

Circuit breaker size S00 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 | S00 |
| Size of contactor can be combined company-specific | S00, S0 |
| Product extension | |
| • Auxiliary switch | Yes |
| Power loss [W] total typical | 6 W |
| Power loss [W] for rated value of the current | |
| • at AC in hot operating state per pole | 2.4 W |
| Insulation voltage with degree of pollution 3 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 |

| | |
|---|-------------------|
| <ul style="list-style-type: none"> • in networks with grounded star point between main and auxiliary circuit | 400 V |
| Protection class IP | |
| <ul style="list-style-type: none"> • on the front | IP20 |
| <ul style="list-style-type: none"> • of the terminal | IP20 |
| Shock resistance | |
| <ul style="list-style-type: none"> • acc. to IEC 60068-2-27 | 25g / 11 ms |
| Mechanical service life (switching cycles) | |
| <ul style="list-style-type: none"> • of the main contacts typical | 100 000 |
| <ul style="list-style-type: none"> • of auxiliary contacts typical | 100 000 |
| Electrical endurance (switching cycles) | |
| <ul style="list-style-type: none"> • 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 |
| Protection against electrical shock | finger-safe |
| Reference code acc. to DIN EN 81346-2 | Q |

Ambient conditions

| | |
|--|----------------|
| Installation altitude at height above sea level | |
| <ul style="list-style-type: none"> • maximum | 2 000 m |
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation | -20 ... +60 °C |
| <ul style="list-style-type: none"> • during storage | -50 ... +80 °C |
| <ul style="list-style-type: none"> • 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 pick-up value current of the current-dependent overload release | 2.2 ... 3.2 A |
| Operating voltage | |
| <ul style="list-style-type: none"> • rated value | 690 V |
| <ul style="list-style-type: none"> • at AC-3 rated value maximum | 690 V |
| Operating frequency rated value | 50 ... 60 Hz |
| Operating current rated value | 3.2 A |
| Operating current | |
| <ul style="list-style-type: none"> • at AC-3 | |
| <ul style="list-style-type: none"> — at 400 V rated value | 3.2 A |
| Operating power | |
| <ul style="list-style-type: none"> • at AC-3 | |
| <ul style="list-style-type: none"> — at 230 V rated value | 550 W |

| | |
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| — at 400 V rated value | 1 100 W |
| — at 500 V rated value | 1 500 W |
| — at 690 V rated value | 2 200 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 | |
| • 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 |
| Operational 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 |
| 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 |
| 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 instantaneous short-circuit trip unit | 42 A |
| UL/CSA ratings | |
| Full-load current (FLA) for three-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 | |

| | |
|----------------------------|---------|
| — at 110/120 V rated value | 0.1 hp |
| — at 230 V rated value | 0.25 hp |
| • for three-phase AC motor | |
| — at 200/208 V rated value | 0.5 hp |
| — at 220/230 V rated value | 0.75 hp |
| — at 460/480 V rated value | 1.5 hp |
| — at 575/600 V rated value | 2 hp |

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 400 V | gL/gG 25 A |
| • at 500 V | gL/gG 32 A |
| • at 690 V | gL/gG 25 A |

Installation/ mounting/ dimensions

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|------------------------------|--|
| Mounting position | any |
| 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 | 97 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 <ul style="list-style-type: none"> removable terminal for auxiliary and control circuit | No |
| Type of electrical connection <ul style="list-style-type: none"> for main current circuit | screw-type terminals |
| Arrangement of electrical connectors for main current circuit | Top and bottom |
| Type of connectable conductor cross-sections <ul style="list-style-type: none"> for main contacts <ul style="list-style-type: none"> single or multi-stranded finely stranded with core end processing at AWG conductors for main contacts | 2x (0,75 ... 2,5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (18 ... 14), 2x 12 |
| Tightening torque <ul style="list-style-type: none"> 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 2 |
| Design of the thread of the connection screw <ul style="list-style-type: none"> for main contacts | M3 |

Safety related data

| | |
|---|--------------|
| B10 value <ul style="list-style-type: none"> with high demand rate acc. to SN 31920 | 5 000 |
| Proportion of dangerous failures <ul style="list-style-type: none"> with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 | 50 % 50 % |
| Failure rate [FIT] <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> for switching status | Handle |

Certificates/ approvals

| General Product Approval | For use in hazardous locations |
|--------------------------|--------------------------------|
|--------------------------|--------------------------------|



| Declaration of Conformity | Test Certificates | Marine / Shipping |
|---------------------------|-------------------|-------------------|
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[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



| Marine / Shipping | other |
|-------------------|-------|
|-------------------|-------|



[Confirmation](#)

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



[Vibration and Shock](#)

[Confirmation](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2011-1DA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1DA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1DA10>

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

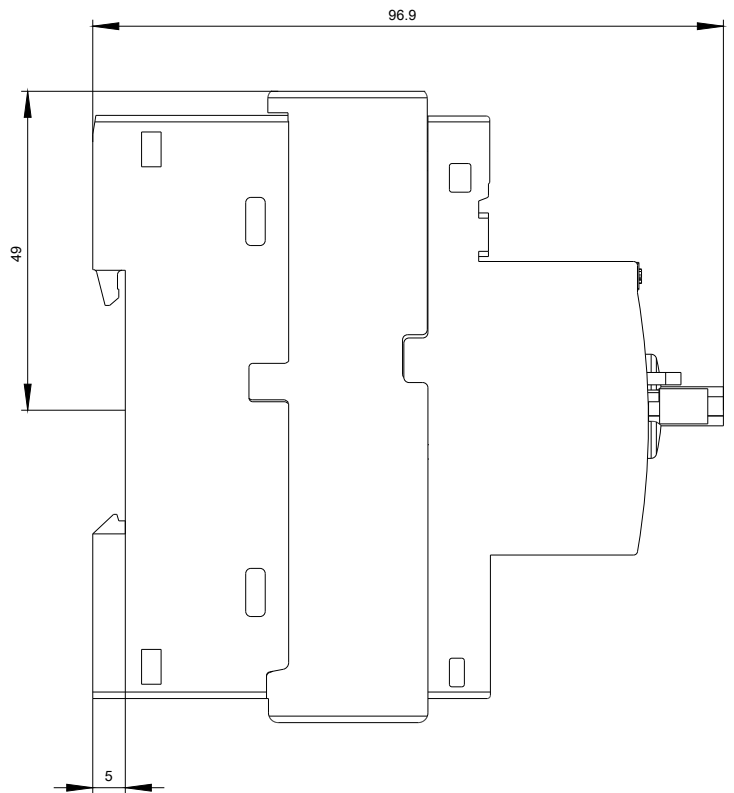
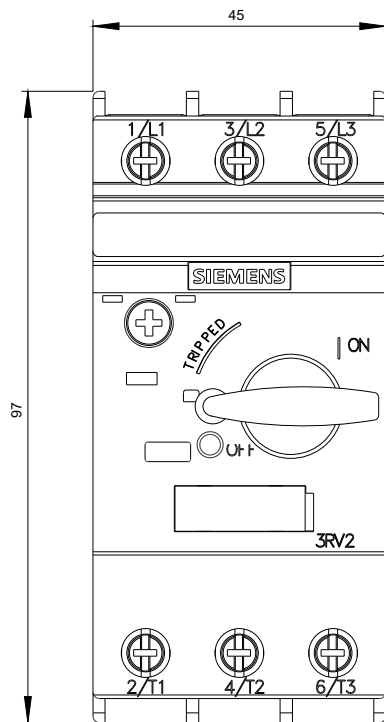
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1DA10&lang=en

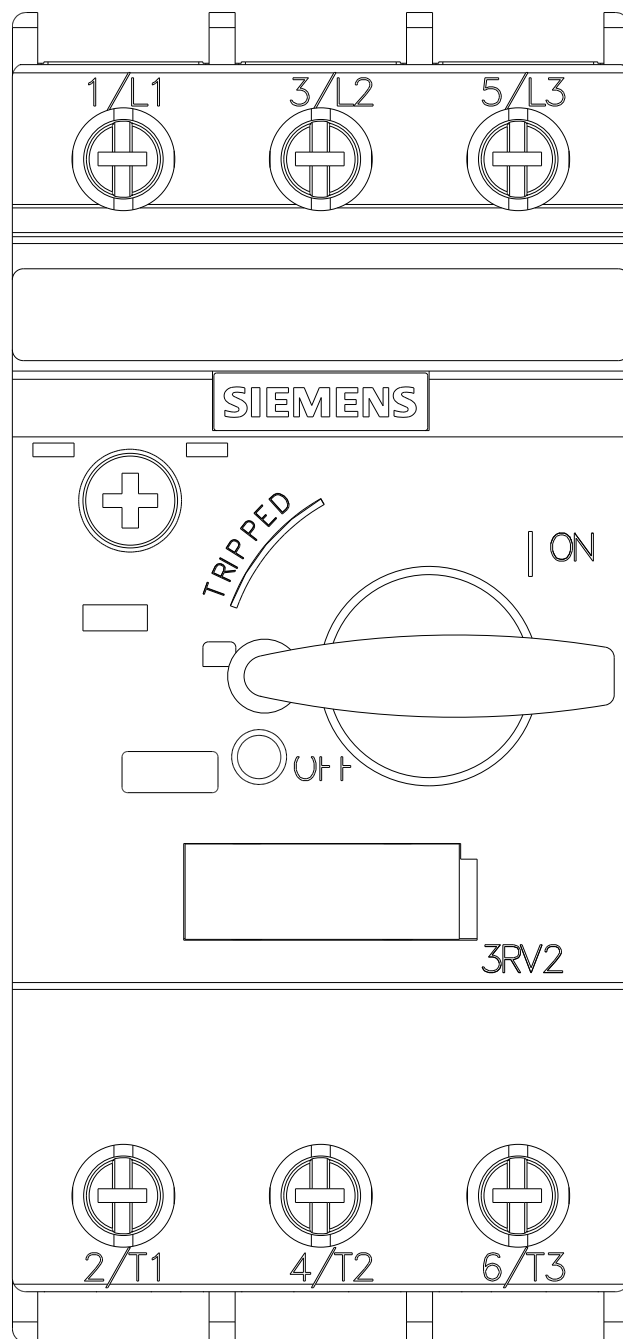
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1DA10/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1DA10&objecttype=14&gridview=view1>







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