

CIRCUIT-BREAKER SZ S00, FOR TRANSFORMER PROT. A-RELEASE 1.1...1.6 A, N-RELEASE 33A SCREW CONNECTION, STANDARD SW. CAPACITY



|                          |                            |
|--------------------------|----------------------------|
| product brandname        | SIRIUS                     |
| Product designation      | Circuit breaker            |
| Design of the product    | For transformer protection |
| Product type designation | 3RV2                       |

| General technical data  |         |
|---|---------|
| Size of the circuit-breaker   | S00     |
| Size of contactor can be combined company-specific                        | S00, S0 |
| Product extension   |         |
| • Auxiliary switch  | Yes     |
| Power loss [W] total typical  | 6 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   |         |

|   |                    |
|---|--------------------|
| <ul style="list-style-type: none"> <li>• on the front</li> <li>• of the terminal</li> </ul>                               | IP20<br>IP20       |
| <b>Mechanical service life (switching cycles)</b>   |                    |
| <ul style="list-style-type: none"> <li>• of the main contacts typical</li> <li>• of auxiliary contacts typical</li> </ul> | 100 000<br>100 000 |
| <b>Electrical endurance (switching cycles)</b>  |                    |
| <ul style="list-style-type: none"> <li>• typical</li> </ul>   | 100 000            |
| <b>Protection against electrical shock</b>  | finger-safe        |
| Equipment marking acc. to DIN EN 81346-2  | Q                  |

### Ambient conditions

|  |  |
|--|--|
| <b>Ambient temperature</b>   |  |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul> | -20 ... +60 °C<br>-50 ... +80 °C<br>-50 ... +80 °C |
| <b>Temperature compensation</b>  | -20 ... +60 °C                                     |

### 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>   | 1.1 ... 1.6 A                      |
| <b>Operating voltage</b>  |                                    |
| <ul style="list-style-type: none"> <li>• rated value</li> <li>• at AC-3 rated value maximum</li> </ul>  | 690 V<br>690 V                     |
| <b>Operating frequency rated value</b>  | 50 ... 60 Hz                       |
| <b>Operating current rated value</b>  | 1.6 A                              |
| <b>Operating current</b>  |                                    |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>   | 1.6 A                              |
| <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> | 250 W<br>550 W<br>750 W<br>1 100 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>Product function</b>   |          |
| <ul style="list-style-type: none"> <li>• Ground fault detection</li> </ul>                                    | No       |
| <ul style="list-style-type: none"> <li>• Phase failure detection</li> </ul>                                   | Yes      |
| <b>Trip class</b>   | CLASS 10 |
| <b>Design of the overload release</b>   | thermal  |
| <b>Operational short-circuit current breaking capacity (Ics) at AC</b>  |          |
| <ul style="list-style-type: none"> <li>• at 240 V rated value</li> </ul>                                      | 100 kA   |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>                                      | 100 kA   |
| <ul style="list-style-type: none"> <li>• at 500 V rated value</li> </ul>                                      | 100 kA   |
| <ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>                                      | 100 kA   |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>  |          |
| <ul style="list-style-type: none"> <li>• at AC at 240 V rated value</li> </ul>                                | 100 kA   |
| <ul style="list-style-type: none"> <li>• at AC at 400 V rated value</li> </ul>                                | 100 kA   |
| <ul style="list-style-type: none"> <li>• at AC at 500 V rated value</li> </ul>                                | 100 kA   |
| <ul style="list-style-type: none"> <li>• at AC at 690 V rated value</li> </ul>                                | 100 kA   |
| <b>Breaking capacity short-circuit current (Icn)</b>  |          |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC at 150 V rated value</li> </ul>              | 10 kA    |
| <ul style="list-style-type: none"> <li>• with 2 current paths in series at DC at 300 V rated value</li> </ul> | 10 kA    |
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC at 450 V rated value</li> </ul> | 10 kA    |

## UL/CSA ratings

|  |         |
|--|---------|
| <b>Full-load current (FLA) for three-phase AC motor</b>  |         |
| <ul style="list-style-type: none"> <li>• at 480 V rated value</li> </ul>   | 1.6 A   |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>   | 1.6 A   |
| <b>Yielded mechanical performance [hp]</b>   |         |
| <ul style="list-style-type: none"> <li>• for single-phase AC motor           <ul style="list-style-type: none"> <li>— at 230 V rated value</li> </ul> </li> </ul>    | 0.1 hp  |
| <ul style="list-style-type: none"> <li>• for three-phase AC motor           <ul style="list-style-type: none"> <li>— at 460/480 V rated value</li> </ul> </li> </ul> | 0.75 hp |
| <ul style="list-style-type: none"> <li>— at 575/600 V rated value</li> </ul>   | 0.75 hp |

## Short-circuit protection

|  |            |
|--|------------|
| <b>Product function Short circuit protection</b>   | Yes        |
| <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> |            |
| <ul style="list-style-type: none"> <li>• at 500 V</li> </ul>                                   | gL/gG 20 A |
| <ul style="list-style-type: none"> <li>• at 690 V</li> </ul>                                   | gL/gG 16 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>   | 97 mm  |
| <b>Width</b>  | 45 mm  |
| <b>Depth</b>  | 96 mm  |
| <b>Required spacing</b>   |  |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 50 mm</li> <li>— downwards 50 mm</li> <li>— at the side 0 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 50 mm</li> <li>— at the side 30 mm</li> <li>— downwards 50 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 50 mm</li> <li>— downwards 50 mm</li> <li>— at the side 30 mm</li> </ul> </li> </ul> |  |







## Connections/Terminals





|  |                      |
|--|----------------------|
| <b>Product function</b>  |                      |
| <ul style="list-style-type: none"> <li>• removable terminal for auxiliary and control circuit</li> </ul>   | No                   |
| <b>Type of electrical connection</b>   |                      |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>   | screw-type terminals |
| <b>Arrangement of electrical connectors for main current circuit</b>   | Top and bottom       |
| <b>Type of connectable conductor cross-sections</b>  |                      |
| <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— single or multi-stranded 2x (0,75 ... 2,5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup></li> <li>— finely stranded with core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</li> </ul> </li> <li>• at AWG conductors for main contacts 2x (18 ... 14), 2x 12</li> </ul> |                      |
| <b>Tightening torque</b>   |                      |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> </ul>  | 0.8 ... 1.2 N·m      |
| <b>Design of screwdriver shaft</b>   | Diameter 5 to 6 mm   |




## Safety related data

|  |        |
|--|--------|
| <b>B10 value</b>   |        |
| <ul style="list-style-type: none"> <li>with high demand rate acc. to SN 31920</li> </ul> | 5 000  |
| <b>Proportion of dangerous failures</b>  |        |
| <ul style="list-style-type: none"> <li>with low demand rate acc. to SN 31920</li> </ul>  | 50 %   |
| <ul style="list-style-type: none"> <li>with high demand rate acc. to SN 31920</li> </ul> | 50 %   |
| <b>Failure rate [FIT]</b>  |        |
| <ul style="list-style-type: none"> <li>with low demand rate acc. to SN 31920</li> </ul>  | 50 FIT |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b>                | 10 y   |
| <b>Display version</b>   |        |
| <ul style="list-style-type: none"> <li>for switching status</li> </ul>                   | Handle |

## Certificates/approvals

|  |   |
|--|---|
| <b>General Product Approval</b>  | <b>Declaration of Conformity</b>  |
| <br>CCC | <br>CSA        |
| <br>UL  | <br>EAC      |
| <br>KC  | <br>EG-Konf. |

|  |   |
|--|---|
| <b>Test Certificates</b>   | <b>Shipping Approval</b>  |
| <a href="#">Special Test Certificate</a>   | <a href="#">Type Test Certificates/Test Report</a>  |
| <br>ABS | <br>BUREAU VERITAS |
|  | <br>LRS          |
|  | <br>PRS          |

|   |  |
|---|--|
| <b>Shipping Approval</b>  | <b>other</b>   |
| <br>RINA | <a href="#">Confirmation</a>   |
| <br>RMRS | <a href="#">Environmental Confirmations</a>  |
|   | <br>VDE |
|   | <a href="#">Miscellaneous</a>  |

|                                     |
|-------------------------------------|
| <b>Railway</b>                      |
| <a href="#">Vibration and Shock</a> |

## 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=3RV2411-1AA10>

**Cax online generator**

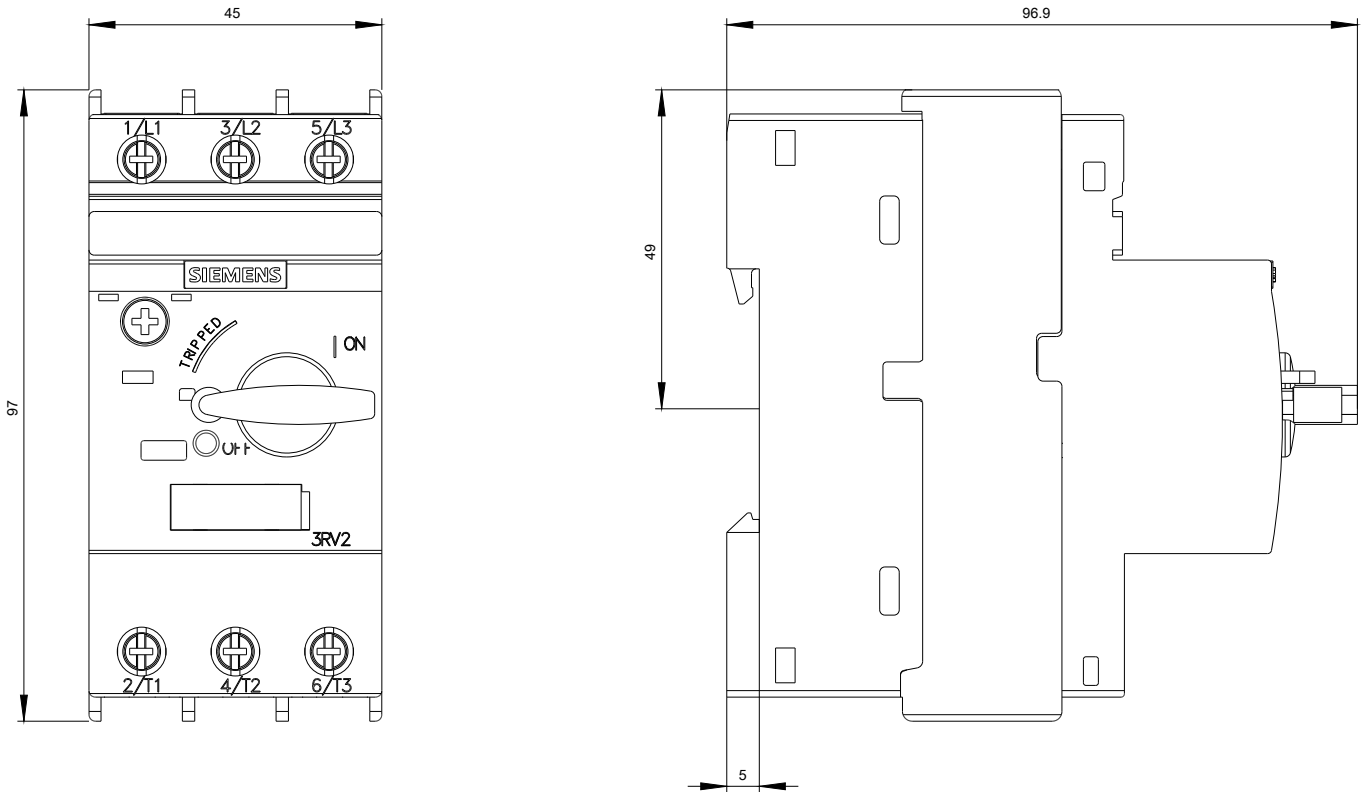
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2411-1AA10>

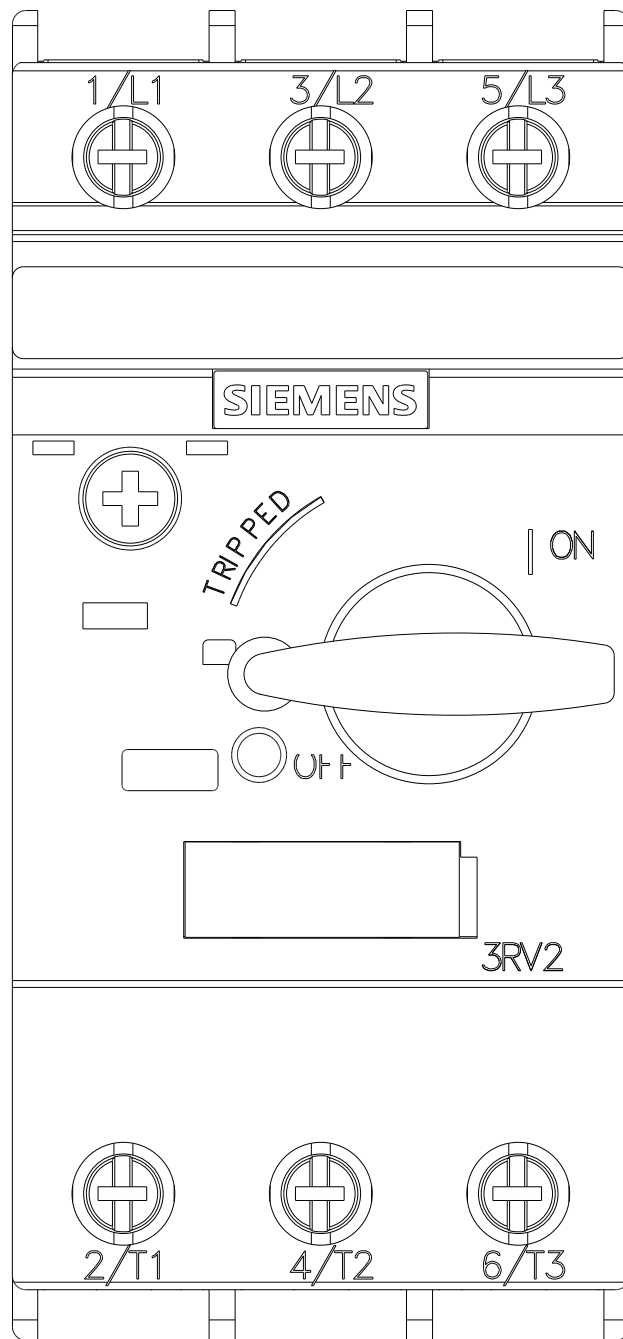
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

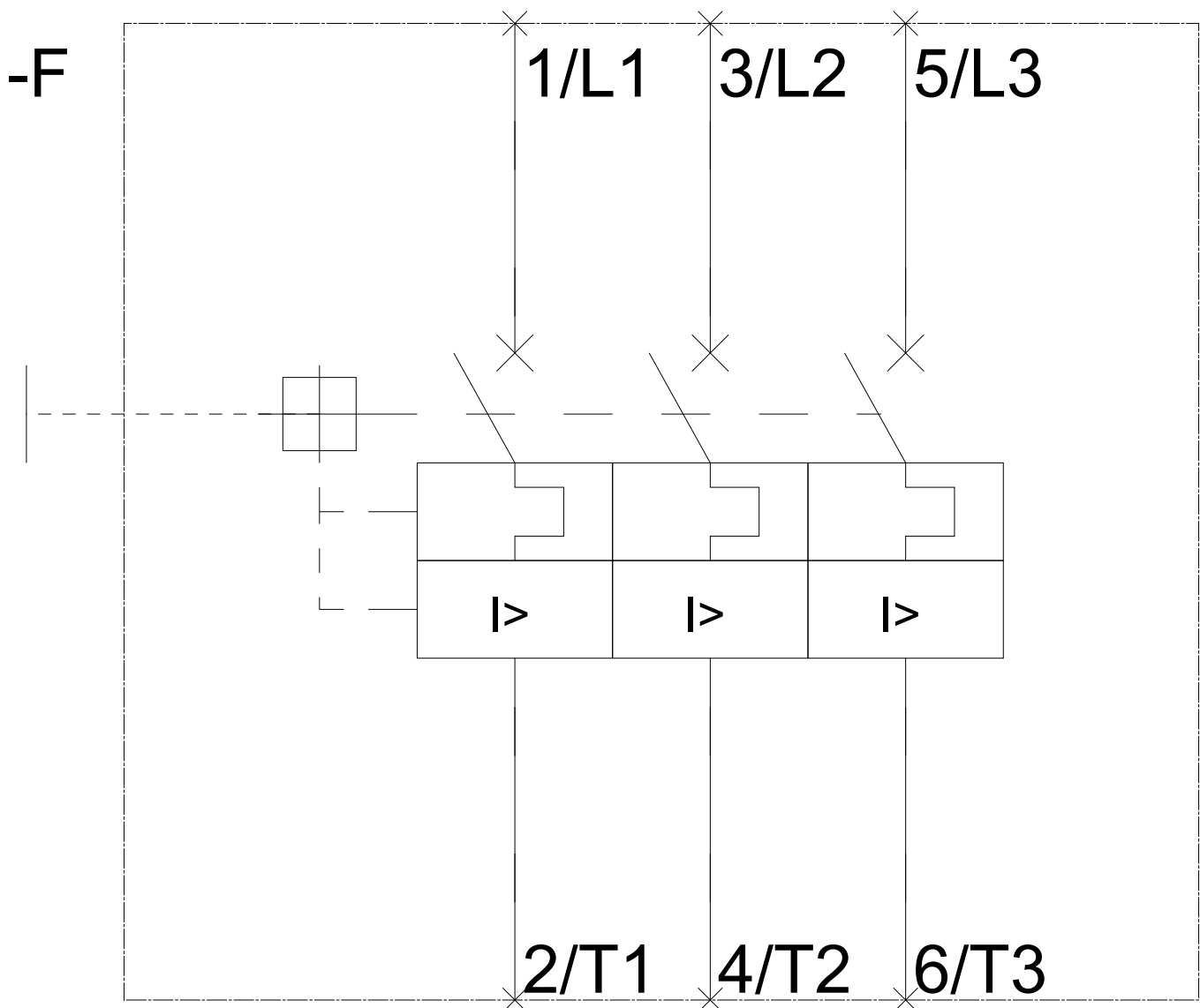
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1AA10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2411-1AA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2411-1AA10&lang=en)







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