

Siemens  
EcoTech



CIRCUIT-BREAKER SZ S00, FOR TRANSFORMER PROT. A-RELEASE  
1.8...2.5A, N-RELEASE 52A SCREW CONNECTION, STANDARD SW.  
CAPACITY .

|                                                                                     |                            |
|-------------------------------------------------------------------------------------|----------------------------|
| product brand name                                                                  | SIRIUS                     |
| product designation                                                                 | Circuit breaker            |
| design of the product                                                               | For transformer 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 CAS-No. 7439-92-1     |
| Net Weight                                                                          | 0.345 kg                   |
| <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 | 1.8 ... 2.5 A              |
| type of voltage for main current circuit                                            | AC                         |
| operating voltage                                                                   |                            |
| • rated value                                                                       | 20 ... 690 V               |

|                                                                                                |                                                                          |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| • at AC-3 rated value maximum                                                                  | 690 V                                                                    |
| <b>operating frequency rated value</b>                                                         | 50 ... 60 Hz                                                             |
| <b>operational current rated value</b>                                                         | 2.5 A                                                                    |
| <b>operational current</b>                                                                     |                                                                          |
| • at AC-3 at 400 V rated value                                                                 | 2.5 A                                                                    |
| <b>operating power</b>                                                                         |                                                                          |
| • at AC-3                                                                                      |                                                                          |
| — at 230 V rated value                                                                         | 0.4 kW                                                                   |
| — at 400 V rated value                                                                         | 0.8 kW                                                                   |
| — at 500 V rated value                                                                         | 1.1 kW                                                                   |
| — at 690 V rated value                                                                         | 1.5 kW                                                                   |
| <b>operating frequency</b>                                                                     |                                                                          |
| • at AC-3 maximum                                                                              | 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>                                                                        |                                                                          |
| • ground fault detection                                                                       | No                                                                       |
| • phase failure detection                                                                      | Yes                                                                      |
| <b>trip class</b>                                                                              | CLASS 10                                                                 |
| <b>design of the overload release</b>                                                          | thermal                                                                  |
| <b>maximum short-circuit current breaking capacity (Icu)</b>                                   |                                                                          |
| • at AC at 240 V rated value                                                                   | 100 kA                                                                   |
| • at AC at 400 V rated value                                                                   | 100 kA                                                                   |
| • at AC at 500 V rated value                                                                   | 100 kA                                                                   |
| • at AC at 690 V rated value                                                                   | 10 kA                                                                    |
| <b>operating short-circuit current breaking capacity (Ics) at AC</b>                           |                                                                          |
| • at 240 V rated value                                                                         | 100 kA                                                                   |
| • at 400 V rated value                                                                         | 100 kA                                                                   |
| • at 500 V rated value                                                                         | 100 kA                                                                   |
| • at 690 V rated value                                                                         | 10 kA                                                                    |
| response value current of instantaneous short-circuit trip unit                                | 52 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> |                                                                          |
| • at 400 V                                                                                     | gG 25 A                                                                  |
| • at 500 V                                                                                     | gG 25 A                                                                  |
| • at 690 V                                                                                     | gG 20 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>                                                                                  | 97 mm                                                                    |
| <b>width</b>                                                                                   | 45 mm                                                                    |
| <b>depth</b>                                                                                   | 97 mm                                                                    |
| <b>required spacing</b>                                                                        |                                                                          |
| • with side-by-side mounting at the side                                                       | 0 mm                                                                     |
| • for grounded parts at 400 V                                                                  |                                                                          |
| — downwards                                                                                    | 30 mm                                                                    |
| — upwards                                                                                      | 30 mm                                                                    |
| — at the side                                                                                  | 9 mm                                                                     |
| • for live parts at 400 V                                                                      |                                                                          |
| — downwards                                                                                    | 30 mm                                                                    |
| — upwards                                                                                      | 30 mm                                                                    |
| — at the side                                                                                  | 9 mm                                                                     |

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

#### Connections/ Terminals

|                                                                                                                                                                                                  |                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <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 (0,75 ... 2,5 mm²), 2x 4 mm²<br>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| <b>tightening torque</b>                                                                                                                                                                         |                                                                                |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> </ul>                                                                                                  | 0.8 ... 1.2 N·m                                                                |
| <b>design of screwdriver shaft</b>                                                                                                                                                               | Diameter 5 to 6 mm                                                             |
| <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                                                                             |

#### IEC 61508

|                                                                                                                    |      |
|--------------------------------------------------------------------------------------------------------------------|------|
| <b>T1 value</b>                                                                                                    |      |
| <ul style="list-style-type: none"> <li>• for proof test interval or service life according to IEC 61508</li> </ul> | 10 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 | Handle |
|--------------------------------------|--------|

#### Approvals Certificates

|                                                                                                                                                                                                                                                                                                                                                                |                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Environmental Product Declaration                                                                                                                                                                                                                                                                                                                              |                                                          |
| <ul style="list-style-type: none"> <li>• global warming potential [CO2 eq] / during manufacturing</li> <li>• global warming potential [CO2 eq] / during sales</li> <li>• global warming potential [CO2 eq] / during operation</li> <li>• global warming potential [CO2 eq] / after end of life</li> <li>• global warming potential [CO2 eq] / total</li> </ul> | 1.98 kg<br>0.134 kg<br>72.7 kg<br>-0.116 kg<br>74.698 kg |

#### Environment

#### General Product Approval

[Environmental Confirmations](#)



|                          |                      |
|--------------------------|----------------------|
| General Product Approval | Maritime application |
|--------------------------|----------------------|



Maritime application

other



[Confirmation](#)



[Miscellaneous](#)

#### 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=3RV2411-1CA10-0BA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1CA10-0BA0>

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

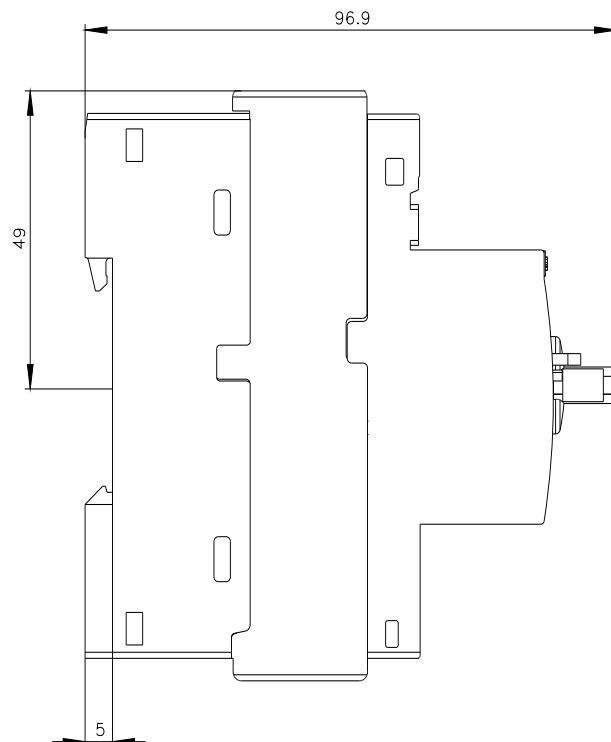
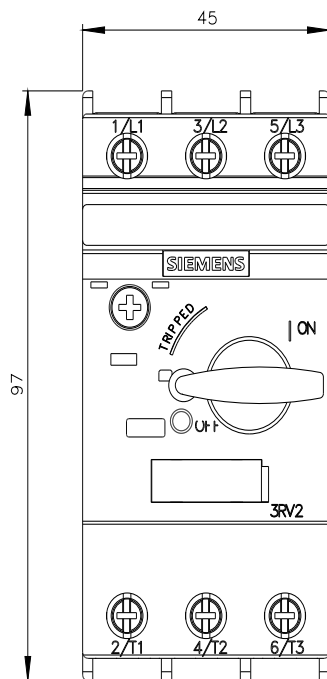
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2411-1CA10-0BA0&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2411-1CA10-0BA0&lang=en)

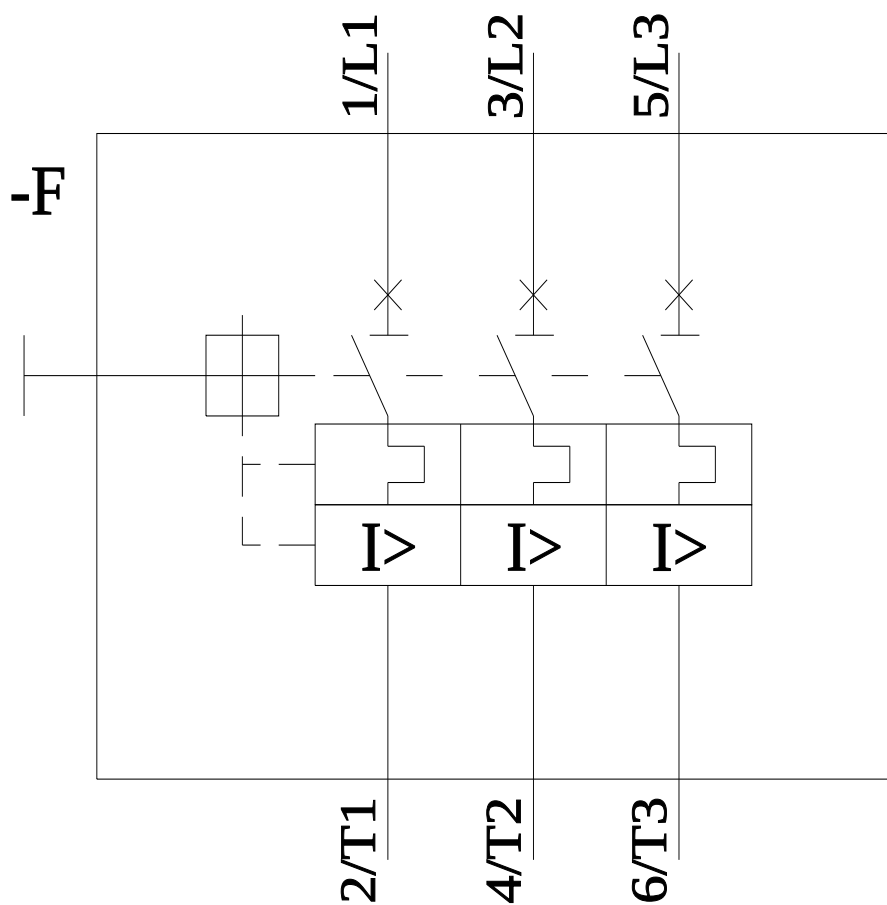
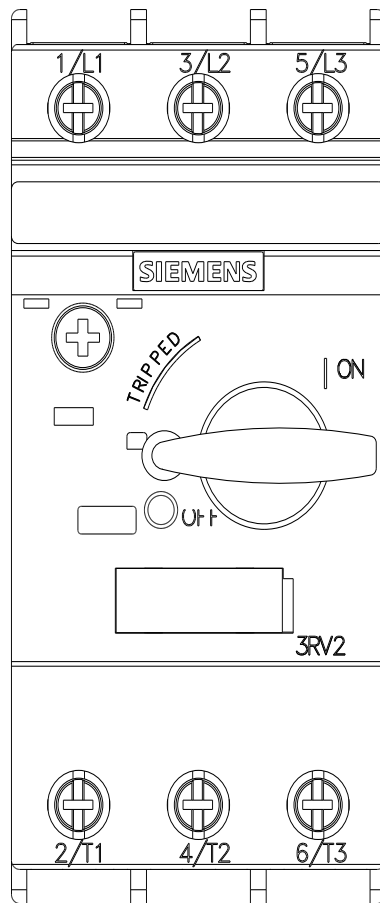
##### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2411-1CA10-0BA0>

##### 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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