



Circuit breaker size S00 for motor protection, CLASS 10 with overload relay function A-release 0.11...0.16 A N-release 2.1 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 motor protection with overload relay function |
| <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   | 5.5 W   |
| • at AC in hot operating state per pole  | 1.8 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> | 0.11 ... 0.16 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>   | 0.16 A  |
| <b>operational current</b>   |   |
| • at AC-3 at 400 V rated value   | 0.16 A  |

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>at AC-3e at 400 V rated value</li> </ul>   | 0.16 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> | 0 kW<br>0.04 kW<br>0.1 kW<br>0.1 kW<br><br>0 kW<br>0.04 kW<br>0.1 kW<br>0.1 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>design of the auxiliary switch</b>   | laterally  |
| <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>operational current of auxiliary contacts at AC-15</b>   |  |
| <ul style="list-style-type: none"> <li>at 24 V</li> <li>at 230 V</li> </ul>   | 1.5 A<br>1.5 A   |
| <b>operational current of auxiliary contacts at DC-13</b>   |  |
| <ul style="list-style-type: none"> <li>at 24 V</li> </ul>   | 1 A  |
| <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 (I<sub>cu</sub>)</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>100 kA<br>100 kA   |
| <b>breaking capacity operating short-circuit current (I<sub>cs</sub>) 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>100 kA<br>100 kA   |
| response value current of instantaneous short-circuit trip unit   | 2.1 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>  | 0.16 A<br>0.16 A   |
| <b>contact rating of auxiliary contacts according to UL</b>   | C600 / R300  |
| <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</b>  |  |
| <ul style="list-style-type: none"> <li>for short-circuit protection of the auxiliary switch required</li> </ul>   | fuse gL/gG: 6 A, quick: 10 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>   | 65 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 screw-type terminals</li> <li>● for auxiliary and control circuit screw-type terminals</li> </ul>  |                    |
| <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>type of connectable conductor cross-sections</b>  |                    |
| <ul style="list-style-type: none"> <li>● for auxiliary contacts <ul style="list-style-type: none"> <li>— solid or stranded 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 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 auxiliary contacts 2x (20 ... 16), 2x (18 ... 14)</li> </ul> |                    |
| <b>tightening torque</b>   |                    |
| <ul style="list-style-type: none"> <li>● for main contacts with screw-type terminals 0.8 ... 1.2 N·m</li> <li>● for auxiliary contacts with screw-type terminals 0.8 ... 1.2 N·m</li> </ul>  |                    |
| <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 M3</li> <li>● of the auxiliary and control contacts M3</li> </ul>   |                    |

### Safety related data

|   |  |
|---|--|
| <b>B10 value</b>  |  |
| <ul style="list-style-type: none"> <li>● with high demand rate according to SN 31920 5 000</li> </ul> |  |
| <b>proportion of dangerous failures</b>   |  |
| <ul style="list-style-type: none"> <li>● with low demand rate according to SN 31920 50 %</li> </ul>   |  |

|   |  |
|---|--|
| • with high demand rate according to SN 31920                           | 50 %   |
| <b>failure rate [FIT]</b>   |  |
| • with low demand rate according to SN 31920                            | 50 FIT   |
| T1 value for proof test interval or service life according to IEC 61508 | 10 y   |
| <b>protection class IP on the front according to IEC 60529</b>          | IP20   |
| <b>touch protection on the front according to IEC 60529</b>             | finger-safe, for vertical contact from the front |
| display version for switching status                                    | Handle   |

### Certificates/ approvals

#### General Product Approval



[Confirmation](#)



[KC](#)



#### Declaration of Conformity      Test Certificates      Marine / Shipping



EG-Konf.

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU VERITAS

#### Marine / Shipping      other



DNV



LRS



PRS



RINA



RMRS

[Confirmation](#)

#### other      Railway



VDE

[Vibration and Shock](#)

[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=3RV2111-0AA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2111-0AA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-0AA10>

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

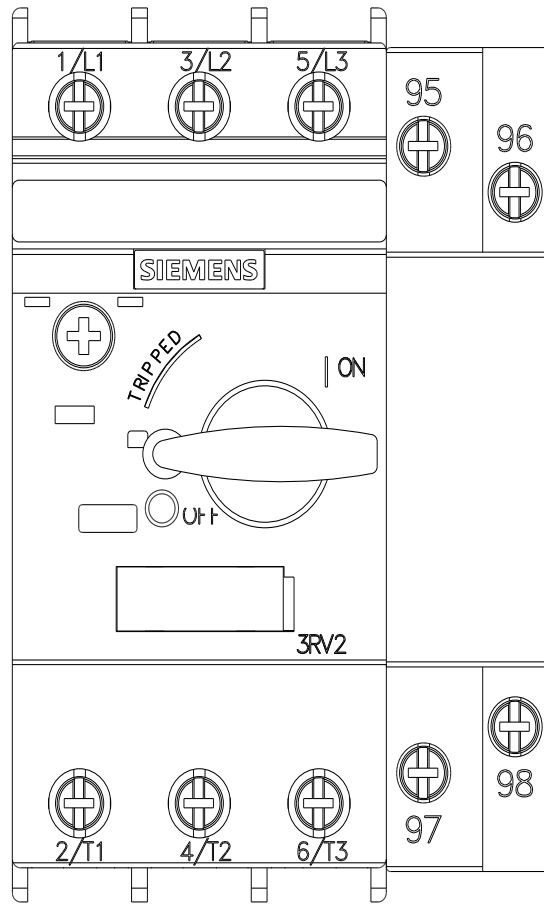
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2111-0AA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0AA10&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-0AA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2111-0AA10&objecttype=14&gridview=view1>



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