



CONTACTOR RELAY, 3NO+1NC, AC 42V,  
50/60 HZ, SIZE S00, SCREW 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 AC                                                       |    | 7,3g / 5 ms, 4,7g / 10 ms  |
| • at sine pulse                                               |    |                            |
| • at AC                                                       |    | 11,4g / 5 ms, 7,3g / 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:

##### Voltage type / of control feed voltage

AC

##### Control supply voltage

- at 50 Hz / at AC / rated value
- at 60 Hz / at AC / rated value

V

42

V

42

##### Operating range factor control supply voltage rated value / of the magnet coil

- at 50 Hz / for AC
- at 60 Hz / for AC

0.8 ... 1.1

0.85 ... 1.1

##### Apparent pull-in power / of the solenoid / for AC

V·A

37

##### Apparent holding power / of the solenoid / for AC

V·A

5.7

##### Inductive power factor

- with the pull-in power of the coil
- with the pull-in power of the coil

0.8

0.25

##### Closing delay

- at AC

ms

8 ... 33

##### Opening delay

- at AC

ms

6 ... 25

##### Arcing time

s

10 ... 15

#### Auxiliary circuit:

##### Contact reliability / of the auxiliary contacts

1 faulty switching per 100 million (17 V, 1 mA)

##### Number of NC contacts / for auxiliary contacts / instantaneous switching

1

##### Number of NO contacts / for auxiliary contacts / instantaneous switching

3

##### Operating current

- at AC-12 / maximum
- at AC-15
  - at 230 V / rated value
  - at 400 V / rated value
  - at 500 V / rated value
  - at 690 V / rated value

A

10

A

10

A

3

A

2

A

1

##### Operating current

- with 1 current path / at DC-12
  - at 24 V / rated value
  - at 110 V / rated value

A

10

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          | 1/h | 1,000  |
| • at DC-13 / maximum          | 1/h | 1,000  |

#### Short-circuit:

|                                                                                                                      |  |                               |
|----------------------------------------------------------------------------------------------------------------------|--|-------------------------------|
| <b>Design of the fuse link / for short-circuit protection of the auxiliary switch</b>                                |  |                               |
| • required                                                                                                           |  | fuse gL/gG: 10 A              |
| <b>Design of the miniature circuit breaker / for short-circuit protection of the auxiliary circuit / up to 230 V</b> |  | C characteristic: 6 A; 0.4 kA |

#### Installation/ mounting/ dimensions:

|                          |    |                                                                                                                                      |
|--------------------------|----|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>mounting position</b> |    | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| <b>Mounting type</b>     |    | screw and snap-on mounting onto 35 mm standard mounting rail                                                                         |
| <b>Width</b>             | mm | 45                                                                                                                                   |
| <b>Height</b>            | mm | 57.5                                                                                                                                 |
| <b>Depth</b>             | mm | 73                                                                                                                                   |

#### Connections/ terminals:

|                                                                            |  |                                             |
|----------------------------------------------------------------------------|--|---------------------------------------------|
| <b>Design of the electrical connection</b>                                 |  |                                             |
| • for auxiliary and control current circuit                                |  | screw-type terminals                        |
| • for auxiliary contacts / finely stranded / with conductor end processing |  | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| • for AWG conductors / for auxiliary contacts                              |  | 2x (20 ... 16), 2x (18 ... 14), 2x 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,...)

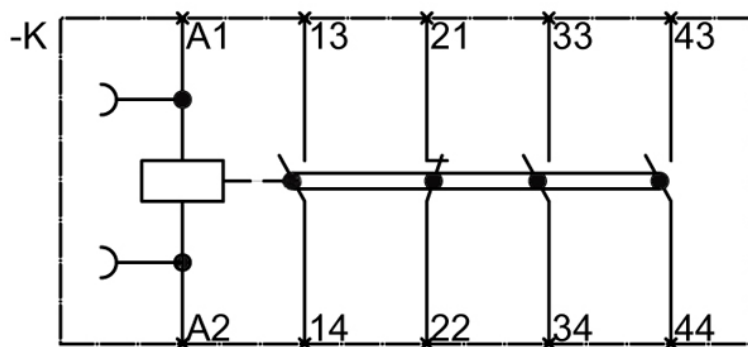
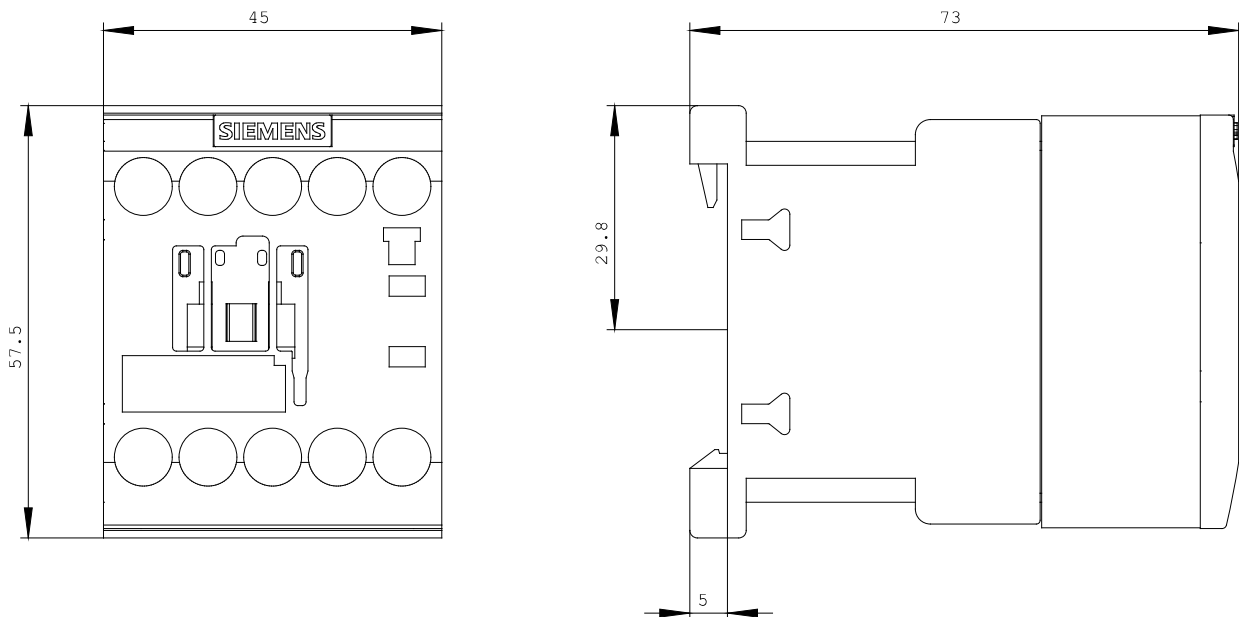
<http://www.siemens.com/industrial-controls/catalogs>

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

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

##### Cax online generator

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



last change:

Jul 21, 2014