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## Data sheet 3RV2021-1HA10

CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL. 5.5...8A, N-REL. 104A SCREW CONNECTION, STANDARD SW. CAPACITY


Figure similar

| | |
|---|---|
| **product brand name** | SIRIUS |
| **Product designation** | 3RV2 circuit breaker |

| General technical data: | |
|---|---|
| **Size of the circuit-breaker** | S0 |
| **Size of contactor can be combined company-specific** | S00 |
| **Product expansion** | |
| • Auxiliary switch | Yes |
| **Active power loss total typical** | 7 W |
| Insulation voltage with degree of pollution 3 Rated value | 690 V |
| **Surge voltage resistance Rated value** | 6 kV |
| **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 the auxiliary contacts typical | 100 000 |


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| | |
|---|---|
| **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 response value current of the current-dependent overload release** | 5.5 ... 8 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** | 8 A |
| **Operating current** | |
| • at AC-3 | |
| — at 400 V Rated value | 8 A |
| **Operating power** | |
| • at AC-3 | |
| — at 230 V Rated value | 1 500 W |
| — at 400 V Rated value | 3 000 W |
| — at 500 V Rated value | 4 000 W |
| — at 690 V Rated value | 5 500 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** | |


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| | |
|---|---|
| • for auxiliary contacts | 0 |

| Protective and monitoring functions: | |
|---|---|
| **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 | 42 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 the instantaneous short-circuit release** | 104 A |

| UL/CSA ratings: | |
|---|---|
| **Full-load current (FLA) for three-phase AC motor** | |
| • at 480 V Rated value | 8 A |
| • at 600 V Rated value | 8 A |
| **yielded mechanical performance [hp]** | |
| • for single-phase AC motor | |
| — at 110/120 V Rated value | 0.333 hp |
| — at 230 V Rated value | 1 hp |
| • for three-phase AC motor | |
| — at 200/208 V Rated value | 2 hp |
| — at 220/230 V Rated value | 2 hp |
| — at 460/480 V Rated value | 5 hp |
| — at 575/600 V Rated value | 5 hp |

| Short-circuit protection | |
|---|---|
| **Design of the short-circuit trip** | magnetic |

| Installation/ mounting/ dimensions: | |
|---|---|
| **mounting position** | any |


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| | |
|---|---|
| **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** | |
| • 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** | |
| • removable terminal for auxiliary and control circuit | No |
| **Type of electrical connection** | |
| • for main current circuit | screw-type terminals |
| **Arrangement of electrical connectors for main current circuit** | Top and bottom |
| **Type of connectable conductor cross-section** | |
| • for main contacts | |
| — single or multi-stranded | 2x (1 ... 2,5 mm²), 2x (2,5 ... 10 mm²) |
| — finely stranded with core end processing | 2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm² |
| • for AWG conductors for main contacts | 2x (16 ... 12), 2x (14 ... 8) |
| **Tightening torque** | |
| • for main contacts with screw-type terminals | 2 ... 2.5 N·m |
| **Design of screwdriver shaft** | Diameter 5 to 6 mm |
| **Design of the thread of the connection screw** | |
| • for main contacts | M4 |


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| 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 | 40 % |
| • with high demand rate acc. to SN 31920 | 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:

| General Product Approval | | | | | For use in hazardous locations |
|---|---|---|---|---|---|
| CCC | CSA | UL | KTL | EAC | ATEX |

| For use in hazardous locations | Declaration of Conformity | Test Certificates | | | Shipping Approval |
|---|---|---|---|---|---|
| IECEx | EG-Konf. | Typprüfbescheinigung/Werkszeugnis | spezielle Prüfbescheinigungen | Werksbescheinigungen | ABS |

| Shipping Approval | | | | | |
|---|---|---|---|---|---|
| BUREAU VERITAS | DNV | GL | LRS | PRS | RINA |

| Shipping Approval | other | | | Railway |
|---|---|---|---|---|
| RMRS | Bestätigungen | Umweltbestätigung | VDE | Schwingen/Schocken |

## Further information


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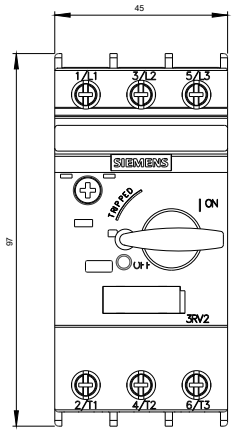
http://www.siemens.com/industrial-controls/catalogs

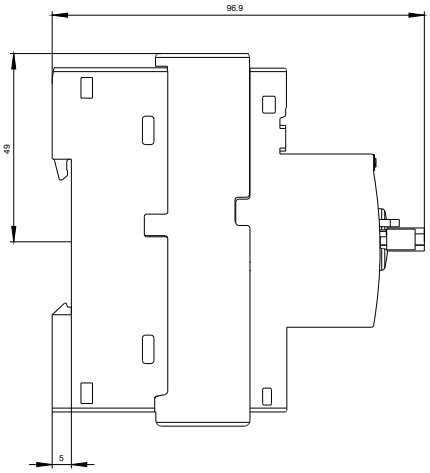
**Industry Mall (Online ordering system)**
http://www.siemens.com/industrymall

**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20211HA10

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RV20211HA10

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV20211HA10&lang=en





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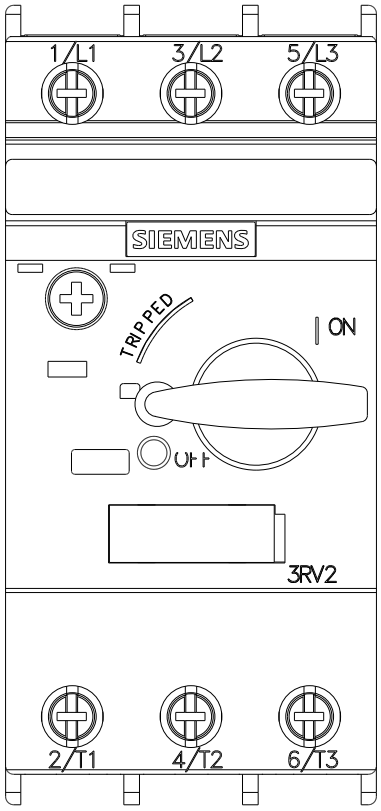


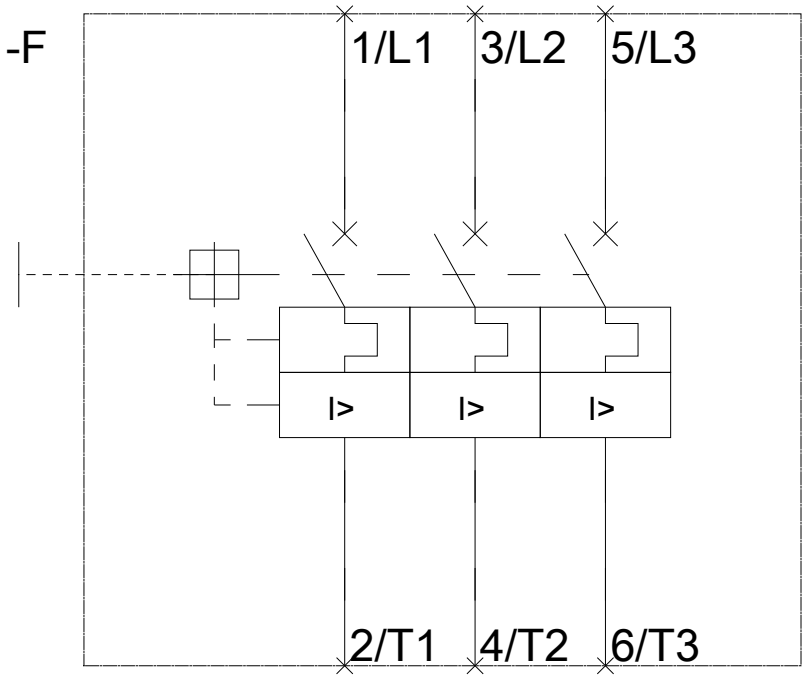


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