



CONTACTOR, AC-3, 4KW/400V, 2NO+2NC,
DC 24V, 3-POLE,
SZ S00 SCREW TERMINAL PERMANENT AUX. SWITCH
FOR SUVA APPLICATIONS

General technical data:

| | | |
|---|----|----------------------------|
| product brand name | | SIRIUS |
| Size of the contactor | | S00 |
| Product extension / auxiliary switch | | No |
| Protection class IP / on the front | | IP20 |
| Protection against electrical shock | | finger-safe |
| Degree of pollution | | 3 |
| 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 | | 6,7g / 5 ms, 4,2g / 10 ms |
| • at sine pulse | | |
| • at DC | | 10,5g / 5 ms, 6,6g / 10 ms |
| Impulse voltage resistance / rated value | kV | 6 |
| Insulation voltage / rated value | V | 690 |
| Mechanical operating cycles as operating time | | |
| • 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
 - at 60 °C ambient temperature / rated value
- at AC-2 / at 400 V / rated value
- at AC-3 / at 400 V / rated value
- at AC-4 / at 400 V / rated value

| | |
|---|-----|
| A | 22 |
| A | 20 |
| A | 9 |
| A | 9 |
| A | 8.5 |

Operating current

- with 1 current path / at DC-1
 - at 24 V / rated value
 - at 110 V / rated value
- with 2 current paths in series / at DC-1
 - at 24 V / rated value
 - at 110 V / rated value
- with 3 current paths in series / at DC-1
 - at 24 V / rated value
 - at 110 V / rated value
- with 1 current path / at DC-3 / at DC-5
 - at 24 V / rated value
 - at 110 V / rated value
- with 2 current paths in series / at DC-3 / at DC-5
 - at 24 V / rated value
 - at 110 V / rated value
- with 3 current paths in series / at DC-3 / at DC-5
 - at 24 V / rated value
 - at 110 V / rated value

| | |
|---|------|
| A | 20 |
| A | 2.1 |
| A | 20 |
| A | 12 |
| A | 20 |
| A | 20 |
| A | 20 |
| A | 0.1 |
| A | 20 |
| A | 0.35 |
| A | 20 |
| A | 20 |

Service power

- at AC-2 / at 400 V / rated value
- at AC-3 / at 400 V / rated value
- at AC-4 / at 400 V / rated value

| | |
|----|---|
| kW | 4 |
| kW | 4 |
| kW | 4 |

Active power loss / per conductor / typical

| | |
|---|-----|
| W | 0.7 |
|---|-----|

Off-load operating frequency

- at AC

| | |
|-----|--------|
| 1/h | 10,000 |
|-----|--------|

| | | |
|--|-----|--------|
| • at DC | 1/h | 10,000 |
| 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 | 750 |
| Frequency of operation / at AC-3 / according to IEC 60947-6-2 | 1/h | 750 |
| Frequency of operation / at AC-4 / according to IEC 60947-6-2 | 1/h | 250 |

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 | 4 |
| Holding power / of the solenoid / for DC | W | 4 |
| Closing delay | | |
| • at DC | ms | 30 ... 100 |
| Opening delay | | |
| • at DC | ms | 7 ... 13 |
| Arcing time | ms | 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 | | 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: 35 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20A

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 57.5

Depth

mm 121

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 (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

2x (20 ... 16), 2x (18 ... 14), 2x 12

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

2x (20 ... 16), 2x (18 ... 14), 2x 12

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 | 0.33 |
| hp | 1 |
| hp | 2 |
| hp | 3 |
| hp | 5 |
| hp | 7.5 |

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

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

| | |
|---|-----|
| A | 7.6 |
| A | 9 |

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:

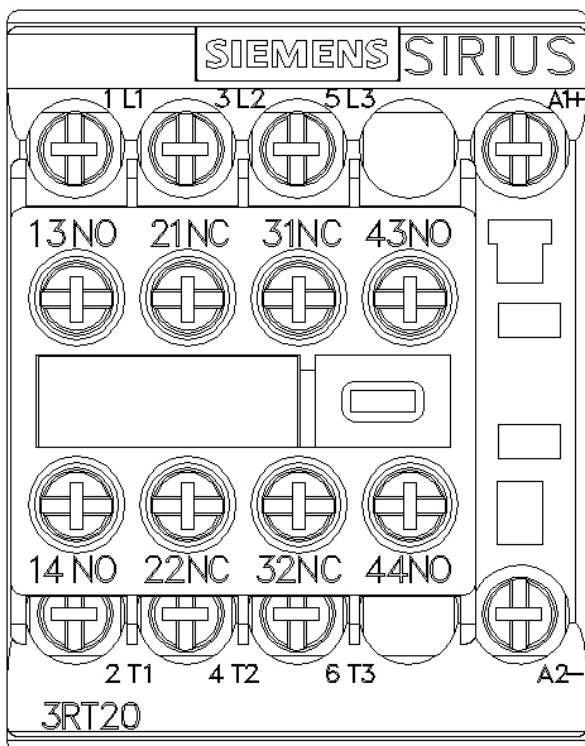
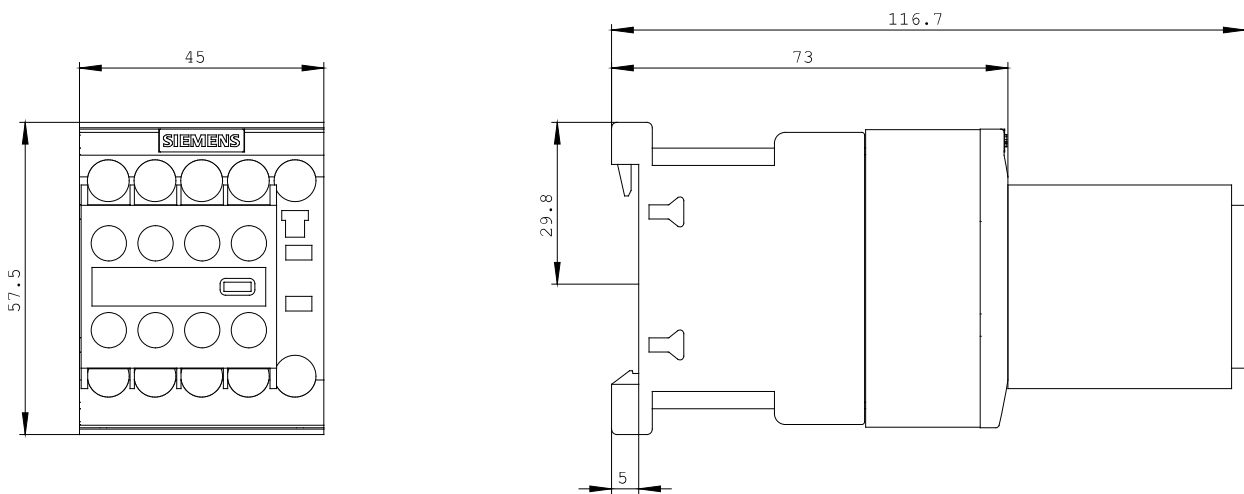
<http://www.siemens.com/cax>

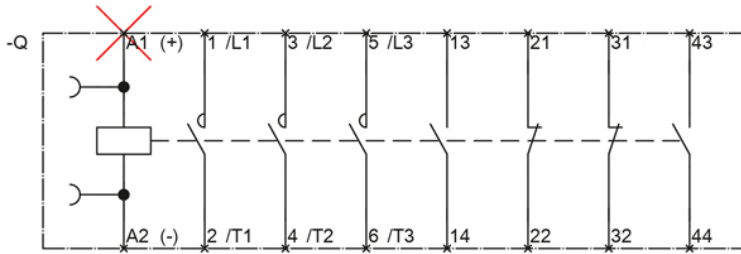
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2016-1BB44-3MA0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2016-1BB44-3MA0





last change:

Jul 26, 2012