



Circuit breaker size S00 for motor protection, CLASS 10 A-release 10...16 A N-release 208 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

|                                                                                            |                      |
|--------------------------------------------------------------------------------------------|----------------------|
| <b>product brand name</b>                                                                  | SIRIUS               |
| <b>product designation</b>                                                                 | Circuit breaker      |
| <b>design of the product</b>                                                               | For motor protection |
| <b>product type designation</b>                                                            | 3RV2                 |
| <b>General technical data</b>                                                              |                      |
| <b>size of the circuit-breaker</b>                                                         | S00                  |
| <b>size of contactor can be combined company-specific</b>                                  | S00, S0              |
| product extension auxiliary switch                                                         | Yes                  |
| <b>power loss [W] for rated value of the current</b>                                       |                      |
| • at AC in hot operating state                                                             | 9.25 W               |
| • at AC in hot operating state per pole                                                    | 3.1 W                |
| insulation voltage with degree of pollution 3 at AC rated value                            | 690 V                |
| <b>surge voltage resistance rated value</b>                                                | 6 kV                 |
| shock resistance according to IEC 60068-2-27                                               | 25g / 11 ms          |
| <b>mechanical service life (switching cycles)</b>                                          |                      |
| • of the main contacts typical                                                             | 100 000              |
| • of auxiliary contacts typical                                                            | 100 000              |
| electrical endurance (switching cycles) typical                                            | 100 000              |
| <b>type of protection according to ATEX directive 2014/34/EU</b>                           | Ex II (2) GD         |
| certificate of suitability according to ATEX directive 2014/34/EU                          | DMT 02 ATEX F 001    |
| <b>reference code according to IEC 81346-2</b>                                             | Q                    |
| <b>Substance Prohibitance (Date)</b>                                                       | 10/01/2009           |
| <b>Ambient conditions</b>                                                                  |                      |
| installation altitude at height above sea level maximum                                    | 2 000 m              |
| <b>ambient temperature</b>                                                                 |                      |
| • during operation                                                                         | -20 ... +60 °C       |
| • during storage                                                                           | -50 ... +80 °C       |
| • during transport                                                                         | -50 ... +80 °C       |
| relative humidity during operation                                                         | 10 ... 95 %          |
| <b>Main circuit</b>                                                                        |                      |
| <b>number of poles for main current circuit</b>                                            | 3                    |
| <b>adjustable current response value current of the current-dependent overload release</b> | 10 ... 16 A          |
| <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>                               | 16 A         |
| <b>operational current</b>                                           |              |
| • at AC-3 at 400 V rated value                                       | 16 A         |
| • at AC-3e at 400 V rated value                                      | 16 A         |
| <b>operating power</b>                                               |              |
| • at AC-3                                                            |              |
| — at 230 V rated value                                               | 4 kW         |
| — at 400 V rated value                                               | 7.5 kW       |
| — at 500 V rated value                                               | 7.5 kW       |
| — at 690 V rated value                                               | 11 kW        |
| • at AC-3e                                                           |              |
| — at 230 V rated value                                               | 4 kW         |
| — at 400 V rated value                                               | 7.5 kW       |
| — at 500 V rated value                                               | 7.5 kW       |
| — at 690 V rated value                                               | 11 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>number of NC contacts for auxiliary contacts</b>                  | 1            |
| <b>number of NO contacts for auxiliary contacts</b>                  | 1            |
| number of CO contacts for auxiliary contacts                         | 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>breaking capacity maximum short-circuit current (Icu)</b>         |              |
| • at AC at 240 V rated value                                         | 100 kA       |
| • at AC at 400 V rated value                                         | 55 kA        |
| • at AC at 500 V rated value                                         | 10 kA        |
| • at AC at 690 V rated value                                         | 4 kA         |
| <b>breaking capacity operating short-circuit current (Ics) at AC</b> |              |
| • at 240 V rated value                                               | 100 kA       |
| • at 400 V rated value                                               | 30 kA        |
| • at 500 V rated value                                               | 5 kA         |
| • at 690 V rated value                                               | 2 kA         |
| response value current of instantaneous short-circuit trip unit      | 208 A        |
| <b>UL/CSA ratings</b>                                                |              |
| <b>full-load current (FLA) for 3-phase AC motor</b>                  |              |
| • at 480 V rated value                                               | 16 A         |
| • at 600 V rated value                                               | 16 A         |
| <b>yielded mechanical performance [hp]</b>                           |              |
| • for single-phase AC motor                                          |              |
| — at 110/120 V rated value                                           | 1 hp         |
| — at 230 V rated value                                               | 2 hp         |
| • for 3-phase AC motor                                               |              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| — at 200/208 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 3 hp                                                                                                                                                                             |
| — at 220/230 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5 hp                                                                                                                                                                             |
| — at 460/480 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10 hp                                                                                                                                                                            |
| contact rating of auxiliary contacts according to UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | C300 / R300                                                                                                                                                                      |
| Short-circuit protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                  |
| product function short circuit protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Yes                                                                                                                                                                              |
| design of the short-circuit trip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | magnetic                                                                                                                                                                         |
| design of the fuse link <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)                                                                                 |
| design of the fuse link for IT network for short-circuit protection of the main circuit <ul style="list-style-type: none"><li>at 240 V</li><li>at 400 V</li><li>at 500 V</li><li>at 690 V</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | gL/gG 80 A<br>gL/gG 63 A<br>gL/gG 50 A<br>gL/gG 40 A                                                                                                                             |
| Installation/ mounting/ dimensions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                  |
| mounting position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | any                                                                                                                                                                              |
| fastening method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715                                                                                           |
| height                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 97 mm                                                                                                                                                                            |
| width                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 45 mm                                                                                                                                                                            |
| depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 97 mm                                                                                                                                                                            |
| required spacing <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>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 |
| Connections/ Terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                  |
| type of electrical connection <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                                                                                                                                     |
| arrangement of electrical connectors for main current circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Top and bottom                                                                                                                                                                   |
| type of connectable conductor cross-sections <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                                                                                                                                                  |

|                                                                         |                                                                       |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------|
| — finely stranded with core end processing                              | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| • at AWG cables for main contacts                                       | 2x (18 ... 14), 2x 12                                                 |
| <b>type of connectable conductor cross-sections</b>                     |                                                                       |
| • for auxiliary contacts                                                |                                                                       |
| — solid or stranded                                                     | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| — finely stranded with core end processing                              | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| • at AWG cables for auxiliary contacts                                  | 2x (20 ... 16), 2x (18 ... 14)                                        |
| <b>tightening torque</b>                                                |                                                                       |
| • for main contacts with screw-type terminals                           | 0.8 ... 1.2 N·m                                                       |
| • for auxiliary contacts with screw-type terminals                      | 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>                     |                                                                       |
| • for main contacts                                                     | M3                                                                    |
| • of the auxiliary and control contacts                                 | M3                                                                    |
| <b>Safety related data</b>                                              |                                                                       |
| <b>B10 value</b>                                                        |                                                                       |
| • with high demand rate according to SN 31920                           | 5 000                                                                 |
| <b>proportion of dangerous failures</b>                                 |                                                                       |
| • with low demand rate according to SN 31920                            | 50 %                                                                  |
| • with high demand rate according to SN 31920                           | 50 %                                                                  |
| <b>failure rate [FIT]</b>                                               |                                                                       |
| • with low demand rate according to SN 31920                            | 50 FIT                                                                |
| T1 value for proof test interval or service life according to IEC 61508 | 10 y                                                                  |
| <b>protection class IP on the front according to IEC 60529</b>          | IP20                                                                  |
| <b>touch protection on the front according to IEC 60529</b>             | finger-safe, for vertical contact from the front                      |
| display version for switching status                                    | Handle                                                                |
| <b>Certificates/ approvals</b>                                          |                                                                       |
| <b>General Product Approval</b>                                         |                                                                       |



[Confirmation](#)



[KC](#)



| For use in hazardous locations | Declaration of Conformity | Test Certificates |
|--------------------------------|---------------------------|-------------------|
|--------------------------------|---------------------------|-------------------|



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

| Marine / Shipping |
|-------------------|
|-------------------|



| Marine / Shipping | other | Railway |
|-------------------|-------|---------|
|-------------------|-------|---------|



[Confirmation](#)



[Vibration and Shock](#)

[Confirmation](#)

## Further information

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=3RV2011-4AA15>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-4AA15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-4AA15>

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

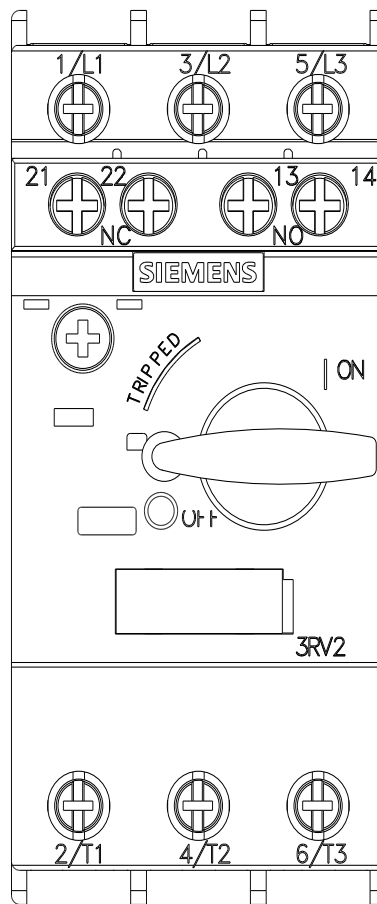
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-4AA15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-4AA15&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-4AA15/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-4AA15&objecttype=14&gridview=view1>



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