



Circuit breaker size S00 for motor protection, CLASS 10 A-release 0.22...0.32 A N-release 4.2 A Spring-type terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

|  |                      |
|--|----------------------|
| <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                 |
| <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>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           |
| <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> | 0.22 ... 0.32 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>                               | 0.32 A       |
| <b>operational current</b>   |              |
| • at AC-3 at 400 V rated value                                       | 0.32 A       |
| • at AC-3e at 400 V rated value                                      | 0.32 A       |
| <b>operating power</b>   |              |
| • at AC-3  |              |
| — at 230 V rated value   | 0 kW         |
| — at 400 V rated value   | 0.09 kW      |
| — at 500 V rated value   | 0.1 kW       |
| — at 690 V rated value   | 0.1 kW       |
| • at AC-3e   |              |
| — at 230 V rated value   | 0 kW         |
| — at 400 V rated value   | 0.09 kW      |
| — at 500 V rated value   | 0.1 kW       |
| — at 690 V rated value   | 0.1 kW       |
| <b>operating frequency</b>   |              |
| • at AC-3 maximum  | 15 1/h       |
| • at AC-3e maximum   | 15 1/h       |
| <b>Auxiliary circuit</b>   |              |
| <b>design of the auxiliary switch</b>                                | transverse   |
| <b>number of NC contacts for auxiliary contacts</b>                  | 1            |
| <b>number of NO contacts for auxiliary contacts</b>                  | 1            |
| number of CO contacts for auxiliary contacts                         | 0            |
| <b>operational current of auxiliary contacts at AC-15</b>            |              |
| • at 24 V  | 2 A          |
| • at 120 V   | 0.5 A        |
| • at 125 V   | 0.5 A        |
| • at 230 V   | 0.5 A        |
| <b>operational current of auxiliary contacts at DC-13</b>            |              |
| • at 24 V  | 1 A          |
| • at 60 V  | 0.15 A       |
| <b>Protective and monitoring functions</b>                           |              |
| <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>breaking capacity maximum short-circuit current (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>breaking capacity operating short-circuit current (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      | 4.2 A        |
| <b>UL/CSA ratings</b>  |              |
| <b>full-load current (FLA) for 3-phase AC motor</b>                  |              |
| • at 480 V rated value   | 0.32 A       |
| • at 600 V rated value   | 0.32 A       |
| <b>contact rating of auxiliary contacts according to UL</b>          | C300 / 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>                                       |              |

- for short-circuit protection of the auxiliary switch required

Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current  $I_k < 400$  A)

### Installation/ mounting/ dimensions

|  |  |
|--|--|
| <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>  | 106 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> <li>• for auxiliary and control circuit</li> </ul>   | spring-loaded terminals<br>spring-loaded 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 (0,5 ... 4 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (0.5 ... 2.5 mm<sup>2</sup>)</li> <li>— finely stranded without core end processing 2x (0.5 ... 2.5 mm<sup>2</sup>)</li> </ul> </li> <li>• at AWG cables for main contacts 2x (20 ... 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 ... 2.5 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>)</li> <li>— finely stranded without core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>)</li> </ul> </li> <li>• at AWG cables for auxiliary contacts 2x (20 ... 14)</li> </ul> |  |
| <b>design of screwdriver shaft</b>  | Diameter 3 mm                                      |
| <b>size of the screwdriver tip</b>  | 3,0 x 0,5 mm                                       |

### 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> </ul>  | 50 %   |
| <ul style="list-style-type: none"> <li>with high demand rate according to SN 31920</li> </ul> | 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   |
| <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](#)



|                                |                           |                   |
|--------------------------------|---------------------------|-------------------|
| 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](#)



[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=3RV2011-0DA25>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-0DA25>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0DA25>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-0DA25&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-0DA25&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0DA25/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-0DA25&objecttype=14&gridview=view1>

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