



SIRIUS SOFT STARTER, SIZE S3, 80A,  
45KW/400V, 40 DEGREES, 200-480V AC,  
110-230V AC/DC, SPRING-LOADED TERMINALS

### General details:

|                                                                            |  |        |
|----------------------------------------------------------------------------|--|--------|
| <b>product brand name</b>                                                  |  | SIRIUS |
| <b>Product equipment</b>                                                   |  |        |
| • integrated bridging contact system                                       |  | Yes    |
| • thyristors                                                               |  | Yes    |
| <b>Product function</b>                                                    |  |        |
| • intrinsic device protection                                              |  | No     |
| • motor overload protection                                                |  | No     |
| • evaluation of thermal resistor motor protection                          |  | No     |
| • reset external                                                           |  | No     |
| • adjustable current limitation                                            |  | No     |
| • inside-delta circuit                                                     |  | No     |
| <b>Product component / outlet for enine brake</b>                          |  | No     |
| <b>Item designation</b>                                                    |  |        |
| • according to DIN EN 61346-2                                              |  | Q      |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 |  | G      |

### Power Electronics:

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

|                                                                                                                                                 |    |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------|
| • at 40 °C / rated value                                                                                                                        | A  | 80          |
| • at 50 °C / rated value                                                                                                                        | A  | 73          |
| • at 60 °C / rated value                                                                                                                        | A  | 66          |
| <b>Emitted mechanical power / for three-phase servomotors</b>                                                                                   |    |             |
| • at 230 V / at standard switching / at 40 °C                                                                                                   |    |             |
| • rated value                                                                                                                                   | W  | 22,000      |
| • at 400 V / at standard switching / at 40 °C                                                                                                   |    |             |
| • rated value                                                                                                                                   | W  | 45,000      |
| <b>yielded mechanical performance (hp) / for three-phase squirrel cage motors / at 200/208 V / at standard circuit / at 50 °C / rated value</b> | hp | 20          |
| <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  | 200 ... 480 |
| <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>                                                                                                       | %  | 10          |
| <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  | 12          |

|                                                                                        |    |             |
|----------------------------------------------------------------------------------------|----|-------------|
| <b>Control electronics:</b>                                                            |    |             |
| <b>Type of voltage / of the controlled supply voltage</b>                              |    | AC/DC       |
| <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 / at 50 Hz / for AC</b>                                  | V  | 110 ... 230 |
| <b>Control supply voltage / 1 / at 60 Hz / for AC</b>                                  | V  | 110 ... 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>Control supply voltage / 1 / for DC</b>                                             | V  | 110 ... 230 |
| <b>Relative negative tolerance / of the control supply voltage / for DC</b>            | %  | -15         |

|                                                                             |   |     |
|-----------------------------------------------------------------------------|---|-----|
| <b>Relative positive tolerance / of the control supply voltage / for DC</b> | % | 10  |
| <b>Type of display / for fault signal</b>                                   |   | red |

| <b>Mechanical design:</b>                                 |    |                                                                                                                        |
|-----------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------|
| <b>Size of the engine control device</b>                  |    | S3                                                                                                                     |
| <b>Width</b>                                              | mm | 70                                                                                                                     |
| <b>Height</b>                                             | mm | 170                                                                                                                    |
| <b>Depth</b>                                              | mm | 190                                                                                                                    |
| <b>Type of mounting</b>                                   |    | screw and snap-on mounting                                                                                             |
| <b>mounting position</b>                                  |    | With vertical mounting surface +/-10° rotatable, with vertical mounting surface +/- 10° tiltable to the front and back |
| <b>Distance, to be maintained, to the ranks assembly</b>  |    |                                                                                                                        |
| • upwards                                                 | mm | 60                                                                                                                     |
| • sideways                                                | mm | 30                                                                                                                     |
| • downwards                                               | mm | 40                                                                                                                     |
| <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                                                                                                                      |

| <b>Electrical connections:</b>                                                                                                      |  |                                  |
|-------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------|
| <b>Design of the electrical connection</b>                                                                                          |  |                                  |
| • for main current circuit                                                                                                          |  | screw-type terminals             |
| • for auxiliary and control current circuit                                                                                         |  | spring-loaded terminals          |
| <b>Number of NC contacts / for auxiliary contacts</b>                                                                               |  | 0                                |
| <b>Number of NO contacts / for auxiliary contacts</b>                                                                               |  | 1                                |
| <b>Number of change-over switches / for auxiliary contacts</b>                                                                      |  | 0                                |
| <b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the front clamping point</b> |  |                                  |
| • solid                                                                                                                             |  | 2x (2.5 ... 16 mm <sup>2</sup> ) |
| • finely stranded / with conductor end processing                                                                                   |  | 2.5 ... 35 mm <sup>2</sup>       |
| • stranded                                                                                                                          |  | 4 ... 70 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>  |  |                                  |
| • solid                                                                                                                             |  | 2x (2.5 ... 16 mm <sup>2</sup> ) |
| • finely stranded / with conductor end processing                                                                                   |  | 2.5 ... 50 mm <sup>2</sup>       |
| • stranded                                                                                                                          |  | 10 ... 70 mm <sup>2</sup>        |
| <b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using both clamping points</b>     |  |                                  |
| • solid                                                                                                                             |  | 2x (2.5 ... 16 mm <sup>2</sup> ) |
| • finely stranded / with conductor end processing                                                                                   |  | 2x (2.5 ... 35 mm <sup>2</sup> ) |

|                                                                                                                    |  |                                    |
|--------------------------------------------------------------------------------------------------------------------|--|------------------------------------|
| • stranded                                                                                                         |  | 2x (10 ... 50 mm <sup>2</sup> )    |
| <b>Type of the connectable conductor cross-section / for AWG conductors / for main contacts / for box terminal</b> |  |                                    |
| • when using the back cl                                                                                           |  | 10 ... 2/0                         |
| • when using the front c                                                                                           |  | 10 ... 2/0                         |
| • when using both clampi                                                                                           |  | 2x (10 ... 1/0)                    |
| <b>Type of the connectable conductor cross-section / for DIN cable lug / for main contacts</b>                     |  |                                    |
| • finely stranded                                                                                                  |  | 2 x (10 ... 50 mm <sup>2</sup> )   |
| • stranded                                                                                                         |  | 2x (10 ... 70 mm <sup>2</sup> )    |
| <b>Type of the connectable conductor cross-section</b>                                                             |  |                                    |
| • for AWG conductors / for main contacts                                                                           |  | 2x (7 ... 1/0)                     |
| <b>Type of the connectable conductor cross-section</b>                                                             |  |                                    |
| • for auxiliary contacts                                                                                           |  |                                    |
| • solid                                                                                                            |  | 2x (0.25 ... 2.5 mm <sup>2</sup> ) |
| • finely stranded / with conductor end processing                                                                  |  | 2x (0.25 ... 1.5 mm <sup>2</sup> ) |
| • for AWG conductors / for auxiliary contacts                                                                      |  | 2x (24 ... 14)                     |

#### Ambient conditions:

|                             |    |             |
|-----------------------------|----|-------------|
| <b>Ambient temperature</b>  |    |             |
| • during operating          | °C | -25 ... +60 |
| • during storage            | °C | -40 ... +80 |
| <b>Derating temperature</b> | °C | 40          |
| <b>Protection class IP</b>  |    | IP00        |

#### Certificates/approvals:

| General Product Approval                                                                   |                                                                                            |                                                                                             |                                                                                           | EMC                                                                                             | Test Certificates                                  |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <br>CCC | <br>CSA | <br>GOST | <br>UL | <br>C-TICK | <a href="#">Type Test Certificates/Test Report</a> |
| <b>other</b>                                                                               |                                                                                            |                                                                                             |                                                                                           |                                                                                                 |                                                    |
| <a href="#">Declaration of Conformity</a>                                                  | <a href="#">other</a>                                                                      | <a href="#">Environmental Confirmations</a>                                                 |                                                                                           |                                                                                                 |                                                    |

#### UL/CSA ratings

|                                                                                   |    |    |
|-----------------------------------------------------------------------------------|----|----|
| <b>yielded mechanical performance (hp) / for three-phase squirrel cage motors</b> |    |    |
| • at 220/230 V / at standard circuit                                              |    |    |
| • at 50 °C / rated value                                                          | hp | 25 |
| • at 460/480 V / at standard circuit                                              |    |    |
| • at 50 °C / rated value                                                          | hp | 50 |

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**

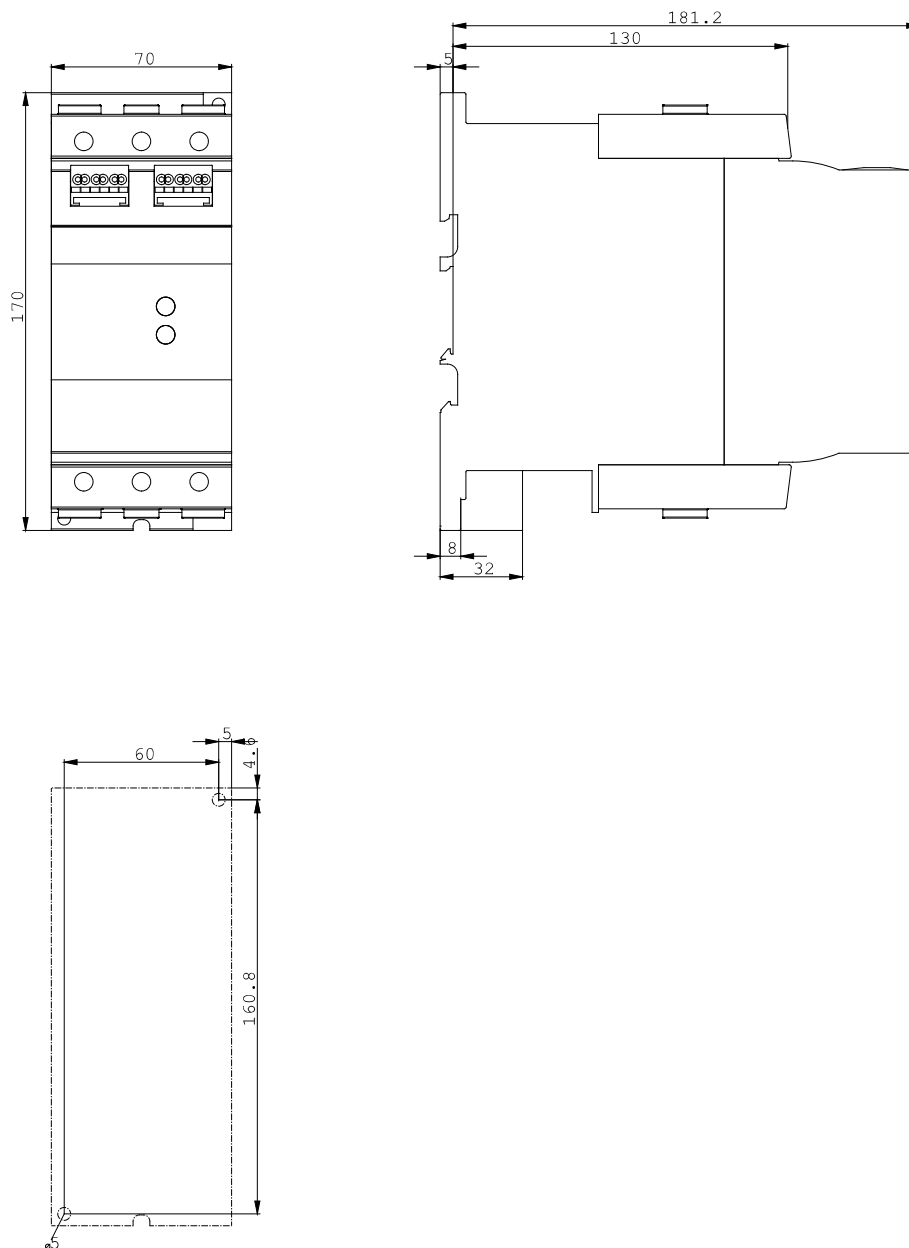
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RW3046-2BB14/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RW3046-2BB14](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RW3046-2BB14)



last change:

Feb 7, 2013