

Siemens  
EcoTech



Circuit breaker size S00 for motor protection, CLASS 10 A-release 1.4...2 A N-release 26 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC



|                                                                 |                      |
|-----------------------------------------------------------------|----------------------|
| product brand name                                              | SIRIUS               |
| product designation                                             | Circuit breaker      |
| design of the product                                           | For motor protection |
| product type designation                                        | 3RV2                 |
| General technical data                                          |                      |
| size of the circuit-breaker                                     | S00                  |
| size of contactor can be combined company-specific              | S00, S0              |
| product extension auxiliary switch                              | Yes                  |
| power loss [W] for rated value of the current                   |                      |
| • at AC in hot operating state                                  | 7.25 W               |
| • at AC in hot operating state per pole                         | 2.4 W                |
| insulation voltage with degree of pollution 3 at AC rated value | 690 V                |
| surge voltage resistance rated value                            | 6 kV                 |
| shock resistance according to IEC 60068-2-27                    | 25g / 11 ms          |
| mechanical service life (operating cycles)                      |                      |
| • of the main contacts typical                                  | 100 000              |
| • of auxiliary contacts typical                                 | 100 000              |
| electrical endurance (operating cycles) typical                 | 100 000              |
| reference code according to IEC 81346-2                         | Q                    |
| Substance Prohibitance (Date)                                   | 10/01/2009           |
| SVHC substance name                                             | Lead - 7439-92-1     |
| Weight                                                          | 0.355 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      |

|                                                                                            |              |
|--------------------------------------------------------------------------------------------|--------------|
| <b>Main circuit</b>                                                                        |              |
| <b>number of poles for main current circuit</b>                                            | 3            |
| <b>adjustable current response value current of the current-dependent overload release</b> | 1.4 ... 2 A  |
| <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>                                                     | 2 A          |
| <b>operational current</b>                                                                 |              |
| • at AC-3 at 400 V rated value                                                             | 2 A          |
| • at AC-3e at 400 V rated value                                                            | 2 A          |
| <b>operating power</b>                                                                     |              |
| • at AC-3                                                                                  |              |
| — at 230 V rated value                                                                     | 0.4 kW       |
| — at 400 V rated value                                                                     | 0.75 kW      |
| — at 500 V rated value                                                                     | 0.8 kW       |
| — at 690 V rated value                                                                     | 1.1 kW       |
| • at AC-3e                                                                                 |              |
| — at 230 V rated value                                                                     | 0.4 kW       |
| — at 400 V rated value                                                                     | 0.75 kW      |
| — at 500 V rated value                                                                     | 0.8 kW       |
| — at 690 V rated value                                                                     | 1.1 kW       |
| <b>operating frequency</b>                                                                 |              |
| • at AC-3 maximum                                                                          | 15 1/h       |
| • at AC-3e maximum                                                                         | 15 1/h       |
| <b>Auxiliary circuit</b>                                                                   |              |
| <b>design of the auxiliary switch</b>                                                      | transverse   |
| <b>type of voltage for auxiliary and control circuit</b>                                   | AC/DC        |
| <b>number of NC contacts for auxiliary contacts</b>                                        | 1            |
| <b>number of NO contacts for auxiliary contacts</b>                                        | 1            |
| <b>number of CO contacts for auxiliary contacts</b>                                        | 0            |
| <b>operational current of auxiliary contacts at AC-15</b>                                  |              |
| • at 24 V                                                                                  | 2 A          |
| • at 120 V                                                                                 | 0.5 A        |
| • at 125 V                                                                                 | 0.5 A        |
| • at 230 V                                                                                 | 0.5 A        |
| <b>operational current of auxiliary contacts at DC-13</b>                                  |              |
| • at 24 V                                                                                  | 1 A          |
| • at 60 V                                                                                  | 0.15 A       |
| <b>Protective and monitoring functions</b>                                                 |              |
| <b>product function</b>                                                                    |              |
| • ground fault detection                                                                   | No           |
| • phase failure detection                                                                  | Yes          |
| <b>trip class</b>                                                                          | CLASS 10     |
| <b>design of the overload release</b>                                                      | thermal      |
| <b>maximum short-circuit current breaking capacity (Icu)</b>                               |              |
| • at AC at 240 V rated value                                                               | 100 kA       |
| • at AC at 400 V rated value                                                               | 100 kA       |
| • at AC at 500 V rated value                                                               | 100 kA       |
| • at AC at 690 V rated value                                                               | 10 kA        |
| <b>operating short-circuit current breaking capacity (Ics) at AC</b>                       |              |
| • at 240 V rated value                                                                     | 100 kA       |
| • at 400 V rated value                                                                     | 100 kA       |
| • at 500 V rated value                                                                     | 100 kA       |
| • at 690 V rated value                                                                     | 10 kA        |
| <b>response value current of instantaneous short-circuit trip unit</b>                     | 26 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> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2 A<br>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 230 V rated value</li> </ul> </li> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.13 hp<br><br>1 hp<br>1 hp                                                                                                                                                                  |
| <b>contact rating of auxiliary contacts according to UL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | C300 / R300                                                                                                                                                                                  |
| <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</b> <ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current I <sub>k</sub> < 400 A)                                                                                             |
| <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 25 A<br>gL/gG 20 A                                                                                                                                                       |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                              |
| <b>mounting position</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | any                                                                                                                                                                                          |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715                                                                                                                     |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 97 mm                                                                                                                                                                                        |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 45 mm                                                                                                                                                                                        |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 97 mm                                                                                                                                                                                        |
| <b>required spacing</b> <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> <li>• for auxiliary and control circuit</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | screw-type terminals<br>screw-type terminals                                                                                                                                                 |
| <b>arrangement of electrical connectors for main current</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Top and bottom                                                                                                                                                                               |

|                                                                                                                                                 |                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| <b>circuit</b>                                                                                                                                  |                                                  |
| <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> </ul> </li> </ul>      | 2x (0,75 ... 2,5 mm²), 2x 4 mm²                  |
| <ul style="list-style-type: none"> <li>— finely stranded with core end processing</li> </ul>                                                    | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)      |
| <ul style="list-style-type: none"> <li>for AWG cables for main contacts</li> </ul>                                                              | 2x (18 ... 14), 2x 12                            |
| <b>type of connectable conductor cross-sections</b>                                                                                             |                                                  |
| <ul style="list-style-type: none"> <li>for auxiliary contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> </ul> </li> </ul> | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)      |
| <ul style="list-style-type: none"> <li>— finely stranded with core end processing</li> </ul>                                                    | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)      |
| <ul style="list-style-type: none"> <li>for AWG cables for auxiliary contacts</li> </ul>                                                         | 2x (20 ... 16), 2x (18 ... 14)                   |
| <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                                  |
| <ul style="list-style-type: none"> <li>for auxiliary 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                                               |
| <ul style="list-style-type: none"> <li>of the auxiliary and control contacts</li> </ul>                                                         | M3                                               |
| <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> </ul>                                                                   | No                                               |
| <ul style="list-style-type: none"> <li>safety-related switching OFF</li> </ul>                                                                  | 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> </ul>                                                    | 40 %                                             |
| <ul style="list-style-type: none"> <li>with high demand rate according to SN 31920</li> </ul>                                                   | 50 %                                             |
| <b>B10 value with high demand rate according to SN 31920</b>                                                                                    | 5 000                                            |
| <b>failure rate [FIT] with low demand rate according to SN 31920</b>                                                                            | 50 FIT                                           |
| <b>ISO 13849</b>                                                                                                                                |                                                  |
| <b>device type according to ISO 13849-1</b>                                                                                                     | 3                                                |
| <b>overdimensioning according to ISO 13849-2 necessary</b>                                                                                      | Yes                                              |
| <b>IEC 61508</b>                                                                                                                                |                                                  |
| <b>safety device type according to IEC 61508-2</b>                                                                                              | Type A                                           |
| <b>T1 value</b>                                                                                                                                 |                                                  |
| <ul style="list-style-type: none"> <li>for proof test interval or service life according to IEC 61508</li> </ul>                                | 10 a                                             |
| <b>Electrical Safety</b>                                                                                                                        |                                                  |
| <b>protection class IP on the front according to IEC 60529</b>                                                                                  | IP20                                             |
| <b>touch protection on the front according to IEC 60529</b>                                                                                     | finger-safe, for vertical contact from the front |
| <b>Display</b>                                                                                                                                  |                                                  |
| display version for switching status                                                                                                            | Handle                                           |
| <b>Approvals Certificates</b>                                                                                                                   |                                                  |
| <b>General Product Approval</b>                                                                                                                 |                                                  |



[KC](#)



|                          |                                |                   |                      |
|--------------------------|--------------------------------|-------------------|----------------------|
| General Product Approval | For use in hazardous locations | Test Certificates | Maritime application |
|--------------------------|--------------------------------|-------------------|----------------------|



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



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



[Miscellaneous](#)

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



[Confirmation](#)



[Special Test Certificate](#)

[Confirmation](#)



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



[Environmental Confirmations](#)

|                     |
|---------------------|
| 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=3RV2011-1BA15>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1BA15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1BA15>

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

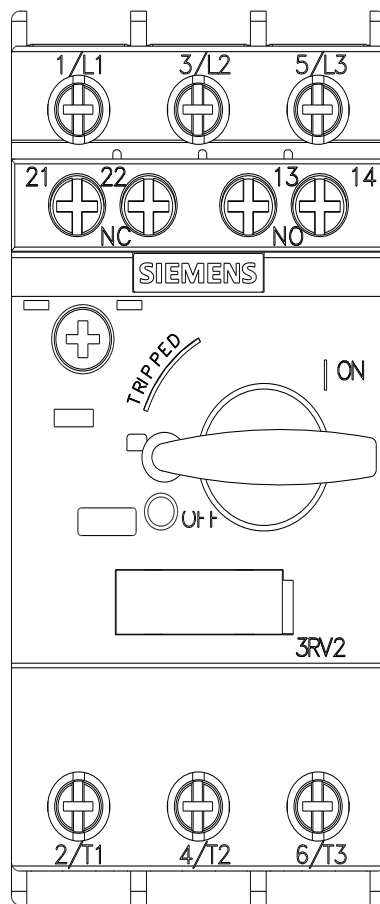
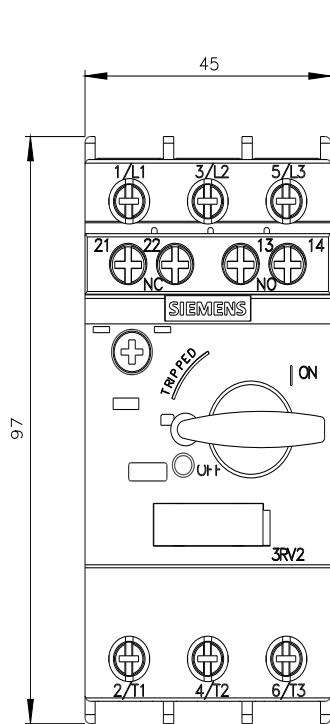
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-1BA15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1BA15&lang=en)

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1BA15/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1BA15&objecttype=14&gridview=view1>





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