



Circuit breaker size S00 for motor protection, CLASS 10 A-release 0.11...0.16 A N-release 2.1 A Spring-type terminal Standard switching capacity

| | |
|--|------------------------|
| 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 | 5.5 W |
| • at AC in hot operating state per pole | 1.8 W |
| insulation voltage with degree of pollution 3 at AC rated value | 690 V |
| surge voltage resistance rated value | 6 kV |
| shock resistance according to IEC 60068-2-27 | 25g / 11 ms |
| mechanical service life (operating cycles) | |
| • of the main contacts typical | 100 000 |
| • of auxiliary contacts typical | 100 000 |
| electrical endurance (operating cycles) typical | 100 000 |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibition (Date) | 10/01/2009 |
| SVHC substance name | Lead CAS-No. 7439-92-1 |
| Net Weight | 299 g |
| 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 % |
| Main circuit | |
| number of poles for main current circuit | 3 |
| adjustable current response value current of the current-dependent overload release | 0.11 ... 0.16 A |
| type of voltage for main current circuit | AC |
| operating voltage | |
| • rated value | 20 ... 690 V |

| | |
|--|--|
| <ul style="list-style-type: none"> • at AC-3 rated value maximum | 690 V |
| <ul style="list-style-type: none"> • at AC-3e rated value maximum | 690 V |
| operating frequency rated value | 50 ... 60 Hz |
| operational current rated value | 0.16 A |
| operational current | |
| <ul style="list-style-type: none"> • at AC-3 at 400 V rated value | 0.16 A |
| <ul style="list-style-type: none"> • at AC-3e at 400 V rated value | 0.16 A |
| operating power | |
| <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value | 0 kW 0.04 kW 0.1 kW 0.1 kW |
| <ul style="list-style-type: none"> • at AC-3e <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value | 0 kW 0.04 kW 0.1 kW 0.1 kW |
| operating frequency | |
| <ul style="list-style-type: none"> • at AC-3 maximum | 15 1/h |
| <ul style="list-style-type: none"> • at AC-3e maximum | 15 1/h |
| Auxiliary circuit | |
| type of voltage for auxiliary and control circuit | AC/DC |
| number of NC contacts for auxiliary contacts | 0 |
| number of NO contacts for auxiliary contacts | 0 |
| number of CO contacts for auxiliary contacts | 0 |
| Protective and monitoring functions | |
| product function | |
| <ul style="list-style-type: none"> • ground fault detection | No |
| <ul style="list-style-type: none"> • phase failure detection | Yes |
| trip class | CLASS 10 |
| design of the overload release | thermal |
| maximum short-circuit current breaking capacity (I_{cu}) | |
| <ul style="list-style-type: none"> • at AC at 240 V rated value | 100 kA |
| <ul style="list-style-type: none"> • at AC at 400 V rated value | 100 kA |
| <ul style="list-style-type: none"> • at AC at 500 V rated value | 100 kA |
| <ul style="list-style-type: none"> • at AC at 690 V rated value | 100 kA |
| operating short-circuit current breaking capacity (I_{cs}) at AC | |
| <ul style="list-style-type: none"> • at 240 V rated value | 100 kA |
| <ul style="list-style-type: none"> • at 400 V rated value | 100 kA |
| <ul style="list-style-type: none"> • at 500 V rated value | 100 kA |
| <ul style="list-style-type: none"> • at 690 V rated value | 100 kA |
| response value current of instantaneous short-circuit trip unit | 2.1 A |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| <ul style="list-style-type: none"> • at 480 V rated value | 0.16 A |
| <ul style="list-style-type: none"> • at 600 V rated value | 0.16 A |
| UL File Number (CCN) | E47705 (NLRV, NLRV7), E156943 (NKJH, NKJH7) |
| Short-circuit protection | |
| product function short circuit protection | Yes |
| design of the short-circuit trip | magnetic |
| Installation/ mounting/ dimensions | |
| mounting position | any |
| fastening method | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 |
| height | 106 mm |
| width | 45 mm |
| depth | 97 mm |
| required spacing | |
| <ul style="list-style-type: none"> • with side-by-side mounting at the side | 0 mm |

| | |
|-------------------------------|-------|
| • for grounded parts at 400 V | |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| • for live parts at 400 V | |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| • for grounded parts at 500 V | |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| • for live parts at 500 V | |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| • for grounded parts at 690 V | |
| — downwards | 50 mm |
| — upwards | 50 mm |
| — backwards | 0 mm |
| — at the side | 30 mm |
| — forwards | 0 mm |
| • for live parts at 690 V | |
| — downwards | 50 mm |
| — upwards | 50 mm |
| — backwards | 0 mm |
| — at the side | 30 mm |
| — forwards | 0 mm |

Connections/ Terminals

| | |
|--|-----------------------------------|
| type of electrical connection | |
| • for main current circuit | spring-loaded terminals |
| arrangement of electrical connectors for main current circuit | Top and bottom |
| type of connectable conductor cross-sections | |
| • for main contacts | |
| — solid or stranded | 2x (0,5 ... 4 mm ²) |
| — finely stranded with core end processing | 2x (0,5 ... 2,5 mm ²) |
| — finely stranded without core end processing | 2x (0,5 ... 2,5 mm ²) |
| • for AWG cables for main contacts | 2x (20 ... 12) |
| design of screwdriver shaft | Diameter 3 mm |
| size of the screwdriver tip | 3,0 x 0,5 mm |
| Safety related data | |
| product function suitable for safety function | Yes |
| suitability for use | |
| • safety-related switching on | No |
| • safety-related switching OFF | Yes |
| service life maximum | 10 a |
| test wear-related service life necessary | Yes |
| proportion of dangerous failures | |
| • with low demand rate according to SN 31920 | 40 % |
| • with high demand rate according to SN 31920 | 50 % |
| B10 value with high demand rate according to SN 31920 | 5 000 |
| failure rate [FIT] with low demand rate according to SN 31920 | 50 FIT |
| ISO 13849 | |
| device type according to ISO 13849-1 | 3 |
| overdimensioning according to ISO 13849-2 necessary | Yes |
| IEC 61508 | |
| safety device type according to IEC 61508-2 | Type A |

| | |
|---|------|
| T1 value <ul style="list-style-type: none"> for proof test interval or service life according to IEC 61508 | 10 a |
|---|------|

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

Environmental Product Declaration

| | |
|--|--|
| <ul style="list-style-type: none"> global warming potential [CO2 eq] / during manufacturing global warming potential [CO2 eq] / during sales global warming potential [CO2 eq] / during operation global warming potential [CO2 eq] / after end of life global warming potential [CO2 eq] / total | 1.98 kg 0.134 kg 72.7 kg -0.116 kg 74.698 kg |
|--|--|

Environment **General Product Approval**



[Environmental Con-
firmations](#)



General Product Approval **For use in hazard-
ous locations**



**For use in hazard-
ous locations** **Test Certificates** **Maritime application**



[Special Test Certific-
ate](#)

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



Maritime application **other**



[Miscellaneous](#)



[Confirmation](#)

other **Railway**

[Miscellaneous](#)

[Special Test Certific-
ate](#)

[Confirmation](#)

Further information

- Information on the packaging
<https://support.industry.siemens.com/cs/ww/en/view/109813875>
- Information for data generation and storage
<https://support.industry.siemens.com/cs/ww/en/view/109995012>
- Information- and Downloadcenter (Catalogs, Brochures,...)
<https://www.siemens.com/ic10>
- Industry Mall (Online ordering system)
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2011-0AA20>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0AA20>

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

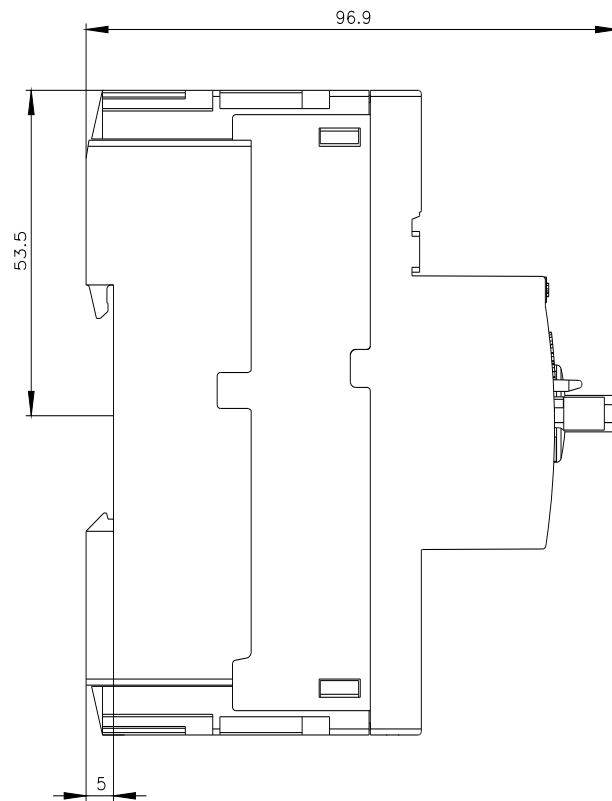
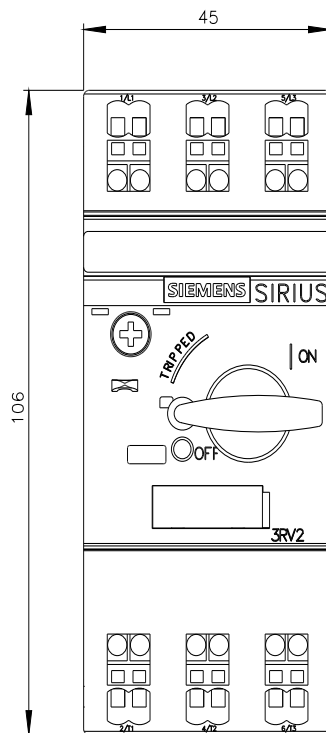
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-0AA20&lang=en

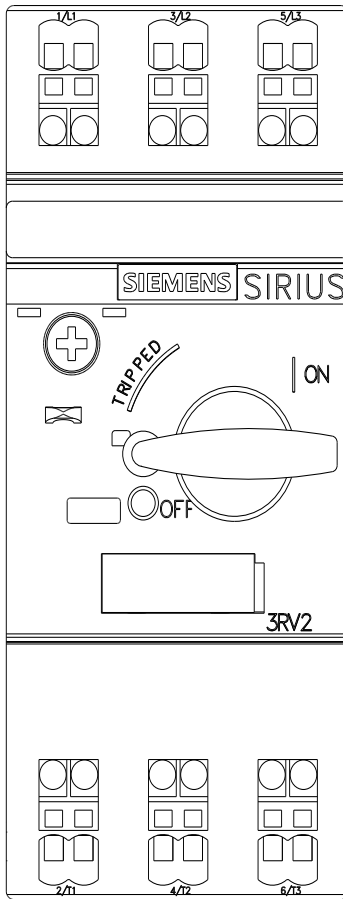
Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-0AA20>

Characteristic curves

https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>





last modified:

3/8/2026 ↻