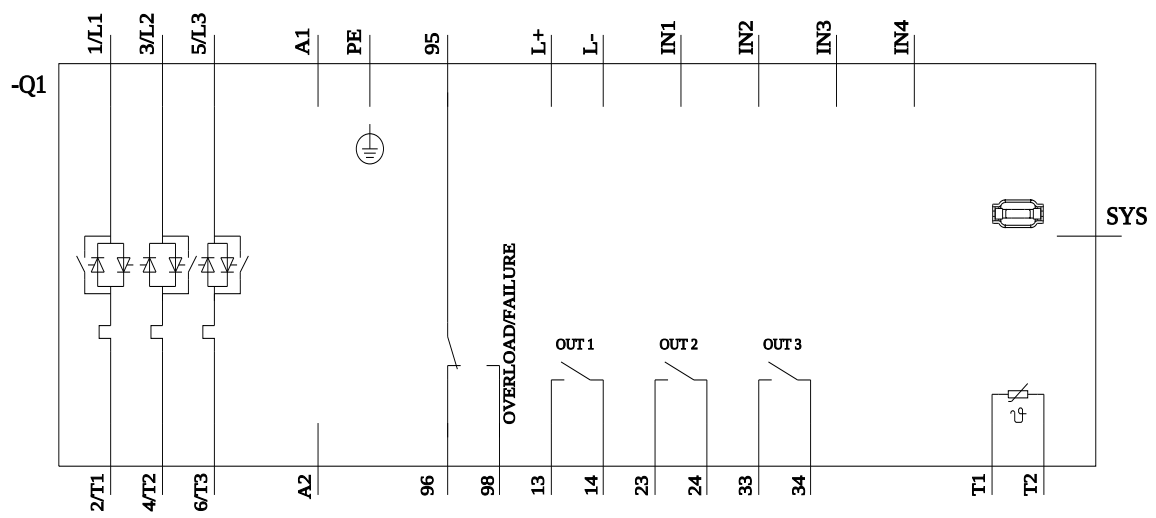
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4436-2BC44>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4436-2BC44&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4436-2BC44&lang=en)





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