



Circuit breaker size S00 for motor protection, CLASS 10 A-release  
0.45...0.63 A N-release 8.2 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                                    | 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              |
| <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> | 0.45 ... 0.63 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>   | 0.63 A          |

|                                 |         |
|---------------------------------|---------|
| <b>operational current</b>      |         |
| • at AC-3 at 400 V rated value  | 0.63 A  |
| • at AC-3e at 400 V rated value | 0.63 A  |
| <b>operating power</b>          |         |
| • at AC-3                       |         |
| — at 230 V rated value          | 0.1 kW  |
| — at 400 V rated value          | 0.18 kW |
| — at 500 V rated value          | 0.2 kW  |
| — at 690 V rated value          | 0.3 kW  |
| • at AC-3e                      |         |
| — at 230 V rated value          | 0.1 kW  |
| — at 400 V rated value          | 0.18 kW |
| — at 500 V rated value          | 0.2 kW  |
| — at 690 V rated value          | 0.3 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   | 100 kA   |
| • at AC at 690 V rated value   | 100 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   | 100 kA   |
| • at 690 V rated value   | 100 kA   |
| response value current of instantaneous short-circuit trip unit      | 8.2 A    |

#### UL/CSA ratings

|   |        |
|---|--------|
| <b>full-load current (FLA) for 3-phase AC motor</b> |        |
| • at 480 V rated value                              | 0.63 A |
| • at 600 V rated value                              | 0.63 A |

#### 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 690 V   | gL/gG 6 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>                  |  |
| • 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   |

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

### Connections/ Terminals

#### type of electrical connection

- for main current circuit

screw-type terminals

#### arrangement of electrical connectors for main current circuit

Top and bottom

#### type of connectable conductor cross-sections

- for main contacts
  - solid or stranded
  - finely stranded with core end processing
- at AWG cables for main contacts

2x (0,75 ... 2,5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup>  
2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)  
2x (18 ... 14), 2x 12

#### tightening torque

- for main contacts with screw-type terminals

0.8 ... 1.2 N·m

#### design of screwdriver shaft

Diameter 5 to 6 mm

#### size of the screwdriver tip

Pozidriv size 2

#### design of the thread of the connection screw

- for main contacts

M3

### Safety related data

#### B10 value

- 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 y

#### 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



[Confirmation](#)



[KC](#)



| For use in hazardous locations | Declaration of Conformity | Test Certificates |
|--------------------------------|---------------------------|-------------------|
|--------------------------------|---------------------------|-------------------|



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

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



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



[Confirmation](#)



[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=3RV2011-0GA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-0GA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0GA10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-0GA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-0GA10&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0GA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-0GA10&objecttype=14&gridview=view1>





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