

Circuit breaker size S00 for transformer protection A-release 4.5...6.3
A N release 130 A screw terminal Standard switching capacity



| | |
|--------------------------|----------------------------|
| Product brand name | SIRIUS |
| Product designation | Circuit breaker |
| Design of the product | For transformer 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 |
| 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 |
| • in networks with grounded star point between main and auxiliary circuit | 400 V |
| Protection class IP | |

| | |
|---------------------------------------------------|-------------|
| • on the front | IP20 |
| • of the terminal | IP20 |
| Shock resistance | |
| • acc. to IEC 60068-2-27 | 25g / 11 ms |
| 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 |
| Certificate of suitability ATEX | No |
| Protection against electrical shock | finger-safe |
| Reference code acc. to DIN EN 81346-2 | Q |

Ambient conditions

| | |
|--------------------------------------------------------|----------------|
| Installation altitude at height above sea level | |
| • maximum | 2 000 m |
| 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 | 4.5 ... 6.3 A |
| Operating voltage | |
| • rated value | 690 V |
| • at AC-3 rated value maximum | 690 V |
| Operating frequency rated value | 50 ... 60 Hz |
| Operating current rated value | 6.3 A |
| Operating current | |
| • at AC-3 | |
| — at 400 V rated value | 6.3 A |
| Operating power | |
| • at AC-3 | |
| — at 230 V rated value | 1 500 W |
| — at 400 V rated value | 2 200 W |
| — at 500 V rated value | 3 000 W |
| — at 690 V rated value | 4 000 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 | 4 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 | 6 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 | 130 A |

UL/CSA ratings

| | |
|---------------------------------------------------------|---------|
| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 6.3 A |
| • at 600 V rated value | 6.3 A |
| Yielded mechanical performance [hp] | |
| • for single-phase AC motor | |
| — at 110/120 V rated value | 0.25 hp |
| — at 230 V rated value | 0.5 hp |
| • for three-phase AC motor | |
| — at 200/208 V rated value | 1 hp |
| — at 220/230 V rated value | 1.5 hp |
| — at 460/480 V rated value | 3 hp |
| — at 575/600 V rated value | 5 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 50 A |
| • at 500 V | gL/gG 40 A |
| • at 690 V | gL/gG 35 A |

| Installation/ mounting/ dimensions | |
|-------------------------------------------|----------------------------------------------------------------------------------------|
| 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 | |
| • 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 | |

| | |
|-----------------------------------------------------|-----------------------------------------------------------------------|
| — single or multi-stranded | 2x (0.75 ... 2.5 mm ²), 2x 4 mm ² |
| — finely stranded with core end processing | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| • at AWG conductors 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 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 |
| T1 value for proof test interval or service life acc. to IEC 61508 | 10 y |
| Display version | |
| • for switching status | Handle |

| Certificates/approvals | |
|---------------------------------|----------------------------------|
| General Product Approval | Declaration of Conformity |



CCC



CSA



UL



EG-Konf.

[Miscellaneous](#)

| Test Certificates | Marine / Shipping |
|----------------------------------------------------|------------------------------------------|
| Type Test Certificates/Test Report | Special Test Certificate |



ABS



BUREAU VERITAS



LRS



PRIS

| Marine / Shipping | other | Railway |
|--------------------------|------------------------------|-------------------------------------|
| | Confirmation | Vibration and Shock |

| Further information |
|----------------------------|
|----------------------------|

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2411-1GA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2411-1GA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1GA10>

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

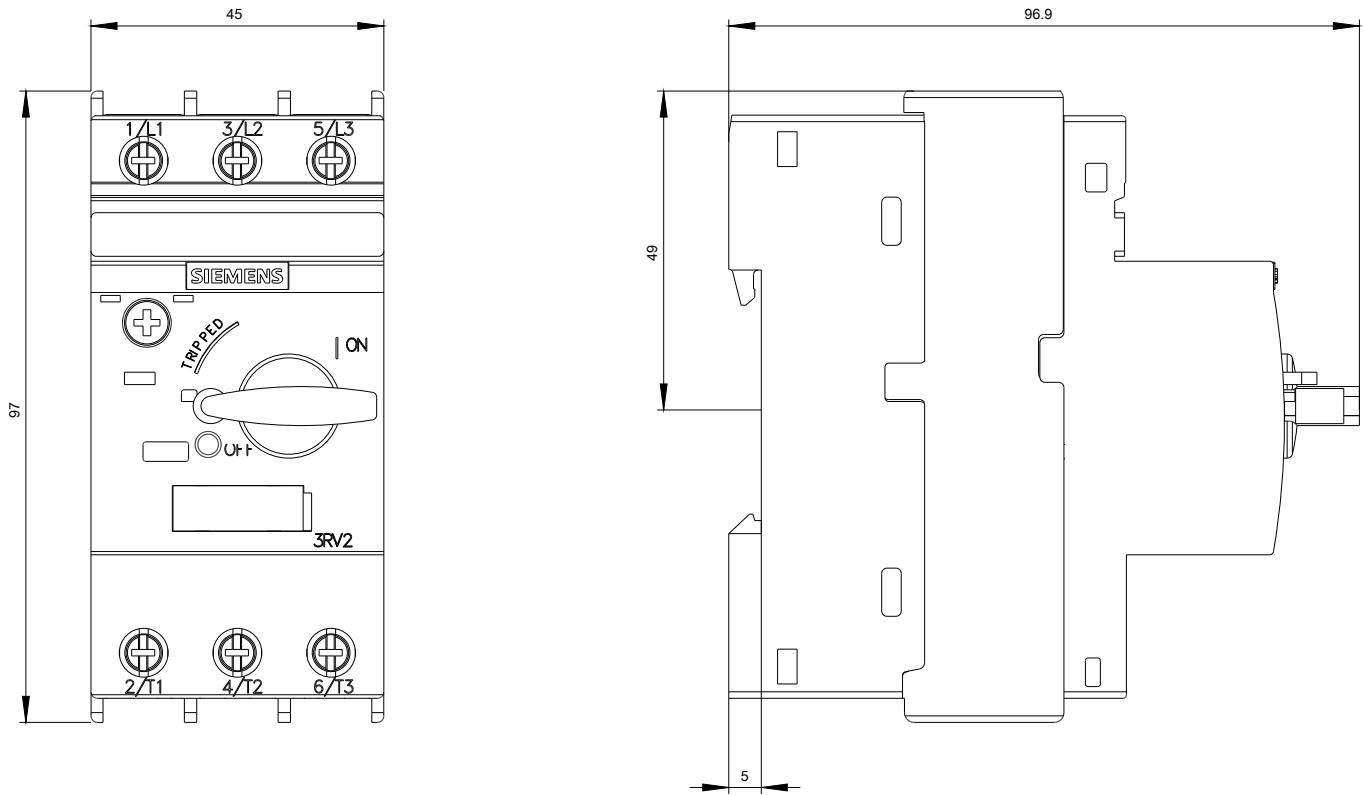
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2411-1GA10&lang=en

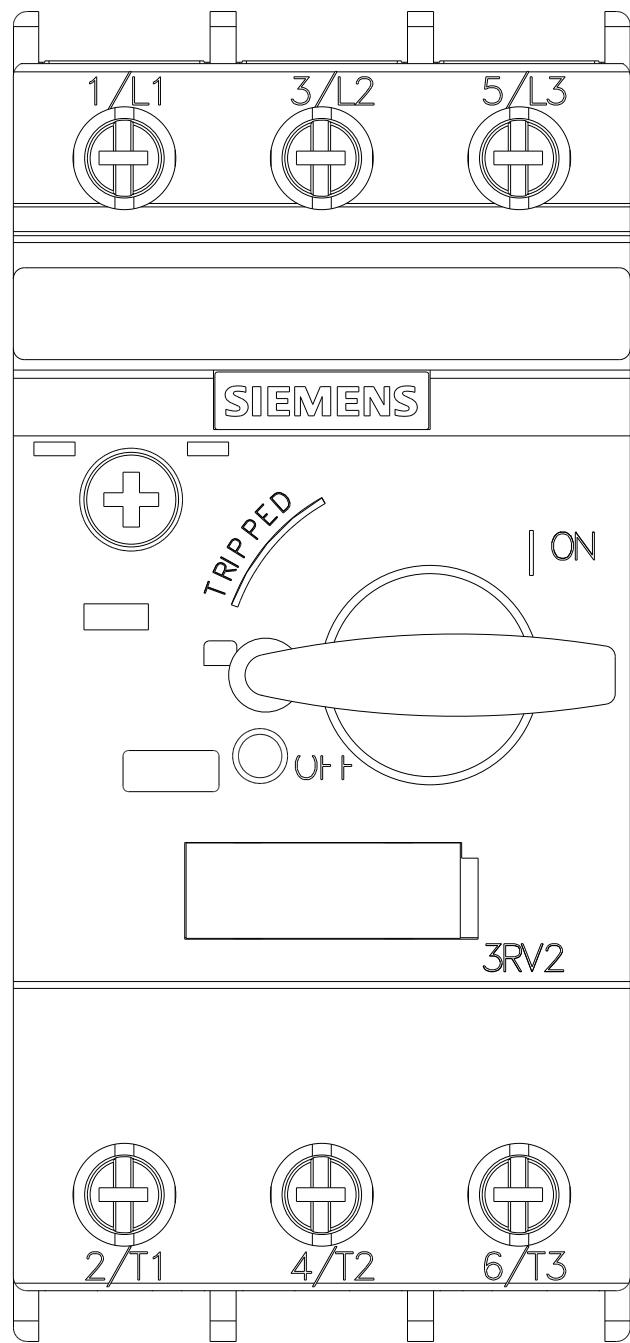
Characteristic: Tripping characteristics, I^2t , Let-through current

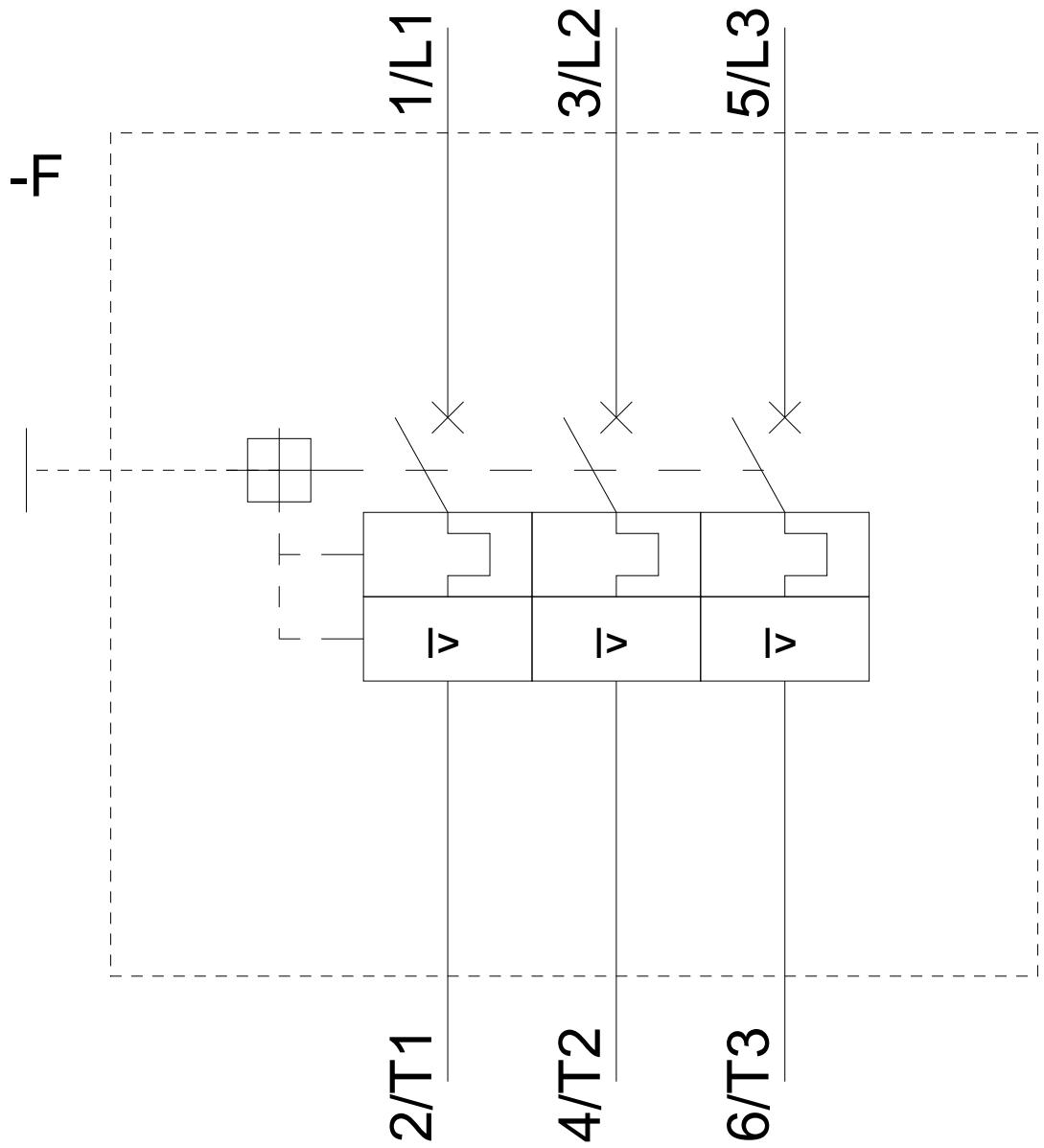
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1GA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2411-1GA10&objecttype=14&gridview=view1>







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