

Siemens  
EcoTech



circuit breaker frame size S00 for system protection with approval circuit breaker UL 489, CSA C22.2 no. 5-02 thermal overload release 5 A short-circuit release 65 A screw terminal standard switching capacity



|                                                                 |                                                           |
|-----------------------------------------------------------------|-----------------------------------------------------------|
| product brand name                                              | SIRIUS                                                    |
| product designation                                             | Circuit breaker                                           |
| design of the product                                           | For system protection according to UL 489/CSA C22.2 No. 5 |
| product type designation                                        | 3RV2                                                      |
| General technical data                                          |                                                           |
| size of the circuit-breaker                                     | S00                                                       |
| 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                    | 25 g / 11 ms (rectangular impulse and sine pulse)         |
| 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                                                |
| SVHC substance name                                             | Lead - 7439-92-1                                          |
| Weight                                                          | 0.52 kg                                                   |
| Ambient conditions                                              |                                                           |
| 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 %                                               |
| Environmental footprint                                         |                                                           |
| Environmental Product Declaration (EPD)                         | Yes                                                       |
| global warming potential [CO2 eq] total                         | 74.698 kg                                                 |
| 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                                                 |
| Siemens Eco Profile (SEP)                                       | Siemens EcoTech                                           |
| Main circuit                                                    |                                                           |

|                                                                                                |                                                                          |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>number of poles for main current circuit</b>                                                | 3                                                                        |
| <b>type of voltage for main current circuit</b>                                                | AC                                                                       |
| <b>operating voltage</b>                                                                       |                                                                          |
| • 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>                                                         | 5 A                                                                      |
| <b>operational current</b>                                                                     |                                                                          |
| • at AC-3 at 400 V rated value                                                                 | 5 A                                                                      |
| • at AC-3e at 400 V rated value                                                                | 5 A                                                                      |
| <b>operating power</b>                                                                         |                                                                          |
| • at AC-3                                                                                      |                                                                          |
| — at 230 V rated value                                                                         | 1.1 kW                                                                   |
| — at 400 V rated value                                                                         | 1.5 kW                                                                   |
| — at 500 V rated value                                                                         | 2.2 kW                                                                   |
| — at 690 V rated value                                                                         | 4 kW                                                                     |
| • at AC-3e                                                                                     |                                                                          |
| — at 230 V rated value                                                                         | 1.1 kW                                                                   |
| — at 400 V rated value                                                                         | 1.5 kW                                                                   |
| — at 500 V rated value                                                                         | 2.2 kW                                                                   |
| — at 690 V rated value                                                                         | 4 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                                                                        |
| <b>number of CO contacts for auxiliary contacts</b>                                            | 0                                                                        |
| <b>Protective and monitoring functions</b>                                                     |                                                                          |
| <b>product function</b>                                                                        |                                                                          |
| • ground fault detection                                                                       | No                                                                       |
| • phase failure detection                                                                      | No                                                                       |
| <b>design of the overload release</b>                                                          | thermal                                                                  |
| <b>maximum short-circuit current breaking capacity (I<sub>cu</sub>)</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                                                                     |
| • at 480 AC Y/277 V according to UL 489 rated value                                            | 65 kA                                                                    |
| <b>operating short-circuit current breaking capacity (I<sub>cs</sub>) 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                                                                     |
| <b>response value current of instantaneous short-circuit trip unit</b>                         | 65 A                                                                     |
| <b>Short-circuit protection</b>                                                                |                                                                          |
| <b>product function short circuit protection</b>                                               | Yes                                                                      |
| <b>design of the short-circuit trip</b>                                                        | magnetic                                                                 |
| <b>design of the fuse link for IT network for short-circuit protection of the main circuit</b> |                                                                          |
| • at 400 V                                                                                     | gG 32 A                                                                  |
| • at 500 V                                                                                     | gG 32 A                                                                  |
| • at 690 V                                                                                     | 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>                                                                                  | 144 mm                                                                   |
| <b>width</b>                                                                                   | 45 mm                                                                    |
| <b>depth</b>                                                                                   | 97 mm                                                                    |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>required spacing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• for grounded parts at 400 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> <li>• for live parts at 400 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts at 500 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> <li>• for live parts at 500 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts at 690 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— backwards</li> <li>— at the side</li> <li>— forwards</li> </ul> </li> <li>• for live parts at 690 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— backwards</li> <li>— at the side</li> <li>— forwards</li> </ul> </li> </ul> | 30 mm<br>30 mm<br>30 mm<br><br>30 mm<br>30 mm<br>30 mm<br><br>30 mm<br>30 mm<br>30 mm<br><br>70 mm<br>70 mm<br>0 mm<br>30 mm<br>0 mm<br><br>70 mm<br>70 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1 ... 10 mm <sup>2</sup> , max. 2x 10 mm <sup>2</sup><br>1 ... 16 mm <sup>2</sup> , max. 6 + 16 mm <sup>2</sup><br>2x (14 ... 10)                                                   |
| <b>tightening torque</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2.5 ... 3 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | M4                                                                                                                                                                                  |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                     |
| product function suitable for safety function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Yes                                                                                                                                                                                 |
| <b>suitability for use</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• safety-related switching on</li> <li>• safety-related switching OFF</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No<br>Yes                                                                                                                                                                           |
| <b>service life maximum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10 a                                                                                                                                                                                |
| <b>test wear-related service life necessary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                                                                                                                 |
| <b>proportion of dangerous failures</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>• with low demand rate according to SN 31920</li> <li>• with high demand rate according to SN 31920</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 40 %<br>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                                                                                                                                                                                 |

|                                                                  |                                                  |
|------------------------------------------------------------------|--------------------------------------------------|
| IEC 61508                                                        |                                                  |
| safety device type according to IEC 61508-2                      | Type A                                           |
| T1 value                                                         | 10 a                                             |
| • for proof test interval or service life according to IEC 61508 |                                                  |
| Electrical Safety                                                |                                                  |
| protection class IP on the front according to IEC 60529          | IP20                                             |
| touch protection on the front according to IEC 60529             | finger-safe, for vertical contact from the front |
| Display                                                          |                                                  |
| display version for switching status                             | Handle                                           |
| Approvals Certificates                                           |                                                  |
| General Product Approval                                         |                                                  |



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|                          |                   |                      |       |
|--------------------------|-------------------|----------------------|-------|
| General Product Approval | Test Certificates | Maritime application | other |
|--------------------------|-------------------|----------------------|-------|



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



[Miscellaneous](#)

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



[Confirmation](#)



[Special Test Certificate](#)



|             |
|-------------|
| Environment |
|-------------|

[Environmental Conformations](#)

|                     |
|---------------------|
| Further information |
|---------------------|

#### Information on the packaging

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

#### 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=3RV2711-1FD10>

#### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2711-1FD10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2711-1FD10>

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

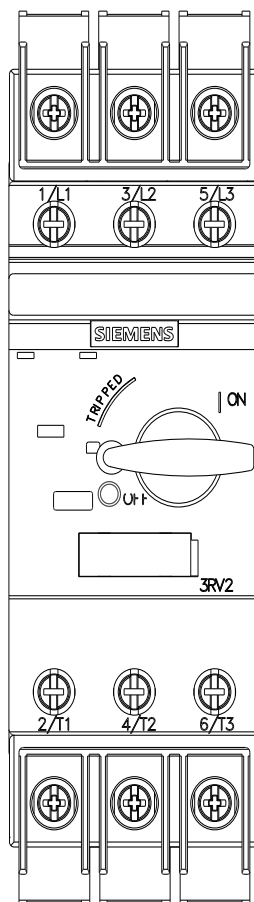
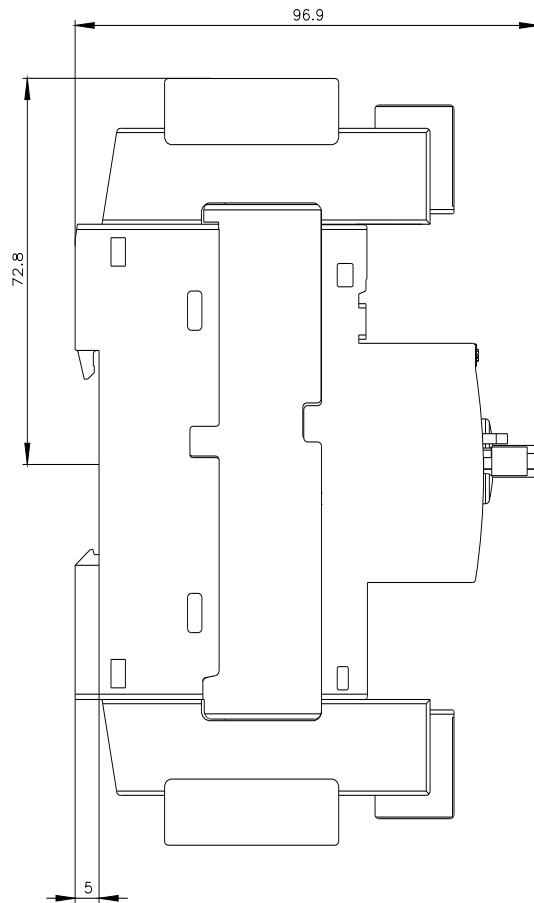
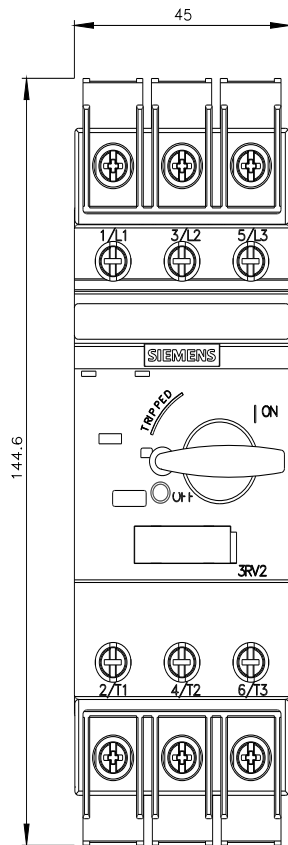
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2711-1FD10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2711-1FD10&lang=en)

#### Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2711-1FD10/char>

#### Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2711-1FD10&objecttype=14&gridview=view1>





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