SIEMENS

## Data sheet 3RV2011-1HA10

Siemens EcoTech



Circuit breaker size S00 for motor protection, CLASS 10 A-release 5.5...8 A N-release 104 A screw terminal Standard switching capacity

| | |
|---|---|
| **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** | S00 |
| **size of contactor can be combined company-specific** | S00, S0 |
| product extension auxiliary switch | Yes |
| **power loss [W] for rated value of the current** | |
| ● at AC in hot operating state | 9.25 W |
| ● at AC in hot operating state per pole | 3.1 W |
| insulation voltage with degree of pollution 3 at AC rated value | 690 V |
| **surge voltage resistance rated value** | 6 kV |
| **shock resistance according to IEC 60068-2-27** | 25g / 11 ms |
| **mechanical service life (operating cycles)** | |
| ● of the main contacts typical | 100 000 |
| ● of auxiliary contacts typical | 100 000 |
| electrical endurance (operating cycles) typical | 100 000 |
| **reference code according to IEC 81346-2** | Q |
| **Substance Prohibitance (Date)** | 10/01/2009 |
| **Net Weight** | 348.5 g |
| **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 |
| 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** | 5.5 ... 8 A |
| **type of voltage for main current circuit** | AC |
| **operating voltage** | |
| ● rated value | 20 ... 690 V |
| ● at AC-3 rated value maximum | 690 V |


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|---|---|
| ● at AC-3e rated value maximum | 690 V |
| **operating frequency rated value** | 50 ... 60 Hz |
| **operational current rated value** | 8 A |
| **operational current** | |
| ● at AC-3 at 400 V rated value | 8 A |
| ● at AC-3e at 400 V rated value | 8 A |
| **operating power** | |
| ● at AC-3 | |
| — at 230 V rated value | 1.5 kW |
| — at 400 V rated value | 3 kW |
| — at 500 V rated value | 4 kW |
| — at 690 V rated value | 5.5 kW |
| ● at AC-3e | |
| — at 230 V rated value | 1.5 kW |
| — at 400 V rated value | 3 kW |
| — at 500 V rated value | 4 kW |
| — at 690 V rated value | 5.5 kW |
| **operating frequency** | |
| ● at AC-3 maximum | 15 1/h |
| ● at AC-3e maximum | 15 1/h |
| **Auxiliary circuit** | |
| **type of voltage for auxiliary and control circuit** | AC/DC |
| **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 |
| **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 |
| **operating 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 |
| response value current of instantaneous short-circuit trip unit | 104 A |
| **UL/CSA ratings** | |
| **full-load current (FLA) for 3-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 | 0.33 hp |
| — at 230 V rated value | 1 hp |
| ● for 3-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 |
| **Category Control Number (CCN)** | E156943 (NKJH, NKJH7) |
| **Short-circuit protection** | |
| **product function short circuit protection** | Yes |
| **design of the short-circuit trip** | magnetic |


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| **design of the fuse link for IT network for short-circuit protection of the main circuit** | |
| ● at 400 V | gL/gG 50 A |
| ● at 500 V | gL/gG 40 A |
| ● at 690 V | gL/gG 35 A |
| **Installation/ mounting/ dimensions** | |
| **mounting position** | any |
| **fastening method** | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 |
| **height** | 97 mm |
| **width** | 45 mm |
| **depth** | 97 mm |
| **required spacing** | |
| ● with side-by-side mounting at the side | 0 mm |
| ● for grounded parts at 400 V | |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| ● for live parts at 400 V | |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| ● for grounded parts at 500 V | |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| ● for live parts at 500 V | |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| ● for grounded parts at 690 V | |
| — downwards | 50 mm |
| — upwards | 50 mm |
| — backwards | 0 mm |
| — at the side | 30 mm |
| — forwards | 0 mm |
| ● for live parts at 690 V | |
| — downwards | 50 mm |
| — upwards | 50 mm |
| — backwards | 0 mm |
| — at the side | 30 mm |
| — forwards | 0 mm |
| **Connections/ Terminals** | |
| **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 (0,75 ... 2,5 mm²), 2x 4 mm² |
| — finely stranded with core end processing | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| ● for AWG cables for main contacts | 2x (18 ... 14), 2x 12 |
| **tightening torque** | |
| ● for main contacts with screw-type terminals | 0.8 ... 1.2 N·m |
| **design of screwdriver shaft** | Diameter 5 to 6 mm |
| **size of the screwdriver tip** | Pozidriv size 2 |
| **design of the thread of the connection screw** | |
| ● for main contacts | M3 |
| **Safety related data** | |
| product function suitable for safety function | Yes |


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|---|---|
| **suitability for use** | |
| ● safety-related switching on | No |
| ● safety-related switching OFF | Yes |
| **service life maximum** | 10 a |
| **test wear-related service life necessary** | Yes |
| **proportion of dangerous failures** | |
| ● with low demand rate according to SN 31920 | 40 % |
| ● with high demand rate according to SN 31920 | 50 % |
| **B10 value with high demand rate according to SN 31920** | 5 000 |
| **failure rate [FIT] with low demand rate according to SN 31920** | 50 FIT |
| ISO 13849 | |
| **device type according to ISO 13849-1** | 3 |
| **overdimensioning according to ISO 13849-2 necessary** | Yes |
| IEC 61508 | |
| **safety device type according to IEC 61508-2** | Type A |
| **T1 value** | |
| ● for proof test interval or service life according to IEC 61508 | 10 a |
| Electrical Safety | |
| **protection class IP on the front according to IEC 60529** | IP20 |
| **touch protection on the front according to IEC 60529** | finger-safe, for vertical contact from the front |
| **Display** | |
| display version for switching status | Handle |
| **Approvals Certificates** | |
| Environmental Product Declaration | |
| ● global warming potential [CO2 eq] / during manufacturing | 1.98 kg |
| ● global warming potential [CO2 eq] / during sales | 0.134 kg |
| ● global warming potential [CO2 eq] / during operation | 72.7 kg |
| ● global warming potential [CO2 eq] / after end of life | -0.116 kg |
| ● global warming potential [CO2 eq] / total | 74.698 kg |

**Environment**

Environmental Confirmations

**General Product Approval**

**General Product Approval**

**For use in hazardous locations**

**For use in hazardous locations**

**Test Certificates**

Special Test Certificate

Type Test Certificates/Test Report

**Maritime application**

**Maritime application**

**other**

Miscellaneous

Confirmation

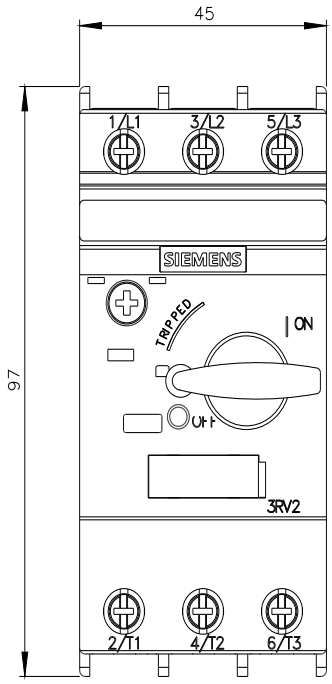

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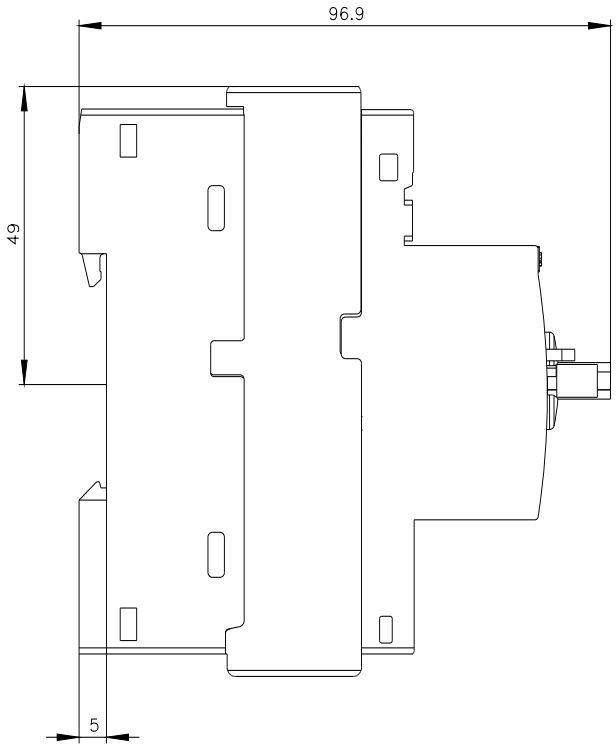
| other | Railway |
|---|---|

| | | |
|---|---|---|
| VDE | Special Test Certific-ate | Confirmation |

## Further information

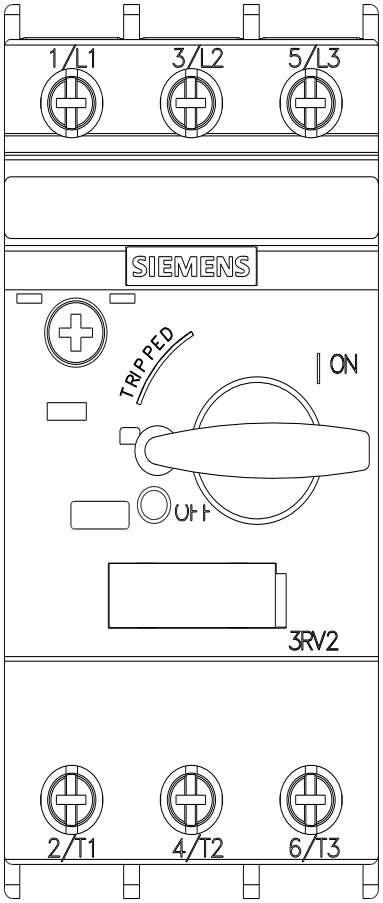
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**Characteristic curves**
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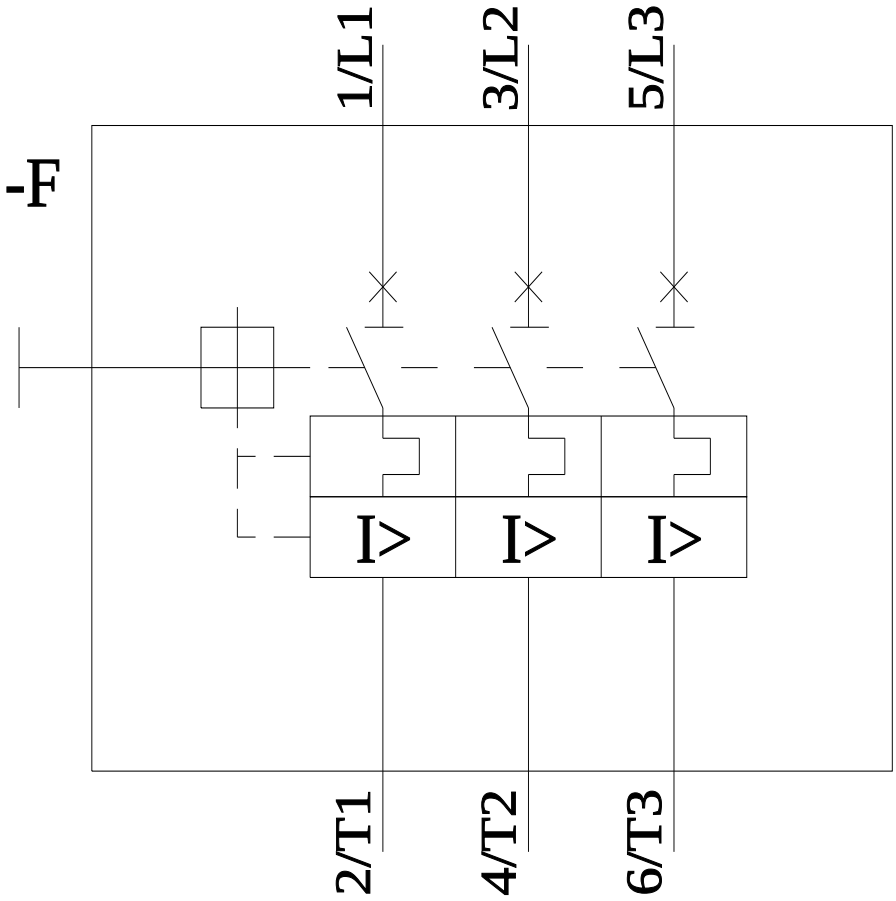




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