

Circuit breaker size S00 for transformer protection A-release 1.4...2 A  
N release 42 A screw terminal Standard switching capacity



|                                                                           |                            |
|---------------------------------------------------------------------------|----------------------------|
| Product brand name                                                        | 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>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> <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            |
| Certificate of suitability ATEX                                                                                           | No                 |
| <b>Protection against electrical shock</b>                                                                                | finger-safe        |
| <b>Reference code acc. to DIN EN 81346-2</b>                                                                              | Q                  |

#### Ambient conditions

|                                                             |                |
|-------------------------------------------------------------|----------------|
| <b>Installation altitude at height above sea level</b>      |                |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul> | 2 000 m        |
| <b>Temperature compensation</b>                             | -20 ... +60 °C |
| Relative humidity during operation                          | 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>                                                                                                           | 1.4 ... 2 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>                                                                                                                                                        | 2 A                                |
| <b>Operating current</b>                                                                                                                                                                    |                                    |
| <ul style="list-style-type: none"> <li>• at AC-3</li> <li>— at 400 V rated value</li> </ul>                                                                                                 | 2 A                                |
| <b>Operating power</b>                                                                                                                                                                      |                                    |
| <ul style="list-style-type: none"> <li>• at AC-3</li> <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> | 370 W<br>750 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 for auxiliary contacts</b> | 0 |
| <b>Number of NO contacts for auxiliary contacts</b> | 0 |
| <b>Number of CO contacts</b>                        |   |

- for auxiliary contacts

0

## Protective and monitoring functions

|                                                                        |          |
|------------------------------------------------------------------------|----------|
| <b>Product function</b>                                                |          |
| • Ground fault detection                                               | No       |
| • Phase failure detection                                              | 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> |          |
| • 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                                                 | 10 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                                           | 10 kA    |
| <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    |
| <b>Response value current</b>                                          |          |
| • of instantaneous short-circuit trip unit                             | 42 A     |

## UL/CSA ratings

|                                                         |          |
|---------------------------------------------------------|----------|
| <b>Full-load current (FLA) for three-phase AC motor</b> |          |
| • at 480 V rated value                                  | 2 A      |
| • at 600 V rated value                                  | 2 A      |
| <b>Yielded mechanical performance [hp]</b>              |          |
| • for single-phase AC motor                             |          |
| — at 230 V rated value                                  | 0.125 hp |
| • for three-phase AC motor                              |          |
| — at 460/480 V rated value                              | 0.75 hp  |
| — at 575/600 V rated value                              | 1 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> |          |

- at 400 V
- at 500 V
- at 690 V

gL/gG 25 A  
gL/gG 25 A  
gL/gG 20 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 97 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</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul> | 0 mm<br>0 mm<br>50 mm<br>50 mm<br>0 mm<br><br>0 mm<br>0 mm<br>50 mm<br>30 mm<br>50 mm<br><br>0 mm<br>0 mm<br>50 mm<br>50 mm<br>30 mm |

#### 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</li> <li>— finely stranded with core end processing</li> </ul> </li> </ul> | 2x (0,75 ... 2,5 mm²), 2x 4 mm²<br>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |

|                                                     |                       |
|-----------------------------------------------------|-----------------------|
| • at AWG conductors for main contacts               | 2x (18 ... 14), 2x 12 |
| <b>Tightening torque</b>                            |                       |
| • for main contacts with screw-type terminals       | 0.8 ... 1.2 N·m       |
| <b>Design of screwdriver shaft</b>                  | Diameter 5 to 6 mm    |
| <b>Size of the screwdriver tip</b>                  | Pozidriv 2            |
| <b>Design of the thread of the connection screw</b> |                       |
| • for main contacts                                 | M3                    |

#### 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                                                                         |                               |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------|
| <br>CCC | <br>CSA | <br>UL | <br>EAC | <br>EG-Konf. | <a href="#">Miscellaneous</a> |

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

| Marine / Shipping                                                                           |                                                                                             |                                                                                                     | other                        | Railway                                                                                      |                                     |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------|
| <br>RINA | <br>RMRS | <br>DNVGL.COM/AF | <a href="#">Confirmation</a> | <br>VDE | <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=3RV2411-1BA10>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2411-1BA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1BA10>

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

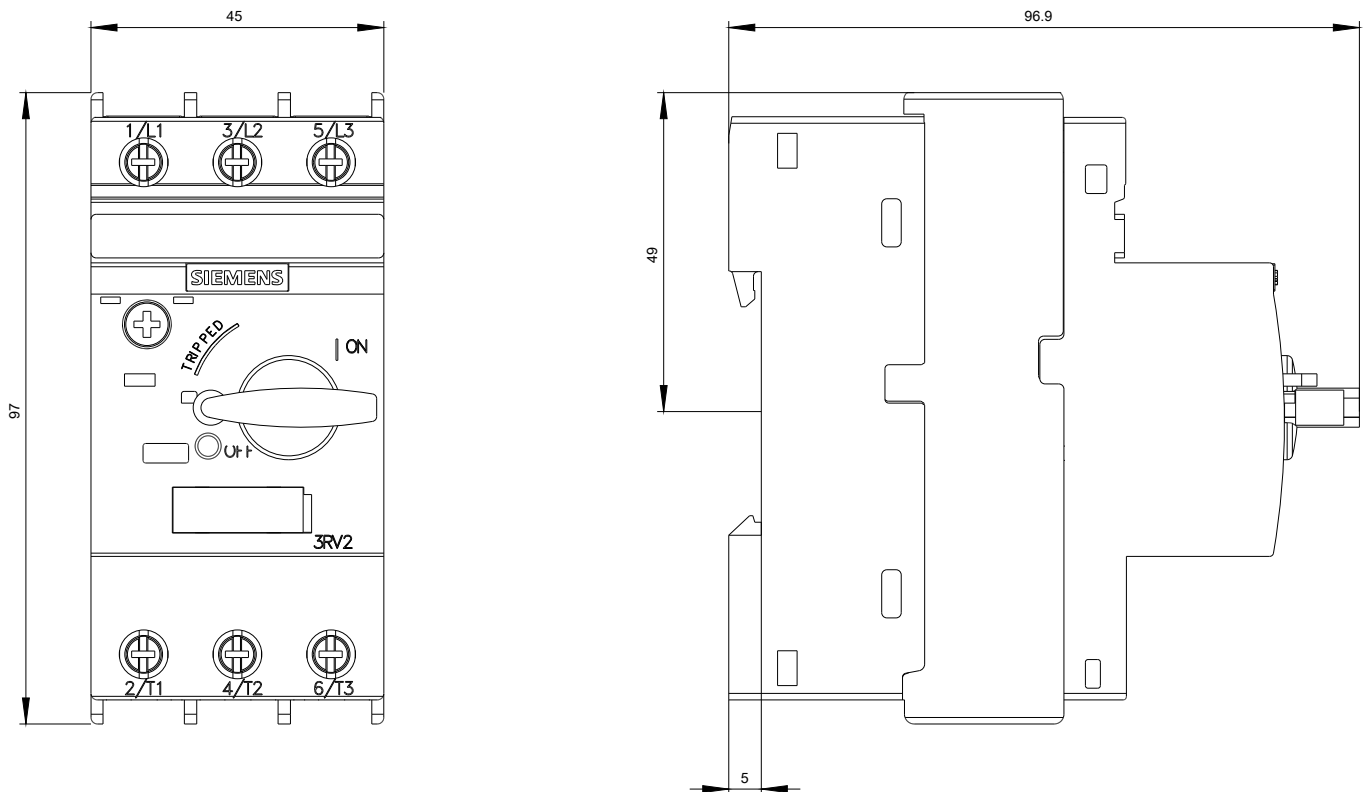
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2411-1BA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2411-1BA10&lang=en)

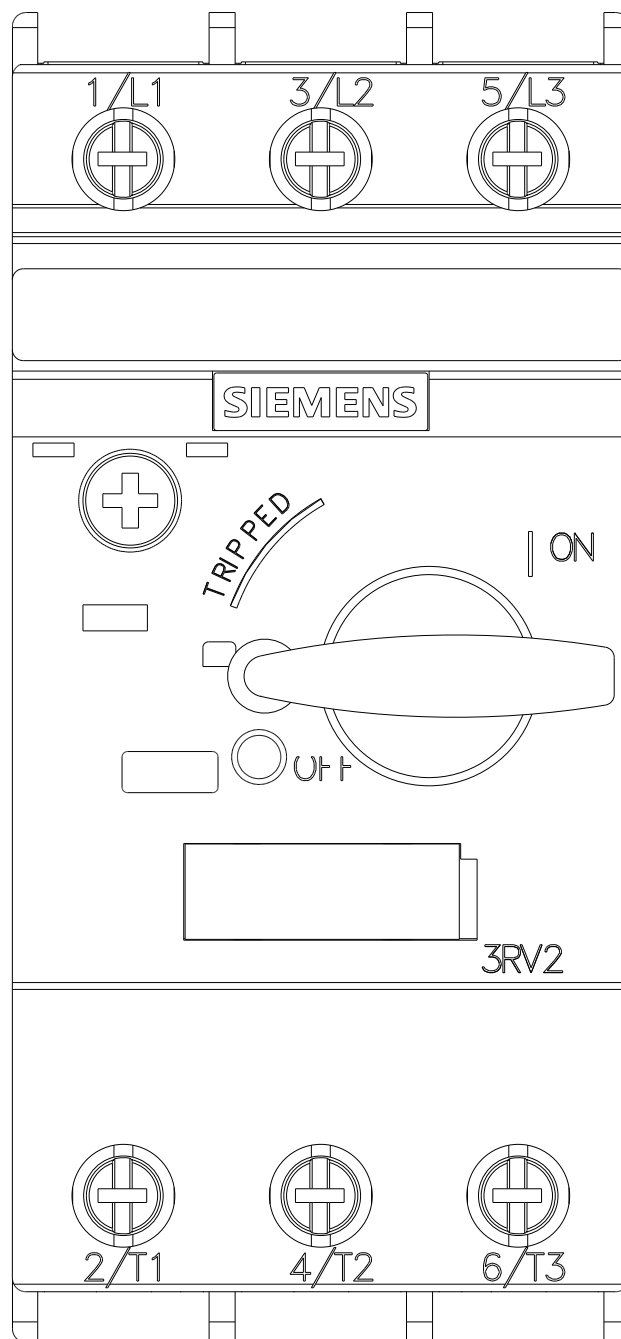
**Characteristic: Tripping characteristics,  $I^2t$ , Let-through current**

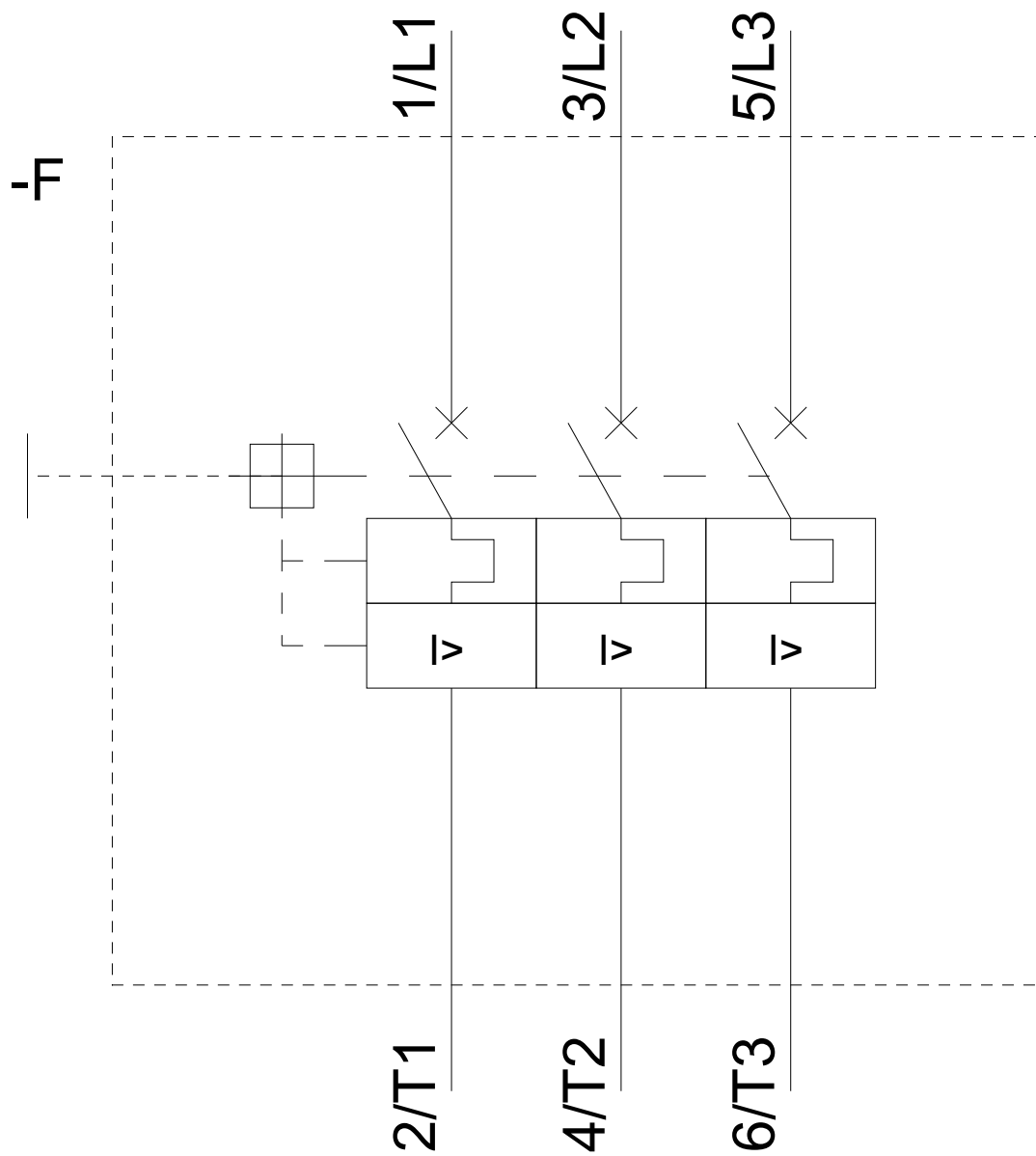
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1BA10/char>

**Further characteristics (e.g. electrical endurance, switching frequency)**

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2411-1BA10&objecttype=14&gridview=view1>







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