



CIRCUIT-BREAKER SZ S0,  
FOR MOTOR PROTECTION, CLASS 10,  
A-RELEASE 20...25A, N-RELEASE 325A,  
RING CABLE LUG 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   |    | IP00                 |
| 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  | 10.4                 |
| Item designation   |    |                      |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 |    | F                    |
| • according to DIN EN 61346-2  |    | F                    |

|  |  |                 |
|--|--|-----------------|
| <b>Mechanical operating cycles as operating time</b> |  |                 |
| • of the main contacts / typical                     |  | 100,000         |
| • of the auxiliary contacts / typical                |  | 100,000         |
| <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              |

|  |     |                |
|--|-----|----------------|
| <b>Main circuit:</b>   |     |                |
| <b>Number of poles / for main current circuit</b>                              |     | 3              |
| <b>Operating voltage / at AC-3 / 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   | 11,000         |
| • at 500 V / rated value   | W   | 15,000         |
| • at 690 V / rated value   | W   | 22,000         |
| <b>Frequency of operation / 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   | 325 ... 325    |
| • of the current-dependent overload release                                    | A   | 20 ... 25      |
| <b>Service power / at AC-3 / at 230 V / rated value</b>                        | W   | 5,500          |
| <b>Continuous current / rated value</b>  | A   | 25             |

|   |  |     |
|---|--|-----|
| <b>Auxiliary circuit:</b>   |  |     |
| <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 contacts</b>                  |  | 0   |

|                                 |  |   |
|---------------------------------|--|---|
| <b>Inputs/ Outputs:</b>         |  |   |
| <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 | 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

ring cable connection

**Certificates/approvals:**

|   |  |               |
|---|--|---------------|
| <b>Verification of suitability</b>          |  | CE / UL / CSA |
| • für Staubexplosionsschutz für Zone 21/22  |  | no            |
| • for gas explosion protection for zone 1/2 |  | no            |

|   |   |   |
|---|---|---|
| <b>General Product Approval</b>   |   | <b>For use in hazardous locations</b>   |
|  |  |  |
| CQC   | CSA   | UL  |

[ROSTEST](#)

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

### Test Certificates

[Manufacturer](#)      [other](#)

### Shipping Approval

|   |   |   |   |   |   |
|---|---|---|---|---|---|
|  |  |  |  |  |  |
| ABS   | GL  | LRS   | PRS   | RINA  | RMRS  |

other

[Manufacturer](#)      [other](#)



### UL/CSA ratings

|   |    |     |
|---|----|-----|
| <b>yielded mechanical performance (hp)</b>                            |    |     |
| • for single-phase squirrel cage motors                               |    |     |
| • at 110/120 V / rated value  | hp | 2   |
| • at 230 V / rated value  | hp | 3   |
| • for three-phase squirrel cage motors                                |    |     |
| • at 200/208 V / rated value  | hp | 5   |
| • at 220/230 V / rated value  | hp | 7.5 |
| • at 460/480 V / rated value  | hp | 15  |
| <b>Operating current (FLA) / for three-phase squirrel cage motors</b> |    |     |
| • at 480 V / rated value  | A  | 21  |

### Safety:

|   |     |             |
|---|-----|-------------|
| <b>B10 value / with high demand rate</b>                  |     |             |
| • according to SN 31920                                   |     | 50,000      |
| <b>T1 value / for proof test interval or service life</b> |     |             |
| • according to IEC 61508                                  | a   | 10          |
| <b>Failure rate (FIT value) / with low demand rate</b>    |     |             |
| • according to SN 31920                                   | FIT | 50          |
| <b>Proportion of dangerous failures</b>                   |     |             |
| • with low demand rate / according to SN 31920            | %   | 40          |
| • with high demand rate / according to SN 31920           | %   | 40          |
| <b>Protection against electrical shock</b>                |     | 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

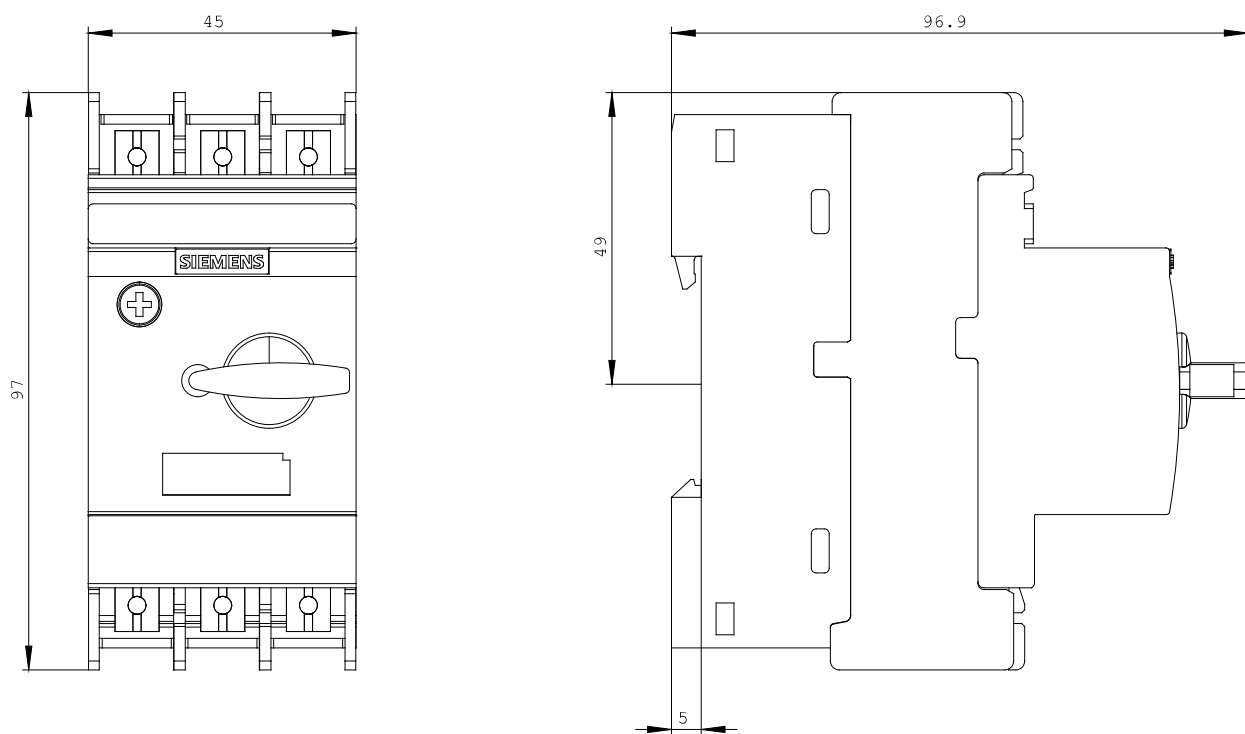
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RV2021-4DA40/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RV2021-4DA40](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2021-4DA40)





last change:

Oct 17, 2011