SIEMENS

Data sheet 3RV2111-0CA10



Circuit breaker size S00 for motor protection, CLASS 10 with overload relay function A-release 0.18...0.25 A N-release 3.3 A screw terminal Standard switching capacity

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection with overload relay function
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] for rated value of the current	
 at AC in hot operating state 	5.5 W
 at AC in hot operating state per pole 	1.8 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
oubstance i rombitance (bate)	
Ambient conditions	
	2 000 m
Ambient conditions	
Ambient conditions installation altitude at height above sea level maximum	
Ambient conditions installation altitude at height above sea level maximum ambient temperature	2 000 m
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation	2 000 m -20 +60 °C
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage	2 000 m -20 +60 °C -50 +80 °C
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C
Ambient conditions installation altitude at height above sea level maximum ambient temperature	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
Ambient conditions installation altitude at height above sea level maximum ambient temperature	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
Ambient conditions installation altitude at height above sea level maximum ambient temperature	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
Ambient conditions installation altitude at height above sea level maximum ambient temperature	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 0.18 0.25 A
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 0.18 0.25 A
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 0.18 0.25 A
Ambient conditions installation altitude at height above sea level maximum ambient temperature	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 0.18 0.25 A 20 690 V 690 V
Ambient conditions installation altitude at height above sea level maximum ambient temperature	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 0.18 0.25 A 20 690 V 690 V 690 V 50 60 Hz
installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum • at AC-3e rated value maximum operating frequency rated value operational current rated value	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 0.18 0.25 A 20 690 V 690 V 690 V 50 60 Hz

operating power	
• at AC-3	
— at 230 V rated value	0 kW
— at 400 V rated value	0.06 kW
— at 500 V rated value	0.1 kW
— at 690 V rated value	0.1 kW
• at AC-3e	
— at 230 V rated value	0 kW
— at 400 V rated value	0.06 kW
— at 500 V rated value	0.1 kW
— at 690 V rated value	0.1 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
design of the auxiliary switch	laterally
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
• at 24 V	1.5 A
• at 230 V	1.5 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1 A
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	100 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	100 kA
response value current of instantaneous short-circuit trip unit	3.3 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	0.25 A
at 600 V rated value	0.25 A
contact rating of auxiliary contacts according to UL	C600 / R300
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link	
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 6 A, quick: 10 A
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	65 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
— upwards — at the side	9 mm
	311111
• for live parts at 400 V	30 mm
— downwards	30 mm
— upwards	
— at the side	9 mm
for grounded parts at 500 V	
— 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
for auxiliary and control circuit	screw-type terminals
arrangement of electrical connectors for main current	Top and bottom
circuit	
type of connectable conductor cross-sections	
• for main contacts	
— solid or stranded	2x (0,75 2,5 mm²), 2x 4 mm²
finally attended with care and processing	0 (0 - 4 - 0) 0 (0 - 0 - 0)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
Inner stranded with core end processing for AWG cables for main contacts	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (18 14), 2x 12
•	
for AWG cables for main contacts type of connectable conductor cross-sections	
for AWG cables for main contacts	
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing for AWG cables for auxiliary contacts	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing for AWG cables for auxiliary contacts tightening torque	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing for AWG cables for auxiliary contacts tightening torque for main contacts with screw-type terminals	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts tightening torque • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts tightening torque • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals design of screwdriver shaft	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m Diameter 5 to 6 mm
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing for AWG cables for auxiliary contacts tightening torque for main contacts with screw-type terminals for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts tightening torque • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts tightening torque • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2 M3
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing for AWG cables for auxiliary contacts tightening torque for main contacts with screw-type terminals for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw for main contacts of the auxiliary and control contacts	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing for AWG cables for auxiliary contacts tightening torque for main contacts with screw-type terminals for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw for main contacts of the auxiliary and control contacts Safety related data	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2
for AWG cables for main contacts type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts tightening torque • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts • of the auxiliary and control contacts Safety related data B10 value	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2 M3 M3
for AWG cables for main contacts type of connectable conductor cross-sections • for auxiliary contacts	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2
for AWG cables for main contacts type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing for AWG cables for auxiliary contacts tightening torque for main contacts with screw-type terminals for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw for main contacts of the auxiliary and control contacts Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2 M3 M3 M3
for AWG cables for main contacts type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts tightening torque • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts • of the auxiliary and control contacts Safety related data B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2 M3 M3 5 000
for AWG cables for main contacts type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts tightening torque • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts • of the auxiliary and control contacts Safety related data B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2 M3 M3 M3
for AWG cables for main contacts type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts tightening torque • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts • of the auxiliary and control contacts Safety related data B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT]	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2 M3 M3 5 000
for AWG cables for main contacts type of connectable conductor cross-sections • for auxiliary contacts	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2 M3 M3 5 000 50 % 50 % 50 FIT
for AWG cables for main contacts type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts tightening torque • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts • of the auxiliary and control contacts Safety related data B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT]	2x (18 14), 2x 12 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) 0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2 M3 M3 5 000

protection class IP on the front according to IEC 60529

touch protection on the front according to IEC 60529

display version for switching status

IP20

Handle

Certificates/ approvals

General Product Approval

Declaration of Conformity



Confirmation



<u>KC</u>





Declaration of Conformity

Test Certificates

Marine / Shipping



Special Test Certificate

Type Test Certificates/Test Report







Marine / Shipping

other

Railway







Confirmation



Confirmation

Railway

Vibration and Shock

Further information

Siemens has decided to exit the Russian market (see here).

 $\underline{\text{https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business}}$

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=3RV2111-0CA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2111-0CA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-0CA10

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

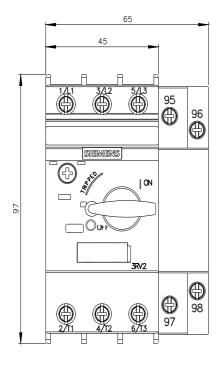
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-0CA10\&lang=ender.siemens.com/bilddb/cax_de.aspx.siemens.com/bi$

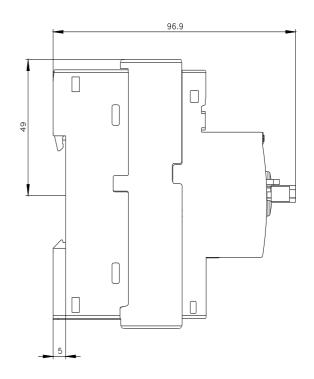
Characteristic: Tripping characteristics, I^2t , Let-through current

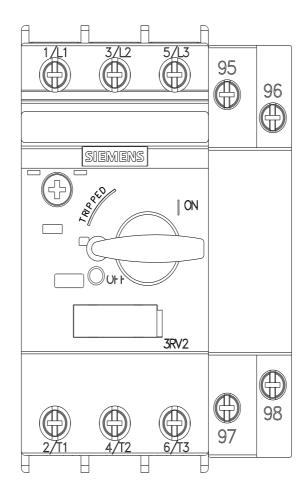
https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-0CA10/char

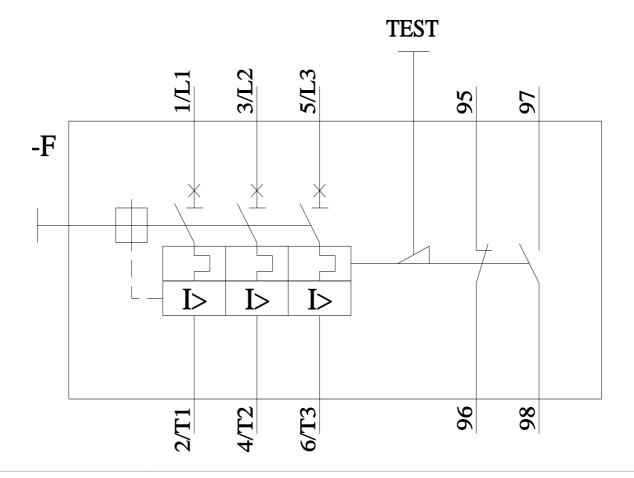
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2111-0CA10&objecttype=14&gridview=view1









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