



Circuit breaker size S00 for transformer protection A-release 2.8...4 A N-release 82 A screw terminal Standard switching 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                                                      | 100 000                    |
| • of auxiliary contacts typical                                                     | 100 000                    |
| electrical endurance (operating cycles) typical                                     | 100 000                    |
| reference code according to IEC 81346-2                                             | Q                          |
| Substance Prohibitance (Date)                                                       | 10/01/2009                 |
| Net Weight                                                                          | 347 g                      |
| <b>Ambient conditions</b>                                                           |                            |
| installation altitude at height above sea level maximum                             | 2 000 m                    |
| ambient temperature                                                                 |                            |
| • during operation                                                                  | -20 ... +60 °C             |
| • during storage                                                                    | -50 ... +80 °C             |
| • during transport                                                                  | -50 ... +80 °C             |
| relative humidity during operation                                                  | 10 ... 95 %                |
| <b>Main circuit</b>                                                                 |                            |
| number of poles for main current circuit                                            | 3                          |
| adjustable current response value current of the current-dependent overload release | 2.8 ... 4 A                |
| type of voltage for main current circuit                                            | AC                         |
| operating voltage                                                                   |                            |
| • rated value                                                                       | 20 ... 690 V               |
| • at AC-3 rated value maximum                                                       | 690 V                      |

|                                                                      |                      |
|----------------------------------------------------------------------|----------------------|
| • at AC-3e rated value maximum                                       | 690 V                |
| <b>operating frequency rated value</b>                               | 50 ... 60 Hz         |
| <b>operational current rated value</b>                               | 4 A                  |
| <b>operational current</b>                                           |                      |
| • at AC-3 at 400 V rated value                                       | 4 A                  |
| • at AC-3e at 400 V rated value                                      | 4 A                  |
| <b>operating power</b>                                               |                      |
| • at AC-3                                                            |                      |
| — at 230 V rated value                                               | 0.8 kW               |
| — at 400 V rated value                                               | 1.5 kW               |
| — at 500 V rated value                                               | 2.2 kW               |
| — at 690 V rated value                                               | 3 kW                 |
| • at AC-3e                                                           |                      |
| — at 230 V rated value                                               | 0.8 kW               |
| — at 400 V rated value                                               | 1.5 kW               |
| — at 500 V rated value                                               | 2.2 kW               |
| — at 690 V rated value                                               | 3 kW                 |
| <b>operating frequency</b>                                           |                      |
| • at AC-3 maximum                                                    | 15 1/h               |
| • at AC-3e 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                                         | 6 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                                               | 4 kA                 |
| response value current of instantaneous short-circuit trip unit      | 82 A                 |
| <b>UL/CSA ratings</b>                                                |                      |
| <b>full-load current (FLA) for 3-phase AC motor</b>                  |                      |
| • at 480 V rated value                                               | 4 A                  |
| • at 600 V rated value                                               | 4 A                  |
| <b>yielded mechanical performance [hp]</b>                           |                      |
| • for single-phase AC motor                                          |                      |
| — at 110/120 V rated value                                           | 0.13 hp              |
| — at 230 V rated value                                               | 0.33 hp              |
| • for 3-phase AC motor                                               |                      |
| — at 200/208 V rated value                                           | 0.8 hp               |
| — at 220/230 V rated value                                           | 0.75 hp              |
| — at 460/480 V rated value                                           | 2 hp                 |
| — at 575/600 V rated value                                           | 3 hp                 |
| <b>UL File Number (CCN)</b>                                          | E47705 (NLRV, NLRV7) |
| <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 400 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | gL/gG 32 A<br>gL/gG 32 A<br>gL/gG 25 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> <ul style="list-style-type: none"> <li>• with side-by-side mounting at the side</li> <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> | 0 mm<br><br>30 mm<br>30 mm<br>9 mm<br><br>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 |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                              |
| <b>type of electrical connection</b> <ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | screw-type terminals                                                                                                                                                                         |
| <b>arrangement of electrical connectors for main current circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Top and bottom                                                                                                                                                                               |
| <b>type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for main contacts</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2x (0,75 ... 2,5 mm²), 2x 4 mm²<br>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)<br>2x (18 ... 14), 2x 12                                                                                      |
| <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                                                                                                                                                                                           |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                              |
| 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 |

|                                                                  |        |
|------------------------------------------------------------------|--------|
| <b>ISO 13849</b>                                                 |        |
| <b>device type according to ISO 13849-1</b>                      | 3      |
| <b>overdimensioning according to ISO 13849-2 necessary</b>       | Yes    |
| <b>IEC 61508</b>                                                 |        |
| <b>safety device type according to IEC 61508-2</b>               | Type A |
| <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 |

#### Approvals Certificates

|                                                            |           |
|------------------------------------------------------------|-----------|
| <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> |
|--------------------|---------------------------------|

[Environmental Confirmations](#)



|                                 |                             |
|---------------------------------|-----------------------------|
| <b>General Product Approval</b> | <b>Maritime application</b> |
|---------------------------------|-----------------------------|



|                             |              |
|-----------------------------|--------------|
| <b>Maritime application</b> | <b>other</b> |
|-----------------------------|--------------|



[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=3RV2411-1EA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1EA10>

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

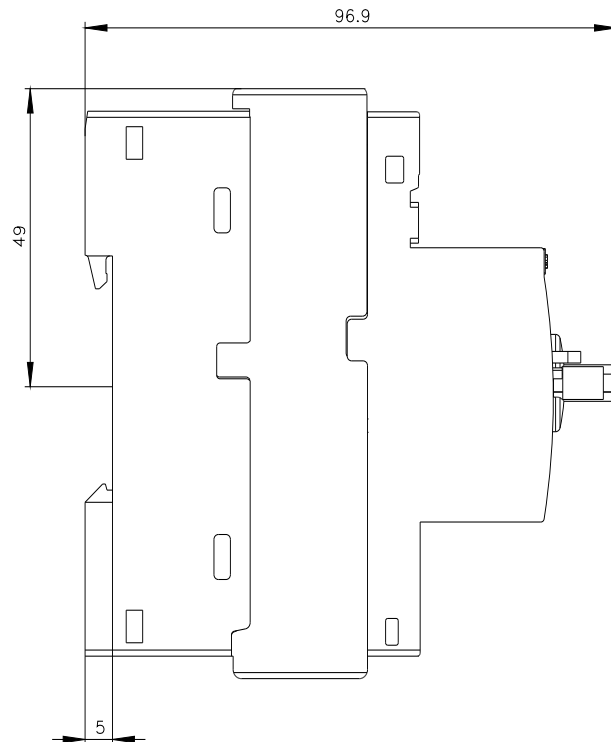
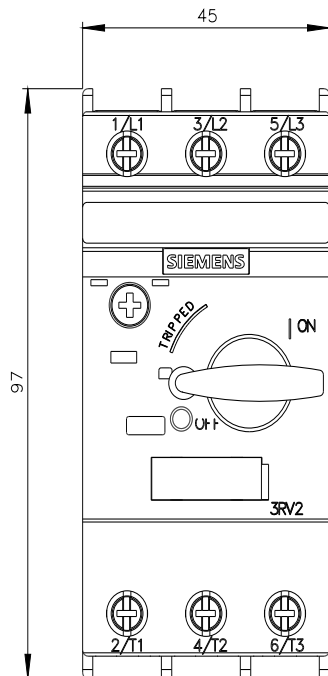
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2411-1EA10&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2411-1EA10&lang=en)

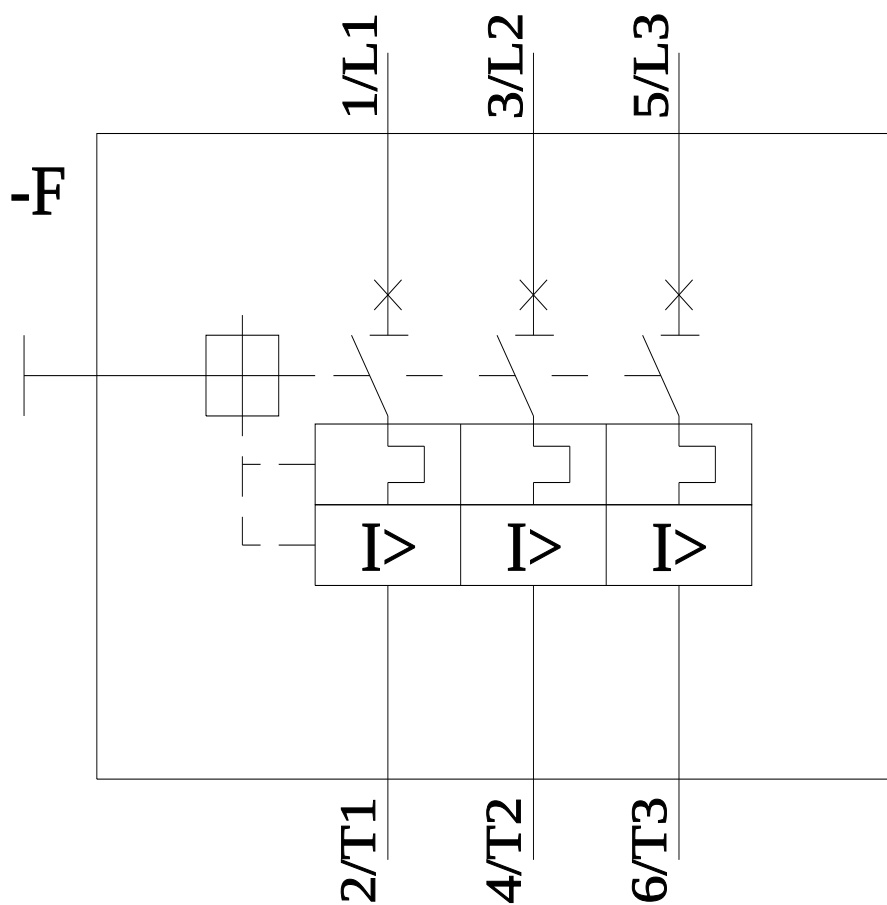
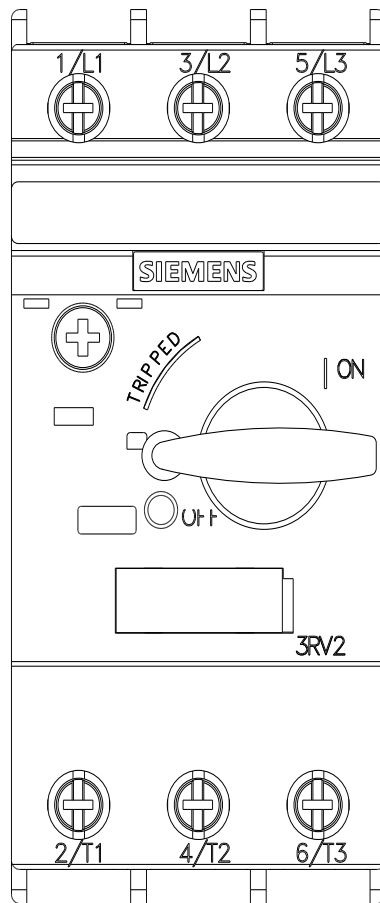
Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2411-1EA10>

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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