

CONTACTOR, AC-3, 7.5KW/400V, 1NC,
AC110V, 50/60 HZ, 3-POLE,
SZ S00 SCREW TERMINAL

General technical data:

| | | |
|---|-----|------------------------------|
| Product brand name | | SIRIUS |
| Product designation | | 3RT2 contactor |
| Size of the contactor | | S00 |
| Protection class IP / frontal/front side | | IP20 |
| Degree of pollution | | 3 |
| Altitude of installation site / at a height over sea level / maximum | m | 2,000 |
| Ambient temperature | | |
| • during storage | °C | -55 ... 80 |
| • during the operating phase | °C | -25 ... 60 |
| • during transport | °C | -55 ... 80 |
| Resistance against shock | | 9.8g / 5 ms and 5.9g / 10 ms |
| Impulse voltage resistance / rated value | kV | 6 |
| Insulation voltage / rated value | V | 690 |
| Resistive loss | | |
| • per conductor / typical | W | 2.2 |
| Apparent loss power / of the magnet coil / at AC / typical | V·A | 5.7 |
| Item designation | | |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 | | K |
| • according to DIN EN 61346-2 | | Q |
| Mechanical operating cycles as operating time | | |
| • of the contactor / typical | | 30,000,000 |
| • of the contactor with added auxiliary switch block / typical | | 10,000,000 |
| • of the contactor with added electronics-compatible auxiliary switch block / typical | | 10,000,000 |

Main circuit:

| | | |
|---|--|---|
| Number of poles / for main current circuit | | 3 |
| Number of NC contacts / for main contacts | | 0 |
| Number of NO contacts / for main contacts | | 3 |
| Operating voltage / at 3 AC / rated value | | |

| | | |
|--|-----|--------|
| • maximum | V | 690 |
| Operating current / at AC-1 / at 400 V | | |
| • at 40 °C ambient temperature / rated value | A | 22 |
| • at 60 °C ambient temperature / rated value | A | 20 |
| Operating current | | |
| • 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 | 12.5 |
| • with 1 current path / at DC-1 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 2.1 |
| • with 2 current paths in series / at DC-1 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 12 |
| • with 3 current paths in series / at DC-1 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 20 |
| • with 1 current path / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 0.1 |
| • with 2 current paths in series / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 0.35 |
| • with 3 current paths in series / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 20 |
| 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 500 V / rated value | kW | 7.5 |
| • at 690 V / rated value | kW | 7.5 |
| • at AC-4 / at 400 V / rated value | kW | 4 |
| Operating reactive power / at AC-6b | | |
| • at 230 V / rated value | var | 0 |
| • at 400 V / rated value | var | 0 |
| • at 690 V / rated value | var | 0 |
| Off-load operating frequency | 1/h | 10,000 |
| Switching frequency | | |
| • at AC-1 / according to IEC 60947-6-2 / maximum | 1/h | 1,000 |

- at AC-2 / according to IEC 60947-6-2 / maximum
- at AC-3 / according to IEC 60947-6-2 / maximum
- at AC-4 / according to IEC 60947-6-2 / maximum

| | |
|-----|-----|
| 1/h | 750 |
| 1/h | 750 |
| 1/h | 300 |

Control circuit:

| | | |
|--|-----|--------------|
| Design of activation of the operating mechanism | | conventional |
| Type of voltage / of the controlled supply voltage | | AC |
| control supply voltage frequency | | |
| • 1 / rated value | Hz | 50 |
| • 2 / rated value | Hz | 60 |
| Control supply voltage / 1 | | |
| • at 50 Hz / for AC | | |
| • rated value | V | 110 |
| • at 60 Hz / for AC | | |
| • rated value | V | 110 |
| Operating range factor control supply voltage rated value / of solenoid | | |
| • 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 | 37 |
| Apparent holding power / of the solenoid / for AC | V·A | 5.7 |
| Power factor inductive | | |
| • at pull-in power of the coil | | 0.8 |
| • at holding power of the coil | | 0.25 |

Auxiliary circuit:

| | | |
|--|---|---|
| Product extension / auxiliary switch | | Yes |
| 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 |
| • lagging switching | | 0 |
| Number of NO contacts / for auxiliary contacts | | |
| • instantaneous switching | | 0 |
| • leading switching | | 0 |
| 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
- at 110 V
- at 220 V
- at DC-13
 - at 24 V
 - at 48 V
 - at 60 V
 - at 110 V
 - at 220 V

| | |
|---|-----|
| A | 6 |
| A | 3 |
| A | 1 |
| A | 6 |
| 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
 - at type of coordination 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:

built in orientation

vertical

Type of fixing/fixation

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 72

distance, to be maintained, to the ranks assembly

| | | |
|-------------|----|---|
| • forwards | mm | 0 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sideways | mm | 0 |

distance, to be maintained, to earthed part

| | | |
|-------------|----|---|
| • forwards | mm | 6 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sideways | mm | 6 |

distance, to be maintained, conductive elements

| | | |
|-------------|----|---|
| • forwards | mm | 6 |
| • backwards | mm | 6 |

- upwards
- downwards
- sideways

| | |
|----|----|
| mm | 6 |
| mm | 10 |
| 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
 - unifilar
 - stranded wire
 - stranded wire
 - with conductor end processing
- at AWG-conductors / for main contacts
- for auxiliary contact
 - solid
 - stranded wire
 - with wire 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 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:

verification of suitability

CE / UL / CSA / CCC

Safety:

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

% 75
% 75

Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT 50

Protection against electrical shock

finger-safe

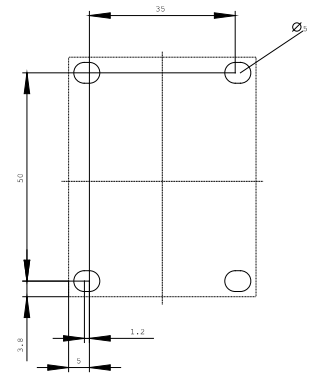
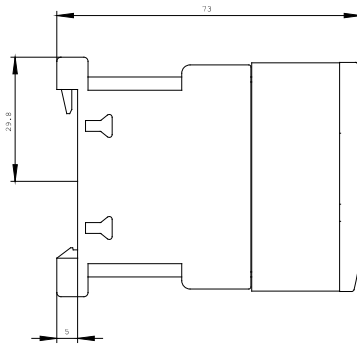
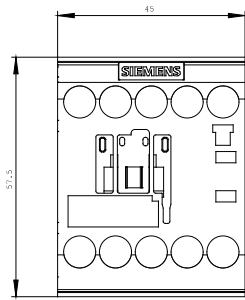
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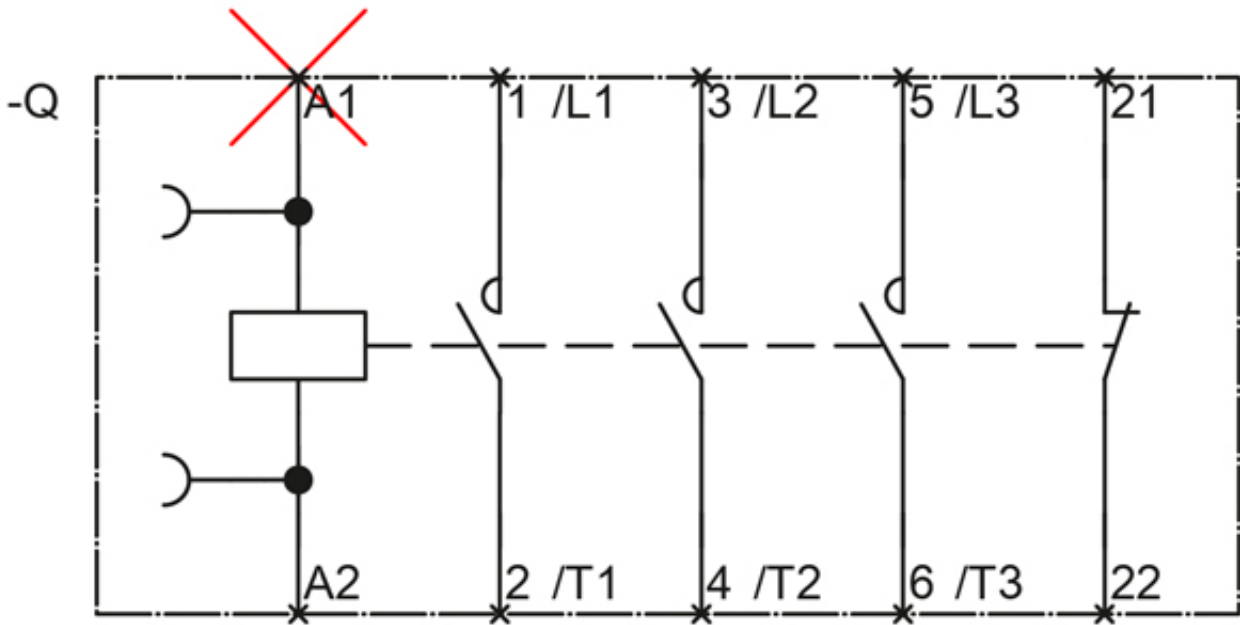
Information- and Downloadcenter (Catalogs, Brochures,...)

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

Global Industry Mall (Online ordering system)

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last change:

May 8, 2010