

Circuit breaker size S00 for motor protection, CLASS 10 A-release 1.4...2 A N-release 26 A screw terminal Standard switching capacity Multi-unit packaging Pack = 24 units

|  |                        |
|--|------------------------|
| product brand name   | SIRIUS                 |
| product designation  | Circuit breaker        |
| design of the product  | For motor protection   |
| product type designation   | 3RV1                   |
| <b>General technical data</b>  |                        |
| Product equipment of circuit breaker for motor protection complete unit with protection device | Yes                    |
| size of the circuit-breaker  | S00                    |
| size of contactor can be combined company-specific   | S00                    |
| product function disconnecter functionality  | Yes                    |
| 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                  |
| type of calculation of power loss current-dependent  | quadratic              |
| insulation voltage with degree of pollution 3 at AC rated value                                | 690 V                  |
| surge voltage resistance rated value   | 6 kV                   |
| maximum permissible voltage for protective separation  |                        |
| • in networks with ungrounded star point between main and auxiliary circuit                    | 400 V                  |
| • in networks with grounded star point between main and auxiliary circuit                      | 400 V                  |
| protection class IP  |                        |
| • on the front according to IEC 60529  | IP20                   |
| • on the front   | IP20                   |
| • of the terminal  | IP00                   |
| 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                      |
| continuous current rated value   | 2 A                    |
| Substance Prohibitance (day/month/year)  | 01/01/2013             |
| SVHC substance name  | Lead CAS-No. 7439-92-1 |
| Net Weight   | 0.21 kg                |
| <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         |
| temperature compensation   | -20 ... +60 °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            | 1.4 ... 2 A            |
| type of voltage for main current circuit   | AC                     |
| operating voltage  |                        |
| • rated value  | 690 V                  |

|  |                                       |
|--|---------------------------------------|
| <ul style="list-style-type: none"> <li>• rated value</li> </ul>  | 20 ... 690 V                          |
| <ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>  | 690 V                                 |
| <ul style="list-style-type: none"> <li>• at AC-3e rated value maximum</li> </ul>   | 690 V                                 |
| <b>operating frequency rated value</b>   | 50 ... 60 Hz                          |
| <b>operational current rated value</b>   | 2 A                                   |
| <b>operational current</b>   |                                       |
| <ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>   | 2 A                                   |
| <ul style="list-style-type: none"> <li>• at AC-3e at 400 V rated value</li> </ul>  | 2 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> </ul>  | 0.4 kW<br>0.75 kW<br>0.8 kW<br>1.1 kW |
| <ul style="list-style-type: none"> <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> </ul>  | 15 1/h                                |
| <ul style="list-style-type: none"> <li>• at AC-3e maximum</li> </ul>   | 15 1/h                                |
| <b>Auxiliary circuit</b>   |                                       |
| <b>type of voltage for auxiliary and control circuit</b>   | AC/DC                                 |
| <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>Protective and monitoring functions</b>   |                                       |
| <b>product function</b>  |                                       |
| <ul style="list-style-type: none"> <li>• ground fault detection</li> </ul>   | No                                    |
| <ul style="list-style-type: none"> <li>• phase failure detection</li> </ul>  | 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> </ul>   | 100 kA                                |
| <ul style="list-style-type: none"> <li>• at AC at 400 V rated value</li> </ul>   | 100 kA                                |
| <ul style="list-style-type: none"> <li>• at AC at 500 V rated value</li> </ul>   | 10 kA                                 |
| <ul style="list-style-type: none"> <li>• at AC at 690 V rated value</li> </ul>   | 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> </ul>   | 100 kA                                |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>   | 100 kA                                |
| <ul style="list-style-type: none"> <li>• at 500 V rated value</li> </ul>   | 100 kA                                |
| <ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>   | 2 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> </ul>   | 2 A                                   |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>   | 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> </ul>  | 0.13 hp                               |
| <ul style="list-style-type: none"> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 460/480 V rated value</li> </ul> </li> </ul>   | 1 hp                                  |
| <ul style="list-style-type: none"> <li>— at 575/600 V rated value</li> </ul>   | 1 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>   | <p>none required</p> <p>gL/gG 35 A</p> <p>gL/gG 25 A</p> <p>gL/gG 25 A</p>  |
| certificate of suitability according to ATEX directive 2014/34/EU  | DMT 02 ATEX F 001   |
| <b>type of protection according to ATEX directive 2014/34/EU</b>   | Ex II (2) GD  |
| <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>Mounting method of circuit breaker for Transformer protection, Generator protection and system protection optional standard bar mounting</b>  | Yes   |
| <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> | <p>20 mm</p> <p>20 mm</p> <p>9 mm</p> <p>20 mm</p> <p>20 mm</p> <p>9 mm</p> <p>20 mm</p> <p>20 mm</p> <p>9 mm</p> <p>20 mm</p> <p>20 mm</p> <p>9 mm</p> <p>20 mm</p> <p>20 mm</p> <p>9 mm</p> <p>20 mm</p> <p>20 mm</p> <p>0 mm</p> <p>9 mm</p> <p>0 mm</p> <p>20 mm</p> <p>20 mm</p> <p>0 mm</p> <p>9 mm</p> <p>0 mm</p> |
| <b>Connections/ Terminals</b>  |   |
| <b>product component removable terminal for auxiliary and control circuit</b>  | No  |
| <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>   | <p>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>)</p> <p>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</p>  |
| <b>connectable conductor cross-section for main contacts</b>   |   |
| <ul style="list-style-type: none"> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> </ul>  | <p>0.5 ... 4 mm<sup>2</sup></p> <p>0.5 ... 2.5 mm<sup>2</sup></p>   |
| <b>type of connectable conductor cross-sections</b>  |   |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>   |   |

|  |   |
|--|---|
| — solid or stranded  | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| <b>AWG number as coded connectable conductor cross section for main contacts</b> | 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>size of the screwdriver tip</b>   | Pozidriv size 2   |
| <b>design of the thread of the connection screw</b>                              |   |
| • for main contacts  | M3  |

| Safety related data  |  |
|--|--|
| product function suitable for safety function                        | Yes  |
| <b>suitability for use</b>   |  |
| • safety-related switching on  | No   |
| • safety-related switching OFF                                       | Yes  |
| <b>service life maximum</b>  | 10 a   |
| <b>test wear-related service life necessary</b>                      | Yes  |
| <b>proportion of dangerous failures</b>                              |  |
| • with low demand rate according to SN 31920                         | 40 %   |
| • with high demand rate according to SN 31920                        | 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  |  |
| <b>device type according to ISO 13849-1</b>                          | 3  |
| <b>overdimensioning according to ISO 13849-2 necessary</b>           | Yes  |
| IEC 61508  |  |
| <b>safety device type according to IEC 61508-2</b>                   | Type A   |
| Electrical Safety  |  |
| <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  |  |
| display version for switching status                                 | Rocker switch                                    |

### Approvals Certificates

| Environment | General Product Approval |
|-------------|--------------------------|
|-------------|--------------------------|

[Environmental Conformations](#)



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



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

| Maritime application | other |
|----------------------|-------|
|----------------------|-------|



[Miscellaneous](#)

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

[Confirmation](#)

[Miscellaneous](#)



[Special Test Certificate](#)

## Further information

### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

### 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=3RV1011-1BA10-Z W97>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1BA10-Z W97>

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

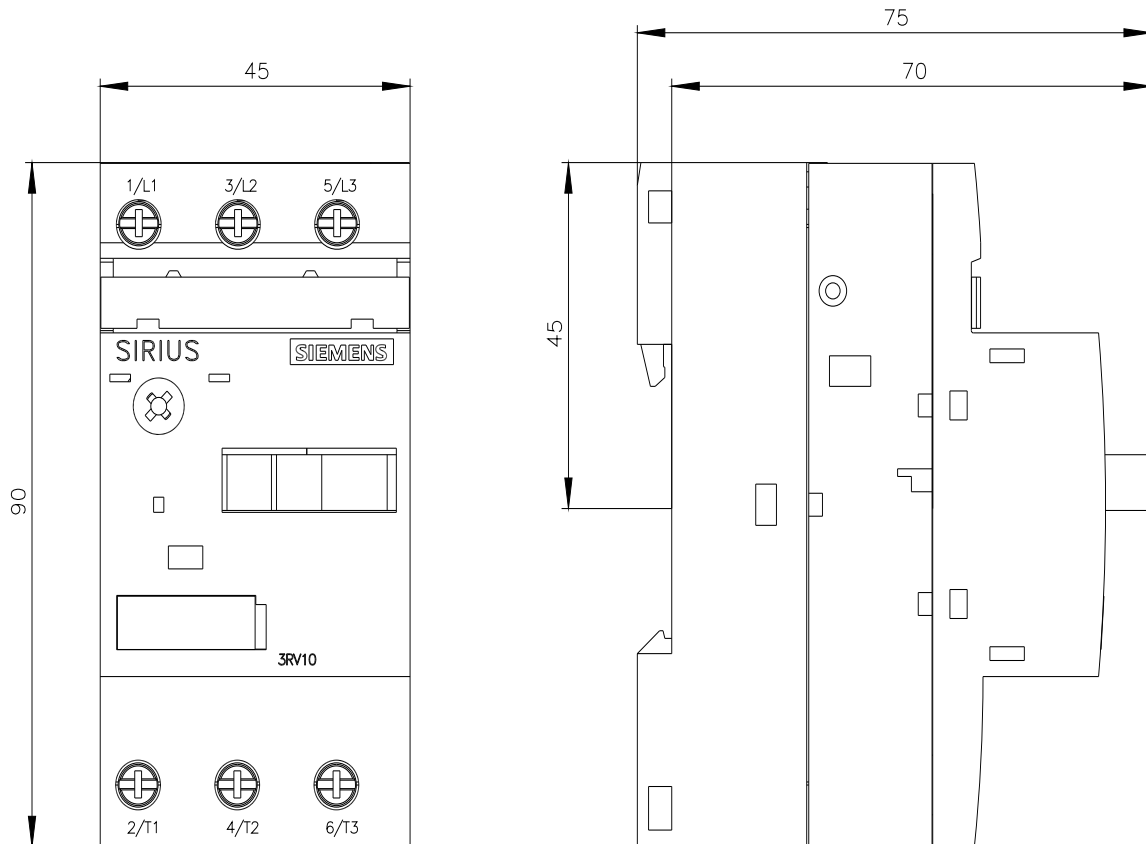
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV1011-1BA10-Z W97&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1BA10-Z W97&lang=en)

### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1BA10-Z W97>

### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)





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