

CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL.1.1...1.6A, N-REL.21A SPRING-L. CONNECTION STANDARD SW. CAPACITY



Figure similar

| | |
|--------------------------|----------------------|
| 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] total typical | 6 W |
| Insulation voltage with degree of pollution 3 rated value | 690 V |
| Surge voltage resistance rated value | 6 kV |
| maximum permissible voltage for safe isolation | |
| • in networks with grounded star point between main and auxiliary circuit | 400 V |
| • in networks with grounded star point between main and auxiliary circuit | 400 V |

| | |
|---|------------------|
| Protection class IP | |
| • on the front | IP20 |
| • of the terminal | IP20 |
| Shock resistance | |
| • acc. 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 |
| Type of protection | Increased safety |
| Certificate of suitability relating to ATEX | on request |
| Protection against electrical shock | finger-safe |
| Equipment marking acc. to DIN EN 81346-2 | Q |

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 |
| Temperature compensation | -20 ... +60 °C |
| Relative humidity during operation | 10 ... 95 % |

Main circuit

| | |
|---|---------------|
| Number of poles for main current circuit | 3 |
| Adjustable pick-up value current of the current-dependent overload release | 1.1 ... 1.6 A |
| Operating voltage | |
| • rated value | 690 V |
| • at AC-3 rated value maximum | 690 V |
| Operating frequency rated value | 50 ... 60 Hz |
| Operating current rated value | 1.6 A |
| Operating current | |
| • at AC-3 | |
| — at 400 V rated value | 1.6 A |
| Operating power | |
| • at AC-3 | |
| — at 230 V rated value | 250 W |
| — at 400 V rated value | 550 W |
| — at 500 V rated value | 750 W |
| — at 690 V rated value | 1 100 W |
| Operating frequency | |

- at AC-3 maximum

15 1/h

Auxiliary circuit

| | |
|------------------------------|---|
| 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 | |
| • Ground fault detection | No |
| • Phase failure detection | Yes |
| Trip class | CLASS 10 |
| Design of the overload release | thermal |
| Operational short-circuit current breaking capacity (Ics) at AC | |
| • 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 | 100 kA |
| Maximum short-circuit current breaking capacity (Icu) | |
| • 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 | 100 kA |
| Breaking capacity short-circuit current (Icn) | |
| • at 1 current path at DC at 150 V rated value | 10 kA |
| • with 2 current paths in series at DC at 300 V rated value | 10 kA |
| • with 3 current paths in series at DC at 450 V rated value | 10 kA |
| Response value current | |
| • of instantaneous short-circuit trip unit | 21 A |

UL/CSA ratings

| | |
|---|--------|
| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 1.6 A |
| • at 600 V rated value | 1.6 A |
| Yielded mechanical performance [hp] | |
| • for single-phase AC motor | |
| — at 230 V rated value | 0.1 hp |
| • for three-phase AC motor | |

- at 460/480 V rated value
- at 575/600 V rated value

0.75 hp
0.75 hp

Short-circuit protection

| | |
|--|----------|
| Product function Short circuit protection | Yes |
| Design of the short-circuit trip | magnetic |

Installation/ mounting/ dimensions

| | |
|---|--|
| Mounting position | any |
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| Height | 119 mm |
| Width | 45 mm |
| Depth | 96 mm |
| Required spacing | |
| <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 50 mm — downwards 50 mm — at the side 0 mm • for grounded parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 50 mm — at the side 30 mm — downwards 50 mm • for live parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 50 mm — downwards 50 mm — at the side 30 mm | |

Connections/Terminals

| | |
|--|-------------------------|
| Product function | |
| <ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit | No |
| 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 | |

| | |
|---|--------------------------------|
| — single or multi-stranded | 2x (1 ... 10 mm ²) |
| — finely stranded with core end processing | 2x (1 ... 6 mm ²) |
| — finely stranded without core end processing | 2x (1 ... 6 mm ²) |
| • at AWG conductors for main contacts | 2x (18 ... 8) |
| Design of screwdriver shaft | Diameter 3 mm |
| Size of the screwdriver tip | 3,0 x 0,5 mm |

| Safety related data | |
|---|--------|
| B10 value | |
| • with high demand rate acc. to SN 31920 | 5 000 |
| Proportion of dangerous failures | |
| • with low demand rate acc. to SN 31920 | 50 % |
| • with high demand rate acc. to SN 31920 | 50 % |
| Failure rate [FIT] | |
| • with low demand rate acc. to SN 31920 | 50 FIT |
| T1 value for proof test interval or service life acc. to IEC 61508 | 10 y |
| Display version | |
| • for switching status | Handle |

Certificates/approvals

| General Product Approval | For use in hazardous locations |
|--------------------------|--------------------------------|
|--------------------------|--------------------------------|



[KC](#)



| Declaration of Conformity | Test Certificates | Marine / Shipping |
|---------------------------|-------------------|-------------------|
|---------------------------|-------------------|-------------------|



EG-Konf.

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS



LRS

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



PRS



RINA



RMRS



DNVGL.COM/AF

[Confirmation](#)



VDE

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

[Miscellaneous](#)

[Vibration and Shock](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2021-1AA20>

Cax online generator

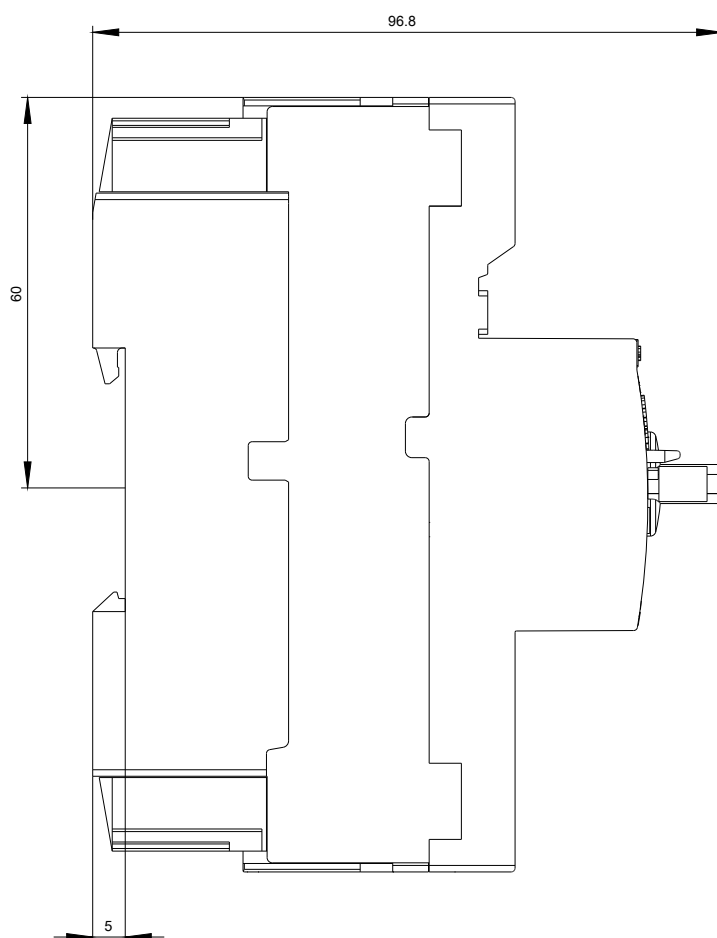
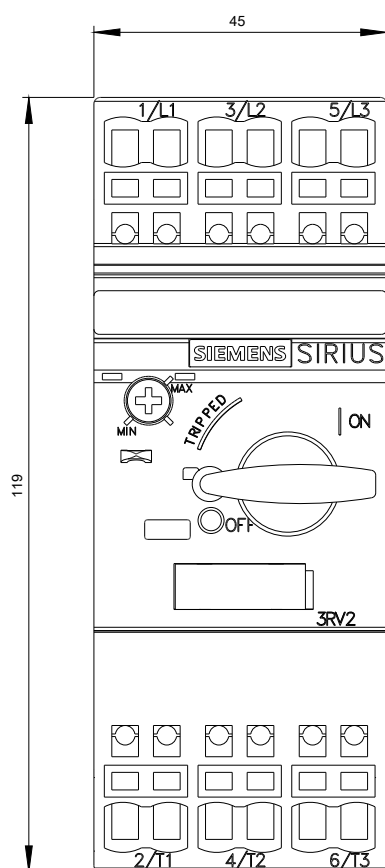
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1AA20>

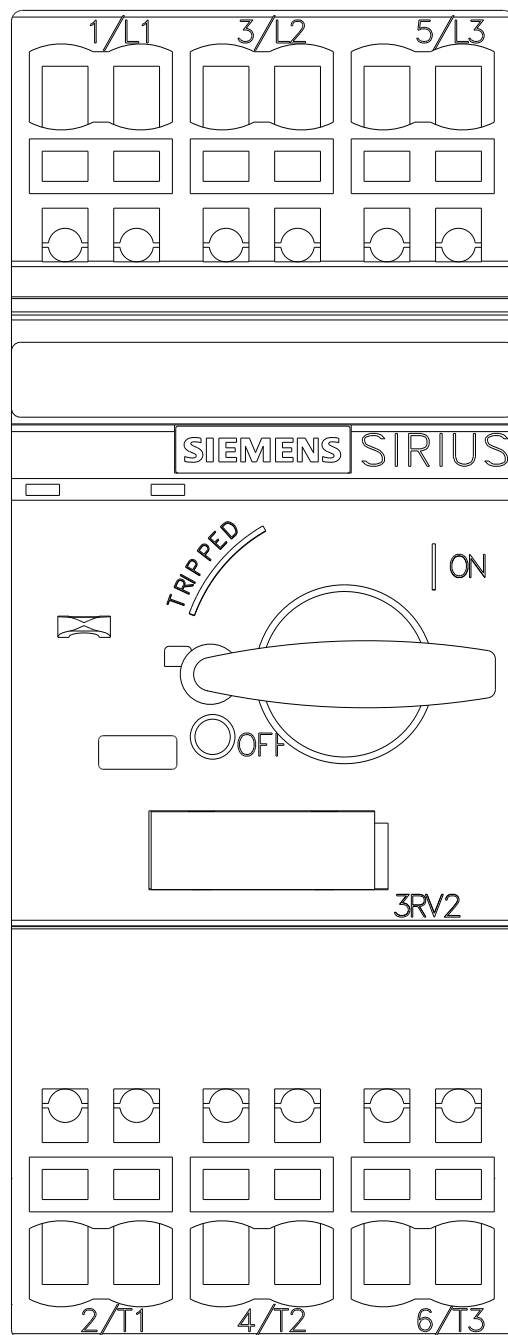
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

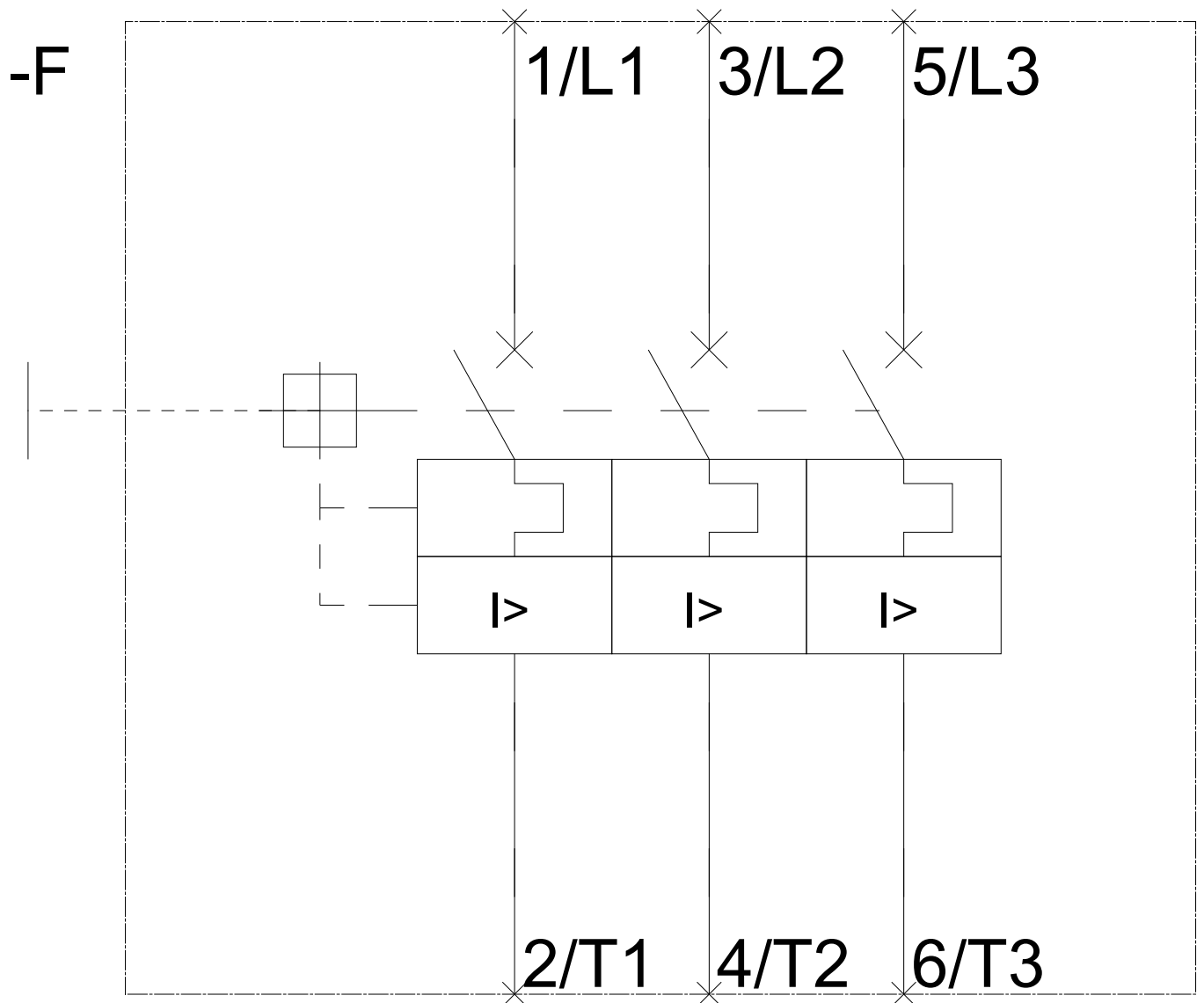
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1AA20>

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

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







last modified:

10/13/2017