

CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL. 7...10A, N-REL. 130A SPRING-L. CONNECTION, STANDARD SW. CAPACITY W. TRANSVERSE AUX. SWITCH 1NO+1NC



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 | 7 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 | 7 ... 10 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 | 10 A |
| Operating current | |
| • at AC-3 | |
| — at 400 V rated value | 10 A |
| Operating power | |
| • at AC-3 | |
| — at 230 V rated value | 2 200 W |
| — at 400 V rated value | 4 000 W |
| — at 500 V rated value | 5 500 W |
| — at 690 V rated value | 7 500 W |
| Operating frequency | |

- at AC-3 maximum

15 1/h

Auxiliary circuit

| | |
|---|------------|
| Design of the auxiliary switch | transverse |
| Number of NC contacts | |
| • for auxiliary contacts | 1 |
| Number of NO contacts | |
| • for auxiliary contacts | 1 |
| Number of CO contacts | |
| • for auxiliary contacts | 0 |
| Operating current of auxiliary contacts at AC-15 | |
| • at 24 V | 2 A |
| • at 120 V | 0.5 A |
| • at 125 V | 0.5 A |
| • at 230 V | 0.5 A |
| Operating current of auxiliary contacts at DC-13 | |
| • at 24 V | 1 A |
| • at 60 V | 0.15 A |

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 | 42 kA |
| • at 690 V rated value | 4 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 | 42 kA |
| • at AC at 690 V rated value | 6 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 | 130 A |

| UL/CSA ratings | |
|---|---|
| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 10 A |
| • at 600 V rated value | 10 A |
| Yielded mechanical performance [hp] | |
| • for single-phase AC motor | |
| — at 110/120 V rated value | 0.5 hp |
| — at 230 V rated value | 1.5 hp |
| • for three-phase AC motor | |
| — at 200/208 V rated value | 2 hp |
| — at 220/230 V rated value | 3 hp |
| — at 460/480 V rated value | 5 hp |
| — at 575/600 V rated value | 7.5 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 | |
| • for short-circuit protection of the auxiliary switch required | Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ A) |
| 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 | |
| • with side-by-side mounting | |
| — forwards | 0 mm |
| — Backwards | 0 mm |
| — upwards | 50 mm |
| — downwards | 50 mm |
| — at the side | 0 mm |
| • for grounded parts | |
| — forwards | 0 mm |
| — Backwards | 0 mm |
| — upwards | 50 mm |
| — at the side | 30 mm |
| — downwards | 50 mm |
| • for live parts | |

| | |
|---------------|-------|
| — 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 for auxiliary and control current circuit | spring-loaded terminals 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"> single or multi-stranded finely stranded with core end processing finely stranded without core end processing at AWG conductors for main contacts | 2x (1 ... 10 mm ²) 2x (1 ... 6 mm ²) 2x (1 ... 6 mm ²) 2x (18 ... 8) |
| Type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> single or multi-stranded finely stranded with core end processing finely stranded without core end processing at AWG conductors for auxiliary contacts | 2x (0,5 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²) 2x (0.5 ... 1.5 mm ²) 2x (20 ... 14) |
| Design of screwdriver shaft | Diameter 3 mm |
| Size of the screwdriver tip | 3,0 x 0,5 mm |

Safety related data

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

Certificates/approvals

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



CSA



UL

[KC](#)



ATEX



IECEX

| 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



DNV-GL
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=3RV2021-1JA25>

Cax online generator

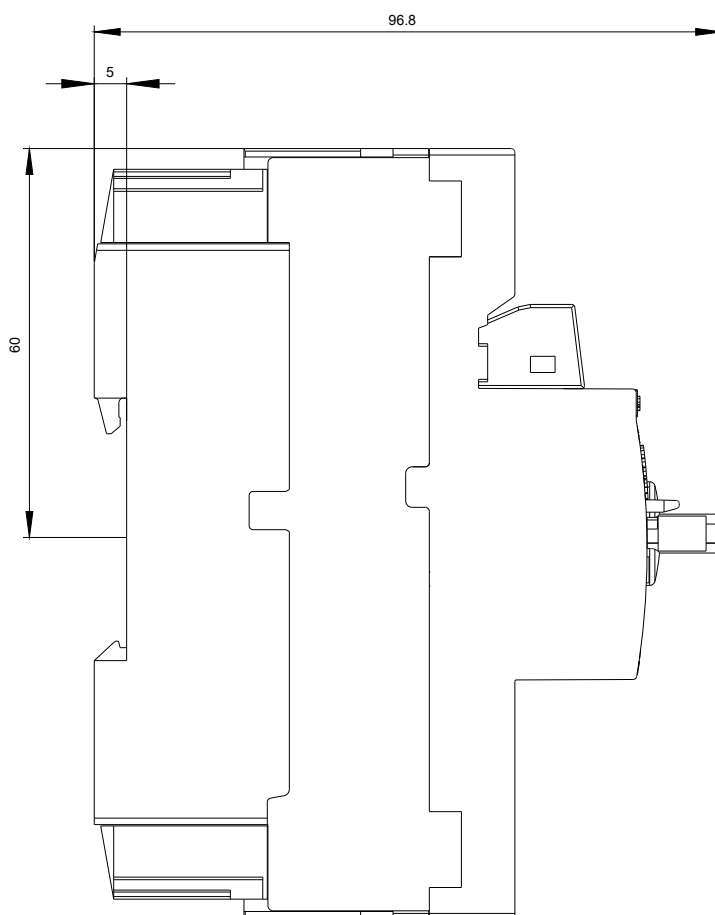
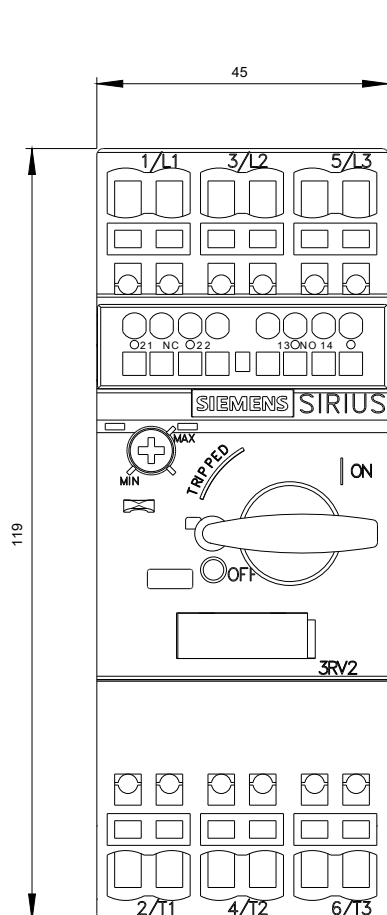
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1JA25>

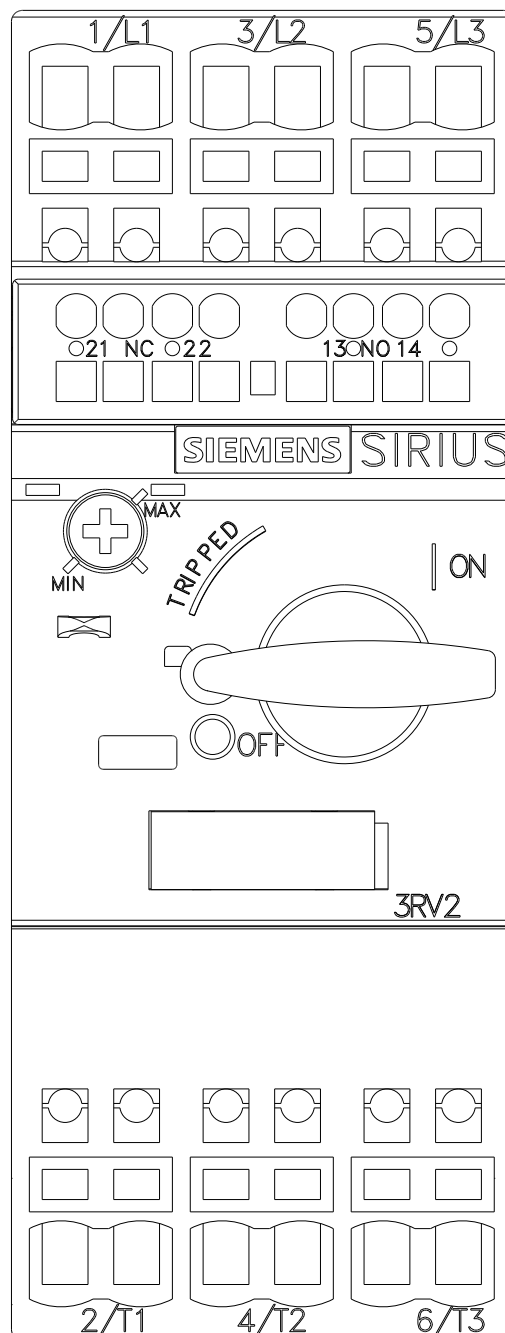
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

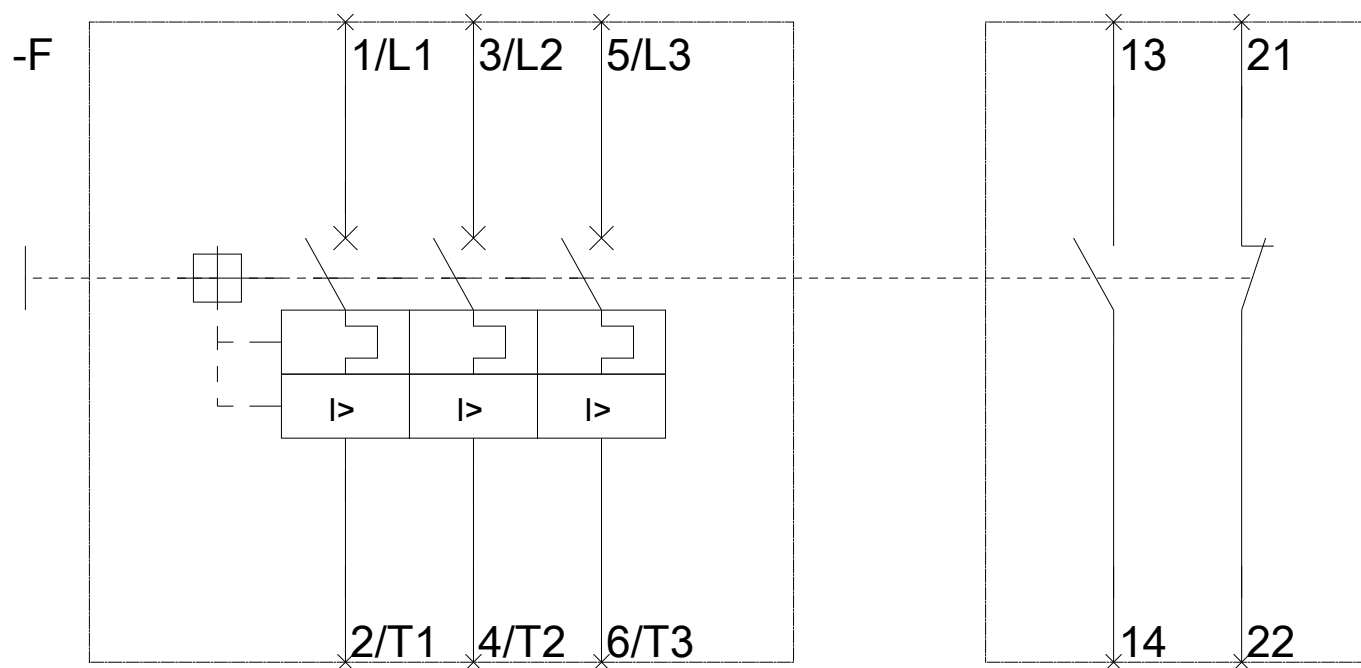
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1JA25>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1JA25&lang=en







last modified:

10/13/2017