



CONTACTOR RELAY, 3NO+1NC, DC 12V,  
SZ S00, SPRING-LOADED TERMINAL

| General technical data:                                       |    |                        |
|---------------------------------------------------------------|----|------------------------|
| product brand name                                            |    | SIRIUS                 |
| Size of the contactor                                         |    | S00                    |
| Identification number and letter for switching elements       |    | 31 E                   |
| Product extension / auxiliary switch                          |    | Yes                    |
| Protection class IP / on the front                            |    | IP20                   |
| Protection against electrical shock                           |    | finger-safe            |
| Degree of pollution                                           |    | 3                      |
| Insulation voltage / with degree of pollution 3 / rated value | V  | 690                    |
| Installation altitude / at a height over sea level / maximum  | m  | 2,000                  |
| Ambient temperature                                           |    |                        |
| • during storage                                              | °C | -55 ... +80            |
| • during operating                                            | °C | -25 ... +60            |
| Shock resistance                                              |    |                        |
| • at rectangular impulse                                      |    |                        |
| • at DC                                                       |    | 10g / 5 ms, 5g / 10 ms |
| • at sine pulse                                               |    |                        |
| • at DC                                                       |    | 15g / 5 ms, 8g / 10 ms |
| Impulse voltage resistance / rated value                      | kV | 6                      |
| Mechanical operating cycles as operating time                 |    |                        |

- of the contactor / typical
- of the contactor with added auxiliary switch block / typical
- of the contactor with added electronics-compatible auxiliary switch block / typical

30,000,000  
10,000,000  
5,000,000

#### Control circuit/ Control:

|                                                                                       |    |             |
|---------------------------------------------------------------------------------------|----|-------------|
| <b>Voltage type / of control feed voltage</b>                                         |    | DC          |
| <b>Control supply voltage</b>                                                         |    |             |
| • for DC / rated value                                                                | V  | 12          |
| <b>Operating range factor control supply voltage rated value / of the magnet coil</b> |    |             |
| • for DC                                                                              |    | 0.8 ... 1.1 |
| <b>Holding power / of the solenoid / for DC</b>                                       | W  | 4           |
| <b>Pull-in power / of the solenoid / for DC</b>                                       | W  | 4           |
| <b>Closing delay</b>                                                                  |    |             |
| • at DC                                                                               | ms | 30 ... 100  |
| <b>Opening delay</b>                                                                  |    |             |
| • at DC                                                                               | ms | 25 ... 90   |
| <b>Arcing time</b>                                                                    | s  | 10 ... 15   |

#### Auxiliary circuit:

|                                                                                 |   |                                                 |
|---------------------------------------------------------------------------------|---|-------------------------------------------------|
| <b>Contact reliability / of the auxiliary contacts</b>                          |   | 1 faulty switching per 100 million (17 V, 1 mA) |
| <b>Number of NC contacts / for auxiliary contacts / instantaneous switching</b> |   | 1                                               |
| <b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b> |   | 3                                               |
| <b>Operating current</b>                                                        |   |                                                 |
| • at AC-12 / maximum                                                            | A | 10                                              |
| • at AC-15                                                                      |   |                                                 |
| • at 230 V / rated value                                                        | A | 10                                              |
| • at 400 V / rated value                                                        | A | 3                                               |
| • at 500 V / rated value                                                        | A | 2                                               |
| • at 690 V / rated value                                                        | A | 1                                               |
| <b>Operating current</b>                                                        |   |                                                 |
| • with 1 current path / at DC-12                                                |   |                                                 |
| • at 24 V / rated value                                                         | A | 10                                              |
| • at 110 V / rated value                                                        | A | 3                                               |
| • at 220 V / rated value                                                        | A | 1                                               |
| • at 440 V / rated value                                                        | A | 0.3                                             |
| • at 600 V / rated value                                                        | A | 0.15                                            |
| • with 2 current paths in series / at DC-12                                     |   |                                                 |
| • at 24 V / rated value                                                         | A | 10                                              |

|                                             |     |        |
|---------------------------------------------|-----|--------|
| • at 60 V / rated value                     | A   | 10     |
| • at 110 V / rated value                    | A   | 4      |
| • at 220 V / rated value                    | A   | 2      |
| • at 440 V / rated value                    | A   | 1.3    |
| • at 600 V / rated value                    | A   | 0.65   |
| • with 3 current paths in series / at DC-12 |     |        |
| • at 24 V / rated value                     | A   | 10     |
| • at 60 V / rated value                     | A   | 10     |
| • at 110 V / rated value                    | A   | 10     |
| • at 220 V / rated value                    | A   | 3.6    |
| • at 440 V / rated value                    | A   | 2.5    |
| • at 600 V / rated value                    | A   | 1.8    |
| <b>Operating current</b>                    |     |        |
| • with 1 current path / at DC-13            |     |        |
| • at 24 V / rated value                     | A   | 10     |
| • at 110 V / rated value                    | A   | 1      |
| • at 220 V / rated value                    | A   | 0.3    |
| • at 440 V / rated value                    | A   | 0.14   |
| • at 600 V / rated value                    | A   | 0.1    |
| • with 2 current paths in series / at DC-13 |     |        |
| • at 24 V / rated value                     | A   | 10     |
| • at 60 V / rated value                     | A   | 3.5    |
| • at 110 V / rated value                    | A   | 1.3    |
| • at 220 V / rated value                    | A   | 0.9    |
| • at 440 V / rated value                    | A   | 0.2    |
| • at 600 V / rated value                    | A   | 0.1    |
| • with 3 current paths in series / at DC-13 |     |        |
| • at 24 V / rated value                     | A   | 10     |
| • at 60 V / rated value                     | A   | 4.7    |
| • at 110 V / rated value                    | A   | 3      |
| • at 220 V / rated value                    | A   | 1.2    |
| • at 440 V / rated value                    | A   | 0.5    |
| • at 600 V / rated value                    | A   | 0.26   |
| <b>Off-load operating frequency</b>         |     |        |
| • at AC                                     | 1/h | 10,000 |
| • at DC                                     | 1/h | 10,000 |
| <b>Frequency of operation</b>               |     |        |
| • at AC-12 / maximum                        | 1/h | 1,000  |
| • at AC-14 / maximum                        | 1/h | 1,000  |
| • at AC-15 / maximum                        | 1/h | 1,000  |

- at DC-12 / maximum
- at DC-13 / maximum

|     |       |
|-----|-------|
| 1/h | 1,000 |
| 1/h | 1,000 |

#### Short-circuit:

##### Design of the fuse link / for short-circuit protection of the auxiliary switch

- required

fuse gL/gG: 10 A

##### Design of the miniature circuit breaker / for short-circuit protection of the auxiliary circuit / up to 230 V

C characteristic: 6 A; 0.4 kA

#### Installation/ mounting/ dimensions:

##### mounting position

+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface

##### Mounting type

screw and snap-on mounting onto 35 mm standard mounting rail

##### Width

mm

45

##### Height

mm

70

##### Depth

mm

73

#### Connections/ terminals:

##### Design of the electrical connection

- for auxiliary and control current circuit
- for auxiliary contacts / finely stranded / with conductor end processing
- for auxiliary contacts / finely stranded / without conductor final cutting
- for AWG conductors / for auxiliary contacts

spring-loaded terminals

2x (0.5 ... 2.5 mm<sup>2</sup>)

2x (0.5 ... 2.5 mm<sup>2</sup>)

2x (20 ... 12)

#### Certificates/ approvals:

|                          |                                               |                              |
|--------------------------|-----------------------------------------------|------------------------------|
| General Product Approval | Functional Safety /<br>Safety of<br>Machinery | Declaration of<br>Conformity |
|--------------------------|-----------------------------------------------|------------------------------|



CCC



CSA



UL

[Type Examination](#)


EG-Konf.

#### Test Certificates

[Special Test  
Certificate](#)
[Type Test  
Certificates/Test  
Report](#)

#### Shipping Approval



ABS

BUREAU  
VERITAS

DNV



GL



LRS



PRS

#### Shipping Approval

other



RINA



RMRS



VDE

[Environmental  
Confirmations](#)

#### UL/CSA ratings:

Contact rating designation / for auxiliary contacts / according to  
UL

A600 / Q600

#### Safety related data:

##### B10 value / with high demand rate

- according to SN 31920
- note

1,000,000

With 0.3 x I<sub>e</sub>

##### T1 value / for proof test interval or service life

- according to IEC 61508

a

20

##### Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

%

40

%

73

##### Failure rate [FIT] / with low demand rate

- according to SN 31920

FIT

100

##### Product function / positively driven operation to IEC 60947-5-1

Yes

#### Further information:

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

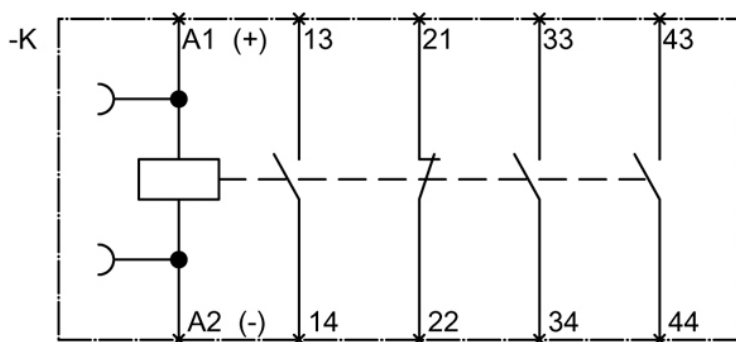
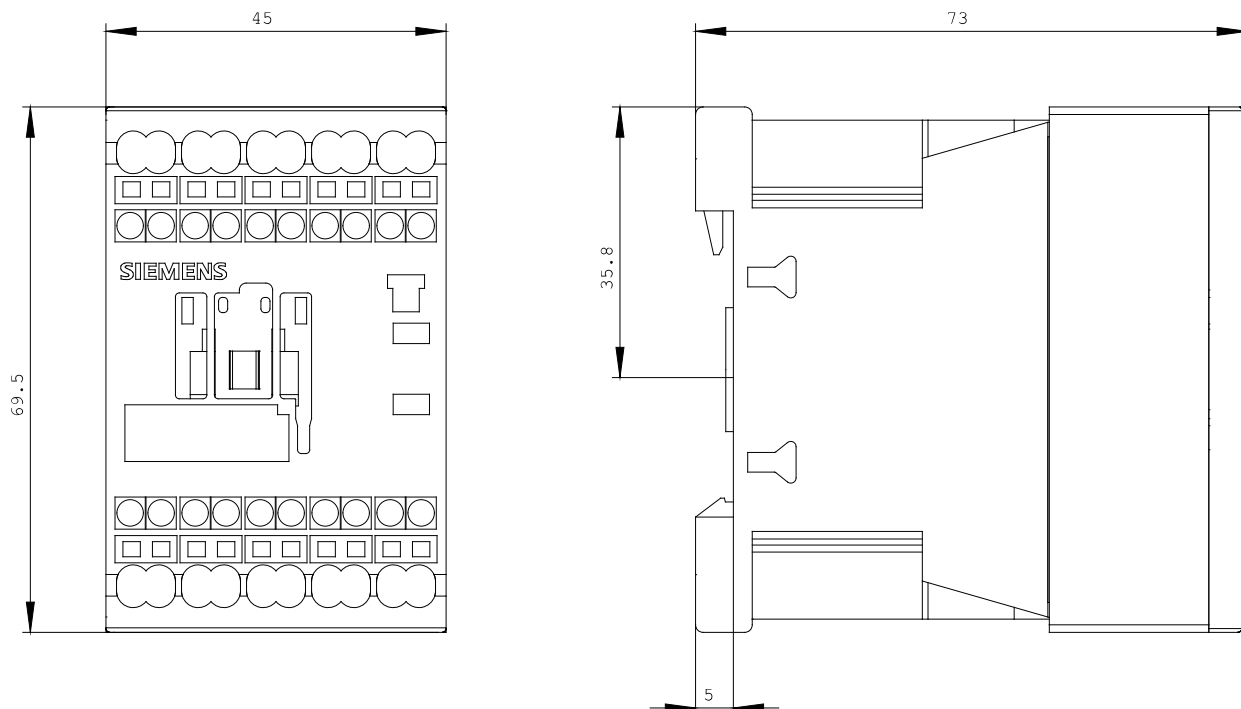
<http://www.siemens.com/industrial-controls/catalogs>

##### Industry Mall (Online ordering system)

<http://mall.industry.siemens.com/>

##### Cax online generator

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



last change:

Aug 4, 2014