

Siemens  
EcoTech



Circuit breaker size S00 for motor protection, CLASS 10 A-release 2.2...3.2 A N release 42 A screw terminal Standard switching capacity

|                                                                                     |                        |
|-------------------------------------------------------------------------------------|------------------------|
| 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                                                      | 100 000                |
| • of auxiliary contacts typical                                                     | 100 000                |
| electrical endurance (operating cycles) typical                                     | 100 000                |
| 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                                                                          | 349 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 | 2.2 ... 3.2 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>                                                                                                                                                                                                                             | 3.2 A                                       |
| <b>operational current</b>                                                                                                                                                                                                                                         |                                             |
| <ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>                                                                                                                                                                                   | 3.2 A                                       |
| <ul style="list-style-type: none"> <li>• at AC-3e at 400 V rated value</li> </ul>                                                                                                                                                                                  | 3.2 A                                       |
| <b>operating power</b>                                                                                                                                                                                                                                             |                                             |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>                              | 0.6 kW<br>1.1 kW<br>1.5 kW<br>2.2 kW        |
| <ul style="list-style-type: none"> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>                             | 0.6 kW<br>1.1 kW<br>1.5 kW<br>2.2 kW        |
| <b>operating frequency</b>                                                                                                                                                                                                                                         |                                             |
| <ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>                                                                                                                                                                                                | 15 1/h                                      |
| <ul style="list-style-type: none"> <li>• at AC-3e maximum</li> </ul>                                                                                                                                                                                               | 15 1/h                                      |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                           |                                             |
| <b>type of voltage for auxiliary and control circuit</b>                                                                                                                                                                                                           | AC/DC                                       |
| <b>number of NC contacts for auxiliary contacts</b>                                                                                                                                                                                                                | 0                                           |
| <b>number of NO contacts for auxiliary contacts</b>                                                                                                                                                                                                                | 0                                           |
| number of CO contacts for auxiliary contacts                                                                                                                                                                                                                       | 0                                           |
| <b>Protective and monitoring functions</b>                                                                                                                                                                                                                         |                                             |
| <b>product function</b>                                                                                                                                                                                                                                            |                                             |
| <ul style="list-style-type: none"> <li>• ground fault detection</li> </ul>                                                                                                                                                                                         | No                                          |
| <ul style="list-style-type: none"> <li>• phase failure detection</li> </ul>                                                                                                                                                                                        | Yes                                         |
| <b>trip class</b>                                                                                                                                                                                                                                                  | CLASS 10                                    |
| <b>design of the overload release</b>                                                                                                                                                                                                                              | thermal                                     |
| <b>maximum short-circuit current breaking capacity (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>                                                                                                                                                                                     | 10 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>                                                                                                                                                                                           | 10 kA                                       |
| response value current of instantaneous short-circuit trip unit                                                                                                                                                                                                    | 42 A                                        |
| <b>UL/CSA ratings</b>                                                                                                                                                                                                                                              |                                             |
| <b>full-load current (FLA) for 3-phase AC motor</b>                                                                                                                                                                                                                |                                             |
| <ul style="list-style-type: none"> <li>• at 480 V rated value</li> </ul>                                                                                                                                                                                           | 3.2 A                                       |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                           | 3.2 A                                       |
| <b>yielded mechanical performance [hp]</b>                                                                                                                                                                                                                         |                                             |
| <ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> </ul>                                                                        | 0.1 hp<br>0.25 hp                           |
| <ul style="list-style-type: none"> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul> | 0.5 hp<br>0.75 hp<br>2 hp<br>2 hp           |
| <b>Category Control Number (CCN)</b>                                                                                                                                                                                                                               | E47705 (NLRV, NLRV7), E156943 (NKJH, NKJH7) |
| <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 25 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 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup><br>2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )<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 |

|                                                                  |        |
|------------------------------------------------------------------|--------|
| ISO 13849                                                        |        |
| <b>device type according to ISO 13849-1</b>                      | 3      |
| <b>overdimensioning according to ISO 13849-2 necessary</b>       | Yes    |
| IEC 61508                                                        |        |
| <b>safety device type according to IEC 61508-2</b>               | Type A |
| <b>T1 value</b>                                                  |        |
| • for proof test interval or service life according to IEC 61508 | 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                          |           |
| • 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 |

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



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firmations](#)



|                          |                                     |
|--------------------------|-------------------------------------|
| General Product Approval | For use in hazard-<br>ous locations |
|--------------------------|-------------------------------------|



|                                     |                   |                      |
|-------------------------------------|-------------------|----------------------|
| For use in hazard-<br>ous locations | Test Certificates | Maritime application |
|-------------------------------------|-------------------|----------------------|



[Special Test Certific-  
ate](#)

[Type Test Certific-  
ates/Test Report](#)



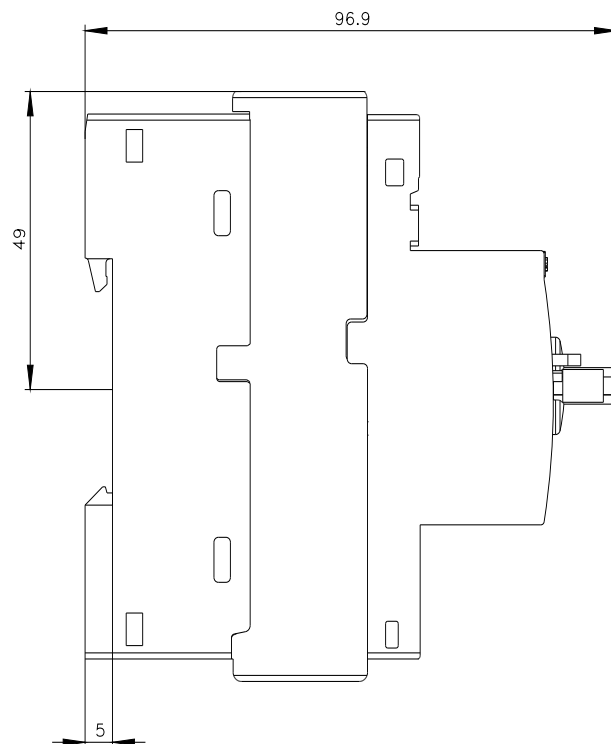
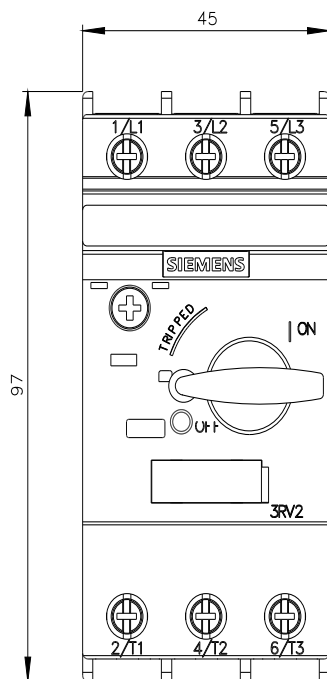
|                      |       |
|----------------------|-------|
| Maritime application | other |
|----------------------|-------|

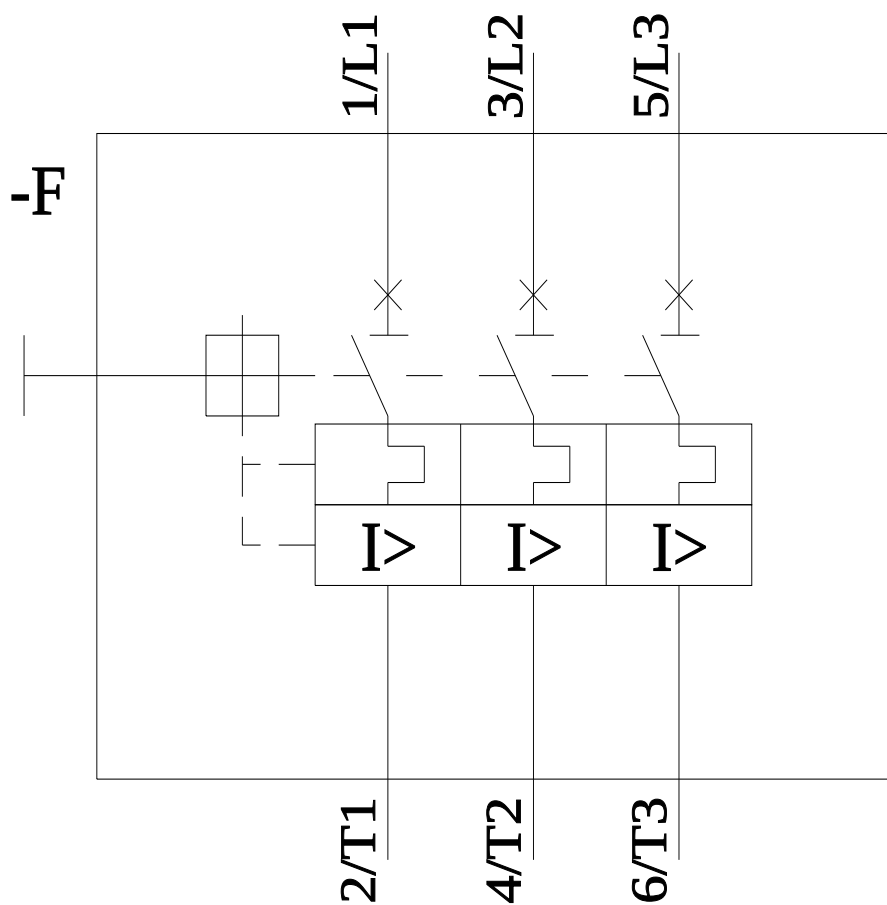
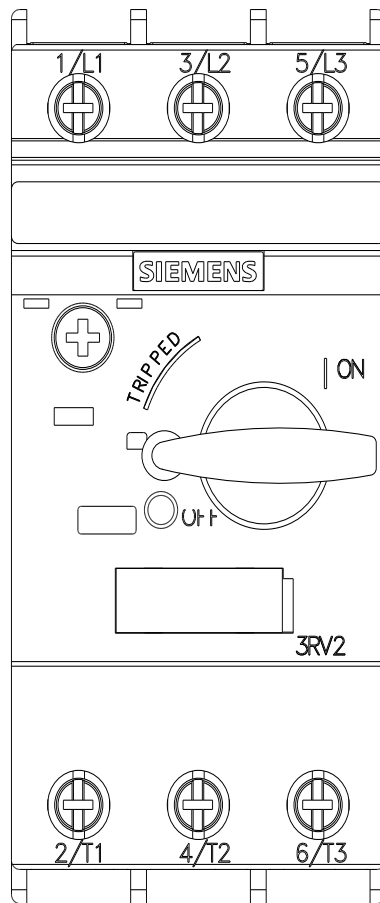


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[Confirmation](#)

[Miscellaneous](#)[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=3RV2011-1DA10>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1DA10>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-1DA10&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1DA10&lang=en)**Cax online generator**<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1DA10>**Characteristic curves**[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



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