SIEMENS

Data sheet 3RV2021-1DA10



Circuit breaker size S0 for motor protection, CLASS 10 A-release 2.2...3.2 A N release 42 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 | 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 |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibitance (Date) | 10/01/2009 |
| SVHC substance name | Lead - 7439-92-1 |
| Weight | 0.355 kg |
| 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 | 2.2 3.2 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 | 3.2 A |
| operational current | |
| at AC-3 at 400 V rated value | 3.2 A |
| at AC-3e at 400 V rated value | 3.2 A |
| operating power | |
| • at AC-3 | |
| — at 230 V rated value | 0.6 kW |
| — at 400 V rated value | 1.1 kW |
| — at 500 V rated value | 1.5 kW |
| — at 690 V rated value | 2.2 kW |
| • at AC-3e | |
| — at 230 V rated value | 0.6 kW |
| — at 400 V rated value | 1.1 kW |
| — at 500 V rated value | 1.5 kW |
| — at 690 V rated value | 2.2 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 | 42 A |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| at 480 V rated value | 3.2 A |
| • at 600 V rated value | 3.2 A |
| yielded mechanical performance [hp] | |
| • for single-phase AC motor | 0.4 hp |
| — at 110/120 V rated value | 0.1 hp |
| — at 230 V rated value | 0.25 hp |
| for 3-phase AC motor at 200/208 V rated value. | 0.5 ho |
| — at 200/208 V rated value | 0.5 hp |
| — at 220/230 V rated value | 0.75 hp |
| — at 460/480 V rated value— at 575/600 V rated value | 2 hp 2 hp |
| - at 5/5/600 v Tated value Short-circuit protection | 2 IIP |
| | Yes |
| product function short circuit protection design of the short-circuit trip | |
| Installation/ mounting/ dimensions | magnetic |
| mounting position | any |
| fastening method | any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 |
| height | 97 mm |
| noight | Vi IIIII |

| 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 | V IIIII |
| — downwards | 30 mm |
| — upwards | 30 mm |
| · | 9 mm |
| — at the side | 9 11111 |
| for grounded parts at 500 V | 00 |
| — 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 (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 cables 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 |
| size of the screwdriver tip | Pozidriv size 2 |
| design of the thread of the connection screw | |
| • for main contacts | M4 |
| Safety related data | |
| product function suitable for safety function | Yes |
| suitability for use | 100 |
| 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 | 40.07 |
| with low demand rate according to SN 31920 | 40 % |
| - | |
| with high demand rate according to SN 31920 | 50 % |
| - | 50 % 5 000 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 | |
| General Product Approval | |

Confirmation









<u>KC</u>

General Product Approval

For use in hazardous locations

Test Certificates

Marine / Shipping







Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping







LRS





Miscellaneous

other

other

Railway

Environment

Confirmation



Special Test Certificate

Confirmation



Siemens EcoTech



Environment

Environmental Confirmations

Further information

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=3RV2021-1DA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1DA10

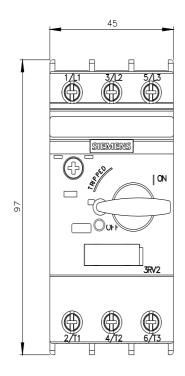
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

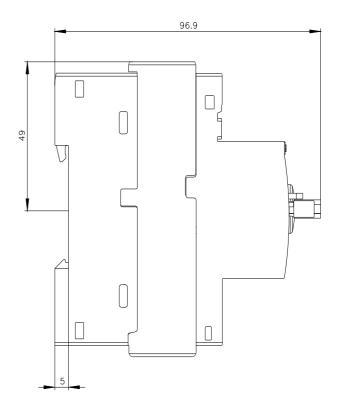
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1DA10

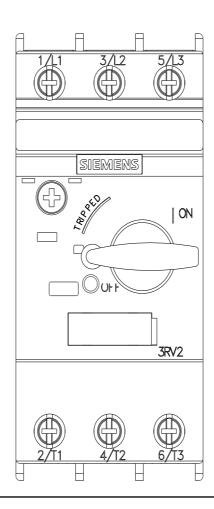
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$

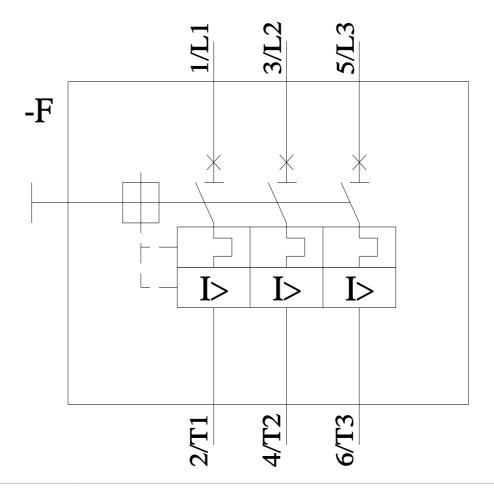
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1DA10&lang=en

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last modified: 4/12/2024 🖸