



CIRCUIT-BREAKER SZ S0,  
FOR MOTOR PROTECTION, CLASS 10,  
A-RELEASE 23...28A, N-RELEASE 364A,  
SCREW CONNECTION,  
STANDARD SW. CAPACITY,  
W. TRANSVERSE AUX. SWITCH 1NO+1NC

### General technical data:

|                                                        |    |                      |
|--------------------------------------------------------|----|----------------------|
| product brand name                                     |    | SIRIUS               |
| product designation                                    |    | 3RV2 circuit breaker |
| Size of the circuit-breaker                            |    | S0                   |
| Number of poles / for main current circuit             |    | 3                    |
| Product function                                       |    |                      |
| • removable terminal for auxiliary and control circuit |    | No                   |
| • overload protection                                  |    | Yes                  |
| • phase disturbance recognition                        |    | Yes                  |
| • short-circuit to earth recognition                   |    | No                   |
| Product component                                      |    |                      |
| • auxiliary switch                                     |    | Yes                  |
| • undervoltage release mechanism                       |    | No                   |
| • trip indicator                                       |    | No                   |
| Product extension                                      |    |                      |
| • auxiliary switch                                     |    | Yes                  |
| • optional / motor drive                               |    | No                   |
| Impulse voltage resistance / rated value               | kV | 6                    |
| Protection class IP / on the front                     |    | IP20                 |
| Protection against electrical shock                    |    | finger-safe          |

|                                                                     |    |             |
|---------------------------------------------------------------------|----|-------------|
| <b>Installation altitude / at a height over sea level / maximum</b> | m  | 2,000       |
| <b>Resistance against shock</b>                                     |    | 25g / 11 ms |
| <b>Ambient temperature</b>                                          |    |             |
| • during transport                                                  | °C | -50 ... +80 |
| • during storage                                                    | °C | -50 ... +80 |
| • during operating                                                  | °C | -20 ... +60 |
| <b>Active power loss / total / typical</b>                          | W  | 10.8        |

| Main circuit:                                                                         |     |         |
|---------------------------------------------------------------------------------------|-----|---------|
| <b>Operating voltage / rated value</b>                                                | V   | 690     |
| <b>Service power / at AC-3</b>                                                        |     |         |
| • at 400 V / rated value                                                              | W   | 11,000  |
| • at 500 V / rated value                                                              | W   | 18,500  |
| • at 690 V / rated value                                                              | W   | 22,000  |
| <b>Operational current / at AC-3 / at 400 V / rated value</b>                         | A   | 28      |
| <b>Mechanical operating cycles as operating time / of the main contacts / typical</b> |     | 100,000 |
| <b>Frequency of operation / at AC-3 / according to IEC 60947-6-2</b>                  | 1/h | 15      |

| Auxiliary circuit:                                                                               |   |                                                                                         |
|--------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------|
| <b>Design of the auxiliary switch</b>                                                            |   | transverse                                                                              |
| <b>Number of change-over switches / for auxiliary contacts</b>                                   |   | 0                                                                                       |
| <b>Mechanical operating cycles as operating time / of the auxiliary contacts / typical</b>       |   | 100,000                                                                                 |
| <b>Design of the fuse link / for short-circuit protection of the auxiliary switch / required</b> |   | Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ A) |
| <b>Operating current / of the auxiliary contacts / at AC-15 / at 24 V</b>                        | A | 2                                                                                       |
| <b>Operating current / of the auxiliary contacts</b>                                             |   |                                                                                         |
| • at AC-15                                                                                       |   |                                                                                         |
| • at 230 V                                                                                       | A | 0.5                                                                                     |
| • at DC-13                                                                                       |   |                                                                                         |
| • at 24 V                                                                                        | A | 1                                                                                       |
| • at 60 V                                                                                        | A | 0.15                                                                                    |

| Protection function:                                                           |   |           |
|--------------------------------------------------------------------------------|---|-----------|
| <b>Trip class</b>                                                              |   | CLASS 10  |
| <b>Adjustable response current / of the current-dependent overload release</b> | A | 23 ... 28 |
| <b>Breaking capacity limit short-circuit current (<math>I_{cu}</math>)</b>     |   |           |
| • at 400 V / rated value                                                       | A | 55,000    |
| • at 500 V / rated value                                                       | A | 10,000    |
| • at 690 V / rated value                                                       | A | 4,000     |

**Safety:****Proportion of dangerous failures**

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

% 40  
% 40

**Failure rate (FIT value) / with low demand rate / according to SN 31920**

FIT 50

**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

**Installation/mounting/dimensions:****Type of mounting**

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

**mounting position**

any

**Depth**

mm 96

**Height**

mm 97

**Width**

mm 45

**Connections:****Arrangement of electrical connectors / for main current circuit**

Top and bottom

**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 (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)  
  
2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
  
2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
2x (20 ... 16), 2x (18 ... 14)

**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

hp 2  
hp 5  
hp 7.5

|                                                                              |    |             |
|------------------------------------------------------------------------------|----|-------------|
| • at 220/230 V / rated value                                                 | hp | 10          |
| • at 460/480 V / rated value                                                 | hp | 20          |
| <b>Operating current (FLA) / for three-phase squirrel cage motors</b>        |    |             |
| • at 480 V / rated value                                                     | A  | 27          |
| <b>Contact rating designation / for auxiliary contacts / according to UL</b> |    | C300 / R300 |

#### Certificates/approvals:

| General Product Approval                                                                 |                                                                                           |                                                                                         | For use in hazardous locations                                                            | Declaration of Conformity                                                                       |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <br>CSA | <br>GOST | <br>UL | <br>ATEX | <br>EG-Konf. |

#### Test Certificates

[other](#)
[Special Test Certificate](#)
[Type Test Certificates/Test Report](#)

#### Shipping Approval



#### Shipping Approval

other



#### 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:**

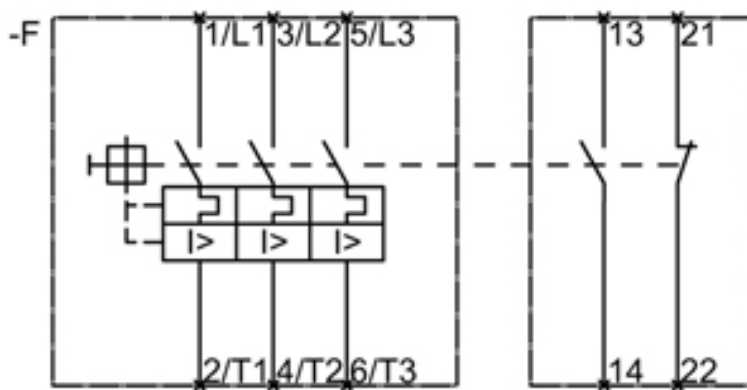
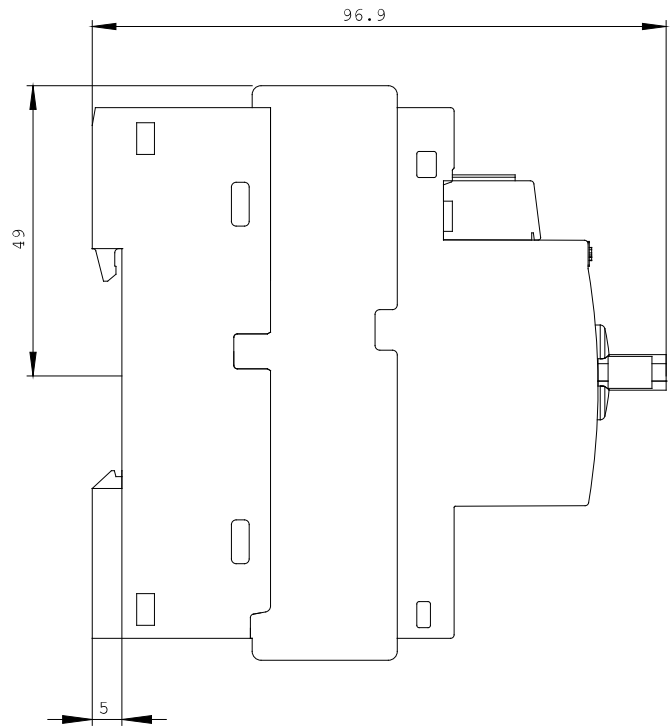
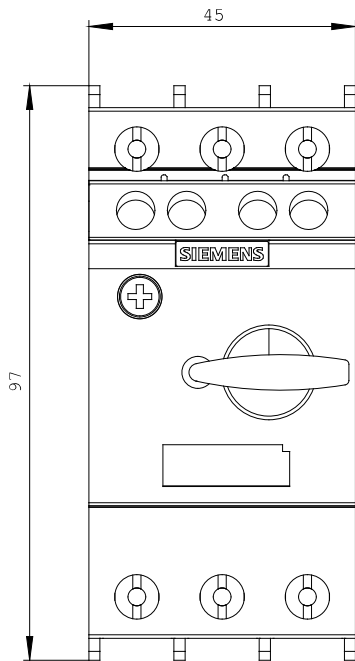
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RV2021-4NA15/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RV2021-4NA15](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2021-4NA15)



last change:

Feb 14, 2013