



CIRCUIT-BREAKER SZ S0,
FOR MOTOR PROTECTION, CLASS 10,
A-RELEASE 17...22A, N-RELEASE 286A,
SCREW CONNECTION, STANDARD SW. CAPACITY,

General technical data:

| | | |
|--|----|----------------------|
| Product brand name | | SIRIUS |
| product designation | | 3RV2 circuit breaker |
| Size of the circuit-breaker | | S0 |
| Trip class | | CLASS 10 |
| Protection class IP / on the front | | IP20 |
| Degree of pollution | | 3 |
| Installation altitude / at a height over sea level / maximum | m | 2,000 |
| Ambient temperature | | |
| • during storage | °C | -50 ... 80 |
| • during operating | °C | -20 ... 60 |
| • during transport | °C | -50 ... 80 |
| Resistance against shock | | 25g / 11 ms |
| Impulse voltage resistance / rated value | kV | 6 |
| Insulation voltage / rated value | V | 690 |
| Active power loss / total / typical | W | 9.9 |
| Item designation | | |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 | | F |
| • according to DIN EN 61346-2 | | F |

| | | |
|--|--|-----------------|
| Mechanical operating cycles as operating time | | |
| • of the main contacts / typical | | 100,000 |
| • of the auxiliary contacts / typical | | 100,000 |
| Type of the driving mechanism / motor drive | | No |
| Design of the operating mechanism | | selector switch |
| Product function | | |
| • overload protection | | Yes |
| • phase disturbance recognition | | Yes |
| Product component | | |
| • auxiliary switch | | No |
| • undervoltage release mechanism | | No |
| • trip indicator | | No |
| Product extension / optional / motor drive | | No |

| | | |
|--|-----|----------------|
| Main circuit: | | |
| Number of poles / for main current circuit | | 3 |
| Operating voltage / at AC-3 / rated value / maximum | V | 690 |
| Operating current / at AC-3 / at 400 V / rated value | A | 22 |
| Service power / at AC-3 | | |
| • at 400 V / rated value | W | 11,000 |
| • at 500 V / rated value | W | 11,000 |
| • at 690 V / rated value | W | 18,500 |
| Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum | 1/h | 15 |
| Arrangement of electrical connectors / for main current circuit | | Top and bottom |
| Adjustable response current | | |
| • of the non-delayed short-circuit release | A | 286 ... 286 |
| • of the current-dependent overload release | A | 17 ... 22 |
| Service power / at AC-3 / at 230 V / rated value | W | 5,500 |
| Continuous current / rated value | A | 22 |

| | | |
|---|--|-----|
| Auxiliary circuit: | | |
| Product extension / auxiliary switch | | Yes |
| Number of NC contacts / for auxiliary contacts / instantaneous switching | | 0 |
| Number of NO contacts / for auxiliary contacts / instantaneous switching | | 0 |
| Number of change-over switches / for auxiliary contacts | | 0 |

| | | |
|---------------------------------|--|---|
| Inputs/ Outputs: | | |
| Number of digital inputs | | 0 |

Short-circuit:**Breaking capacity limit short-circuit current (I_{cu})**

- at 400 V / rated value
- at 500 V / rated value
- at 690 V / rated value

| | |
|---|--------|
| A | 55,000 |
| A | 10,000 |
| A | 4,000 |

Design of the overcurrent release and short-circuit release

thermomagnetic

Installation/mounting/dimensions:**Built in orientation**

any

Type of mounting

screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715

Width

mm 45

Height

mm 97

Depth

mm 91

Distance, to be maintained, to the ranks assembly

- forwards
- backwards
- upwards
- downwards
- sideways

| | |
|----|----|
| mm | 0 |
| mm | 0 |
| mm | 50 |
| mm | 50 |
| mm | 0 |

Distance, to be maintained, to earthed part

- forwards
- backwards
- upwards
- sideways
- downwards

| | |
|----|----|
| mm | 0 |
| mm | 0 |
| mm | 50 |
| mm | 30 |
| mm | 50 |

Distance, to be maintained, conductive elements

- forwards
- backwards
- upwards
- downwards
- sideways

| | |
|----|----|
| mm | 0 |
| mm | 0 |
| mm | 50 |
| mm | 50 |
| mm | 30 |

Connections:**Product function**

- removable terminal for main circuit
- removable terminal for auxiliary and control circuit

No
No**Design of the electrical connection**

- for main current circuit

screw-type terminals

Type of the connectable conductor cross-section

- for main contacts

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

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

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)

Certificates/approvals:

Verification of suitability

- für Staubexplosionsschutz für Zone 21/22
- for gas explosion protection for zone 1/2

CE / UL / CSA

no

no

General Product Approval

For use in hazardous locations



CQC



CSA

[ROSTEST](#)



UL

[DEKRA EXAM,](#)
[DMT](#)

Test Certificates

[Manufacturer](#)

[other](#)

Shipping Approval



ABS



GL



LRS



PRS



RINA



RMRS

other

[Manufacturer](#)

[other](#)



VDE

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

hp 1.5

hp 3

hp 5

hp 7.5

hp 15

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

- at 480 V / rated value

A

21

Safety:

B10 value / with high demand rate

- according to SN 31920

50,000

T1 value / for proof test interval or service life

| | | |
|--|-----|-------------|
| • according to IEC 61508 | a | 10 |
| Failure rate (FIT value) / with low demand rate | | |
| • according to SN 31920 | FIT | 50 |
| Proportion of dangerous failures | | |
| • with low demand rate / according to SN 31920 | % | 40 |
| • with high demand rate / according to SN 31920 | % | 40 |
| Protection against electrical shock | | finger-safe |

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

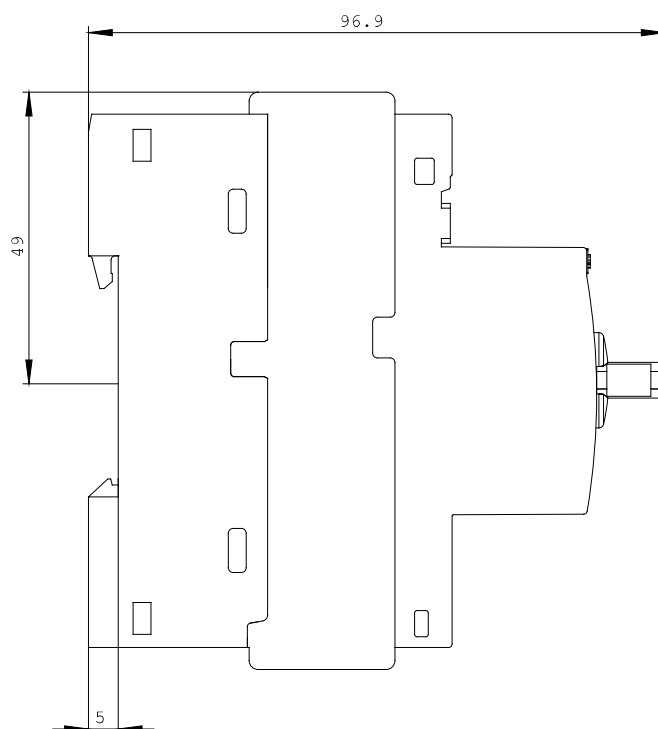
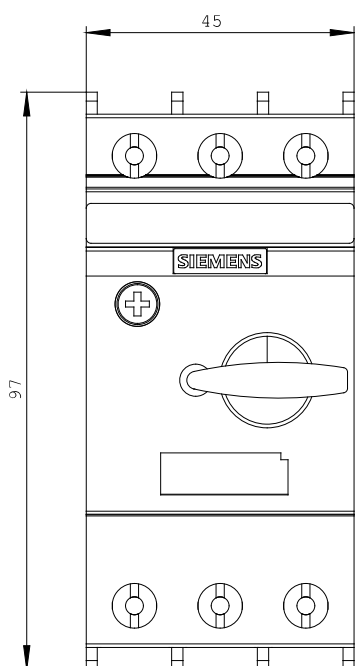
<http://www.siemens.com/cax>

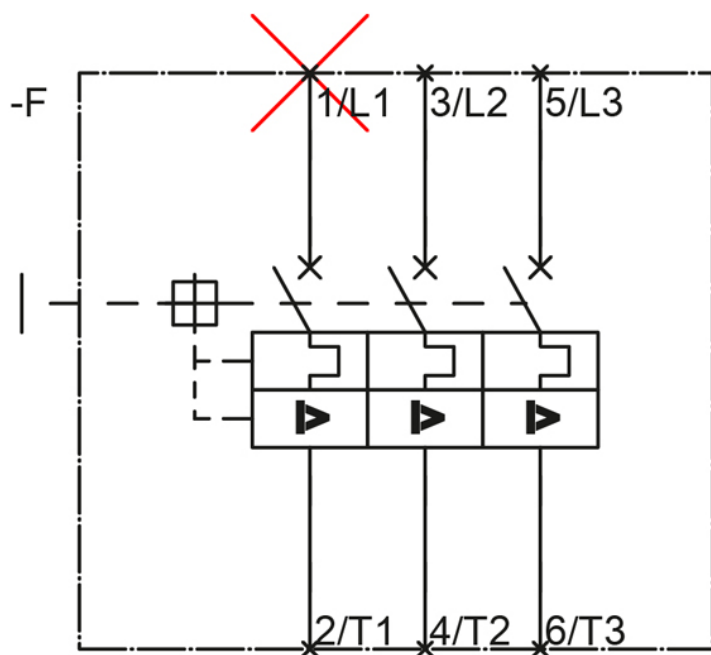
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RV2021-4CA10/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2021-4CA10





last change:

Oct 24, 2011