

CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-REL. 0.7...1A, N-RELEASE 13A, SCREW CONNECTION, STANDARD SW. CAPACITY



| | |
|---|----------------------|
| product brand name | SIRIUS |
| Product designation | 3RV2 circuit breaker |
| General technical data: | |
| Size of the circuit-breaker | S00 |
| Size of contactor can be combined company-specific | S0 |
| Product expansion | |
| • 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:

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|--|----------------|
| 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:

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|---|--------------|
| Number of poles for main current circuit | 3 |
| Adjustable pick-up value current of the current-dependent overload release | 0.7 ... 1 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 A |
| Operating current | |
| • at AC-3 | |
| — at 400 V rated value | 1 A |
| Operating power | |
| • at AC-3 | |
| — at 230 V rated value | 180 W |
| — at 400 V rated value | 250 W |
| — at 500 V rated value | 370 W |
| — at 690 V rated value | 550 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:

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|--|----------|
| 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 the instantaneous short-circuit release | 13 A |

UL/CSA ratings:

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| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 1 A |
| • at 600 V rated value | 1 A |
| • Yielded mechanical performance [hp] for three-phase AC motor | |
| — at 575/600 V rated value | 0.5 hp |

Short-circuit protection

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| Design of the short-circuit trip | magnetic |
| Design of the fuse link for IT network for short-circuit protection of the main circuit | |
| • at 500 V | gL/gG 10 A |
| • at 690 V | gL/gG 10 A |

Installation/ mounting/ dimensions:

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|---|--|
| Mounting position | any |
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| Height | 97 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:

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|--|----------------------|
| 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 | 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"> — single or multi-stranded 2x (0,75 ... 2,5 mm²), 2x 4 mm² — finely stranded with core end processing 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) • at AWG conductors for main contacts 2x (18 ... 14), 2x 12 | |
| Tightening torque | |
| <ul style="list-style-type: none"> • for main contacts with screw-type terminals | 0.8 ... 1.2 N·m |
| Design of screwdriver shaft | Diameter 5 to 6 mm |

| | |
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| Design of the thread of the connection screw • for main contacts | M3 |
| Safety related data: | |
| B10 value with high demand rate acc. to SN 31920 | 50 000 |
| Proportion of dangerous failures • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 | 40 % 40 % |
| 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

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



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| | | | |
|--------------------------------|---------------------------|-------------------|-------------------|
| For use in hazardous locations | Declaration of Conformity | Test Certificates | Shipping Approval |
|--------------------------------|---------------------------|-------------------|-------------------|



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Shipping Approval



| | | |
|-------------------|-------|---------|
| Shipping Approval | other | Railway |
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[Umweltbestätigung](#)

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[Schwingen/Schocke](#)

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=3RV20110JA10>

Cax online generator

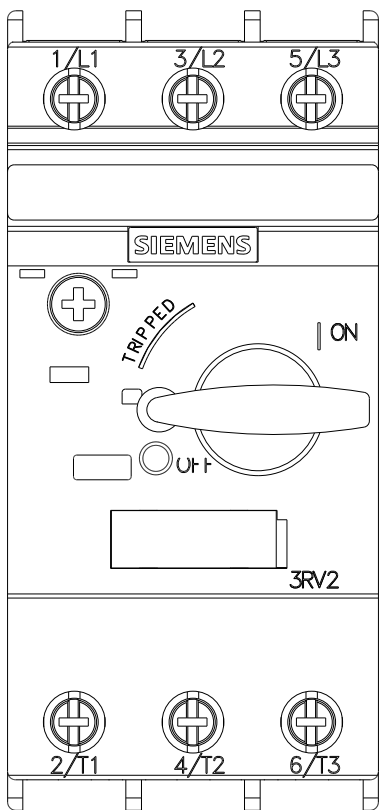
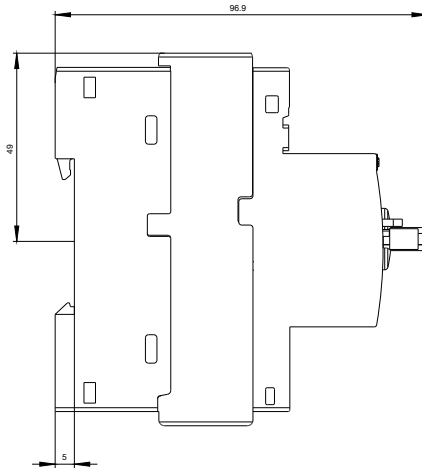
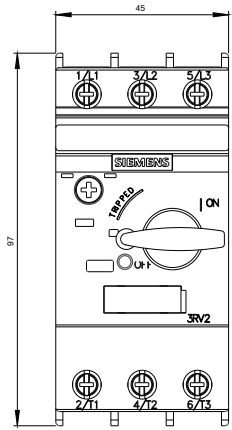
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20110JA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV20110JA10>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV20110JA10&lang=en





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