

Circuit breaker size S00 for transformer protection A-release 5.5...8 A  
N-release 163 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   | Yes     |
| <ul style="list-style-type: none"> <li>• auxiliary switch</li> </ul>  | Yes     |
| power loss [W] for rated value of the current   |         |
| <ul style="list-style-type: none"> <li>• at AC in hot operating state</li> </ul>  | 9.25 W  |
| <ul style="list-style-type: none"> <li>• at AC in hot operating state per pole</li> </ul>                                   | 3.1 W   |
| insulation voltage with degree of pollution 3 at AC rated value   | 690 V   |
| surge voltage resistance rated value  | 6 kV    |
| maximum permissible voltage for safe isolation  |         |
| <ul style="list-style-type: none"> <li>• in networks with grounded star point between main and auxiliary circuit</li> </ul> | 400 V   |

|   |             |
|---|-------------|
| <ul style="list-style-type: none"> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul> | 400 V       |
| <b>protection class IP</b>  |             |
| <ul style="list-style-type: none"> <li>on the front</li> </ul>  | IP20        |
| <ul style="list-style-type: none"> <li>of the terminal</li> </ul>   | 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> </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>reference code acc. to IEC 81346-2</b>   | Q           |

### Ambient conditions

|   |                |
|---|----------------|
| <ul style="list-style-type: none"> <li>installation altitude at height above sea level maximum</li> </ul> | 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 |
| relative humidity during operation  | 10 ... 95 %    |

### Main circuit

|   |  |
|---|--|
| <b>number of poles for main current circuit</b>   | 3  |
| <b>adjustable current response value current of the current-dependent overload release</b>  | 5.5 ... 8 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>operational current rated value</b>  | 8 A                                      |
| <b>operational 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>   | 8 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> | 1 500 W<br>3 000 W<br>4 000 W<br>5 500 W |
| <b>operating frequency</b>  |  |
| <ul style="list-style-type: none"> <li>at AC-3 maximum</li> </ul>   | 15 1/h                                   |

| Auxiliary circuit   |          |
|---|----------|
| number of NC contacts for auxiliary contacts                  | 0        |
| number of NO contacts for auxiliary contacts                  | 0        |
| number of CO contacts   |          |
| • for auxiliary contacts                                      | 0        |
| Protective and monitoring functions                           |          |
| product function  |          |
| • ground fault detection                                      | No       |
| • phase failure detection                                     | Yes      |
| trip class  | CLASS 10 |
| design of the overload release                                | thermal  |
| breaking capacity operating short-circuit current (Ics) at AC |          |
| • at 240 V rated value  | 100 kA   |
| • at 400 V rated value  | 100 kA   |
| • at 500 V rated value  | 42 kA    |
| • at 690 V rated value  | 4 kA     |
| breaking capacity maximum short-circuit current (Icu)         |          |
| • 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                                  | 42 kA    |
| • at AC at 690 V rated value                                  | 6 kA     |
| response value current  |          |
| • of instantaneous short-circuit trip unit                    | 163 A    |
| UL/CSA ratings  |          |
| full-load current (FLA) for 3-phase AC motor                  |          |
| • at 480 V rated value  | 8 A      |
| • at 600 V rated value  | 8 A      |
| yielded mechanical performance [hp]                           |          |
| • for single-phase AC motor                                   |          |
| — at 110/120 V rated value                                    | 0.333 hp |
| — at 230 V rated value  | 1 hp     |
| • for 3-phase AC motor  |          |
| — at 200/208 V rated value                                    | 2 hp     |
| — at 220/230 V rated value                                    | 2 hp     |
| — at 460/480 V rated value                                    | 5 hp     |
| — at 575/600 V rated value                                    | 5 hp     |
| Short-circuit protection                                      |          |
| product function short circuit protection                     | Yes      |
| design of the short-circuit trip                              | magnetic |

|  |            |
|--|------------|
| <b>design of the fuse link for IT network for short-circuit protection of the main circuit</b> |            |
| • at 400 V   | gL/gG 50 A |
| • at 500 V   | gL/gG 40 A |
| • at 690 V   | gL/gG 35 A |

### Installation/ mounting/ dimensions

|                               |  |
|-------------------------------|--|
| <b>mounting position</b>      | any  |
| <b>fastening method</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>       |  |
| • for grounded parts at 400 V |  |
| — downwards                   | 30 mm  |
| — upwards                     | 30 mm  |
| — at the side                 | 9 mm   |
| • for live parts at 400 V     |  |
| — downwards                   | 30 mm  |
| — upwards                     | 30 mm  |
| — at the side                 | 9 mm   |
| • for grounded parts at 500 V |  |
| — downwards                   | 30 mm  |
| — upwards                     | 30 mm  |
| — at the side                 | 9 mm   |
| • for live parts at 500 V     |  |
| — downwards                   | 30 mm  |
| — upwards                     | 30 mm  |
| — at the side                 | 9 mm   |
| • for grounded parts at 690 V |  |
| — downwards                   | 50 mm  |
| — upwards                     | 50 mm  |
| — backwards                   | 0 mm   |
| — at the side                 | 30 mm  |
| — forwards                    | 0 mm   |
| • for live parts at 690 V     |  |
| — downwards                   | 50 mm  |
| — upwards                     | 50 mm  |
| — backwards                   | 0 mm   |
| — at the side                 | 30 mm  |
| — forwards                    | 0 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>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>at AWG cables for main contacts</li> </ul> | 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup><br>2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )<br>2x (18 ... 14), 2x 12 |
| <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   |
| <b>size of the screwdriver tip</b>  | Pozidriv 2   |
| <b>design of the thread of the connection screw</b> <ul style="list-style-type: none"> <li>for main contacts</li> </ul>   | M3   |

## 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> <li>with high demand rate acc. to SN 31920</li> </ul> | 50 %<br>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

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



[Miscellaneous](#)

|                   |                   |
|-------------------|-------------------|
| Test Certificates | Marine / Shipping |
|-------------------|-------------------|

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



|                   |       |         |
|-------------------|-------|---------|
| Marine / Shipping | other | Railway |
|-------------------|-------|---------|



[Confirmation](#)



[Vibration and Shock](#)

|         |
|---------|
| Railway |
|---------|

[Confirmation](#)

|                     |
|---------------------|
| Further information |
|---------------------|

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

<https://www.siemens.com/ic10>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2411-1HA10>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2411-1HA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1HA10>

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

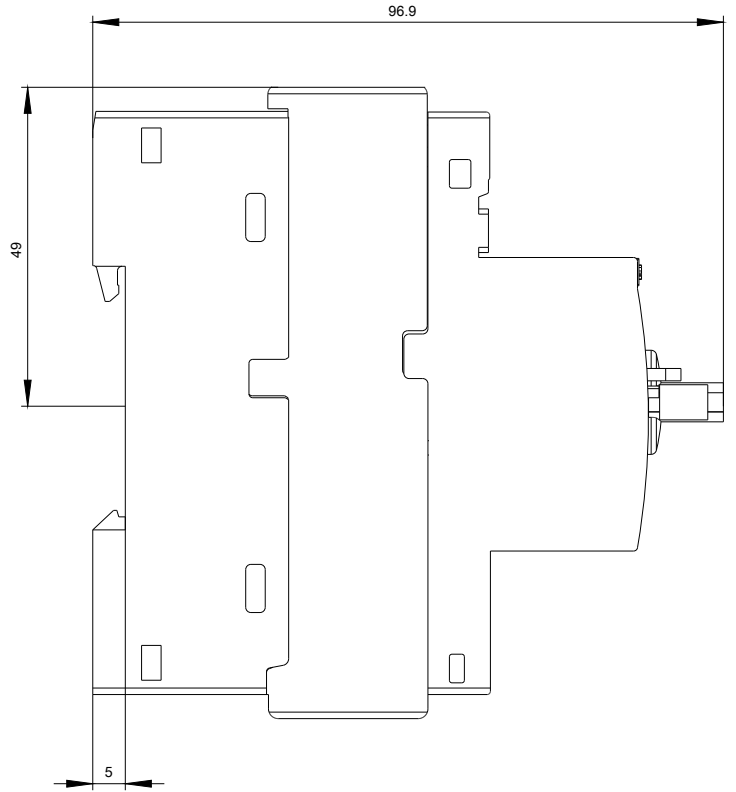
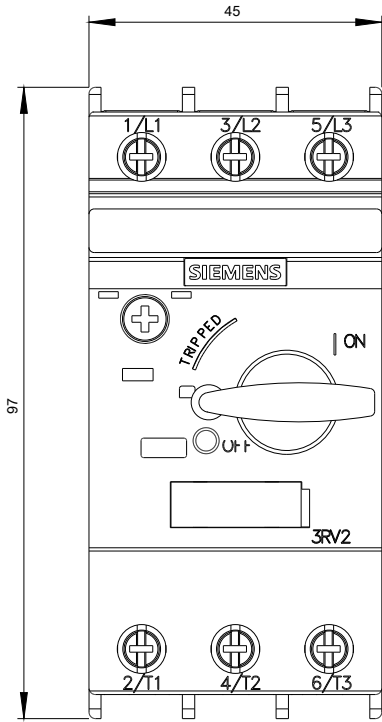
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2411-1HA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2411-1HA10&lang=en)

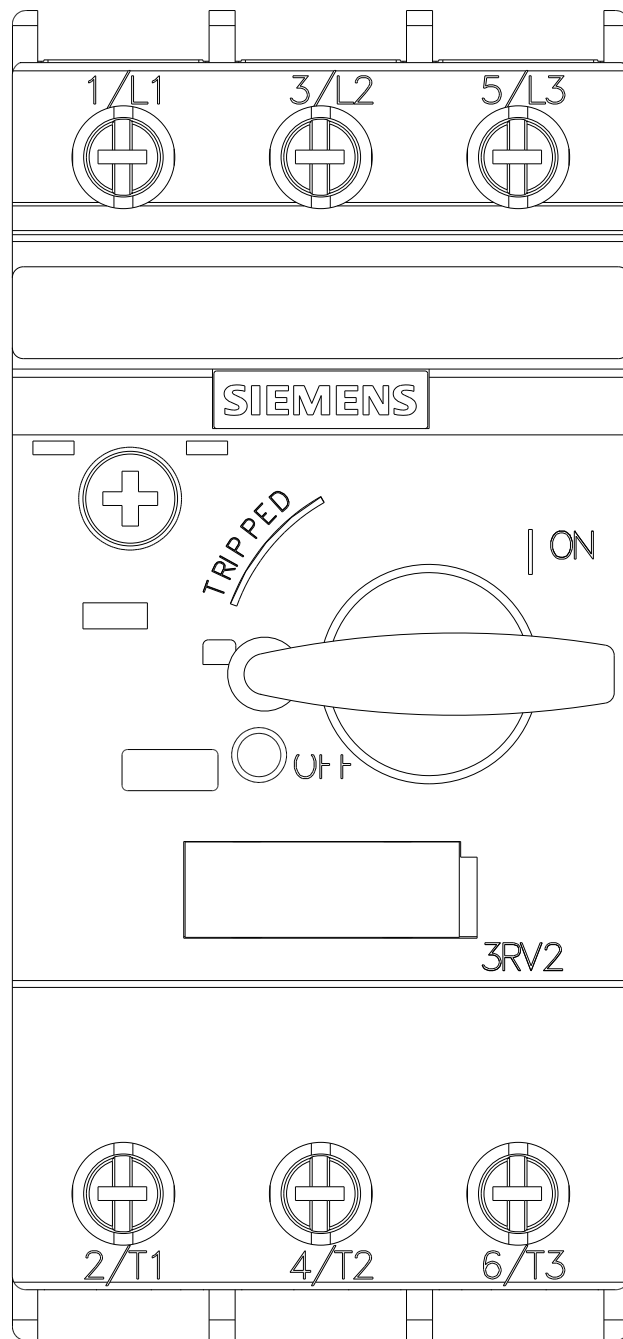
**Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1HA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2411-1HA10&objecttype=14&gridview=view1>







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