



Circuit breaker size S00 for transformer protection A-release 5.5...8 A N-release 163 A screw terminal Standard switching capacity

|  |                            |
|--|----------------------------|
| <b>product brand name</b>  | SIRIUS                     |
| <b>product designation</b>   | Circuit breaker            |
| <b>design of the product</b>   | For transformer protection |
| <b>product type designation</b>  | 3RV2                       |
| <b>General technical data</b>  |                            |
| <b>size of the circuit-breaker</b>   | S00                        |
| <b>size of contactor can be combined company-specific</b>                                  | S00, S0                    |
| product extension auxiliary switch   | Yes                        |
| <b>power loss [W] for rated value of the current</b>                                       |                            |
| • at AC in hot operating state   | 9.25 W                     |
| • at AC in hot operating state per pole  | 3.1 W                      |
| insulation voltage with degree of pollution 3 at AC rated value                            | 690 V                      |
| <b>surge voltage resistance rated value</b>  | 6 kV                       |
| shock resistance according to IEC 60068-2-27   | 25g / 11 ms                |
| <b>mechanical service life (switching cycles)</b>  |                            |
| • of the main contacts typical   | 100 000                    |
| • of auxiliary contacts typical  | 100 000                    |
| electrical endurance (switching cycles) typical  | 100 000                    |
| <b>reference code according to IEC 81346-2</b>   | Q                          |
| <b>Substance Prohibitive (Date)</b>  | 10/01/2009                 |
| <b>Ambient conditions</b>  |                            |
| installation altitude at height above sea level maximum                                    | 2 000 m                    |
| <b>ambient temperature</b>   |                            |
| • during operation   | -20 ... +60 °C             |
| • during storage   | -50 ... +80 °C             |
| • during transport   | -50 ... +80 °C             |
| relative humidity during operation   | 10 ... 95 %                |
| <b>Main circuit</b>  |                            |
| <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>   |                            |
| • rated value  | 20 ... 690 V               |
| • at AC-3 rated value maximum  | 690 V                      |
| • at AC-3e rated value maximum   | 690 V                      |
| <b>operating frequency rated value</b>   | 50 ... 60 Hz               |
| <b>operational current rated value</b>   | 8 A                        |
| <b>operational current</b>   |                            |
| • at AC-3 at 400 V rated value   | 8 A                        |

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>● at AC-3e at 400 V rated value</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> <li>● at AC-3e <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> | 1.5 kW<br>3 kW<br>4 kW<br>5.5 kW<br><br>1.5 kW<br>3 kW<br>4 kW<br>5.5 kW |
| <b>operating frequency</b>  |  |
| <ul style="list-style-type: none"> <li>● at AC-3 maximum</li> <li>● at AC-3e maximum</li> </ul>   | 15 1/h<br>15 1/h   |
| <b>Auxiliary circuit</b>  |  |
| <b>number of NC contacts for auxiliary contacts</b>   | 0  |
| <b>number of NO contacts for auxiliary contacts</b>   | 0  |
| number of CO contacts for auxiliary contacts  | 0  |
| <b>Protective and monitoring functions</b>  |  |
| <b>product function</b>   |  |
| <ul style="list-style-type: none"> <li>● ground fault detection</li> <li>● phase failure detection</li> </ul>   | No<br>Yes  |
| <b>trip class</b>   | CLASS 10   |
| <b>design of the overload release</b>   | thermal  |
| <b>breaking capacity maximum short-circuit current (Icu)</b>  |  |
| <ul style="list-style-type: none"> <li>● at AC at 240 V rated value</li> <li>● at AC at 400 V rated value</li> <li>● at AC at 500 V rated value</li> <li>● at AC at 690 V rated value</li> </ul>  | 100 kA<br>100 kA<br>42 kA<br>6 kA  |
| <b>breaking capacity operating short-circuit current (Ics) at AC</b>  |  |
| <ul style="list-style-type: none"> <li>● at 240 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>  | 100 kA<br>100 kA<br>42 kA<br>4 kA  |
| response value current of instantaneous short-circuit trip unit   | 163 A  |
| <b>UL/CSA ratings</b>   |  |
| <b>full-load current (FLA) for 3-phase AC motor</b>   |  |
| <ul style="list-style-type: none"> <li>● at 480 V rated value</li> <li>● at 600 V rated value</li> </ul>  | 8 A<br>8 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 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> <li>● for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul>               | 0.33 hp<br>1 hp<br><br>2 hp<br>2 hp<br>5 hp<br>5 hp                      |
| <b>Short-circuit protection</b>   |  |
| <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 400 V</li> <li>● at 500 V</li> <li>● at 690 V</li> </ul>  | gL/gG 50 A<br>gL/gG 40 A<br>gL/gG 35 A                                   |
| <b>Installation/ mounting/ dimensions</b>   |  |

|  |  |
|--|--|
| <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>  |  |
| <ul style="list-style-type: none"> <li>● for grounded parts at 400 V <ul style="list-style-type: none"> <li>— downwards 30 mm</li> <li>— upwards 30 mm</li> <li>— at the side 9 mm</li> </ul> </li> <li>● for live parts at 400 V <ul style="list-style-type: none"> <li>— downwards 30 mm</li> <li>— upwards 30 mm</li> <li>— at the side 9 mm</li> </ul> </li> <li>● for grounded parts at 500 V <ul style="list-style-type: none"> <li>— downwards 30 mm</li> <li>— upwards 30 mm</li> <li>— at the side 9 mm</li> </ul> </li> <li>● for live parts at 500 V <ul style="list-style-type: none"> <li>— downwards 30 mm</li> <li>— upwards 30 mm</li> <li>— at the side 9 mm</li> </ul> </li> <li>● for grounded parts at 690 V <ul style="list-style-type: none"> <li>— downwards 50 mm</li> <li>— upwards 50 mm</li> <li>— backwards 0 mm</li> <li>— at the side 30 mm</li> <li>— forwards 0 mm</li> </ul> </li> <li>● for live parts at 690 V <ul style="list-style-type: none"> <li>— downwards 50 mm</li> <li>— upwards 50 mm</li> <li>— backwards 0 mm</li> <li>— at the side 30 mm</li> <li>— forwards 0 mm</li> </ul> </li> </ul> |  |

### Connections/ Terminals

|   |                      |
|---|----------------------|
| <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 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 cables 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   |
| <b>size of the screwdriver tip</b>  | Pozidriv size 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 according to SN 31920</li> </ul>   | 5 000        |
| <b>proportion of dangerous failures</b>   |              |
| <ul style="list-style-type: none"> <li>● with low demand rate according to SN 31920</li> <li>● with high demand rate according to SN 31920</li> </ul> | 50 %<br>50 % |
| <b>failure rate [FIT]</b>   |              |
| <ul style="list-style-type: none"> <li>● with low demand rate according to SN 31920</li> </ul>  | 50 FIT       |
| T1 value for proof test interval or service life according to IEC 61508   | 10 y         |

|   |  |
|---|--|
| protection class IP on the front according to IEC 60529 | IP20   |
| touch protection on the front according to IEC 60529    | finger-safe, for vertical contact from the front |
| display version for switching status                    | Handle   |

#### Certificates/ approvals

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



[Confirmation](#)



|                           |                   |                   |
|---------------------------|-------------------|-------------------|
| Declaration of Conformity | Test Certificates | Marine / Shipping |
|---------------------------|-------------------|-------------------|

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



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



[Confirmation](#)



#### Railway

[Confirmation](#)

[Vibration and Shock](#)

#### 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, ...)

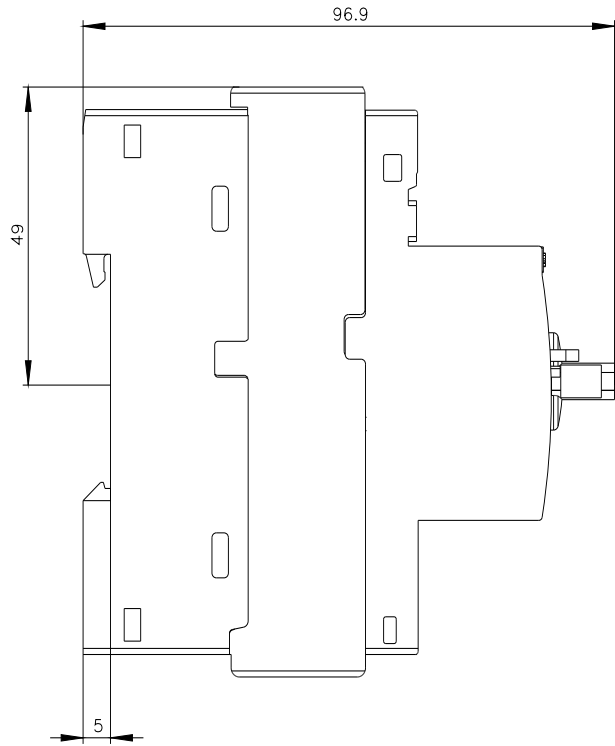
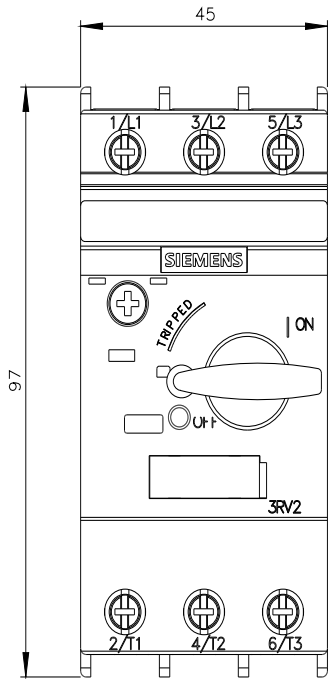
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2411-1HA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2411-1HA10&lang=en)

Characteristic: Tripping characteristics, I<sub>t</sub>, 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>



last modified:

6/25/2022 