

Siemens  
EcoTech



Special type Circuit breaker size S00 for motor protection, CLASS 10 A-release  
1.1...1.6 A N-release 21 A Spring-type terminal Standard switching capacity  
Ambient temperature -50 °C 500 switching cycles

|                                                                                     |                      |
|-------------------------------------------------------------------------------------|----------------------|
| product brand name                                                                  | SIRIUS               |
| product designation                                                                 | Circuit breaker      |
| design of the product                                                               | For motor protection |
| product type designation                                                            | 3RV2                 |
| <b>General technical data</b>                                                       |                      |
| size of the circuit-breaker                                                         | S00                  |
| size of contactor can be combined company-specific                                  | S00, S0              |
| 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                 |
| shock resistance according to IEC 60068-2-27                                        | 25g / 11 ms          |
| mechanical service life (operating cycles)                                          |                      |
| • of the main contacts typical                                                      | 500                  |
| • of auxiliary contacts typical                                                     | 500                  |
| electrical endurance (operating cycles) typical                                     | 500                  |
| reference code according to IEC 81346-2                                             | Q                    |
| Substance Prohibition (Date)                                                        | 10/01/2009           |
| SVHC substance name                                                                 | Lead - 7439-92-1     |
| Net Weight                                                                          | 366 g                |
| <b>Ambient conditions</b>                                                           |                      |
| installation altitude at height above sea level maximum                             | 2 000 m              |
| ambient temperature                                                                 |                      |
| • during operation                                                                  | -50 ... +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 | 1.1 ... 1.6 A        |
| type of voltage for main current circuit                                            | AC                   |
| operating voltage                                                                   |                      |
| • rated value                                                                       | 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>                                                                                                                                                                                                | 1.6 A                                                                    |
| <b>operational current</b>                                                                                                                                                                                                            |                                                                          |
| <ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>                                                                                                                                                      | 1.6 A                                                                    |
| <ul style="list-style-type: none"> <li>• at AC-3e at 400 V rated value</li> </ul>                                                                                                                                                     | 1.6 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> | 0.3 kW<br>0.55 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                                                                        |
| <b>number of CO contacts for auxiliary contacts</b>                                                                                                                                                                                   | 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 (I<sub>cu</sub>)</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>                                                                                                                                                        | 100 kA                                                                   |
| <ul style="list-style-type: none"> <li>• at AC at 690 V rated value</li> </ul>                                                                                                                                                        | 100 kA                                                                   |
| <b>operating short-circuit current breaking capacity (I<sub>cs</sub>) 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>                                                                                                                                                              | 100 kA                                                                   |
| response value current of instantaneous short-circuit trip unit                                                                                                                                                                       | 21 A                                                                     |
| <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 500 V</li> </ul>                                                                                                                                                                          | gG 20 A                                                                  |
| <ul style="list-style-type: none"> <li>• at 690 V</li> </ul>                                                                                                                                                                          | gG 16 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>                                                                                                                                                                                                                         | 106 mm                                                                   |
| <b>width</b>                                                                                                                                                                                                                          | 45 mm                                                                    |
| <b>depth</b>                                                                                                                                                                                                                          | 97 mm                                                                    |
| <b>required spacing</b>                                                                                                                                                                                                               |                                                                          |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting at the side</li> </ul>                                                                                                                                            | 0 mm                                                                     |
| <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> </ul>                                              | 30 mm<br>30 mm<br>9 mm                                                   |
| <ul style="list-style-type: none"> <li>• for live parts at 400 V <ul style="list-style-type: none"> <li>— downwards</li> </ul> </li> </ul>                                                                                            | 30 mm                                                                    |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| — upwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 30 mm                                            |
| — at the side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 9 mm                                             |
| • for grounded parts at 500 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                  |
| — downwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 30 mm                                            |
| — upwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 30 mm                                            |
| — at the side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 9 mm                                             |
| • for live parts at 500 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                  |
| — downwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 30 mm                                            |
| — upwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 30 mm                                            |
| — at the side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 9 mm                                             |
| • for grounded parts at 690 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                  |
| — downwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 50 mm                                            |
| — upwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 50 mm                                            |
| — backwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0 mm                                             |
| — at the side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 30 mm                                            |
| — forwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0 mm                                             |
| • for live parts at 690 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                  |
| — downwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 50 mm                                            |
| — upwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 50 mm                                            |
| — backwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0 mm                                             |
| — at the side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 30 mm                                            |
| — forwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0 mm                                             |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                  |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                  |
| • for main current circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | spring-loaded terminals                          |
| <b>arrangement of electrical connectors for main current circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Top and bottom                                   |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |
| • for main contacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |
| — solid or stranded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2x (0,5 ... 4 mm²)                               |
| — finely stranded with core end processing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2x (0,5 ... 2,5 mm²)                             |
| — finely stranded without core end processing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2x (0,5 ... 2,5 mm²)                             |
| <b>design of screwdriver shaft</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Diameter 3 mm                                    |
| <b>size of the screwdriver tip</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3,0 x 0,5 mm                                     |
| <b>IEC 61508</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                  |
| <b>T1 value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                  |
| • for proof test interval or service life according to IEC 61508                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 10 a                                             |
| <b>Electrical Safety</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                  |
| <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 |
| <b>Display</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                  |
| display version for switching status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Handle                                           |
| <b>Approvals Certificates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                  |
| <b>Environmental Product Declaration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                  |
| • global warming potential [CO2 eq] / during manufacturing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1.98 kg                                          |
| • global warming potential [CO2 eq] / during sales                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.134 kg                                         |
| • global warming potential [CO2 eq] / during operation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 72.7 kg                                          |
| • global warming potential [CO2 eq] / after end of life                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -0.116 kg                                        |
| • global warming potential [CO2 eq] / total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 74.698 kg                                        |
| <b>Environment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>General Product Approval</b>                  |
|    <a href="#">Environmental Conformations</a>    |                                                  |
| <b>General Product Approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Test Certificates</b>                         |



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

#### Maritime application



#### other

[Miscellaneous](#)



[Confirmation](#)



#### Railway

[Special Test Certificate](#)

[Confirmation](#)

#### 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=3RV2011-1AA20-0BA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1AA20-0BA0>

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

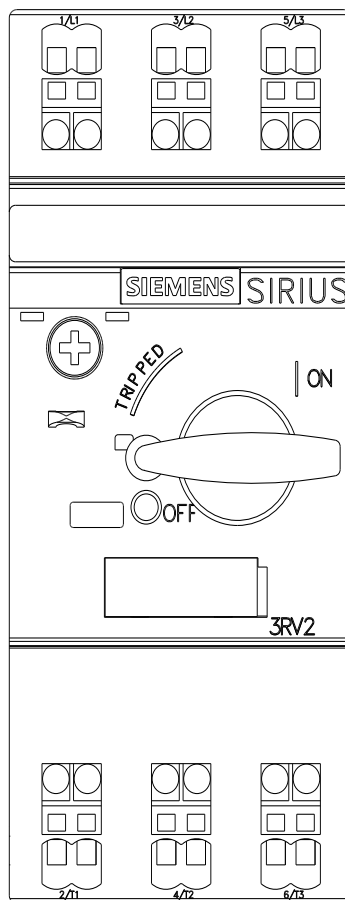
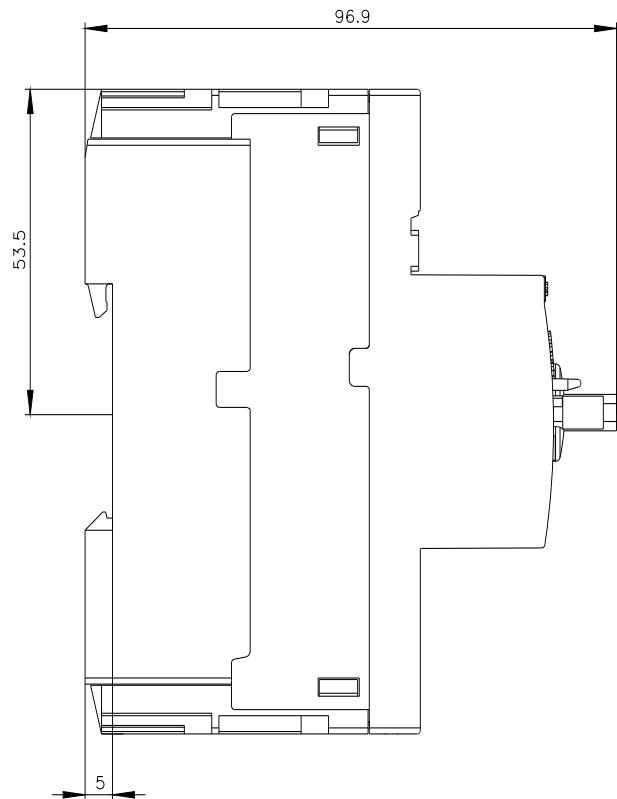
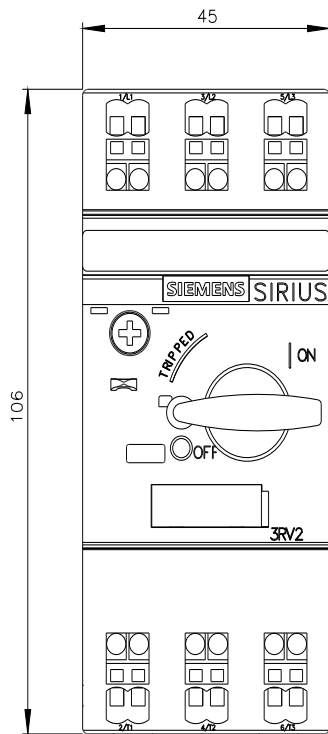
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-1AA20-0BA0&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1AA20-0BA0&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1AA20-0BA0>

Characteristic curves

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





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