



SIRIUS SOFT STARTER, S12, 385 A,  
400 HP/575 V, 50 DEG., 400-600 V AC,  
115 V AC, SCREW TERMINALS

| General details:                                                                |  |                                         |
|---------------------------------------------------------------------------------|--|-----------------------------------------|
| product brand name                                                              |  | SIRIUS                                  |
| Product equipment                                                               |  |                                         |
| • integrated bridging contact system                                            |  | Yes                                     |
| • thyristors                                                                    |  | Yes                                     |
| Product function                                                                |  |                                         |
| • intrinsic device protection                                                   |  | Yes                                     |
| • motor overload protection                                                     |  | Yes                                     |
| • evaluation of thermal resistor motor protection                               |  | No                                      |
| • reset external                                                                |  | Yes                                     |
| • adjustable current limitation                                                 |  | Yes                                     |
| • inside-delta circuit                                                          |  | No                                      |
| Product component / outlet for enine brake                                      |  | No                                      |
| Reference code                                                                  |  |                                         |
| • according to DIN EN 61346-2                                                   |  | Q                                       |
| • according to DIN 40719 extended according to IEC 204-2 / according to IEC 750 |  | G                                       |
| Power Electronics:                                                              |  |                                         |
| Product designation                                                             |  | soft starters for standard applications |
| Operating current                                                               |  |                                         |

|                                                                                              |    |             |
|----------------------------------------------------------------------------------------------|----|-------------|
| • at 40 °C / rated value                                                                     | A  | 432         |
| • at 50 °C / rated value                                                                     | A  | 385         |
| • at 60 °C / rated value                                                                     | A  | 335         |
| <b>Emitted mechanical power / for three-phase servomotors</b>                                |    |             |
| • at 400 V / at standard switching / at 40 °C                                                |    |             |
| • rated value                                                                                | W  | 250,000     |
| • at 500 V / at standard 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 ... 600 |
| <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>Minimum load in % of I<sub>M</sub></b>                                                    | %  | 20          |
| <b>Adjustable rated current / of the motor / for motor overload protection / minimum</b>     | A  | 207         |
| <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  | 165         |

|                                                                                        |    |     |
|----------------------------------------------------------------------------------------|----|-----|
| <b>Control electronics:</b>                                                            |    |     |
| <b>Voltage type / of control feed 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  | 115 |
| • at 60 Hz / for AC                                                                    | V  | 115 |
| <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>                                              |    | red |

|                                          |  |     |
|------------------------------------------|--|-----|
| <b>Mechanical design:</b>                |  |     |
| <b>Size of the engine control device</b> |  | S12 |

|                                                           |    |                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Width</b>                                              | mm | 160                                                                                                                                                                                                                                                                 |
| <b>Height</b>                                             | mm | 230                                                                                                                                                                                                                                                                 |
| <b>Depth</b>                                              | mm | 278                                                                                                                                                                                                                                                                 |
| <b>Mounting type</b>                                      |    | screw fixing                                                                                                                                                                                                                                                        |
| <b>mounting position</b>                                  |    | With additional fan: With vertical mounting surface +/- 90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back<br>Without additional fan: With vertical mounting surface +/-10° rotatable, with vertical mounting surface +/- 10° t |
| <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  | 300                                                                                                                                                                                                                                                                 |
| <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>                                                                               |  | 2                               |
| <b>Number of changeover contacts / 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 mm²                  |
| • finely stranded / without conductor end processing                                                                                |  | 70 ... 240 mm²                  |
| • stranded                                                                                                                          |  | 95 ... 300 mm²                  |
| <b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the back clamping point</b>  |  |                                 |
| • finely stranded / with conductor end processing                                                                                   |  | 120 ... 185 mm²                 |
| • without conductor final cutting / without conductor end processing                                                                |  | 120 ... 185 mm²                 |
| • stranded                                                                                                                          |  | 120 ... 240 mm²                 |
| <b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using both clamping points</b>     |  |                                 |
| • finely stranded / with conductor end processing                                                                                   |  | min. 2x 50 mm², max. 2x 185 mm² |
| • without conductor final cutting / without conductor end processing                                                                |  | min. 2x 50 mm², max. 2x 185 mm² |
| • stranded                                                                                                                          |  | max. 2x 70 mm², max. 2x 240 mm² |
| <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 | -25 ... +60<br>-40 ... +80 |
| <b>Derating temperature</b>                                                                                               | °C | 40                         |
| <b>Protection class IP</b>                                                                                                |    | IP00                       |

#### Certificates/approvals:

| General Product Approval                                                            |                                                                                     |                                                                                     | EMC                                                                                 | For use in hazardous locations                                                        |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |
| CCC                                                                                 | CSA                                                                                 |                                                                                     | UL                                                                                  | C-TICK                                                                                | ATEX                                                                                  |
| Test Certificates                                                                   | Shipping Approval                                                                   |                                                                                     |                                                                                     | other                                                                                 |                                                                                       |
| <a href="#">Special Test Certificate</a>                                            |  |  |  | <a href="#">Declaration of Conformity</a>                                             | <a href="#">Environmental Confirmations</a>                                           |
|                                                                                     | DNV                                                                                 | GL                                                                                  | LRS                                                                                 |                                                                                       |                                                                                       |

#### UL/CSA ratings

|                                                                                                                                                                                                                                                                                                                                                                                |    |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|
| <b>yielded mechanical performance (hp) / for three-phase squirrel cage motors</b> <ul style="list-style-type: none"> <li>• at 460/480 V / at standard circuit <ul style="list-style-type: none"> <li>• at 50 °C / rated value</li> </ul> </li> <li>• at 575/600 V / at standard circuit <ul style="list-style-type: none"> <li>• at 50 °C / rated value</li> </ul> </li> </ul> | hp | 300 |
|                                                                                                                                                                                                                                                                                                                                                                                | hp | 400 |

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**

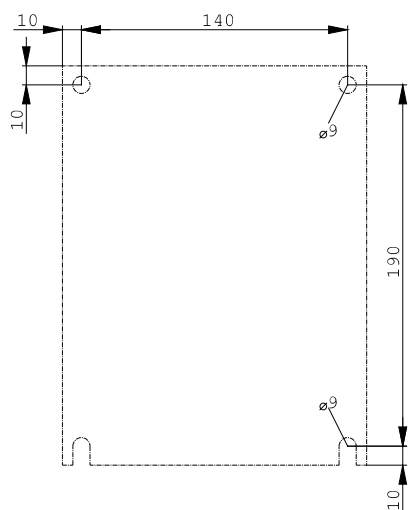
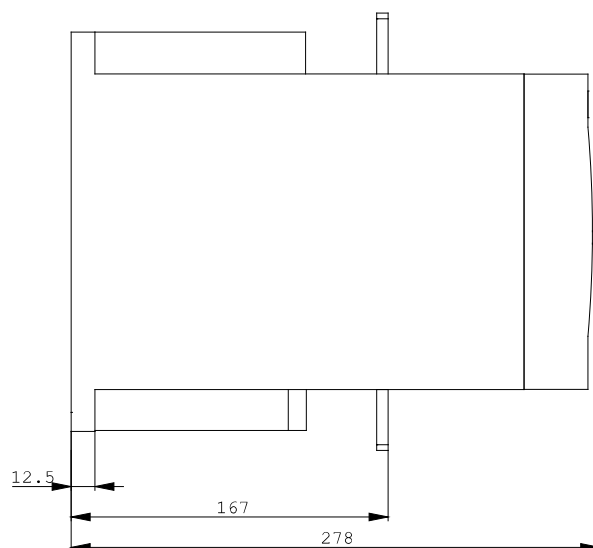
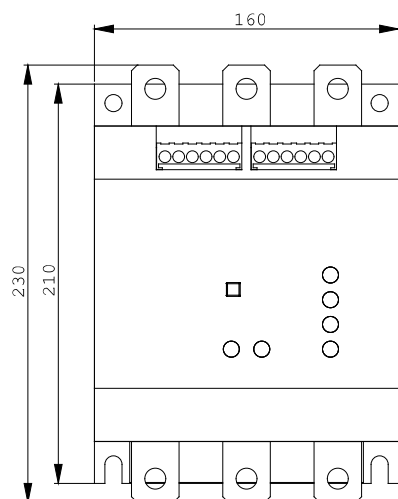
<http://www.siemens.com/cax>

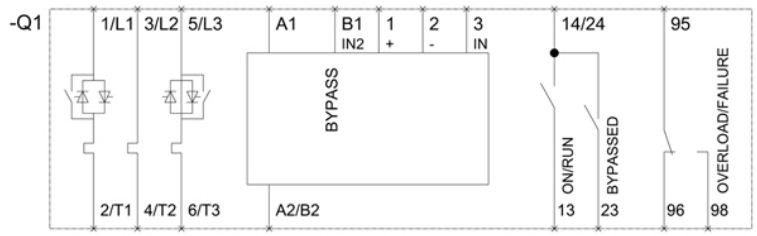
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RW4076-6BB35/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RW4076-6BB35](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RW4076-6BB35)





last change:

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