

CIRCUIT-BREAKER SZ S00, FOR TRANSFORMER PROTECTION, WITH APPROBATION CIRCUIT-BREAKER UL 489. CSA C22.2 NO.5-02. A-RELEASE 0.63 A, N-RELEASE 13 A, SCREW CONNECTION, STANDARD SW. CAPACITY



|                       |   |
|-----------------------|---|
| product brand name    | SIRIUS  |
| Product designation   | 3RV2 circuit breaker  |
| Design of the product | For transformer protection according to UL 489/CSA C22.2 No.5 |

| General technical data  |       |
|---|-------|
| Size of the circuit-breaker   | S00   |
| Product extension   |       |
| • Auxiliary switch  | Yes   |
| Power loss [W] total typical  | 5 W   |
| Insulation voltage with degree of pollution 3 rated value                 | 690 V |
| Surge voltage resistance rated value                                      | 6 kV  |
| maximum permissible voltage for safe isolation                            |       |
| • in networks with grounded star point between main and auxiliary circuit | 400 V |
| • in networks with grounded star point between main and auxiliary circuit | 400 V |
| Protection class IP   |       |
| • on the front  | IP20  |
| • of the terminal   | IP00  |

|   |  |
|---|--|
| <b>Shock resistance</b>   |  |
| <ul style="list-style-type: none"> <li>• acc. to IEC 60068-2-27</li> </ul>        | 25g / 11 ms  |
| <b>Mechanical service life (switching cycles)</b>                                 |  |
| <ul style="list-style-type: none"> <li>• of the main contacts typical</li> </ul>  | 100 000  |
| <ul style="list-style-type: none"> <li>• of auxiliary contacts typical</li> </ul> | 100 000  |
| <b>Electrical endurance (switching cycles)</b>                                    |  |
| <ul style="list-style-type: none"> <li>• typical</li> </ul>                       | 100 000  |
| <b>Certificate of suitability relating to ATEX</b>                                | on request   |
| <b>Protection against electrical shock</b>  | finger-safe when touched vertically from front acc. to IEC 60529 |
| Equipment marking acc. to DIN EN 81346-2  | Q  |

#### Ambient conditions

|  |                |
|--|----------------|
| <b>Installation altitude at height above sea level maximum</b>       | 2 000 m        |
| <b>Ambient temperature</b>   |                |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul> | -20 ... +60 °C |
| <ul style="list-style-type: none"> <li>• during storage</li> </ul>   | -50 ... +80 °C |
| <ul style="list-style-type: none"> <li>• during transport</li> </ul> | -50 ... +80 °C |
| <b>Temperature compensation</b>                                      | -20 ... +60 °C |
| <b>Relative humidity during operation</b>                            | 10 ... 95 %    |

#### Main circuit

|   |                                 |
|---|---------------------------------|
| <b>Number of poles for main current circuit</b>   | 3                               |
| <b>Adjustable pick-up value current of the current-dependent overload release</b>   | 0.63 ... 0.63 A                 |
| <b>Operating voltage</b>  |                                 |
| <ul style="list-style-type: none"> <li>• rated value</li> </ul>   | 690 V                           |
| <ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>   | 690 V                           |
| <b>Operating frequency rated value</b>  | 50 ... 60 Hz                    |
| <b>Operating power</b>  |                                 |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul> | 90 W<br>180 W<br>180 W<br>250 W |
| <b>Operating frequency</b>  |                                 |
| <ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>   | 15 1/h                          |

#### Auxiliary circuit

|  |   |
|--|---|
| <b>Number of NC contacts</b>   |   |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul> | 0 |
| <b>Number of NO contacts</b>   |   |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul> | 0 |
| <b>Number of CO contacts</b>   |   |

- for auxiliary contacts

0

### Protective and monitoring functions

|  |          |
|--|----------|
| <b>Design of the overload release</b>                                  | thermal  |
| <b>Operational short-circuit current breaking capacity (Ics) at AC</b> |          |
| • at 240 V rated value   | 100 kA   |
| • at 400 V rated value   | 100 kA   |
| • at 500 V rated value   | 100 kA   |
| • at 690 V rated value   | 100 kA   |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>           |          |
| • at AC at 240 V rated value   | 100 kA   |
| • at AC at 400 V rated value   | 100 kA   |
| • at AC at 500 V rated value   | 100 kA   |
| • at AC at 690 V rated value   | 100 kA   |
| • at 480 AC Y/277 V acc. to UL 489 rated value                         | 65 000 A |
| <b>Breaking capacity short-circuit current (Icn)</b>                   |          |
| • at 1 current path at DC at 150 V rated value                         | 10 kA    |
| • with 2 current paths in series at DC at 300 V rated value            | 10 kA    |
| • with 3 current paths in series at DC at 450 V rated value            | 10 kA    |

### Short-circuit protection

|  |           |
|--|-----------|
| <b>Design of the short-circuit trip</b>  | magnetic  |
| <b>Design of the fuse link for IT network for short-circuit protection of the main circuit</b> |           |
| • at 690 V   | gL/gG 6 A |

### Installation/ mounting/ dimensions

|                              |  |
|------------------------------|--|
| <b>Mounting position</b>     | any  |
| <b>Mounting type</b>         | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| <b>Height</b>                | 144 mm   |
| <b>Width</b>                 | 45 mm  |
| <b>Depth</b>                 | 97 mm  |
| <b>Required spacing</b>      |  |
| • with side-by-side mounting |  |
| — forwards                   | 0 mm   |
| — Backwards                  | 0 mm   |
| — upwards                    | 50 mm  |
| — downwards                  | 50 mm  |
| — at the side                | 0 mm   |
| • for grounded parts         |  |
| — forwards                   | 0 mm   |

|                  |       |
|------------------|-------|
| — Backwards      | 0 mm  |
| — upwards        | 50 mm |
| — at the side    | 30 mm |
| — downwards      | 50 mm |
| • for live parts |       |
| — forwards       | 0 mm  |
| — Backwards      | 0 mm  |
| — upwards        | 50 mm |
| — downwards      | 50 mm |
| — at the side    | 30 mm |

## Connections/Terminals

|  |  |
|--|--|
| <b>Product function</b>  |  |
| • removable terminal for auxiliary and control circuit               | No   |
| <b>Type of electrical connection</b>                                 |  |
| • for main current circuit   | screw-type terminals                                   |
| <b>Arrangement of electrical connectors for main current circuit</b> | Top and bottom   |
| <b>Type of connectable conductor cross-sections</b>                  |  |
| • for main contacts  |  |
| — single or multi-stranded   | 1 ... 10 mm <sup>2</sup> , max. 2x 10 mm <sup>2</sup>  |
| — finely stranded with core end processing                           | 1 ... 16 mm <sup>2</sup> , max. 6 + 16 mm <sup>2</sup> |
| • at AWG conductors for main contacts                                | 2x 14  |
| <b>Tightening torque</b>   |  |
| • for main contacts with screw-type terminals                        | 2.5 ... 3 N·m  |
| <b>Design of screwdriver shaft</b>                                   | Diameter 5 to 6 mm                                     |
| <b>Design of the thread of the connection screw</b>                  |  |
| • for main contacts  | M4   |

## Safety related data

|   |        |
|---|--------|
| <b>B10 value</b>  |        |
| • with high demand rate acc. to SN 31920                                  | 5 000  |
| <b>Proportion of dangerous failures</b>                                   |        |
| • with low demand rate acc. to SN 31920                                   | 50 %   |
| • with high demand rate acc. to SN 31920                                  | 50 %   |
| <b>Failure rate [FIT]</b>   |        |
| • with low demand rate acc. to SN 31920                                   | 50 FIT |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | 10 y   |
| <b>Display version</b>  |        |
| • for switching status  | Handle |

## Certificates/approvals

|                          |                           |
|--------------------------|---------------------------|
| General Product Approval | Declaration of Conformity |
|--------------------------|---------------------------|



CCC



CSA



UL

[KTL](#)



EG-Konf.

|                   |                   |
|-------------------|-------------------|
| Test Certificates | Shipping Approval |
|-------------------|-------------------|

[Typprüfbescheinigung/Werkszeugnis](#)

[spezielle Prüfbescheinigungen](#)  
[n](#)



ABS



BUREAU VERITAS



LRS



PRS

|                   |       |         |
|-------------------|-------|---------|
| Shipping Approval | other | Railway |
|-------------------|-------|---------|



RINA



RMRS

[Umweltbestätigung](#)

[Bestätigungen](#)



VDE

[Schwingen/Schocke](#)

[n](#)

Further information

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

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

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2811-0GD10>

**Cax online generator**

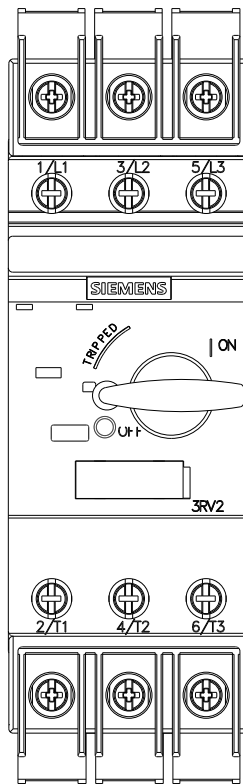
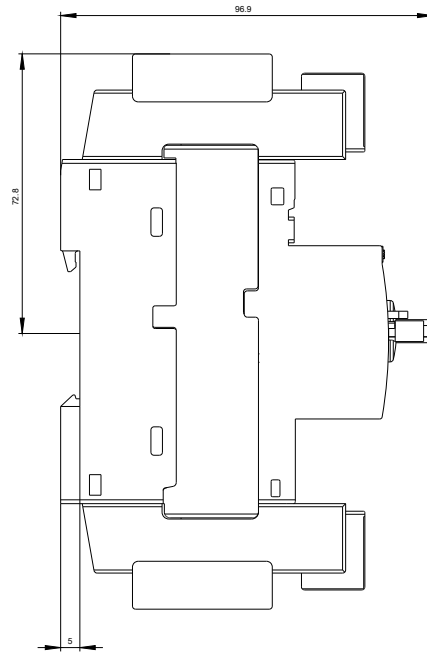
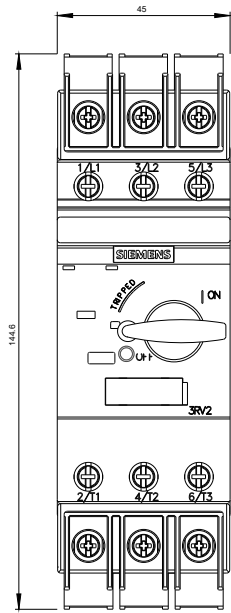
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2811-0GD10>

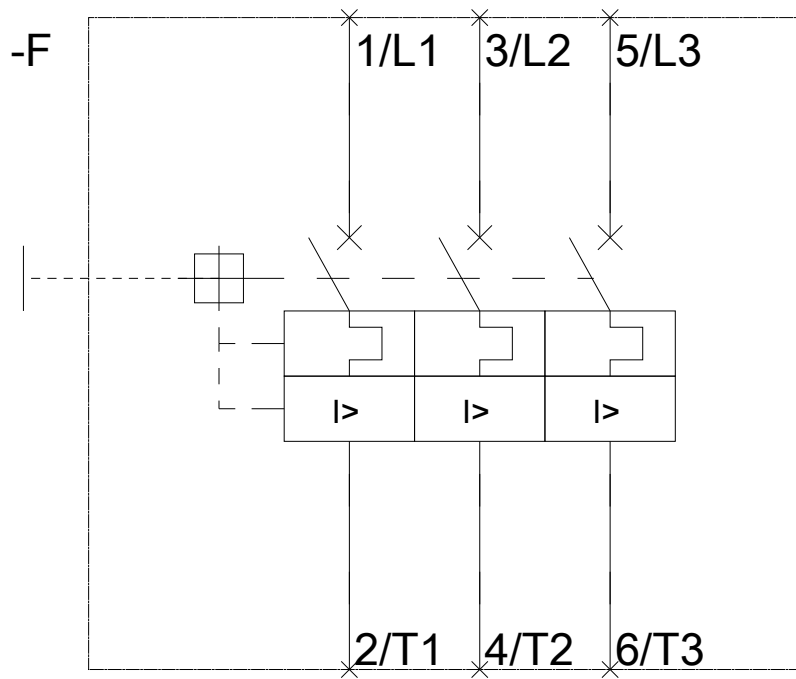
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2811-0GD10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2811-0GD10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2811-0GD10&lang=en)





last modified:

10/08/2016