

Siemens
EcoTech



Special type Circuit breaker size S0 for motor protection, CLASS 10 A-release
1.1...1.6 A N-release 21 A Spring-type terminal Standard switching capacity
Ambient temperature -50 °C 500 switching cycles



| | |
|---|----------------------|
| 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 | S0 |
| 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 | 500 |
| • of auxiliary contacts typical | 500 |
| electrical endurance (operating cycles) typical | 500 |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibitance (Date) | 10/01/2009 |
| SVHC substance name | Lead - 7439-92-1 |
| Weight | 0.4 kg |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| • during operation | -50 ... +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 | 75.078 kg |
| global warming potential [CO2 eq] during manufacturing | 2.68 kg |
| global warming potential [CO2 eq] during sales | 0.143 kg |
| global warming potential [CO2 eq] during operation | 72.7 kg |
| global warming potential [CO2 eq] after end of life | -0.445 kg |
| Siemens Eco Profile (SEP) | Siemens EcoTech |

| Main circuit | |
|---|--|
| number of poles for main current circuit | 3 |
| adjustable current response value current of the current-dependent overload release | 1.1 ... 1.6 A |
| type of voltage for main current circuit | AC |
| operating voltage <ul style="list-style-type: none"> rated value at AC-3 rated value maximum | 20 ... 690 V 690 V |
| operating frequency rated value | 50 ... 60 Hz |
| operational current rated value | 1.6 A |
| operational current <ul style="list-style-type: none"> at AC-3 at 400 V rated value | 1.6 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 | 0.3 kW 0.6 kW 0.8 kW 1.1 kW |
| operating frequency <ul style="list-style-type: none"> at AC-3 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 phase failure detection | No 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 at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value | 100 kA 100 kA 100 kA 100 kA |
| operating short-circuit current breaking capacity (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 100 kA 100 kA 100 kA |
| response value current of instantaneous short-circuit trip unit | 21 A |
| 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 | 119 mm |
| width | 45 mm |
| depth | 97 mm |
| required spacing <ul style="list-style-type: none"> with side-by-side mounting at the side <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 | 0 mm 30 mm 30 mm 9 mm 30 mm 30 mm 9 mm |

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| <ul style="list-style-type: none"> • 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 50 mm 50 mm 0 mm 30 mm 0 mm 50 mm 50 mm 0 mm 30 mm 0 mm |
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Connections/ Terminals

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|---|--|
| type of electrical connection | |
| <ul style="list-style-type: none"> • for main current circuit | spring-loaded 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 — finely stranded without core end processing | 2x (1 ... 10 mm ²) 2x (1 ... 6 mm ²) 2x (1 ... 6 mm ²) |
| design of screwdriver shaft | Diameter 3 mm |
| size of the screwdriver tip | 3,0 x 0,5 mm |

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

| | |
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| 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 |

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|--------------------------------------|--------|
| Display | |
| display version for switching status | Handle |

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|-------------------------------|--|
| Approvals Certificates | |
| General Product Approval | |



[KC](#)



| | |
|--------------------------|-----------------------------|
| Test Certificates | Maritime application |
|--------------------------|-----------------------------|

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



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



Miscellaneous



Confirmation



Railway

Environment

[Special Test Certificate](#)

[Confirmation](#)



Siemens EcoTech



[Environmental Confirmations](#)

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=3RV2021-1AA20-0BA0>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1AA20-0BA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1AA20-0BA0>

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

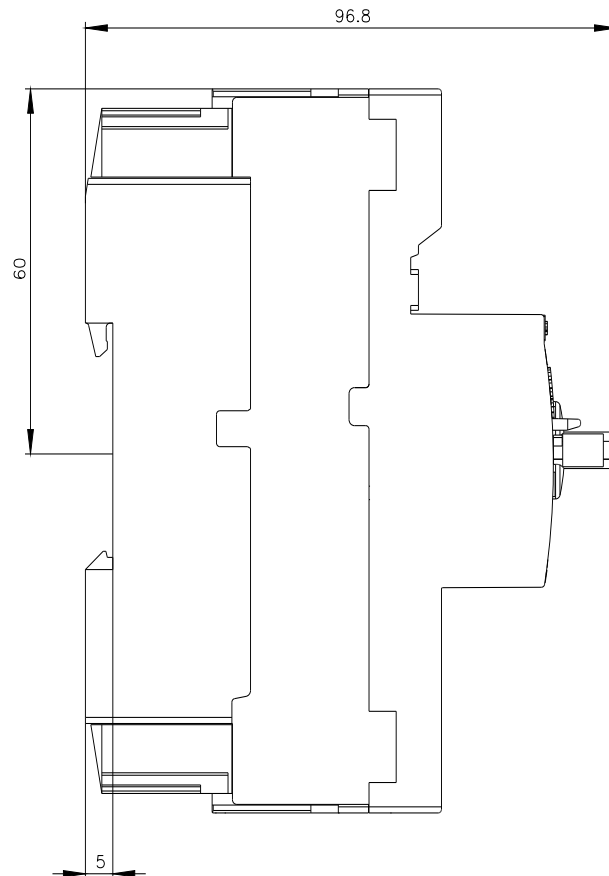
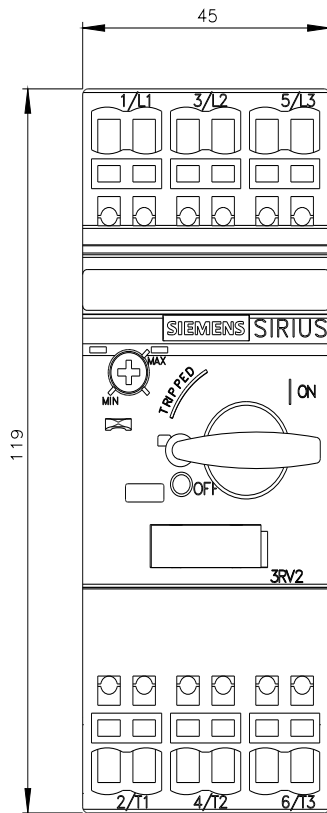
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1AA20-0BA0&lang=en

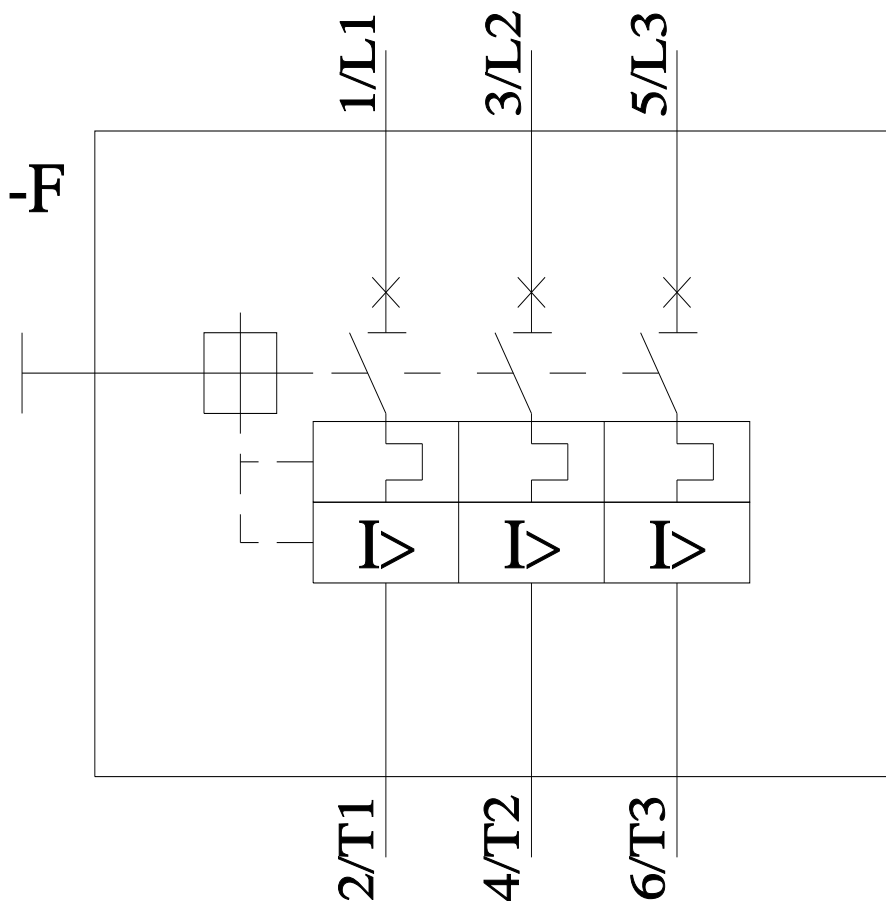
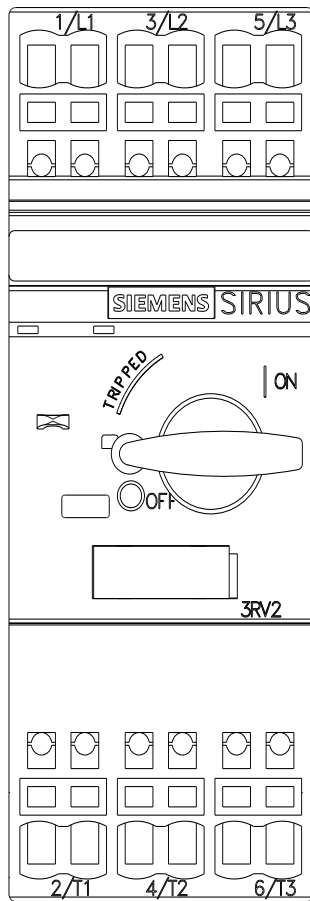
Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1AA20-0BA0/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-1AA20-0BA0&objecttype=14&gridview=view1>





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11/11/2025 