

CONTACTOR, AC-3, 7.5KW/400V, 2NO+2NC,  
DC 24V, 3-POLE,  
SZ S0 SCREW TERMINAL PERMANENT AUX. SWITCH  
FOR SUVA APPLICATIONS

### General technical data:

|   |    |                          |
|---|----|--------------------------|
| <b>product brand name</b>   |    | SIRIUS                   |
| <b>Size of the contactor</b>  |    | S0                       |
| <b>Product extension / auxiliary switch</b>                         |    | No                       |
| <b>Protection class IP / on the front</b>                           |    | IP20                     |
| <b>Protection against electrical shock</b>                          |    | finger-safe              |
| <b>Degree of pollution</b>  |    | 3                        |
| <b>Installation altitude / at a height over sea level / maximum</b> | m  | 2,000                    |
| <b>Ambient temperature</b>  |    |                          |
| • during storage  | °C | -55 ... +80              |
| • during operating  | °C | -25 ... +60              |
| <b>Shock resistance</b>   |    |                          |
| • at rectangular impulse  |    |                          |
| • at DC   |    | 10g / 5 ms, 7,5g / 10 ms |
| • at sine pulse   |    |                          |
| • at DC   |    | 15g / 5 ms, 10g / 10 ms  |
| <b>Impulse voltage resistance / rated value</b>                     | kV | 6                        |
| <b>Insulation voltage / rated value</b>                             | V  | 690                      |
| <b>Mechanical operating cycles as operating time</b>                |    |                          |
| • of the contactor / typical  |    | 10,000,000               |

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

10,000,000

5,000,000

**Main circuit:****Number of NC contacts / for main contacts**

0

**Number of NO contacts / for main contacts**

3

**Operating current**

- at AC-1 / at 400 V

- at 40 °C ambient temperature / rated value

A 40

- at 60 °C ambient temperature / rated value

A 35

- at AC-2 / at 400 V / rated value

A 17

- at AC-3 / at 400 V / rated value

A 17

- at AC-4 / at 400 V / rated value

A 15.5

**Operating current**

- with 1 current path / at DC-1

- at 24 V / rated value

A 35

- at 110 V / rated value

A 4.5

- with 2 current paths in series / at DC-1

- at 24 V / rated value

A 35

- at 110 V / rated value

A 35

- with 3 current paths in series / at DC-1

- at 24 V / rated value

A 35

- at 110 V / rated value

A 35

- with 1 current path / at DC-3 / at DC-5

- at 24 V / rated value

A 20

- at 110 V / rated value

A 2.5

- with 2 current paths in series / at DC-3 / at DC-5

- at 24 V / rated value

A 35

- at 110 V / rated value

A 15

- with 3 current paths in series / at DC-3 / at DC-5

- at 24 V / rated value

A 35

- at 110 V / rated value

A 35

**Service power**

- at AC-2 / at 400 V / rated value

kW 7.5

- at AC-3 / at 400 V / rated value

kW 7.5

- at AC-4 / at 400 V / rated value

kW 7.5

**Active power loss / per conductor / typical**

W 0.9

**Off-load operating frequency**

- at AC

1/h 5,000

|   |     |       |
|---|-----|-------|
| • at DC   | 1/h | 1,500 |
| Frequency of operation / at AC-1 / according to IEC 60947-6-2 | 1/h | 1,000 |
| Frequency of operation / at AC-2 / according to IEC 60947-6-2 | 1/h | 1,000 |
| Frequency of operation / at AC-3 / according to IEC 60947-6-2 | 1/h | 1,000 |
| Frequency of operation / at AC-4 / according to IEC 60947-6-2 | 1/h | 300   |

#### Control circuit:

|  |    |             |
|--|----|-------------|
| Type of voltage / of the controlled supply voltage                             |    | DC          |
| Control supply voltage / 1   |    |             |
| • for DC / rated value   | V  | 24          |
| Operating range factor control supply voltage rated value / of the magnet coil |    |             |
| • for DC   |    | 0.8 ... 1.1 |
| Pull-in power / of the solenoid / for DC                                       | W  | 5.9         |
| Holding power / of the solenoid / for DC                                       | W  | 5.9         |
| Closing delay  |    |             |
| • at DC  | ms | 50 ... 170  |
| Opening delay  |    |             |
| • at DC  | ms | 15 ... 17.5 |
| Arcing time  | ms | 10 ... 10   |

#### 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 |   | 2   |
| Number of NO contacts / for auxiliary contacts / instantaneous switching |   | 2   |
| Operating current / of the auxiliary contacts                            |   |   |
| • at AC-12 / maximum   | A | 10  |
| • at AC-15   |   |   |
| • at 230 V   | A | 6   |
| • at 400 V   | A | 3   |
| • at DC-12   |   |   |
| • at 48 V  | A | 6   |
| • at 60 V  | A | 6   |
| • at 110 V   | A | 3   |
| • at 220 V   | A | 1   |
| • at DC-13   |   |   |
| • at 24 V  | A | 6   |
| • at 48 V  | A | 2   |
| • at 60 V  | A | 2   |

- at 110 V
- at 220 V

|   |     |
|---|-----|
| A | 1   |
| A | 0.3 |

### Short-circuit:

#### Design of the fuse link

- for short-circuit protection of the auxiliary switch / required
- for short-circuit protection of the main circuit
  - with type of assignment 1 / required
- at type of coordination 2 / required

fuse gL/gG: 10 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25A

### 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

#### Type of mounting

screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022

#### Type of fixing/fixation / series installation

Yes

#### Width

mm 45

#### Height

mm 85

#### Depth

mm 151

#### Distance, to be maintained, to the ranks assembly / sideways

mm 0

#### Distance, to be maintained, to earthed part / sideways

mm 6

### Connections:

#### Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

screw-type terminals  
screw-type terminals

#### Type of the connectable conductor cross-section

- for main contacts
  - solid
  - finely stranded
    - with conductor end processing
- for AWG conductors / for main contacts
- for auxiliary contacts
  - solid
  - finely stranded
    - with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 10 mm<sup>2</sup>)

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>), 1x 10 mm<sup>2</sup>

2x (16 ... 12), 2x (14 ... 8)

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (20 ... 16), 2x (18 ... 14)

### Certificates/approvals:

General Product Approval

Declaration of Conformity



Shipping Approval



Shipping Approval other



[Confirmation](#)



UL/CSA ratings:

**yielded mechanical performance (hp)**

- for single-phase squirrel cage motors
  - at 110/120 V / rated value
  - at 230 V / rated value
- for three-phase squirrel cage motors
  - at 200/208 V / rated value
  - at 220/230 V / rated value
  - at 460/480 V / rated value
  - at 575/600 V / rated value

|    |    |
|----|----|
| hp | 1  |
| hp | 3  |
| hp | 3  |
| hp | 5  |
| hp | 10 |
| hp | 15 |

**Operating current (FLA) / for three-phase squirrel cage motors**

- at 480 V / rated value
- at 600 V / rated value

|   |    |
|---|----|
| A | 14 |
| A | 17 |

**Contact rating designation / for auxiliary contacts / according to UL**

A600 / Q600

Sicherheitsrelevante Kenngrößen:

**B10 value / with high demand rate**

- according to SN 31920

1,000,000

**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 value) / with low demand rate**

- according to SN 31920

|     |     |
|-----|-----|
| FIT | 100 |
|-----|-----|

**Product function**

- mirror contact to IEC 60947-4-1

Yes

- positively driven operation to IEC 60947-5-1

No

#### 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:

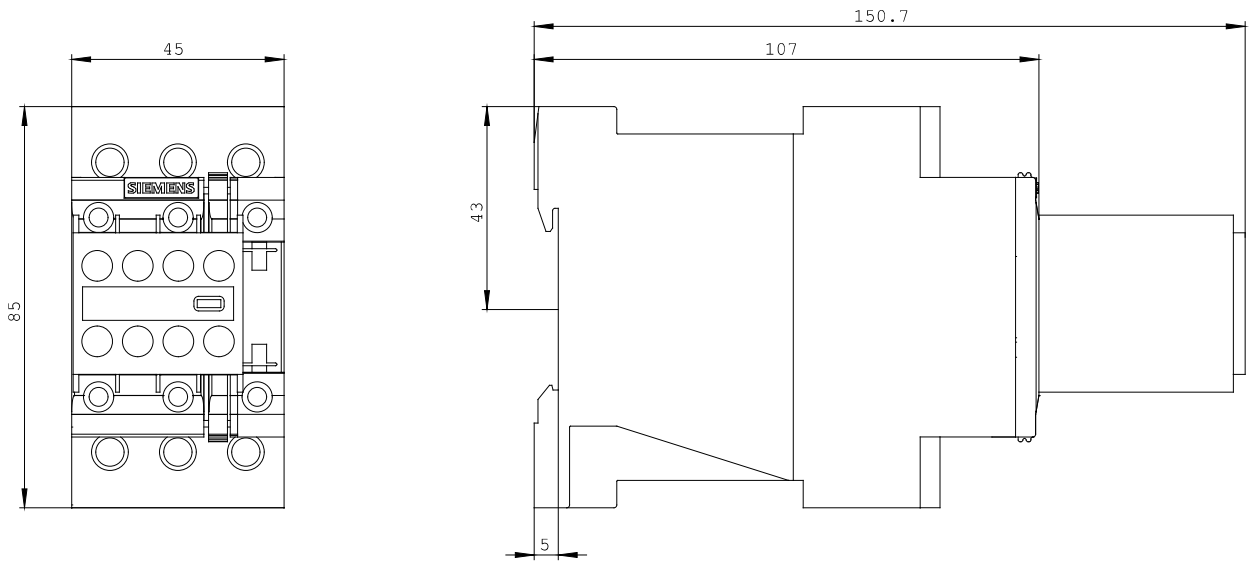
<http://www.siemens.com/cax>

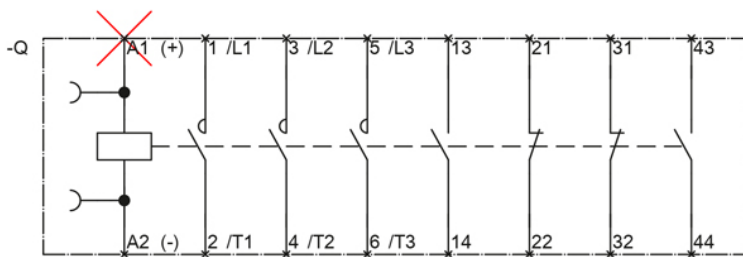
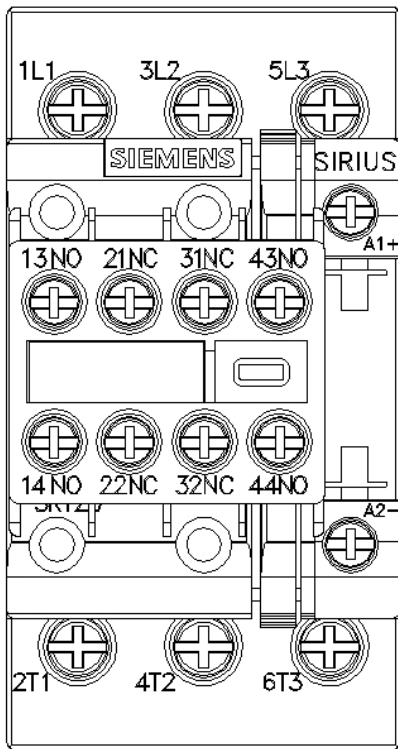
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2025-1BB44-3MA0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2025-1BB44-3MA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1BB44-3MA0)





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