



SIRIUS SOFT STARTER, S0, 38A, 22KW/500V, 40 DEGR., AC 400-600V, AC/DC 24V, SPRING-LOADED TERMINALS, THERMISTOR MOTOR PROTECTION

**General technical data:**

|   |  |        |
|---|--|--------|
| <b>product brand name</b>   |  | SIRIUS |
| <b>Product feature</b>  |  |        |
| <ul style="list-style-type: none"> <li>integrated bypass 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 thermistor motor protection</li> </ul> |  | Yes    |
| <ul style="list-style-type: none"> <li>External reset</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>                      |  | No     |
| <b>Product component Motor brake output</b>   |  | No     |
| <b>Equipment marking acc. to DIN EN 61346-2</b>   |  | Q      |
| <b>Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>  |  | G      |

**Power Electronics:**

|  |   |   |
|--|---|---|
| <b>Product designation</b>   |   | soft starters for standard applications |
| <b>Operating current</b>   |   |   |
| <ul style="list-style-type: none"> <li>at 40 °C Rated value</li> </ul> | A | 38                                      |
| <ul style="list-style-type: none"> <li>at 50 °C Rated value</li> </ul> | A | 34                                      |
| <ul style="list-style-type: none"> <li>at 60 °C Rated value</li> </ul> | A | 31                                      |
| <b>Mechanical power output for three-phase motors</b>                  |   |   |
| <ul style="list-style-type: none"> <li>at 400 V</li> </ul>             |   |   |

|  |    |             |
|--|----|-------------|
| — at standard circuit at 40 °C Rated value                                 | W  | 18 500      |
| • at 500 V   |    |             |
| — at standard circuit at 40 °C Rated value                                 | W  | 22 000      |
| Operating frequency Rated value  | Hz | 50 ... 60   |
| Relative negative tolerance of the operating frequency                     | %  | -10         |
| Relative positive tolerance of the operating frequency                     | %  | 10          |
| Operating voltage at standard circuit Rated value                          | V  | 400 ... 600 |
| Relative negative tolerance of the operating voltage at standard circuit   | %  | -15         |
| Relative positive tolerance of the operating voltage at standard circuit   | %  | 10          |
| Minimum load in % of I <sub>M</sub>  | %  | 20          |
| Adjustable motor current for motor overload protection minimum rated value | A  | 23          |
| Continuous operating current in % of I <sub>e</sub> at 40 °C               | %  | 115         |
| Active power loss at operating current at 40 °C during operation typical   | W  | 19          |

#### Control electronics:

|  |    |       |
|--|----|-------|
| Type of voltage of the control supply voltage                              |    | AC/DC |
| Control supply voltage frequency 1 Rated value                             | Hz | 50    |
| Control supply voltage frequency 2 Rated value                             | Hz | 60    |
| Relative negative tolerance of the control supply voltage frequency        | %  | -10   |
| Relative positive tolerance of the control supply voltage frequency        | %  | 10    |
| Control supply voltage 1 with AC   |    |       |
| • at 50 Hz Rated value   | V  | 24    |
| • at 60 Hz Rated value   | V  | 24    |
| Relative negative tolerance of the control supply voltage with AC at 60 Hz | %  | -20   |
| Relative positive tolerance of the control supply voltage with AC at 60 Hz | %  | 20    |
| Control supply voltage 1 for DC Rated value                                | V  | 24    |
| Relative negative tolerance of the control supply voltage for DC           | %  | -20   |
| Relative positive tolerance of the control supply voltage for DC           | %  | 20    |
| Display version for fault signal   |    | red   |

#### Mechanical data:

|                               |    |     |
|-------------------------------|----|-----|
| Size of engine control device |    | S0  |
| Width                         | mm | 45  |
| Height                        | mm | 150 |
| Depth                         | mm | 155 |

|  |    |   |
|--|----|---|
| <b>Mounting type</b>                                   |    | screw and snap-on mounting  |
| <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>Required spacing with side-by-side mounting</b>     |    |   |
| • upwards  | mm | 60  |
| • at the side  | mm | 15  |
| • downwards  | mm | 40  |
| <b>Installation altitude at height above sea level</b> | m  | 5 000   |
| <b>Cable length maximum</b>                            | m  | 300   |
| <b>Number of poles for main current circuit</b>        |    | 3   |

#### Connections/ Terminals:

|   |  |  |
|---|--|--|
| <b>Type of electrical connection</b>  |  |  |
| • for main current circuit  |  | spring-loaded 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>   |  | 2  |
| <b>Number of CO contacts for auxiliary contacts</b>   |  | 1  |
| Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point |  |  |
| • solid   |  | 2x (1.5 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), max. 1x 10 mm <sup>2</sup> |
| • finely stranded with core end processing  |  | 2x (1.5 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> )                             |
| Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal             |  |  |
| • using the front clamping point  |  | 1x 8, 2x (16 ... 10)   |
| <b>Type of connectable conductor cross-section for main contacts</b>  |  |  |
| • solid   |  | 1 ... 10 mm <sup>2</sup>   |
| • finely stranded with core end processing  |  | 1 ... 6 mm <sup>2</sup>  |
| <b>Type of connectable conductor cross-section for auxiliary contacts</b>                                     |  |  |
| • solid   |  | 2x (0.25 ... 2.5 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-section for AWG conductors</b>   |  |  |
| • for main contacts   |  | 16 ... 10, 1x 8  |
| • for auxiliary contacts  |  | 2x (24 ... 14)   |

#### Ambient conditions:

|                            |  |  |
|----------------------------|--|--|
| <b>Ambient temperature</b> |  |  |
|----------------------------|--|--|

|                             |    |             |
|-----------------------------|----|-------------|
| • during operation          | °C | -25 ... +60 |
| • during storage            | °C | -40 ... +80 |
| <b>Derating temperature</b> | °C | 40          |
| <b>Protection class IP</b>  |    | IP20        |

**Certificates/ approvals:**

|                                 |            |                                       |
|---------------------------------|------------|---------------------------------------|
| <b>General Product Approval</b> | <b>EMC</b> | <b>For use in hazardous locations</b> |
|---------------------------------|------------|---------------------------------------|



|                          |                          |
|--------------------------|--------------------------|
| <b>Test Certificates</b> | <b>Shipping Approval</b> |
|--------------------------|--------------------------|

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



|              |
|--------------|
| <b>other</b> |
|--------------|

[Declaration of Conformity](#)

[Environmental Confirmations](#)

**UL/CSA ratings:**

|   |           |             |
|---|-----------|-------------|
| <b>yielded mechanical performance [hp] for three-phase AC motor</b> |           |             |
| • at 460/480 V  |           |             |
| — at standard circuit at 50 °C Rated value                          | metric hp | 25          |
| • at 575/600 V  |           |             |
| — at standard circuit at 50 °C Rated value                          | metric hp | 30          |
| <b>Contact rating of the auxiliary contacts acc. to UL</b>          |           | B300 / R300 |

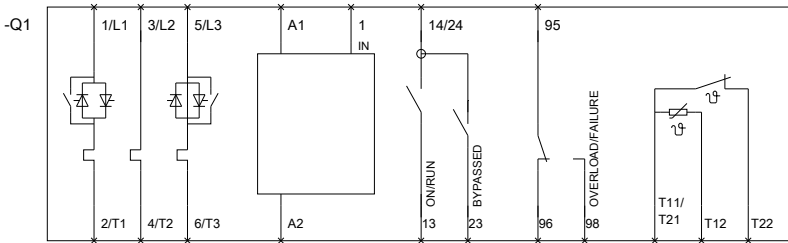
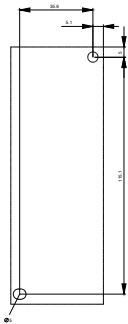
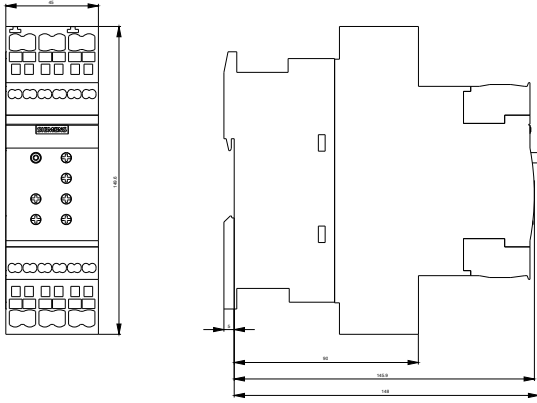
**Further information**

**Information- and Downloadcenter (Catalogs, Brochures,...)**  
<http://www.siemens.com/industrial-controls/catalogs>

**Industry Mall (Online ordering system)**  
<http://www.siemens.com/industrymall>

**Cax online generator**  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW40282TB05>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<http://support.automation.siemens.com/WW/view/en/3RW40282TB05/all>



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