



SIRIUS SOFT STARTER, S0, 38A,  
22KW/500V, 40 DEGR., AC 400-600V,  
AC/DC 24V, SCREW 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                                              |  | Yes    |
| • motor overload protection                                                |  | Yes    |
| • evaluation of thermal resistor motor protection                          |  | No     |
| • reset external                                                           |  | Yes    |
| • adjustable current limitation                                            |  | Yes    |
| • 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  | 38          |
| • at 50 °C / rated value                                                                     | A  | 34          |
| • at 60 °C / rated value                                                                     | A  | 31          |
| <b>Emitted mechanical power / for three-phase servomotors</b>                                |    |             |
| • at 400 V / at standard switching / at 40 °C                                                |    |             |
| • rated value                                                                                | W  | 18,500      |
| • at 500 V / at standard switching / at 40 °C                                                |    |             |
| • rated value                                                                                | W  | 22,000      |
| <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  | 23          |
| <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  | 19          |

|                                                                                        |    |       |
|----------------------------------------------------------------------------------------|----|-------|
| <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</b>                                                      |    |       |
| • at 50 Hz / for AC                                                                    | V  | 24    |
| • at 60 Hz / for AC                                                                    | V  | 24    |
| <b>Relative negative tolerance / of the control supply voltage / at 60 Hz / for AC</b> | %  | -20   |
| <b>Relative positive tolerance / of the control supply voltage / at 60 Hz / for AC</b> | %  | 20    |
| <b>Control supply voltage / 1 / for DC / rated value</b>                               | V  | 24    |
| <b>Relative negative tolerance / of the control supply voltage / for DC</b>            | %  | -20   |

|                                                                      |   |     |
|----------------------------------------------------------------------|---|-----|
| Relative positive tolerance / of the control supply voltage / for DC | % | 20  |
| Type of display / for fault signal                                   |   | red |

#### Mechanical design:

|                                                    |    |                                                                                                                                                                                                                                                                   |
|----------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size of the engine control device                  |    | S0                                                                                                                                                                                                                                                                |
| Width                                              | mm | 45                                                                                                                                                                                                                                                                |
| Height                                             | mm | 125                                                                                                                                                                                                                                                               |
| Depth                                              | mm | 155                                                                                                                                                                                                                                                               |
| Type of mounting                                   |    | screw and snap-on mounting                                                                                                                                                                                                                                        |
| mounting position                                  |    | With additional fan: With vertical mounting surface +/- 90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back Without additional fan: With vertical mounting surface +/- 10° rotatable, with vertical mounting surface +/- 10° t |
| Distance, to be maintained, to the ranks assembly  |    |                                                                                                                                                                                                                                                                   |
| • upwards                                          | mm | 60                                                                                                                                                                                                                                                                |
| • sideways                                         | mm | 15                                                                                                                                                                                                                                                                |
| • downwards                                        | mm | 40                                                                                                                                                                                                                                                                |
| Installation altitude / at a height over sea level | m  | 5,000                                                                                                                                                                                                                                                             |
| Cable length / maximum                             | m  | 300                                                                                                                                                                                                                                                               |
| Number of poles / for main current circuit         |    | 3                                                                                                                                                                                                                                                                 |

#### Electrical connections:

|                                                                                                                              |  |                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------|
| Design of the electrical connection                                                                                          |  |                                                                                                |
| • for main current circuit                                                                                                   |  | screw-type terminals                                                                           |
| • for auxiliary and control current circuit                                                                                  |  | screw-type terminals                                                                           |
| Number of NC contacts / for auxiliary contacts                                                                               |  | 0                                                                                              |
| Number of NO contacts / for auxiliary contacts                                                                               |  | 2                                                                                              |
| Number of change-over switches / for auxiliary contacts                                                                      |  | 1                                                                                              |
| Type of the connectable conductor cross-section / for main contacts / for box terminal / when 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 conductor end processing                                                                            |  | 2x (1.5 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> )                             |
| Type of the connectable conductor cross-section / for AWG conductors / for main contacts / for box terminal                  |  |                                                                                                |
| • when using the front c                                                                                                     |  | 1x 8, 2x (16 ... 10)                                                                           |
| Type of the connectable conductor cross-section                                                                              |  |                                                                                                |
| • for auxiliary contacts                                                                                                     |  |                                                                                                |
| • solid                                                                                                                      |  | 2x (0.5 ... 2.5 mm <sup>2</sup> )                                                              |
| • finely stranded / with conductor end processing                                                                            |  | 2x (0.5 ... 1.5 mm <sup>2</sup> )                                                              |
| • for AWG conductors / for auxiliary contacts                                                                                |  | 2x (20 ... 14)                                                                                 |

• finely stranded / with wire end proc

2x (20 ... 16)

#### Ambient conditions:

##### Ambient temperature

- during operating
- during storage

°C -25 ... +60

°C -40 ... +80

##### Derating temperature

°C 40

##### Protection class IP

IP20

#### Certificates/approvals:

##### General Product Approval

##### EMC

##### For use in hazardous locations



CCC



CSA



GOST



UL



C-TICK



ATEX

##### Test Certificates

##### Shipping Approval

##### other

[Type Test Certificates/Test Report](#)



GL



LRS



PRS

[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 v alue
- at 575/600 V / at standard circuit
  - at 50 °C / rated v alue

hp

25

hp

30

##### 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

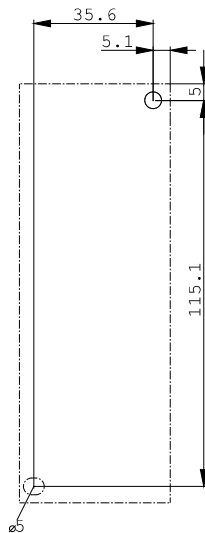
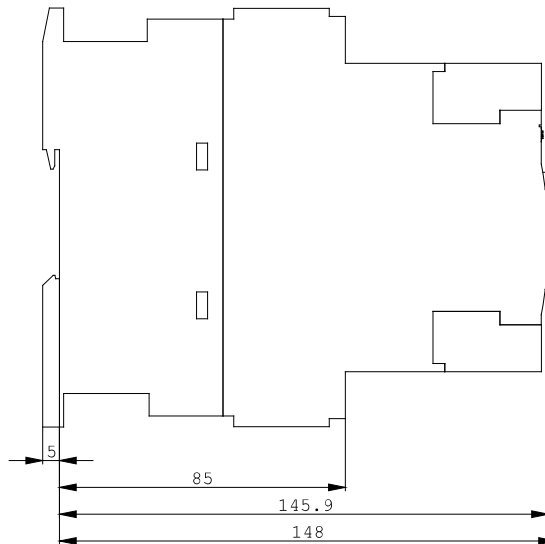
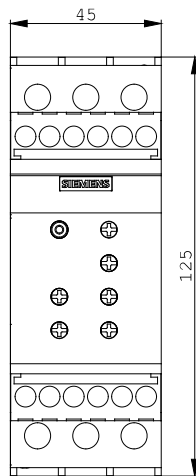
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RW4028-1BB05/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RW4028-1BB05](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RW4028-1BB05)



last change:

Feb 7, 2013