SIEMENS

## Data sheet 3RV1011-0CA10




Circuit breaker size S00 for motor protection, CLASS 10 A-release 0.18...0.25 A N-release 3.3 A Screw terminal Standard switching capacity

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product designation** | Circuit breaker |
| **design of the product** | For motor protection |
| **product type designation** | 3RV1 |
| **General technical data** | |
| **size of the circuit-breaker** | S00 |
| **size of contactor can be combined company-specific** | S00 |
| product extension auxiliary switch | Yes |
| **power loss [W] for rated value of the current** | |
| ● at AC in hot operating state | 5.5 W |
| ● at AC in hot operating state per pole | 1.8 W |
| insulation voltage with degree of pollution 3 at AC 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 |
| ● between main and auxiliary circuit | 400 V |
| **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 according to ATEX directive 2014/34/EU** | Ex II (2) GD |
| certificate of suitability according to ATEX directive 2014/34/EU | DMT 02 ATEX F 001 |
| **reference code acc. to IEC 81346-2** | Q |
| **Substance Prohibitance (Date)** | 01.01.2013 |
| **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 current response value current of the current-dependent overload release** | 0.18 ... 0.25 A |


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|---|---|
| **operating voltage** | |
| ● rated value | 690 V |
| ● rated value | 20 ... 690 V |
| ● at AC-3 rated value maximum | 690 V |
| **operating frequency rated value** | 50 ... 60 Hz |
| **operational current rated value** | 0.25 A |
| operational current at AC-3 at 400 V rated value | 0.25 A |
| operating power at AC-3 | |
| ● at 230 V rated value | 0 kW |
| ● at 400 V rated value | 0.1 kW |
| ● at 500 V rated value | 0.1 kW |
| ● at 690 V rated value | 0.1 kW |
| operating frequency at AC-3 maximum | 15 1/h |
| **Auxiliary circuit** | |
| 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 |
| **breaking capacity operating short-circuit current (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 |
| **breaking capacity maximum short-circuit current (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 |
| response value current of instantaneous short-circuit trip unit | 3.3 A |
| **UL/CSA ratings** | |
| **full-load current (FLA) for 3-phase AC motor** | |
| ● at 480 V rated value | 0.25 A |
| ● at 600 V rated value | 0.25 A |
| **Short-circuit protection** | |
| **product function short circuit protection** | Yes |
| **design of the short-circuit trip** | magnetic |
| **design of the fuse link for IT network for short-circuit protection of the main circuit** | |
| ● at 240 V | none required |
| ● at 400 V | None required |
| ● at 500 V | None required |
| ● at 690 V | None required |
| **Installation/ mounting/ dimensions** | |
| **mounting position** | any |
| **fastening method** | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| **height** | 90 mm |
| **width** | 45 mm |
| **depth** | 75 mm |
| **required spacing** | |
| ● for grounded parts at 400 V | |
| — downwards | 20 mm |
| — upwards | 20 mm |
| — at the side | 9 mm |
| ● for live parts at 400 V | |


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| | |
|---|---|
| — downwards | 20 mm |
| — upwards | 20 mm |
| — at the side | 9 mm |
| ● for grounded parts at 500 V | |
| — downwards | 20 mm |
| — upwards | 20 mm |
| — at the side | 9 mm |
| ● for live parts at 500 V | |
| — downwards | 20 mm |
| — upwards | 20 mm |
| — at the side | 9 mm |
| ● for grounded parts at 690 V | |
| — downwards | 20 mm |
| — upwards | 20 mm |
| — backwards | 0 mm |
| — at the side | 9 mm |
| — forwards | 0 mm |
| ● for live parts at 690 V | |
| — downwards | 20 mm |
| — upwards | 20 mm |
| — backwards | 0 mm |
| — at the side | 9 mm |
| — forwards | 0 mm |
| **Connections/ Terminals** | |
| **product component 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-sections** | |
| ● for main contacts | |
| — solid or stranded | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x (1 ... 4 mm²) |
| — finely stranded with core end processing | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| **type of connectable conductor cross-sections** | |
| ● for auxiliary contacts | |
| — solid or stranded | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| **tightening torque** | |
| ● for main contacts with screw-type terminals | 0.8 ... 1.2 N·m |
| ● for auxiliary contacts with screw-type terminals | 0.8 ... 1.2 N·m |
| **size of the screwdriver tip** | Pozidriv 2 |
| **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 | 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 |
| **protection class IP on the front acc. to IEC 60529** | IP20 |
| **touch protection on the front acc. to IEC 60529** | finger-safe, for vertical contact from the front |
| display version for switching status | Rocker switch |
| **Certificates/ approvals** | |

| **General Product Approval** | **For use in hazard-ous locations** |
|---|---|


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Confirmation

| For use in hazardous locations | Declaration of Conformity | | Test Certificates | | Marine / Shipping |
|---|---|---|---|---|---|
| ATEX | EG-Konf. | UK Declaration of Conformity | Special Test Certificate | Type Test Certificates/Test Report | ABS |

| Marine / Shipping | | | | | other |
|---|---|---|---|---|---|
| BUREAU VERITAS | LRS | RINA | RMRS | DNV·GL | Confirmation |

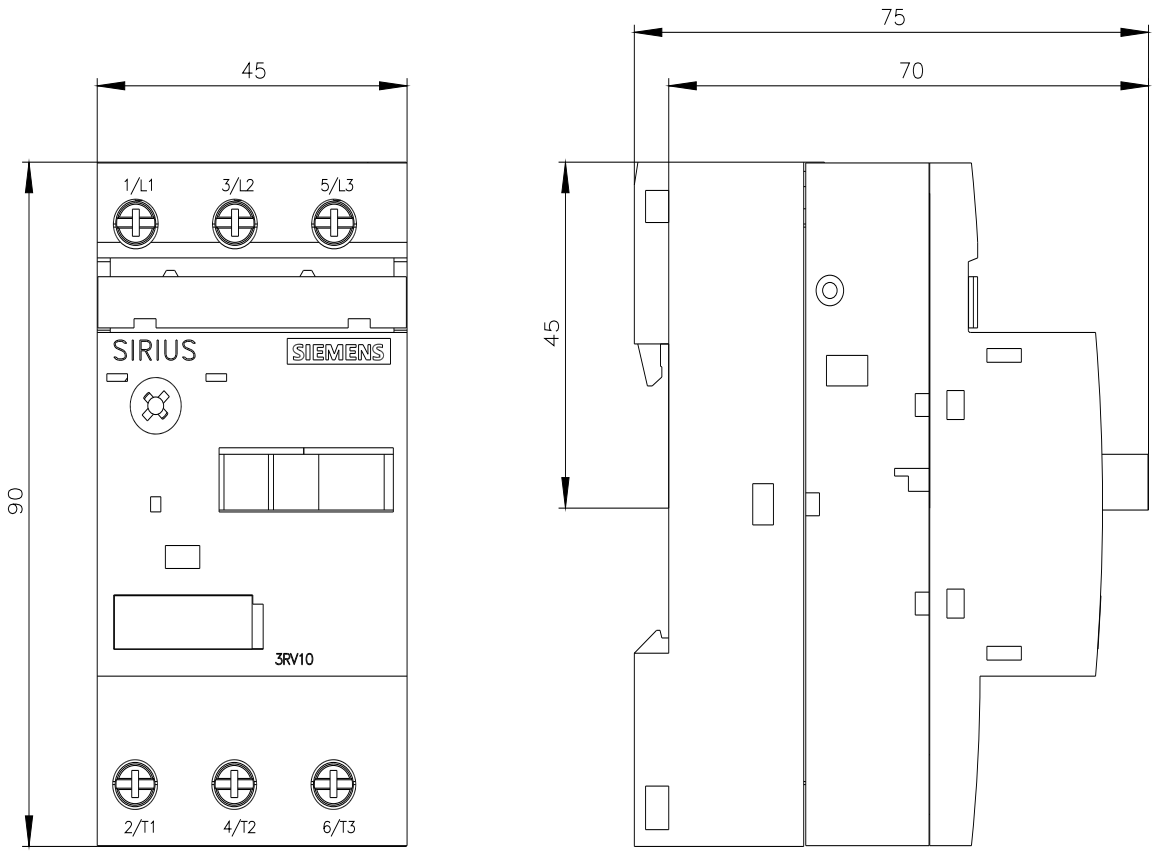
| other | Railway |
|---|---|
| Miscellaneous | Special Test Certificate |

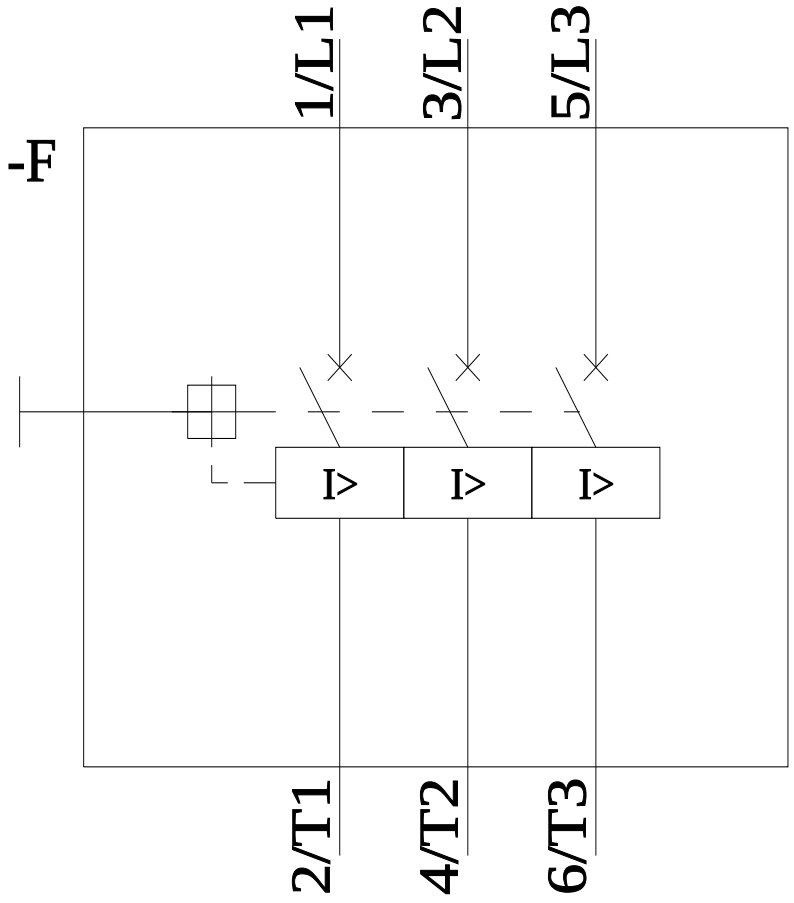
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## Further information

**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=3RV1011-0CA10
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-0CA10
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0CA10
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-0CA10&lang=en
**Characteristic: Tripping characteristics, I²t, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0CA10/char
**Further characteristics (e.g. electrical endurance, switching frequency)**
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-0CA10&objecttype=14&gridview=view1


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