



Circuit breaker size S00 for motor protection, CLASS 10 A-release 5.5...8 A  
N-release 104 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 |
| <b>product type designation</b> | 3RV2                 |

### General technical data

|   |                   |
|---|-------------------|
| <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              |
| <b>shock resistance according to IEC 60068-2-27</b>               | 25g / 11 ms       |
| <b>mechanical service life (operating cycles)</b>                 |                   |
| • of the main contacts typical                                    | 100 000           |
| • of auxiliary contacts typical                                   | 100 000           |
| electrical endurance (operating cycles) typical                   | 100 000           |
| <b>type of protection according to ATEX directive 2014/34/EU</b>  | Ex II (2) GD      |
| certificate of suitability according to ATEX directive 2014/34/EU | DMT 02 ATEX F 001 |
| <b>reference code according to IEC 81346-2</b>                    | Q                 |
| <b>Substance Prohibitance (Date)</b>                              | 10/01/2009        |

### Ambient conditions

|   |                |
|---|----------------|
| 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 %    |

### 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>   |              |
| • 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    |
| • at AC-3e at 400 V rated value | 8 A    |
| <b>operating power</b>          |        |
| • at AC-3                       |        |
| — at 230 V rated value          | 1.5 kW |
| — at 400 V rated value          | 3 kW   |
| — at 500 V rated value          | 4 kW   |
| — at 690 V rated value          | 5.5 kW |
| • at AC-3e                      |        |
| — at 230 V rated value          | 1.5 kW |
| — at 400 V rated value          | 3 kW   |
| — at 500 V rated value          | 4 kW   |
| — at 690 V rated value          | 5.5 kW |
| <b>operating frequency</b>      |        |
| • at AC-3 maximum               | 15 1/h |
| • at AC-3e maximum              | 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 |
| number of CO contacts 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>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   | 42 kA    |
| • at AC at 690 V rated value   | 6 kA     |
| <b>operating 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   | 42 kA    |
| • at 690 V rated value   | 4 kA     |
| response value current of instantaneous short-circuit trip unit      | 104 A    |

#### UL/CSA ratings

|   |         |
|---|---------|
| <b>full-load current (FLA) for 3-phase AC motor</b> |         |
| • at 480 V rated value                              | 8 A     |
| • at 600 V rated value                              | 8 A     |
| <b>yielded mechanical performance [hp]</b>          |         |
| • for single-phase AC motor                         |         |
| — at 110/120 V rated value                          | 0.33 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

|  |            |
|--|------------|
| <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   | 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 DIN 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>  | 0 mm   |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting at the side</li> <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>  | screw-type terminals |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>  | Top and bottom       |
| <b>arrangement of electrical connectors for main current circuit</b>  |                      |
| <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>  | 0.8 ... 1.2 N·m      |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> </ul>   | Diameter 5 to 6 mm   |
| <b>design of screwdriver shaft</b>  | Pozidriv size 2      |
| <b>size of the screwdriver tip</b>  |                      |
| <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>  | 5 000  |
| <ul style="list-style-type: none"> <li>• with high demand rate according to SN 31920</li> </ul>   |  |
| <b>proportion of dangerous failures</b>   | 50 %   |
| <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 %   |
| <b>failure rate [FIT]</b>   | 50 FIT   |
| <ul style="list-style-type: none"> <li>• with low demand rate according to SN 31920</li> </ul>  | 10 a   |
| T1 value for proof test interval or service life according to IEC 61508   |  |
| <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 |

## Certificates/ approvals

## General Product Approval

For use in hazard-  
ous locations[Confirmation](#)[KC](#)For use in hazard-  
ous locations

Declaration of Conformity

Test Certificates

Marine / Shipping



IECEX



EG-Konf.

[Special Test Certificate](#)[Type Test Certificates/Test Report](#)

ABS

## Marine / Shipping



LRS



PRS



RINA



RMRS

## other

## Railway

[Confirmation](#)

VDE

[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=3RV2011-1HA10>

## Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1HA10>

## Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1HA10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-1HA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1HA10&lang=en)Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1HA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1HA10&objecttype=14&gridview=view1>





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