



Circuit breaker size S00 for motor protection, CLASS 10 with overload relay function A-release 10...16 A N-release 208 A screw terminal Standard switching capacity

| | |
|--|---|
| product brand name | SIRIUS |
| product designation | Circuit breaker |
| design of the product | For motor protection with overload relay function |
| 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 | 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 |
| surge voltage resistance rated value | 6 kV |
| shock resistance according to IEC 60068-2-27 | 25g / 11 ms |
| mechanical service life (switching cycles) | |
| • of the main contacts typical | 100 000 |
| • of auxiliary contacts typical | 100 000 |
| electrical endurance (switching cycles) typical | 100 000 |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibitive (Date) | 10/01/2009 |
| 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 | 10 ... 16 A |
| operating voltage | |
| • rated value | 20 ... 690 V |
| • at AC-3 rated value maximum | 690 V |
| • at AC-3e rated value maximum | 690 V |
| operating frequency rated value | 50 ... 60 Hz |
| operational current rated value | 16 A |
| operational current | |
| • at AC-3 at 400 V rated value | 16 A |

| | |
|---|--|
| <ul style="list-style-type: none"> at AC-3e at 400 V rated value | 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 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 | 4 kW 7.5 kW 7.5 kW 11 kW 4 kW 7.5 kW 7.5 kW 11 kW |
| operating frequency | |
| <ul style="list-style-type: none"> at AC-3 maximum at AC-3e maximum | 15 1/h 15 1/h |
| Auxiliary circuit | |
| design of the auxiliary switch | laterally |
| number of NC contacts for auxiliary contacts | 0 |
| number of NO contacts for auxiliary contacts | 0 |
| number of CO contacts for auxiliary contacts | 0 |
| operational current of auxiliary contacts at AC-15 | |
| <ul style="list-style-type: none"> at 24 V at 230 V | 1.5 A 1.5 A |
| operational current of auxiliary contacts at DC-13 | |
| <ul style="list-style-type: none"> at 24 V | 1 A |
| Protective and monitoring functions | |
| product function | |
| <ul style="list-style-type: none"> ground fault detection phase failure detection | No Yes |
| trip class | CLASS 10 |
| design of the overload release | thermal |
| breaking capacity maximum short-circuit current (I_{cu}) | |
| <ul style="list-style-type: none"> at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value | 100 kA 55 kA 10 kA 4 kA |
| breaking capacity operating short-circuit current (I_{cs}) at AC | |
| <ul style="list-style-type: none"> at 240 V rated value at 400 V rated value at 500 V rated value at 690 V rated value | 100 kA 30 kA 5 kA 2 kA |
| response value current of instantaneous short-circuit trip unit | 208 A |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| <ul style="list-style-type: none"> at 480 V rated value at 600 V rated value | 16 A 16 A |
| yielded mechanical performance [hp] | |
| <ul style="list-style-type: none"> for single-phase AC motor <ul style="list-style-type: none"> at 110/120 V rated value at 230 V rated value for 3-phase AC motor <ul style="list-style-type: none"> at 200/208 V rated value at 220/230 V rated value at 460/480 V rated value | 1 hp 2 hp 3 hp 5 hp 10 hp |
| contact rating of auxiliary contacts according to UL | C600 / 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"> for short-circuit protection of the auxiliary switch required | fuse gL/gG: 6 A, quick: 10 A |
| design of the fuse link for IT network for short-circuit protection of the main circuit <ul style="list-style-type: none"> at 240 V at 400 V at 500 V at 690 V | gL/gG 80 A gL/gG 63 A gL/gG 50 A 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 | 65 mm |
| depth | 97 mm |
| required spacing <ul style="list-style-type: none"> for grounded parts at 400 V <ul style="list-style-type: none"> downwards upwards at the side for live parts at 400 V <ul style="list-style-type: none"> downwards upwards at the side for grounded parts at 500 V <ul style="list-style-type: none"> downwards upwards at the side for live parts at 500 V <ul style="list-style-type: none"> downwards upwards at the side for grounded parts at 690 V <ul style="list-style-type: none"> downwards upwards backwards at the side forwards for live parts at 690 V <ul style="list-style-type: none"> downwards upwards backwards at the side forwards | 30 mm 30 mm 9 mm 30 mm 30 mm 9 mm 30 mm 30 mm 9 mm 30 mm 30 mm 9 mm 50 mm 50 mm 0 mm 30 mm 0 mm 50 mm 50 mm 0 mm 30 mm 0 mm |
| Connections/ Terminals | |
| type of electrical connection <ul style="list-style-type: none"> for main current circuit for auxiliary and control circuit | screw-type terminals 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"> for main contacts <ul style="list-style-type: none"> solid or stranded finely stranded with core end processing at AWG cables for main contacts | 2x (0,75 ... 2,5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (18 ... 14), 2x 12 |
| type of connectable conductor cross-sections <ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> solid or stranded finely stranded with core end processing at AWG cables for auxiliary contacts | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14) |

| | |
|---|--------------------|
| tightening torque | |
| <ul style="list-style-type: none"> for main contacts with screw-type terminals for auxiliary contacts with screw-type terminals | 0.8 ... 1.2 N·m |
| design of screwdriver shaft | Diameter 5 to 6 mm |
| size of the screwdriver tip | Pozidriv size 2 |
| design of the thread of the connection screw | |
| <ul style="list-style-type: none"> for main contacts of the auxiliary and control contacts | M3 |
| | M3 |

Safety related data

| | |
|---|--|
| B10 value | |
| <ul style="list-style-type: none"> with high demand rate according to SN 31920 | 5 000 |
| proportion of dangerous failures | |
| <ul style="list-style-type: none"> with low demand rate according to SN 31920 with high demand rate according to SN 31920 | 50 % |
| | 50 % |
| failure rate [FIT] | |
| <ul style="list-style-type: none"> 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 |
| 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 version for switching status | Handle |

Certificates/ approvals

General Product Approval



[Confirmation](#)



[KC](#)



Declaration of Conformity Test Certificates Marine / Shipping



EG-Konf.

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU VERITAS

Marine / Shipping other



DNV



LRS



PRS



RINA



RMRS

[Confirmation](#)

other Railway



VDE

[Confirmation](#)

[Vibration and Shock](#)

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?mfb=3RV2111-4AA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RV2111-4AA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-4AA10>

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

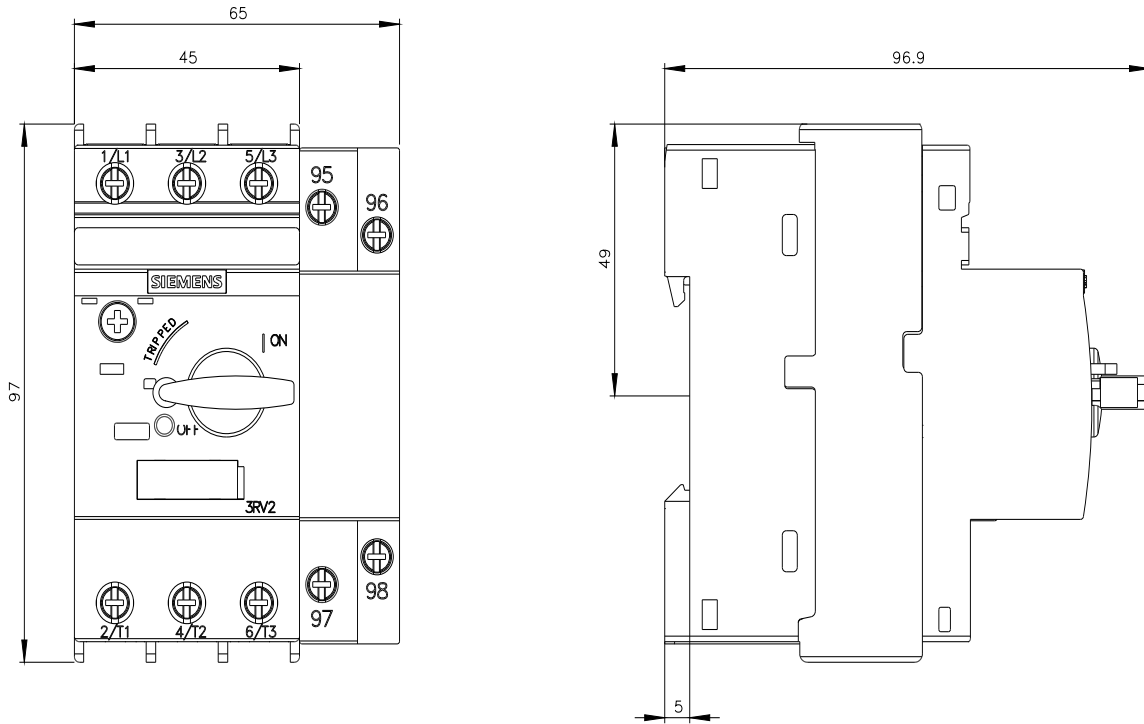
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-4AA10&lang=en

Characteristic: Tripping characteristics, I^t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-4AA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2111-4AA10&objecttype=14&gridview=view1>



last modified:

6/25/2022 