



Circuit breaker size S00 for motor protection, CLASS 10 with overload relay function A-release 1.4...2 A N-release 26 A screw terminal Standard switching capacity

|                          |   |
|--------------------------|---|
| product brand name       | SIRIUS  |
| product designation      | Circuit breaker                                   |
| design of the product    | For motor protection with overload relay function |
| 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] for rated value of the current                   |             |
| • at AC in hot operating state                                  | 7.25 W      |
| • at AC in hot operating state per pole                         | 2.4 W       |
| insulation voltage with degree of pollution 3 at AC rated value | 690 V       |
| surge voltage resistance rated value                            | 6 kV        |
| shock resistance according to IEC 60068-2-27                    | 25g / 11 ms |
| mechanical service life (operating cycles)                      |             |
| • of the main contacts typical                                  | 100 000     |
| • of auxiliary contacts typical                                 | 100 000     |
| electrical endurance (operating cycles) typical                 | 100 000     |
| reference code according to IEC 81346-2                         | Q           |
| Substance Prohibition (Date)                                    | 10/01/2009  |

### Ambient conditions

|   |                |
|---|----------------|
| installation altitude at height above sea level maximum | 2 000 m        |
| ambient temperature                                     |                |
| • during operation                                      | -20 ... +60 °C |
| • during storage  | -50 ... +80 °C |
| • during transport                                      | -50 ... +80 °C |
| relative humidity during operation                      | 10 ... 95 %    |

### Main circuit

|   |              |
|---|--------------|
| number of poles for main current circuit  | 3            |
| adjustable current response value current of the current-dependent overload release | 1.4 ... 2 A  |
| operating voltage   |              |
| • rated value   | 20 ... 690 V |
| • at AC-3 rated value maximum   | 690 V        |
| • at AC-3e rated value maximum  | 690 V        |
| operating frequency rated value   | 50 ... 60 Hz |
| operational current rated value   | 2 A          |
| operational current   |              |
| • at AC-3 at 400 V rated value  | 2 A          |
| • at AC-3e at 400 V rated value   | 2 A          |
| operating power   |              |

|   |  |
|---|--|
| <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> | 0.4 kW<br>0.75 kW<br>0.8 kW<br>1.1 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>maximum short-circuit current breaking capacity (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>100 kA<br>10 kA    |
| <b>operating short-circuit current breaking capacity (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>100 kA<br>10 kA    |
| response value current of instantaneous short-circuit trip unit   | 26 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>  | 2 A<br>2 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> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul>   | 0.13 hp<br>1 hp<br>1 hp                |
| <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>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 25 A<br>gL/gG 25 A<br>gL/gG 20 A |

**Installation/ mounting/ dimensions**

|  |  |
|--|--|
| <b>mounting position</b>                 | any  |
| <b>fastening method</b>                  | screw and snap-on mounting onto 35 mm DIN 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>                  |  |
| • with side-by-side mounting at the side | 0 mm   |
| • 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>type of electrical connection</b>                                 |   |
| • for main current circuit   | screw-type terminals  |
| • for auxiliary and control circuit                                  | screw-type terminals  |
| <b>arrangement of electrical connectors for main current circuit</b> | Top and bottom  |
| <b>type of connectable conductor cross-sections</b>                  |   |
| • for main contacts  |   |
| — solid or stranded  | 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>              |
| — finely stranded with core end processing                           | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| • at AWG cables for main contacts                                    | 2x (18 ... 14), 2x 12   |
| <b>type of connectable conductor cross-sections</b>                  |   |
| • for auxiliary contacts   |   |
| — solid or stranded  | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| — finely stranded with core end processing                           | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| • at AWG cables for auxiliary contacts                               | 2x (20 ... 16), 2x (18 ... 14)  |
| <b>tightening torque</b>   |   |
| • for main contacts with screw-type terminals                        | 0.8 ... 1.2 N·m   |
| • for auxiliary 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 size 2   |
| <b>design of the thread of the connection screw</b>                  |   |
| • for main contacts  | M3  |
| • of the auxiliary and control contacts                              | M3  |

**Safety related data**

|   |       |
|---|-------|
| <b>B10 value</b>                              |       |
| • with high demand rate according to SN 31920 | 5 000 |

**proportion of dangerous failures**

- with low demand rate according to SN 31920
- with high demand rate according to SN 31920

50 %

50 %

**failure rate [FIT]**

- with low demand rate according to SN 31920

50 FIT

T1 value for proof test interval or service life according to IEC 61508

10 a

**protection class IP on the front according to IEC 60529**

IP20

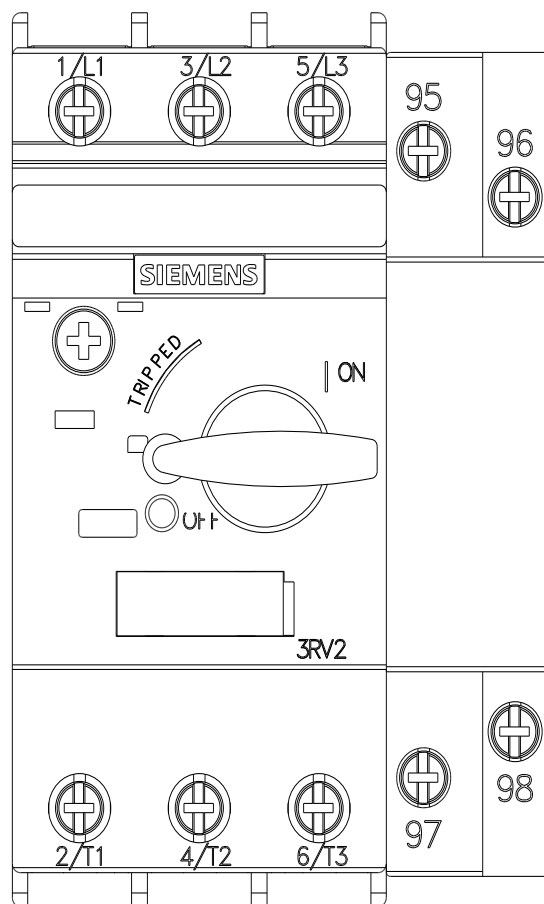
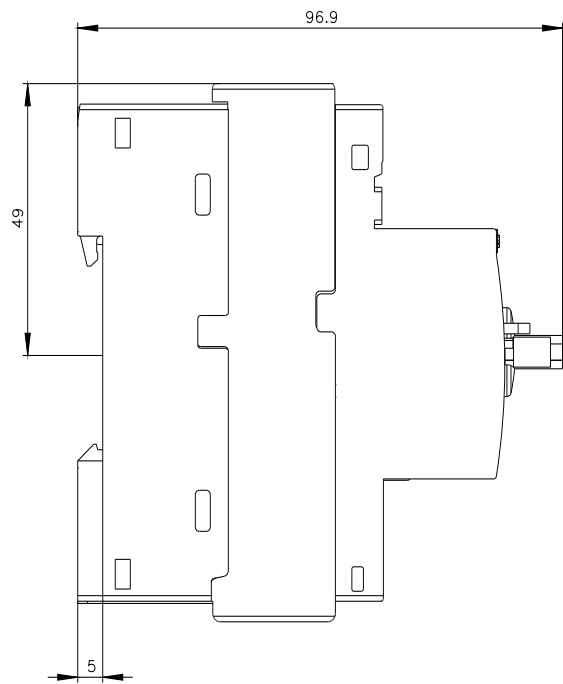
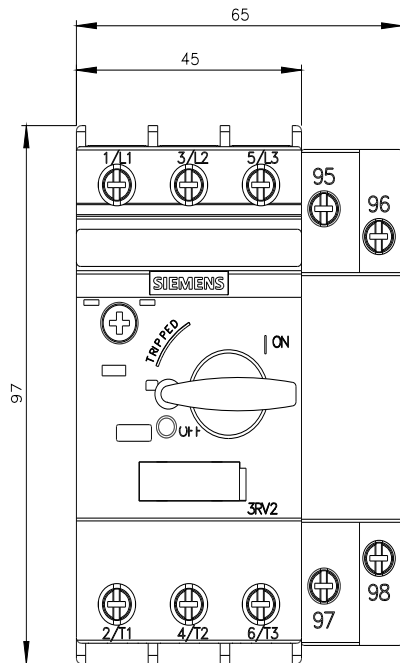
**touch protection on the front according to IEC 60529**

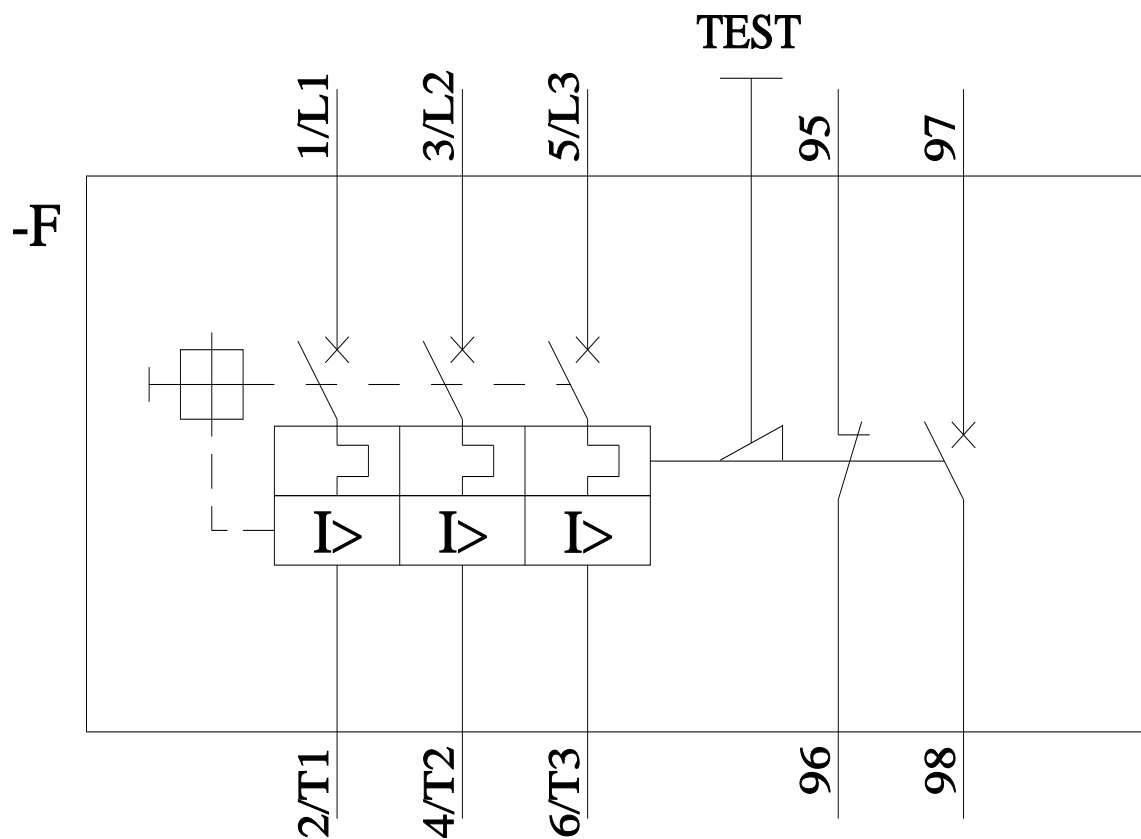
display version for switching status

finger-safe, for vertical contact from the front

Handle

**Certificates/ approvals****General Product Approval****Declaration of Conformity**[Confirmation](#)[KC](#)**Declaration of Conformity****Test Certificates****Marine / Shipping**[Type Test Certificates/Test Report](#)[Special Test Certificate](#)**Marine / Shipping****other**[Confirmation](#)**Railway**[Vibration and Shock](#)[Confirmation](#)**Further information****Information on the packaging**<https://support.industry.siemens.com/cs/ww/en/view/109813875>**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=3RV2111-1BA10>**Cax online generator**<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2111-1BA10>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-1BA10>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2111-1BA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-1BA10&lang=en)**Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**<https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-1BA10/char>**Further characteristics (e.g. electrical endurance, switching frequency)**<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2111-1BA10&objecttype=14&gridview=view1>





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