

SIRIUS SOFT STARTER, VALUES WITH 690 V, 40 DEG., STANDARD: 250A, 250KW, INSIDE-DELTA CIRCUIT 3: ONLY UP TO 600V, 400-690 V AC, 230 V AC, SCREW TERMINALS

**General details:**

|  |  |        |
|--|--|--------|
| <b>product brand name</b>  |  | SIRIUS |
| <b>Product equipment</b>   |  |        |
| <ul style="list-style-type: none"> <li>integrated bridging contact system</li> </ul>                                       |  | Yes    |
| <ul style="list-style-type: none"> <li>thyristors</li> </ul>   |  | Yes    |
| <b>Product function</b>  |  |        |
| <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 thermal resistor motor protection</li> </ul>                          |  | Yes    |
| <ul style="list-style-type: none"> <li>reset external</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    |
| <b>Product component / outlet for enine brake</b>  |  | Yes    |
| <b>Item designation</b>  |  |        |
| <ul style="list-style-type: none"> <li>according to DIN EN 61346-2</li> </ul>  |  | Q      |
| <ul style="list-style-type: none"> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul> |  | G      |

**Power Electronics:**

|                            |  |   |
|----------------------------|--|---|
| <b>product designation</b> |  | soft starters for high feature applications |
| Operating current          |  |   |

|  |    |             |
|--|----|-------------|
| • at 40 °C / rated value   | A  | 250         |
| • at 50 °C / rated value   | A  | 215         |
| • at 60 °C / rated value   | A  | 185         |
| • for three-phase servomotors / at 3-phase root switching                                    |    |             |
| • at 40 °C / rated value   | A  | 433         |
| • at 50 °C / rated value   | A  | 372         |
| • at 60 °C / rated value   | A  | 320         |
| <b>Emitted mechanical power / for three-phase servomotors</b>                                |    |             |
| • at 400 V / at standard switching / at 40 °C  |    |             |
| • rated value  | W  | 132,000     |
| • at 500 V / at standard switching / at 40 °C  |    |             |
| • rated value  | W  | 160,000     |
| • at 690 V / at standard switching / at 40 °C  |    |             |
| • rated value  | W  | 250,000     |
| • at 400 V / at 3-phase root switching / at 40 °C  |    |             |
| • rated value  | W  | 250,000     |
| • at 500 V / at 3-phase root switching / at 40 °C  |    |             |
| • rated value  | W  | 315,000     |
| <b>Operating frequency</b>   |    |             |
| • rated value  | Hz | 50 ... 60   |
| <b>Relative negative tolerance / of the operating frequency</b>                              | %  | -10         |
| <b>Relative positive tolerance / of the operating frequency</b>                              | %  | 10          |
| <b>Operating voltage / with standard circuit / rated value</b>                               | V  | 400 ... 690 |
| <b>Relative negative tolerance / of the operating voltage / with standard circuit</b>        | %  | -15         |
| <b>Relative positive tolerance / of the operating voltage / with standard circuit</b>        | %  | 10          |
| <b>Operating voltage / at 3-phase root switching / rated value</b>                           | V  | 400 ... 600 |
| <b>Relative negative tolerance / of the operating voltage / with inside-delta circuit</b>    | %  | -15         |
| <b>Relative positive tolerance / of the operating voltage / with inside-delta circuit</b>    | %  | 10          |
| <b>Minimum load in % of I<sub>M</sub></b>  | %  | 8           |
| <b>Adjustable rated current / of the motor / for motor overload protection / minimum</b>     | A  | 50          |
| <b>Continuous operating current in % of I<sub>e</sub> / at 40°C</b>                          | %  | 115         |
| <b>Active power loss / at operating current / at 40°C / during operating phase / typical</b> | W  | 110         |
| <b>Control electronics:</b>  |    |             |
| <b>Type of voltage / of the controlled supply voltage</b>                                    |    | AC          |
| <b>Control supply voltage frequency / 1 / rated value</b>                                    | Hz | 50          |

|  |    |         |
|--|----|---------|
| <b>Control supply voltage frequency / 2 / rated value</b>                              | Hz | 60      |
| <b>Relative negative tolerance / of the control supply voltage frequency</b>           | %  | -10     |
| <b>Relative positive tolerance / of the control supply voltage frequency</b>           | %  | 10      |
| <b>Control supply voltage / 1</b>  |    |         |
| • at 50 Hz / for AC  | V  | 230     |
| • at 60 Hz / for AC  | V  | 230     |
| <b>Relative negative tolerance / of the control supply voltage / at 60 Hz / for AC</b> | %  | -15     |
| <b>Relative positive tolerance / of the control supply voltage / at 60 Hz / for AC</b> | %  | 10      |
| <b>Type of display / for fault signal</b>  |    | Display |

#### Mechanical design:

|   |    |   |
|---|----|---|
| <b>Width</b>  | mm | 210   |
| <b>Height</b>   | mm | 230   |
| <b>Depth</b>  | mm | 298   |
| <b>Type of mounting</b>                                   |    | screw fixing  |
| <b>mounting position</b>                                  |    | bei senkrechter Montageebene +/-90° drehbar, bei senkrechter Montageebene +/- 22,5° nach vorne und hinten kippbar |
| <b>Distance, to be maintained, to the ranks assembly</b>  |    |   |
| • upwards   | mm | 100   |
| • sideways  | mm | 5   |
| • downwards   | mm | 75  |
| <b>Installation altitude / at a height over sea level</b> | m  | 5,000   |
| <b>Cable length / maximum</b>                             | m  | 500   |
| <b>Number of poles / for main current circuit</b>         |    | 3   |

#### Electrical connections:

|   |  |                            |
|---|--|----------------------------|
| <b>Design of the electrical connection</b>  |  |                            |
| • for main current circuit  |  | busbar connection          |
| • for auxiliary and control current circuit   |  | screw-type terminals       |
| <b>Number of NC contacts / for auxiliary contacts</b>   |  | 0                          |
| <b>Number of NO contacts / for auxiliary contacts</b>   |  | 3                          |
| <b>Number of change-over switches / for auxiliary contacts</b>  |  | 1                          |
| <b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the front clamping point</b> |  |                            |
| • finely stranded / with conductor end processing   |  | 70 ... 240 mm <sup>2</sup> |
| • finely stranded / without conductor end processing  |  | 70 ... 240 mm <sup>2</sup> |
| • stranded  |  | 95 ... 300 mm <sup>2</sup> |

|  |  |  |
|--|--|--|
| <b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the back clamping point</b> <ul style="list-style-type: none"> <li>• finely stranded / with conductor end processing</li> <li>• without conductor final cutting / without conductor end processing</li> <li>• stranded</li> </ul>   |  | 120 ... 185 mm <sup>2</sup><br>120 ... 185 mm <sup>2</sup><br>120 ... 240 mm <sup>2</sup>  |
| <b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using both clamping points</b> <ul style="list-style-type: none"> <li>• finely stranded / with conductor end processing</li> <li>• without conductor final cutting / without conductor end processing</li> <li>• stranded</li> </ul>  |  | min. 2x 50 mm <sup>2</sup> , max. 2x 185 mm <sup>2</sup><br>min. 2x 50 mm <sup>2</sup> , max. 2x 185 mm <sup>2</sup><br>max. 2x 70 mm <sup>2</sup> , max. 2x 240 mm <sup>2</sup> |
| <b>Type of the connectable conductor cross-section / for AWG conductors / for main contacts / for box terminal</b> <ul style="list-style-type: none"> <li>• when using the back cl</li> <li>• when using the front c</li> <li>• when using both clampi</li> </ul>  |  | 250 ... 500 kcmil<br>3/0 ... 600 kcmil<br>min. 2x 2/0, max. 2x 500 kcmil   |
| <b>Type of the connectable conductor cross-section / for DIN cable lug / for main contacts</b> <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 the connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for AWG conductors / for main contacts</li> </ul>  |  | 2/0 ... 500 kcmil  |
| <b>Type of the connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded / with conductor end processing</li> </ul> </li> <li>• for AWG conductors / for auxiliary contacts <ul style="list-style-type: none"> <li>• finely stranded / with wire end proc</li> </ul> </li> </ul> |  | 2x (0.5 ... 2.5 mm <sup>2</sup> )<br>2x (0.5 ... 1.5 mm <sup>2</sup> )<br>2x (20 ... 14)<br>2x (20 ... 16)   |

#### Ambient conditions:

|   |            |                   |
|---|------------|-------------------|
| <b>Ambient temperature</b> <ul style="list-style-type: none"> <li>• during operating</li> <li>• during storage</li> </ul> | / °C<br>°C | 60<br>-25 ... +80 |
| <b>Derating temperature</b>   | °C         | 40                |
| <b>Protection class IP</b>  |            | IP00              |

#### Certificates/approvals:

**General Product Approval**

**EMC**



**Test Certificates**

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

**Shipping Approval**



**other**

[Declaration of Conformity](#)

[Environmental Confirmations](#)

**UL/CSA ratings**

**yielded mechanical performance (hp) / for three-phase squirrel cage motors**

- at 460/480 V / at standard circuit

- at 50 °C / rated value

hp 150

- at 575/600 V / at standard circuit

- at 50 °C / rated value

hp 200

- at 460/480 V / at inside-delta circuit / at 50 °C / rated value

hp 300

- at 575/600 V / at inside-delta circuit / at 50 °C / rated value

hp 350

**Contact rating designation / for auxiliary contacts / according to UL**

B300 / R300

**Further information:**

**Information- and Downloadcenter (Catalogs, Brochures,...)**

<http://www.siemens.com/industrial-controls/catalogs>

**Industry Mall (Online ordering system)**

<http://www.siemens.com/industrial-controls/mall>

**CAX-Online-Generator**

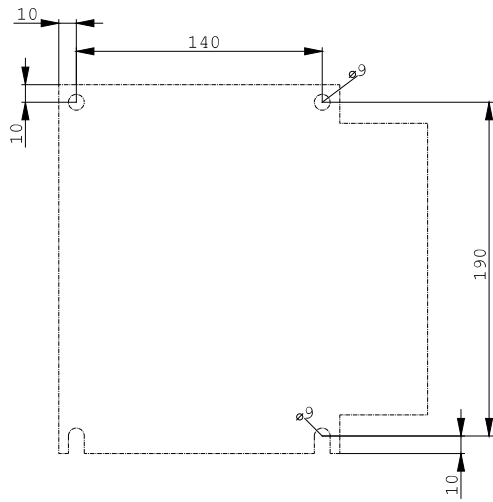
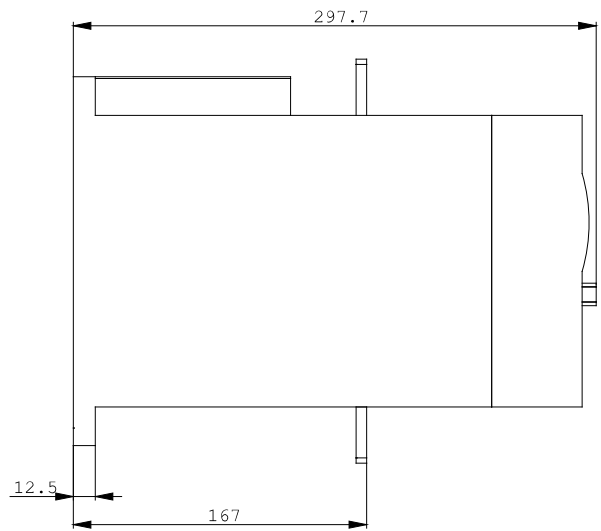
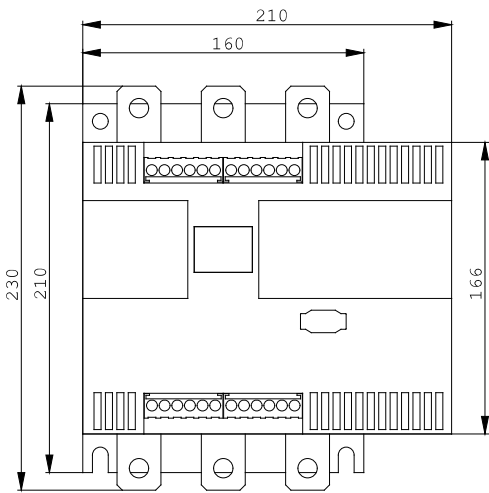
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RW4444-6BC46/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RW4444-6BC46](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RW4444-6BC46)



last change:

Feb 7, 2013