

CIRCUIT-BREAKER SZ S0,  
FOR MOTOR PROTECTION, CLASS 10,  
A-RELEASE 23...28A, N-RELEASE 364A,  
SCREW CONNECTION, STANDARD SW. CAPACITY,

**General technical data:**

|  |    |                      |
|--|----|----------------------|
| <b>Product brand name</b>  |    | SIRIUS               |
| <b>Product designation</b>   |    | 3RV2 circuit breaker |
| <b>Size of the circuit-breaker</b>   |    | S0                   |
| <b>Trip class</b>  |    | CLASS 10             |
| <b>Protection class IP / frontal/front side</b>                            |    | IP20                 |
| <b>Degree of pollution</b>   |    | 3                    |
| <b>Installation altitude / at a height over sea level / maximum</b>        | m  | 2000                 |
| <b>Ambient temperature</b>   |    |                      |
| • during storage   | °C | -50 ... 80           |
| • during the operating phase   | °C | -20 ... 60           |
| • during transport   | °C | -50 ... 80           |
| <b>Resistance against shock</b>  |    | 25g / 11 ms          |
| <b>Impulse voltage resistance / rated value</b>                            | kV | 6                    |
| <b>Insulation voltage / rated value</b>                                    | V  | 690                  |
| <b>Real loss power / total / typical</b>                                   | W  | 10                   |
| <b>Item designation</b>  |    |                      |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 |    | F                    |
| • according to DIN EN 61346-2  |    | F                    |

|   |  |                 |
|---|--|-----------------|
| <b>Mechanical switching cycle as operating period</b> |  |                 |
| • of the main contacts / typical                      |  | 100000          |
| • of the auxiliary contacts / typical                 |  | 100000          |
| <b>Type of the driving mechanism / motor drive</b>    |  | No              |
| <b>Design of the operating mechanism</b>              |  | selector switch |
| <b>Product function</b>                               |  |                 |
| • overload protection                                 |  | Yes             |
| • phase disturbance recognition                       |  | Yes             |
| <b>Product component</b>                              |  |                 |
| • auxiliary switch                                    |  | No              |
| • undervoltage release mechanism                      |  | No              |
| • trip indicator                                      |  | No              |
| <b>Product extension / optional / motor drive</b>     |  | No              |

#### Main circuit:

|   |     |                |
|---|-----|----------------|
| <b>Number of poles / for main current circuit</b>                           |     | 3              |
| <b>Operating voltage / at 3 AC / rated value / maximum</b>                  | V   | 690            |
| <b>Operating current / at AC-3 / at 400 V / rated value</b>                 | A   | 22             |
| <b>Service power / at AC-3</b>  |     |                |
| • at 400 V / rated value  | W   | 11000          |
| • at 500 V / rated value  | W   | 18500          |
| • at 690 V / rated value  | W   | 22000          |
| <b>Switching frequency / at AC-3 / according to IEC 60947-6-2 / maximum</b> | 1/h | 15             |
| <b>Arrangement of electrical connectors / for main current circuit</b>      |     | Top and bottom |
| <b>Adjustable response current</b>  |     |                |
| • of the non-delayed short-circuit release                                  | A   | 364 ... 364    |
| • of the current-dependent overload release                                 | A   | 23 ... 28      |
| <b>Service power / at AC-3 / at 230 V / rated value</b>                     | W   | 7500           |
| <b>Continuous current / rated value</b>                                     | A   | 28             |

#### Auxiliary circuit:

|   |  |     |
|---|--|-----|
| <b>Product extension / auxiliary switch</b>                                     |  | Yes |
| <b>Number of NC contacts / for auxiliary contacts / instantaneous switching</b> |  | 0   |
| <b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b> |  | 0   |
| <b>Number of change-over switches / for auxiliary contact</b>                   |  | 0   |

#### Inputs/ Outputs:

|                                 |  |   |
|---------------------------------|--|---|
| <b>Number of digital inputs</b> |  | 0 |
|---------------------------------|--|---|

**Short-circuit:****Breaking capacity limit short-circuit current (I<sub>cu</sub>)**

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

|   |       |
|---|-------|
| A | 55000 |
| A | 10000 |
| A | 4000  |

**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

- unifilar
- stranded wire
- stranded wire
  - with conductor end processing
- at AWG-conductors / for main 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 ... 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)

#### Certificates/approvals:

##### Verification of suitability

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

CE / UL / CSA

no

no

#### Safety:

##### B10 value / with high demand rate

- according to SN 31920

50000

##### 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
- with high demand rate / according to SN 31920

%

40

%

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

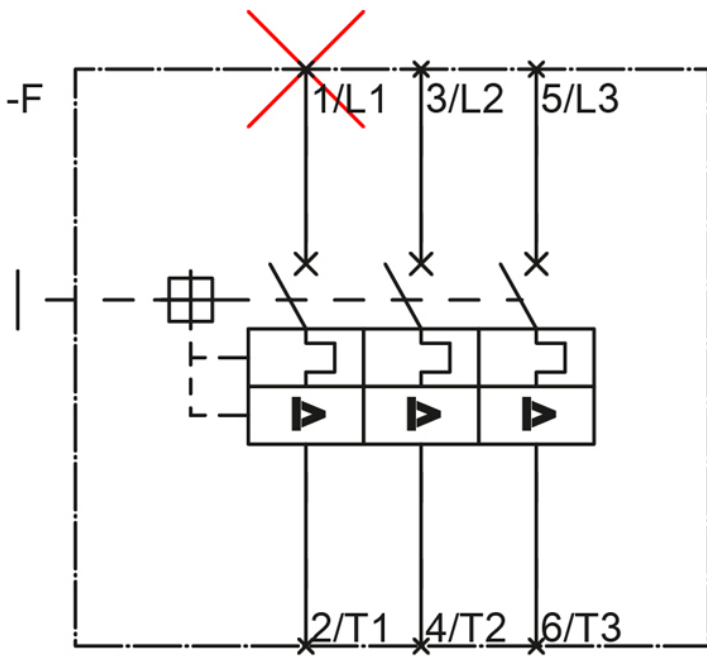
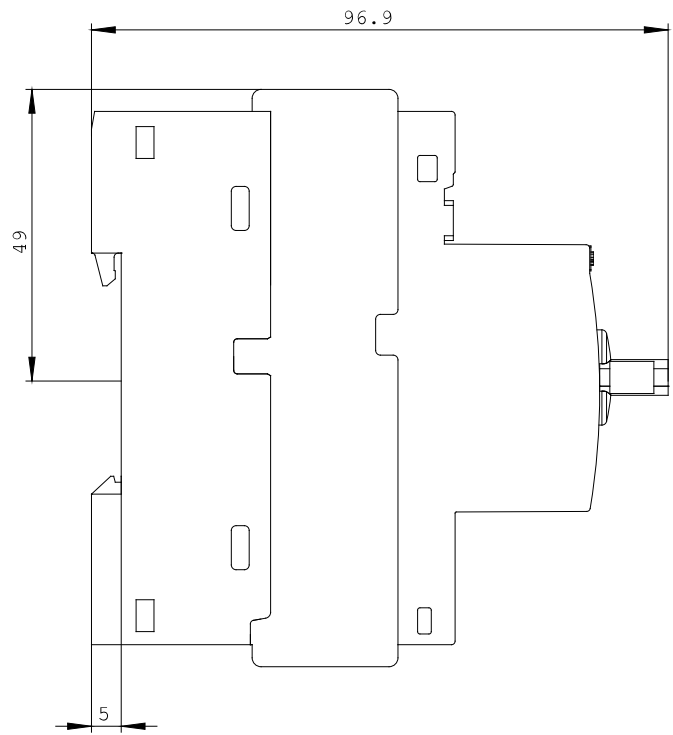
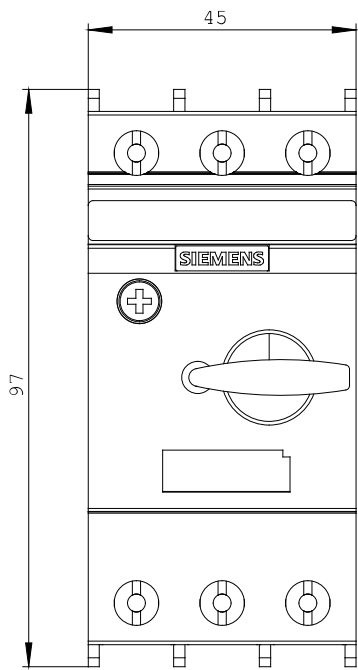
<http://www.siemens.com/cax>

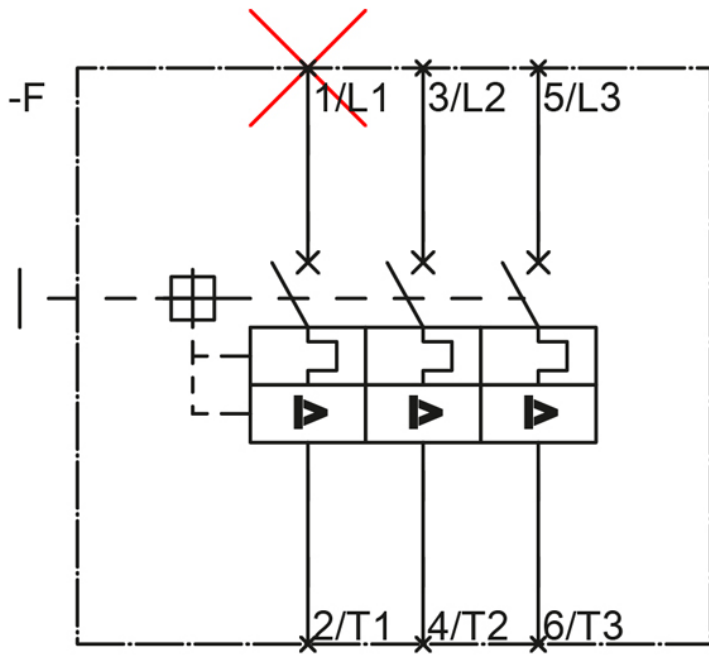
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RV2021-4NA10/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RV2021-4NA10](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2021-4NA10)





last change:

Sep 20, 2010