



CONTACTOR, AC-3, 7.5KW/400V, 1NO+1NC,
AC 220V 50/60HZ, 3-POLE,
SZ S0 SCREW TERMINAL

| General technical data: | | |
|--|----|----------------------------|
| product brand name | | SIRIUS |
| Size of the contactor | | S0 |
| Product extension / auxiliary switch | | Yes |
| 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 AC | | 7,5g / 5 ms, 4,7g / 10 ms |
| • at sine pulse | | |
| • at AC | | 11,8g / 5 ms, 7,4g / 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

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 | | AC |
| Control supply voltage / 1 | | |
| • at 50 Hz / for AC / rated value | V | 220 |
| • at 60 Hz / for AC / rated value | V | 220 |
| Operating range factor control supply voltage rated value / of the magnet coil | | |
| • at 50 Hz / for AC | | 0.8 ... 1.1 |
| • at 60 Hz / for AC | | 0.85 ... 1.1 |
| Apparent pull-in power / of the solenoid / for AC | V·A | 68 |
| Apparent holding power / of the solenoid / for AC | V·A | 7.9 |
| Inductive power factor | | |
| • with the pull-in power of the coil | | 0.82 |
| • with the pull-in power of the coil | | 0.25 |
| Closing delay | | |
| • at AC | ms | 9 ... 38 |
| Opening delay | | |
| • at AC | ms | 4 ... 16 |
| 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 | | 1 |
| Number of NO contacts / for auxiliary contacts / instantaneous switching | | 1 |
| Operating current / of the auxiliary contacts | | |
| • at AC-12 / maximum | A | 10 |
| • at AC-15 | | |
| • at 230 V | A | 10 |
| • 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
- at DC-13
 - at 24 V
 - at 48 V
 - at 60 V
 - at 110 V
 - at 220 V

| | |
|---|-----|
| A | 1 |
| A | 10 |
| A | 2 |
| A | 2 |
| 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 | 97 |
| 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

2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)

2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²

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

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

- with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
 2x (20 ... 16), 2x (18 ... 14)

Certificates/approvals:

General Product Approval



Declaration of Conformity

Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

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 | % | 40 |
| • with high demand rate / according to SN 31920 | % | 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:

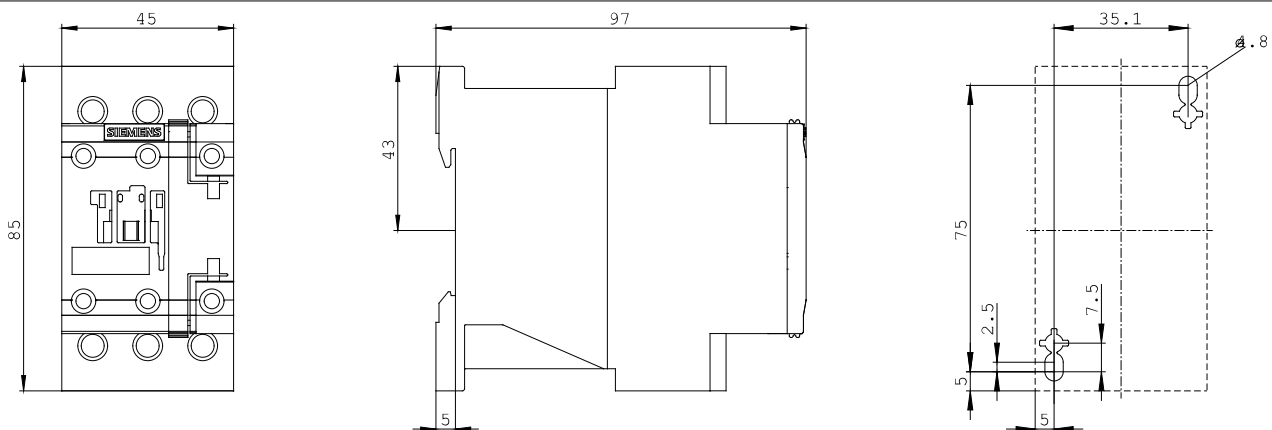
<http://www.siemens.com/cax>

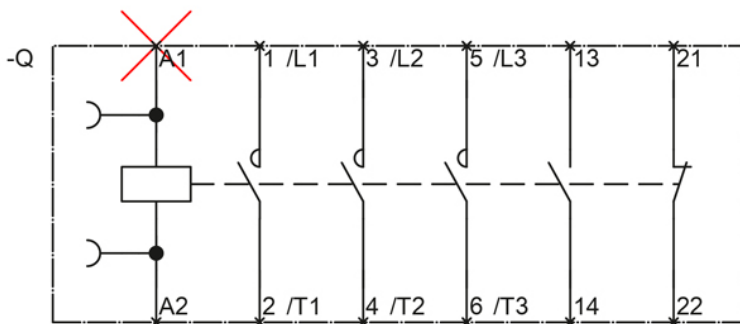
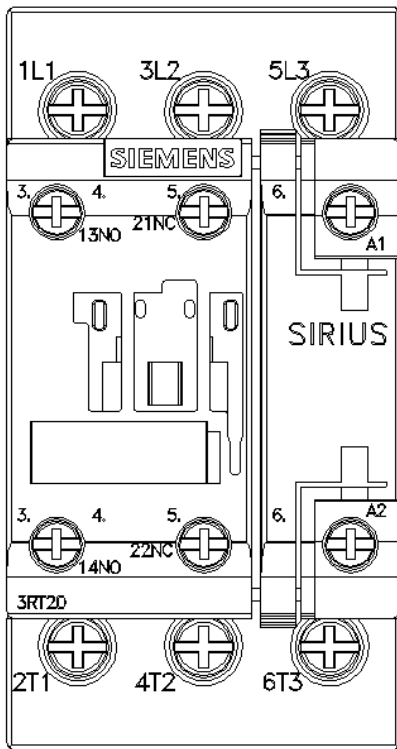
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2025-1AN20/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1AN20





last change:

Jul 26, 2012