



Circuit breaker size S00 for motor protection, CLASS 10 A-release 3.5...5 A N release 65 A Screw terminal Standard switching capacity

|   |                      |
|---|----------------------|
| product brand name  | SIRIUS               |
| product designation   | Circuit breaker      |
| design of the product   | For motor protection |
| product type designation  | 3RV1                 |
| <b>General technical data</b>   |                      |
| size of the circuit-breaker   | S00                  |
| size of contactor can be combined company-specific                                  | S00                  |
| 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                 |
| 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 Prohibitance (Date)   | 01/01/2013           |
| SVHC substance name   | Lead - 7439-92-1     |
| <b>Ambient conditions</b>   |                      |
| 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 %          |
| <b>Main circuit</b>   |                      |
| number of poles for main current circuit  | 3                    |
| adjustable current response value current of the current-dependent overload release | 3.5 ... 5 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   | 5 A                  |
| operational current   |                      |
| • at AC-3 at 400 V rated value  | 5 A                  |
| • at AC-3e at 400 V rated value   | 5 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> | 1.1 kW<br>1.5 kW<br>2.2 kW<br>4 kW<br><br>1.1 kW<br>1.5 kW<br>2.2 kW<br>4 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>  |  |
| number of CO contacts for auxiliary contacts  | 0  |
| <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>3 kA<br>2 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>3 kA<br>2 kA   |
| response value current of instantaneous short-circuit trip unit   | 65 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>  | 5 A<br>5 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 110/120 V rated value</li> <li>at 230 V rated value</li> </ul> </li> <li>for 3-phase AC motor <ul style="list-style-type: none"> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>at 575/600 V rated value</li> </ul> </li> </ul>           | 0.17 hp<br>0.5 hp<br><br>1 hp<br>1 hp<br>3 hp<br>3 hp                        |
| <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 for IT network for short-circuit protection of the main circuit</b>  |  |
| <ul style="list-style-type: none"> <li>at 240 V</li> <li>at 400 V</li> <li>at 500 V</li> <li>at 690 V</li> </ul>  | none required<br>gL/gG 50 A<br>gL/gG 35 A<br>gL/gG 35 A                      |
| <b>Installation/ mounting/ dimensions</b>   |  |
| <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>   | 90 mm  |
| <b>width</b>  | 45 mm  |
| <b>depth</b>  | 75 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</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> <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> | 20 mm<br>20 mm<br>9 mm<br><br>20 mm<br>20 mm<br>9 mm<br><br>20 mm<br>20 mm<br>9 mm<br><br>20 mm<br>20 mm<br>0 mm<br>9 mm<br>0 mm<br><br>20 mm<br>20 mm<br>0 mm<br>9 mm<br>0 mm |
| <b>Connections/ Terminals</b>  |  |
| <b>type of electrical connection</b>   |  |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>   | screw-type 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</li> <li>— finely stranded with core end processing</li> </ul> </li> </ul>   | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x (1 ... 4 mm <sup>2</sup> )<br>2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )  |
| <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</li> </ul> </li> </ul>  | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )  |
| <b>tightening torque</b>   |  |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary contacts with screw-type terminals</li> </ul>  | 0,8 ... 1,2 N·m<br>0,8 ... 1,2 N·m   |
| <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</li> </ul>  | M3   |
| <b>Safety related data</b>   |  |
| product function suitable for safety function  | Yes  |
| <b>suitability for use</b>   |  |
| <ul style="list-style-type: none"> <li>• safety-related switching on</li> <li>• safety-related switching OFF</li> </ul>  | No<br>Yes  |
| <b>service life maximum</b>  | 10 a   |
| <b>test wear-related service life necessary</b>  | Yes  |
| <b>proportion of dangerous failures</b>  |  |
| <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>  | 40 %<br>50 %   |
| <b>B10 value with high demand rate according to SN 31920</b>   | 5 000  |
| <b>failure rate [FIT] with low demand rate according to SN 31920</b>   | 50 FIT   |
| ISO 13849  |  |

|   |  |
|---|--|
| device type according to ISO 13849-1                    | 3  |
| overdimensioning according to ISO 13849-2 necessary     | Yes  |
| IEC 61508   |  |
| safety device type according to IEC 61508-2             | Type A   |
| Electrical Safety                                       |  |
| protection class IP on the front according to IEC 60529 | IP20   |
| touch protection on the front according to IEC 60529    | finger-safe, for vertical contact from the front |
| Display   |  |
| display version for switching status                    | Rocker switch                                    |
| Approvals Certificates                                  |  |
| General Product Approval                                |  |



[Confirmation](#)



[KC](#)

|                          |                                |                   |                   |
|--------------------------|--------------------------------|-------------------|-------------------|
| General Product Approval | For use in hazardous locations | Test Certificates | Marine / Shipping |
|--------------------------|--------------------------------|-------------------|-------------------|



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



#### Marine / Shipping



|       |         |             |
|-------|---------|-------------|
| other | Railway | Environment |
|-------|---------|-------------|

[Miscellaneous](#)

[Confirmation](#)



[Special Test Certificate](#)

[Environmental Confirmations](#)

#### 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=3RV1011-1FA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1FA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1FA10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV1011-1FA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1FA10&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1FA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1FA10&objecttype=14&gridview=view1>



