

CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 9..12.5A, N-RELEASE 163A, SPRING-L. CONNECTION, STANDARD SW. CAPACITY



| | |
|--------------------------|----------------------|
| product brandname | 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 | 7 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 | |

| | |
|---|--------------------|
| <ul style="list-style-type: none"> • on the front • of the terminal | IP20 IP20 |
| Mechanical service life (switching cycles) | |
| <ul style="list-style-type: none"> • of the main contacts typical • of auxiliary contacts typical | 100 000 100 000 |
| Electrical endurance (switching cycles) | |
| <ul style="list-style-type: none"> • typical | 100 000 |
| Type of protection | Increased safety |
| Protection against electrical shock | finger-safe |
| Equipment marking acc. to DIN EN 81346-2 | Q |

Ambient conditions

| | |
|--|--|
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation • during storage • during transport | -20 ... +60 °C -50 ... +80 °C -50 ... +80 °C |
| Temperature compensation | -20 ... +60 °C |

Main circuit

| | |
|---|--|
| Number of poles for main current circuit | 3 |
| Adjustable pick-up value current of the current-dependent overload release | 9 ... 12.5 A |
| Operating voltage | |
| <ul style="list-style-type: none"> • rated value • at AC-3 rated value maximum | 690 V 690 V |
| Operating frequency rated value | 50 ... 60 Hz |
| Operating current rated value | 12.5 A |
| Operating current | |
| <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value | 12.5 A |
| Operating power | |
| <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value | 3 000 W 5 500 W 7 500 W 7 500 W |
| Operating frequency | |
| <ul style="list-style-type: none"> • at AC-3 maximum | 15 1/h |

Auxiliary circuit

| | |
|--|---|
| Number of NC contacts | |
| <ul style="list-style-type: none"> • for auxiliary contacts | 0 |
| Number of NO contacts | |
| <ul style="list-style-type: none"> • for auxiliary contacts | 0 |

| | |
|---|---|
| Number of CO contacts | |
| <ul style="list-style-type: none"> • for auxiliary contacts | 0 |
| Protective and monitoring functions | |
| Product function | |
| <ul style="list-style-type: none"> • Ground fault detection • Phase failure detection | No Yes |
| Trip class | CLASS 10 |
| Design of the overload release | thermal |
| Operational short-circuit current breaking capacity (Ics) at AC | |
| <ul style="list-style-type: none"> • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value | 100 kA 100 kA 42 kA 4 kA |
| Maximum short-circuit current breaking capacity (Icu) | |
| <ul style="list-style-type: none"> • at AC at 240 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at AC at 690 V rated value | 100 kA 100 kA 42 kA 6 kA |
| Breaking capacity short-circuit current (Icn) | |
| <ul style="list-style-type: none"> • at 1 current path at DC at 150 V rated value • with 2 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 450 V rated value | 10 kA 10 kA 10 kA |
| UL/CSA ratings | |
| Full-load current (FLA) for three-phase AC motor | |
| <ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value | 12.5 A 12.5 A |
| Yielded mechanical performance [hp] | |
| <ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value | 0.5 hp 2 hp 3 hp 3 hp 7.5 hp 10 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 | |
| <ul style="list-style-type: none"> • at 400 V • at 500 V • at 690 V | gL/gG 63 A gL/gG 50 A gL/gG 40 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 | 106 mm |
| Width | 45 mm |
| Depth | 96 mm |
| Required spacing | |
| <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side | 0 mm 0 mm 50 mm 50 mm 0 mm 0 mm 0 mm 50 mm 30 mm 50 mm 0 mm 0 mm 50 mm 50 mm 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 | spring-loaded 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 | 2x (0,5 ... 4 mm ²) |

| | |
|---|-----------------------------------|
| — finely stranded with core end processing | 2x (0.5 ... 2.5 mm ²) |
| — finely stranded without core end processing | 2x (0.5 ... 2.5 mm ²) |
| • at AWG conductors for main contacts | 2x (20 ... 12) |
| Design of screwdriver shaft | Diameter 3 mm |

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 | For use in hazardous locations |
|--------------------------|--------------------------------|



[KC](#)



| | | | |
|--------------------------------|---------------------------|-------------------|-------------------|
| For use in hazardous locations | Declaration of Conformity | Test Certificates | Shipping Approval |
|--------------------------------|---------------------------|-------------------|-------------------|



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



| | |
|-------------------|-------|
| Shipping Approval | other |
|-------------------|-------|



[Confirmation](#)

[Environmental Confirmations](#)

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



[Miscellaneous](#)

[Vibration and Shock](#)

Further information

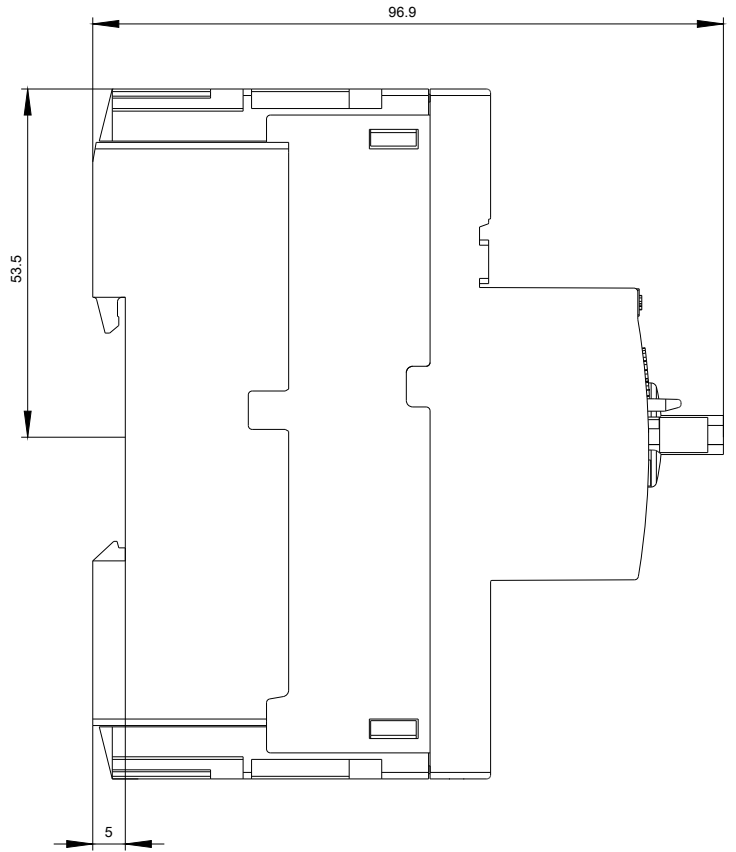
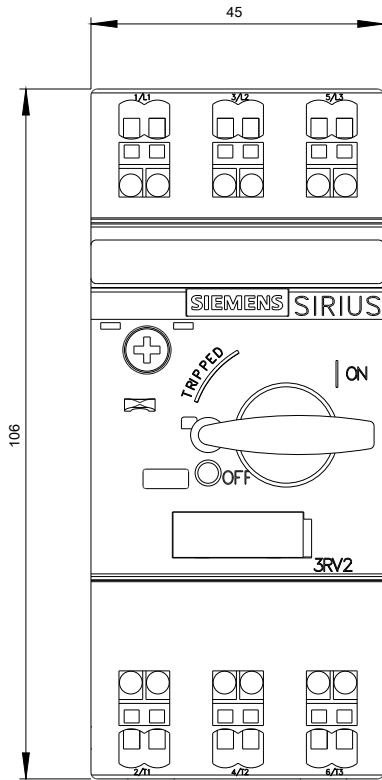
Information- and Downloadcenter (Catalogs, Brochures,...)
<http://www.siemens.com/industrial-controls/catalogs>

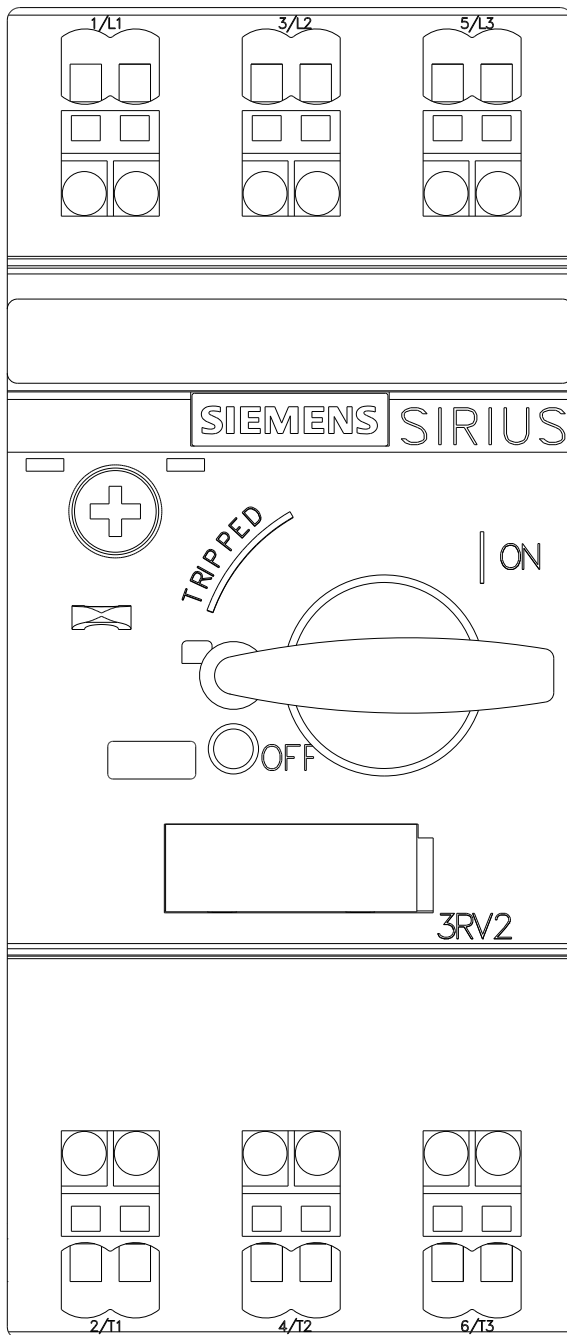
Industry Mall (Online ordering system)
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2011-1KA20>

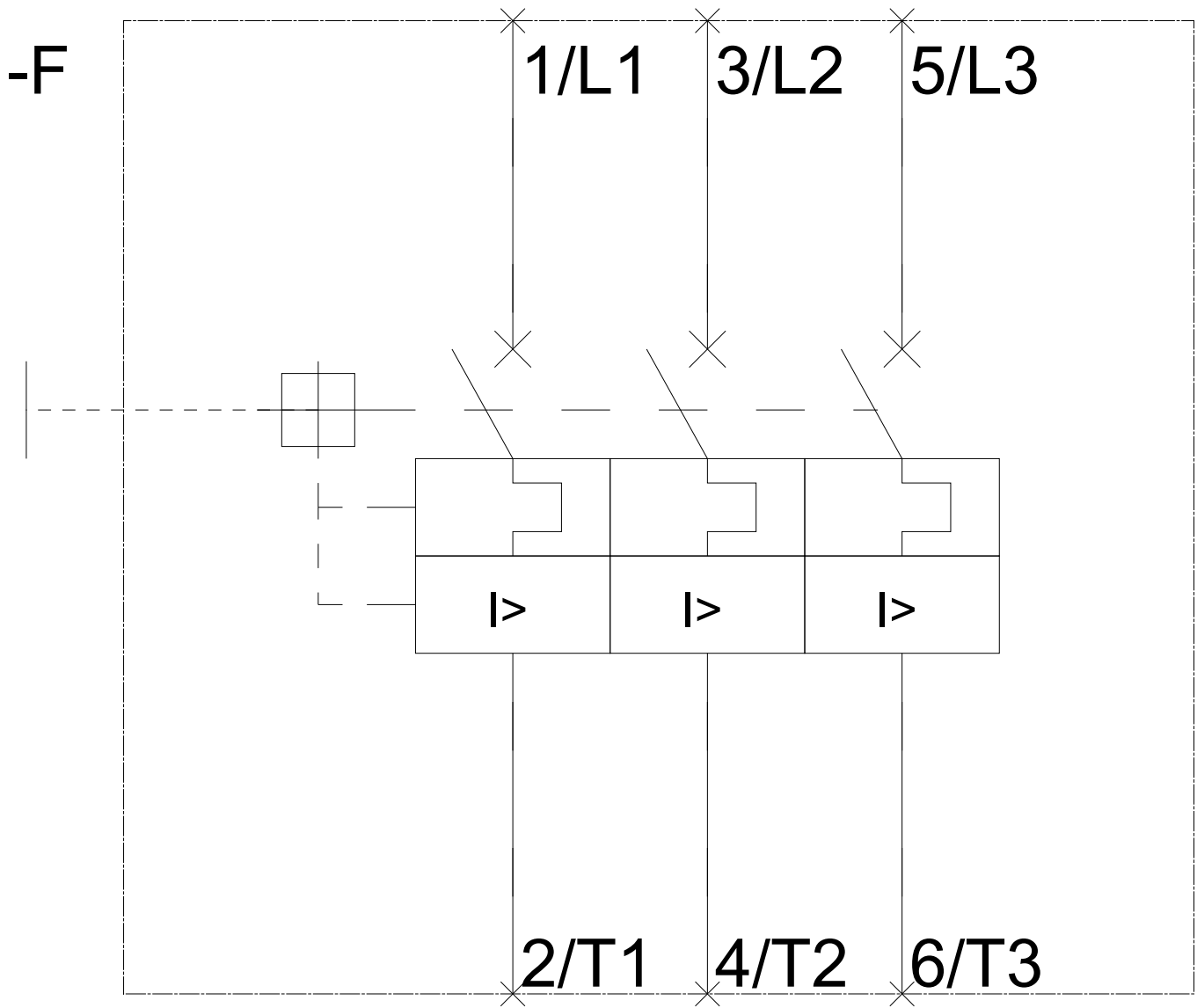
Cax online generator
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1KA20>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1KA20>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1KA20&lang=en







last modified:

07/01/2017