SIEMENS

Data sheet

3RV2021-1CA10



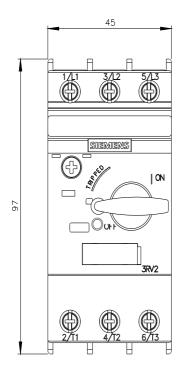
Circuit breaker size S0 for motor protection, CLASS 10 A-release 1.8...2.5 A N-release 33 A screw terminal Standard switching capacity

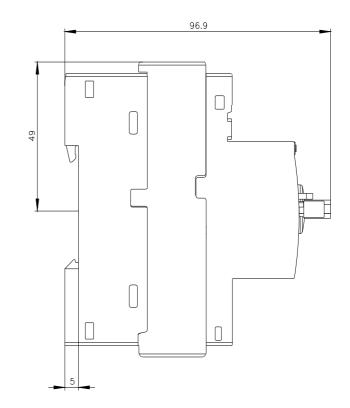
| 4/17 6/13 | |
|--|----------------------|
| product brand name | SIRIUS |
| product designation | Circuit breaker |
| design of the product | For motor protection |
| product type designation | 3RV2 |
| General technical data | |
| size of the circuit-breaker | S0 |
| size of contactor can be combined company-specific | S00, S0 |
| product extension auxiliary switch | Yes |
| power loss [W] for rated value of the current | |
| at AC in hot operating state | 7.25 W |
| at AC in hot operating state per pole | 2.4 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 |
| 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 according to IEC 81346-2 | Q |
| Substance Prohibitance (Date) | 10/01/2009 |
| 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 | 1.8 2.5 A |
| operating voltage | |
| rated value | 20 690 V |
| at AC-3 rated value maximum | 690 V |
| at AC-3e rated value maximum | 690 V |
| operating frequency rated value | 50 60 Hz |
| operational current rated value | 2.5 A |

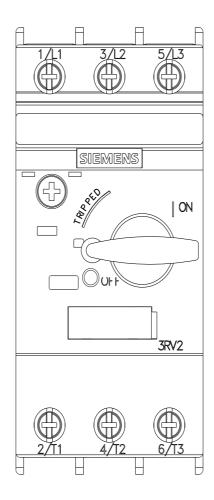
| operational current | 0.5.4 |
|--|--|
| • at AC-3 at 400 V rated value | 2.5 A |
| at AC-3e at 400 V rated value | 2.5 A |
| operating power • at AC-3 | |
| • at AC-3 — at 230 V rated value | 0.4 kW |
| — at 400 V rated value | 0.4 kW |
| — at 500 V rated value | 1.1 kW |
| — at 690 V rated value | 1.5 kW |
| • at AC-3e | 1.0 KW |
| — at 230 V rated value | 0.4 kW |
| — at 400 V rated value | 0.8 kW |
| — at 500 V rated value | 1.1 kW |
| — at 690 V rated value | 1.5 kW |
| operating frequency | |
| • at AC-3 maximum | 15 1/h |
| at AC-3e 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 | |
| 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 | 100 kA |
| at AC at 690 V rated value | 10 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 | 100 kA |
| • at 690 V rated value | 10 kA |
| response value current of instantaneous short-circuit trip unit | 33 A |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| at 480 V rated value | 2.5 A |
| at 600 V rated value | 2.5 A |
| yielded mechanical performance [hp] | |
| for single-phase AC motor | |
| — at 230 V rated value | 0.17 hp |
| • for 3-phase AC motor | |
| - at 200/208 V rated value | 0.5 hp |
| - at 220/230 V rated value | 0.5 hp |
| — at 460/480 V rated value — at 575/600 V rated value | 1 hp |
| | 1.5 hp |
| Short-circuit protection | Vee |
| product function short circuit protection | Yes |
| design of the short-circuit trip | magnetic |
| 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 | |
| | |

| hilure rate [FIT] • with low demand rate according to SN 31920 1 value for proof test interval or service life according to EC 61508 rotection class IP on the front according to IEC 0529 buch protection on the front according to IEC 60529 isplay version for switching status rtificates/ approvals | 50 % 50 % 50 FIT 10 a IP20 finger-safe, for vertical contact from the front Handle | |
|--|--|--|
| • with low demand rate according to SN 31920 1 value for proof test interval or service life according to EC 61508 rotection class IP on the front according to IEC 0529 buch protection on the front according to IEC 60529 | 50 % 50 FIT 10 a IP20 finger-safe, for vertical contact from the front | |
| • with low demand rate according to SN 31920 1 value for proof test interval or service life according to EC 61508 rotection class IP on the front according to IEC 0529 | 50 % 50 FIT 10 a IP20 | |
| • with low demand rate according to SN 31920 1 value for proof test interval or service life according to EC 61508 | 50 % 50 FIT 10 a | |
| • with low demand rate according to SN 31920 | 50 % | |
| nilure rate [FIT] | | |
| | | |
| with high demand rate according to SN 31920 | 50 % | |
| with low demand rate according to SN 31920 | 50.0/ | |
| roportion of dangerous failures | | |
| with high demand rate according to SN 31920 | 5 000 | |
| 10 value | | |
| e for main contacts | IVI** | |
| esign of the thread of the connection screw • for main contacts | M4 | |
| ize of the screwdriver tip | Pozidriv size 2 | |
| esign of screwdriver shaft | Diameter 5 to 6 mm | |
| for main contacts with screw-type terminals | 2 2.5 N·m | |
| ghtening torque | | |
| at AWG cables for main contacts | 2x (16 12), 2x (14 8) | |
| finely stranded with core end processing | 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² | |
| — solid or stranded | 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) | |
| • for main contacts | | |
| ircuit /pe of connectable conductor cross-sections | | |
| rrangement of electrical connectors for main current | Top and bottom | |
| for main current circuit | screw-type terminals | |
| pe of electrical connection | | |
| nnections/ Terminals | | |
| — forwards | 0 mm | |
| — at the side | 30 mm | |
| — upwards — backwards | 0 mm | |
| — downwards — upwards | 50 mm | |
| for live parts at 690 V — downwards | 50 mm | |
| forwards for live parts at 690 V | 0 mm | |
| — at the side — forwards | 30 mm | |
| — backwards | 0 mm | |
| — upwards | 50 mm | |
| — downwards | 50 mm | |
| • for grounded parts at 690 V | | |
| — at the side | 9 mm | |
| — upwards | 30 mm | |
| — downwards | 30 mm | |
| • for live parts at 500 V | | |
| — at the side | 9 mm | |
| — upwards | 30 mm | |
| for grounded parts at 500 V — downwards | 30 mm | |
| — at the side | 9 mm | |
| — upwards | 30 mm | |
| — downwards | 30 mm | |
| for live parts at 400 V | | |
| — at the side | 9 mm | |
| — upwards | 30 mm | |
| downwards | 30 mm | |
| with side-by-side mounting at the side for grounded parts at 400 V | 0 mm | |

| CCC | <u>Confirmation</u> | | <u>KC</u> | EHC | IECEx | | | |
|---|---|----------------------------|--|-------------------------------|---------------------|--|--|--|
| For use in hazard- ous locations | Declaration of Confo | rmity | Test Certificates | | Marine / Shipping | | | |
| K ATEX | UK CA | CE EG-Konf. | <u>Type Test Certific-</u> ates/Test Report | Special Test Certific- ate | ABS | | | |
| Marine / Shipping | | | | | other | | | |
| BUREAU VERITAS | | Lloyd's Register uts | PRS | RINA | <u>Confirmation</u> | | | |
| other | Railway | | | | | | | |
| VDE | Vibration and Shock | <u>Confirmation</u> | | | | | | |
| Further information | d to avit the Russian m | arkat (cao hara) | | | | | | |
| Siemens has decided to exit the Russian market (see here). https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business Siemens is working on the renewal of the current EAC certificates. Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus). Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875 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=3RV2021-1CA10 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1CA10 Service&Support (Manuals, Certificates, Characteristics, FAQs,) | | | | | | | | |
| Image database (pr | https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1CA10 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) | | | | | | | |
| http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1CA10⟨=en Characteristic: Tripping characteristics, I ² t, Let-through current http://www.automation.siemens.com/silddb/cax_de.aspx?mlfb=3RV2021-1CA10⟨=en | | | | | | | | |
| https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1CA10/char Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-1CA10&objecttype=14&gridview=view1 | | | | | | | | |
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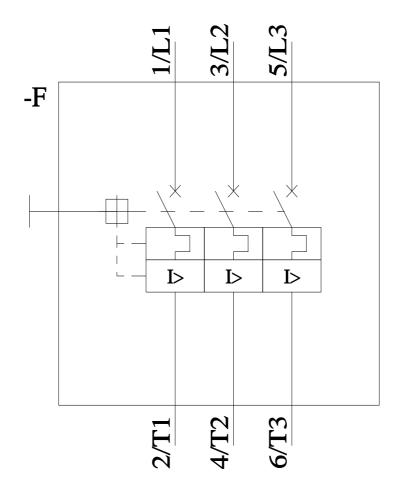






4/3/2023

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