SIEMENS

Data sheet 3RV1011-1EA10

CIRCUIT-BREAKER SIZE S00, FOR MOTOR PROTECTION, CLASS 10, A-REL. 2.8...4A, N-REL. 52A, SCREW TERMINAL, STANDARD SWITCHING CAPACITY



Product brand name	SIRIUS
Product designation	Circuit breaker
Design of the product	For motor protection
Product type designation	3RV1

General technical data	
Size of the circuit-breaker	S00
Size of contactor can be combined company-specific	S00
Product extension	
Auxiliary switch	Yes
Power loss [W] total typical	6 W
Insulation voltage with degree of pollution 3 rated	690 V
value	
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
 in networks with grounded star point between 	400 V
main and auxiliary circuit	
 in networks with grounded star point between 	400 V
main and auxiliary circuit	
Protection class IP	

• of the terminal IP00 Mechanical service life (switching cycles) • of the main contacts typical 100 000 Electrical endurance (switching cycles) • typical 100 000 Type of protection Increased safety Protection against electrical shock finger-safe Equipment marking acc. to DIN EN 81348-2 Q Ambient conditions Froduct funds a safety 100 000	• on the front	IP20
• of the main contacts typical • of auxiliary contacts typical 100 000 Electrical endurance (switching cycles) • typical 100 000 Type of protection Increased safety Protection against electrical shock Equipment marking acc. to DIN EN 81346-2 Ambient conditions Ambient temperature • during operation • during storage • during storage • during storage • during transport Temperature compensation • 20 +80 °C -50 +80 °C -50 +80 °C Main circuit Number of poles for main current circuit 3 Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value - at 400 V rated value - at 400 V rated value - at 400 V rated value - at 600 V rated value -	• of the terminal	IP00
• of auxiliary contacts typical Increased safety Type of protection Protection against electrical shock Equipment marking acc. to DIN EN 81346-2 Ambient conditions Ambient conditions Ambient temperature • during operation • during storage • during transport Temperature compensation • during storage • during transport Temperature compensation • 20 +60 °C • during transport Temperature compensation • 22 +60 °C Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum • at AC-3 — at 400 V rated value • at AC-3 — at 400 V rated value — at 400 V rated value — at 400 V rated value — at 500 V vated value — at 690 V vated value — at 690 V vated value • at AC-3 — at 230 V rated value — at 600 V vated value — at 600	Mechanical service life (switching cycles)	
Electrical endurance (switching cycles) • typical Type of protection Protection against electrical shock Equipment marking acc. to DIN EN 81346-2 Ambient conditions Ambient conditions Ambient temperature • during operation • during storage • during transport Temperature compensation -20 +60 °C -50 +80 °C -50 +80 °C -60 °C -60 °C -60 °C -60 °C -70 °C	 of the main contacts typical 	100 000
• 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 conditions Ambient temperature • during operation -20 +60 °C • during storage -50 +80 °C • during transport -50 +80 °C Temperature compensation -20 +60 °C Main circuit 3 Number of poles for main current circuit 3 Adjustable pick-up value current of the current-dependent overload release 2.8 4 A Operating voltage • rated value • rated value 690 V • at AC-3 rated value maximum 690 V Operating current rated value 4 A Operating current • at AC-3 • at 400 V rated value 4 A Operating power • at AC-3 • at 400 V rated value 750 W • at 500 V rated value 200 W • at 600 V rated value 3 000 W Operating frequency • at AC-3 maximum	of auxiliary contacts typical	100 000
Type of protection	Electrical endurance (switching cycles)	
Protection against electrical shock Equipment marking acc. to DIN EN 81346-2 Ambient conditions Ambient remperature • during operation • during storage • during transport Temperature compensation -20 +60 °C -50 +80 °C Temperature compensation -20 +60 °C Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value • at AC-3 — at 400 V rated value • at AC-3 — at 400 V rated value — at 500 V rated value — at 600 V rated value — at 500 V rated value — at 600	• typical	100 000
Equipment marking acc. to DIN EN 81346-2 Ambient conditions Ambient temperature • during operation • during storage • during transport Temperature compensation -20 +80 °C • during transport -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 Operating voltage • rated value • at AC-3 rated value maximum • at AC-3 rated value maximum • at AC-3 — at 400 V rated value - at 500 V rated value - at 690 V ra	Type of protection	Increased safety
Ambient conditions Ambient temperature • during operation • during storage • during transport Temperature compensation -20 +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 Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value • at AC-3 — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated	Protection against electrical shock	finger-safe
Ambient temperature • during operation • during storage • during transport -50 +80 °C • during transport -50 +80 °C Temperature compensation -20 +60 °C Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum -0 operating current rated value Operating current rated value • at AC-3 — at 400 V rated value • at AC-3 — at 400 V rated value — at 500 V rated value — at 690	Equipment marking acc. to DIN EN 81346-2	Q
during operation during storage during transport during transport -50 +80 °C during transport -50 +80 °C Temperature compensation -20 +60 °C Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum 690 V Operating frequency rated value • at AC-3 — at 400 V rated value • at AC-3 — at 400 V rated value • at AC-3 — at 400 V rated value - at 400 V rated value - at 400 V rated value - at 500 V rated value - at 690 V rated value - at 500 V rated value - at 690 V rated value	Ambient conditions	
	Ambient temperature	
	during operation	-20 +60 °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 Operating voltage • rated value • at AC-3 rated value maximum 690 V Operating frequency rated value 50 60 Hz Operating current • at AC-3 — at 400 V rated value 4 A Operating power • at AC-3 — at 400 V rated value — at 400 V rated value 1 500 W — at 500 V rated value 1 500 W — at 500 V rated value 2 200 W — at 690 V Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts • for auxiliary contacts 0	during storage	-50 +80 °C
Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value • at AC-3 — at 400 V rated value • at AC-3 — at 230 V rated value — at 500 V rated value — at 690 V Operating power • at AC-3 — at 400 V rated value	during transport	-50 +80 °C
Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value • at AC-3 rated value • at AC-3 Operating current • at AC-3 — at 400 V rated value • at AC-3 — at 230 V rated value — at 500 V vated value — at 690 V value 4 A Operating power • at AC-3 — at 400 V rated value — at 500 V rated value — at 690 V rated value 3 000 W Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts 0 Protective and monitoring functions	Temperature compensation	-20 +60 °C
Adjustable pick-up value current of the current- dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating current rated value • at AC-3 — at 400 V rated value • at AC-3 — at 400 V rated value • at AC-3 — at 230 V rated value — at 500 V rated value — at 500 V rated value — at 690 V v rated value At AC-3 — at 400 V rated value — at 400 V rated value — at 400 V rated value — at 500 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value — at 600 V rated value — at AC-3 maximum Auxillary circuit Number of CO contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts 0	Main circuit	
dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value • at AC-3 — at 400 V rated value • at AC-3 — at 400 V rated value • at AC-3 — at 230 V rated value 750 W — at 400 V rated value 1 500 W — at 690 V v rated value 1 500 W — at 500 V rated value 2 200 W — at 690 V rated value Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts	Number of poles for main current circuit	3
rated value at AC-3 rated value maximum G90 V Operating frequency rated value Operating current rated value at AC-3 — at 400 V rated value Operating power • at AC-3 — at 230 V rated value — at 400 V rated value — at 500 W — at 500 V rated value — at 690 V Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts 0		2.8 4 A
rated value at AC-3 rated value maximum G90 V Operating frequency rated value Operating current rated value at AC-3 — at 400 V rated value Operating power • at AC-3 — at 230 V rated value — at 400 V rated value — at 500 W — at 500 V rated value — at 690 V Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts 0	•	
Operating frequency rated value Operating current at AC-3 — at 400 V rated value Operating power at AC-3 — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value — at AC-3 maximum Operating frequency at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts for auxiliary contacts 0	• rated value	690 V
Operating current Operating current at AC-3 — at 400 V rated value Operating power at AC-3 — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value — at AC-3 maximum Operating frequency at AC-3 maximum at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts for auxiliary contacts o	• at AC-3 rated value maximum	690 V
Operating current • at AC-3 — at 400 V rated value Operating power • at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value 3 000 W Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts • for auxiliary contacts 0	Operating frequency rated value	50 60 Hz
at AC-3 — at 400 V rated value Operating power at AC-3 — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value — at AC-3 maximum Operating frequency at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts for auxiliary contacts for auxiliary contacts O Protective and monitoring functions	Operating current rated value	4 A
- at 400 V rated value 4 A Operating power • at AC-3 - at 230 V rated value 750 W - at 400 V rated value 1 500 W - at 500 V rated value 2 200 W - at 690 V rated value 3 000 W Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts • for auxiliary contacts 0	Operating current	
Operating power • at AC-3 — at 230 V rated value 750 W — at 400 V rated value 1500 W — at 500 V rated value 2200 W — at 690 V rated value 3000 W Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts • for auxiliary contacts 0	• at AC-3	
at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value 3 000 W Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts • for auxiliary contacts O Protective and monitoring functions	— at 400 V rated value	4 A
- at 230 V rated value - at 400 V rated value 1 500 W - at 500 V rated value 2 200 W - at 690 V rated value 3 000 W Operating frequency	Operating power	
- at 400 V rated value 1 500 W - at 500 V rated value 2 200 W - at 690 V rated value 3 000 W Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts • for auxiliary contacts Protective and monitoring functions	● at AC-3	
- at 500 V rated value 2 200 W - at 690 V rated value 3 000 W Operating frequency ■ at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts ■ for auxiliary contacts ■ for auxiliary contacts Protective and monitoring functions	— at 230 V rated value	750 W
— at 690 V rated value 3 000 W Operating frequency • at AC-3 maximum 15 1/h Auxiliary circuit Number of CO contacts • for auxiliary contacts • for auxiliary contacts O Protective and monitoring functions	— at 400 V rated value	1 500 W
Operating frequency • at AC-3 maximum Auxiliary circuit Number of CO contacts • for auxiliary contacts O Protective and monitoring functions	— at 500 V rated value	2 200 W
at AC-3 maximum Auxiliary circuit Number of CO contacts for auxiliary contacts Protective and monitoring functions 15 1/h 0	— at 690 V rated value	3 000 W
Auxiliary circuit Number of CO contacts • for auxiliary contacts 0 Protective and monitoring functions	Operating frequency	
Number of CO contacts • for auxiliary contacts 0 Protective and monitoring functions	• at AC-3 maximum	15 1/h
• for auxiliary contacts O Protective and monitoring functions	Auxiliary circuit	
Protective and monitoring functions	Number of CO contacts	
	for auxiliary contacts	0
Product function	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	100 000 A
● at 400 V rated value	100 000 A
● at 500 V rated value	3 000 A
● at 690 V rated value	2 000 A
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	3 kA
● at AC at 690 V rated value	2 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	10 kA
rated value	
• with 3 current paths in series at DC at 450 V	10 kA
rated value	
UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
Full-load current (FLA) for three-phase AC motor • at 480 V rated value	4 A
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value	4 A 4 A
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp]	
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor	4 A
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value	4 A 0.125 hp
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value	4 A
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor	4 A 0.125 hp 0.33 hp
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value	4 A 0.125 hp 0.33 hp 0.75 hp
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor	4 A 0.125 hp 0.33 hp 0.75 hp 0.75 hp
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 200/208 V rated value	4 A0.125 hp0.33 hp0.75 hp0.75 hp2 hp
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value	4 A 0.125 hp 0.33 hp 0.75 hp 0.75 hp
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value	4 A0.125 hp0.33 hp0.75 hp0.75 hp2 hp
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value	4 A0.125 hp0.33 hp0.75 hp0.75 hp2 hp
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value Short-circuit protection Product function Short circuit protection Design of the short-circuit trip	4 A 0.125 hp 0.33 hp 0.75 hp 0.75 hp 2 hp 3 hp
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value Short-circuit protection Product function Short circuit protection Design of the short-circuit trip Design of the fuse link for IT network for short-circuit	4 A 0.125 hp 0.33 hp 0.75 hp 0.75 hp 2 hp 3 hp
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value Short-circuit protection Product function Short circuit protection Design of the short-circuit trip Design of the fuse link for IT network for short-circuit protection of the main circuit	4 A 0.125 hp 0.33 hp 0.75 hp 0.75 hp 2 hp 3 hp Yes magnetic
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value Short-circuit protection Product function Short circuit protection Design of the short-circuit trip Design of the fuse link for IT network for short-circuit protection of the main circuit • at 240 V	4 A 0.125 hp 0.33 hp 0.75 hp 0.75 hp 2 hp 3 hp Yes magnetic none required
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value Short-circuit protection Product function Short circuit protection Design of the short-circuit trip Design of the fuse link for IT network for short-circuit protection of the main circuit	4 A 0.125 hp 0.33 hp 0.75 hp 0.75 hp 2 hp 3 hp Yes magnetic

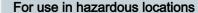
● at 690 V	gL/gG 35 A
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Mounting position	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Height	90 mm
Width	45 mm
Depth	81 mm
Connections/Terminals	
Product function	
 removable terminal for auxiliary 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 (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x (1 4 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
Type of connectable conductor cross-sections	
for auxiliary contacts	
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
Tightening torque	
• for main contacts with screw-type terminals	0.8 1.2 N·m
• for auxiliary contacts with screw-type terminals	0.8 1.2 N·m
Size of the screwdriver tip	Pozidriv 2

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
Display version	
• for switching status	Rocker switch

Certificates/approvals

General Product Approval















IECEx

Declaration	of
Conformity	

Test	
Certificates	

Marine / Shipping













other

Marine / Shipping











Miscellaneous

Environmental Confirmations

other

Confirmation



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=3RV1011-1EA10

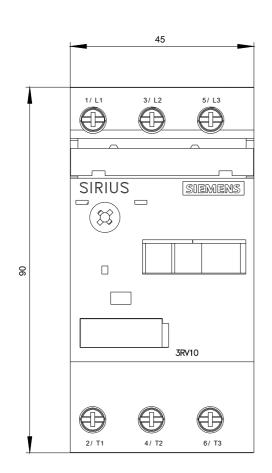
Cax online generator

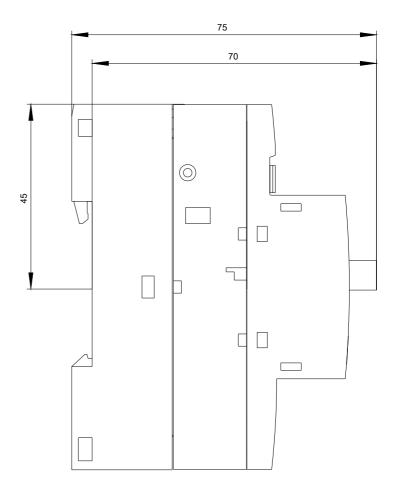
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1EA10

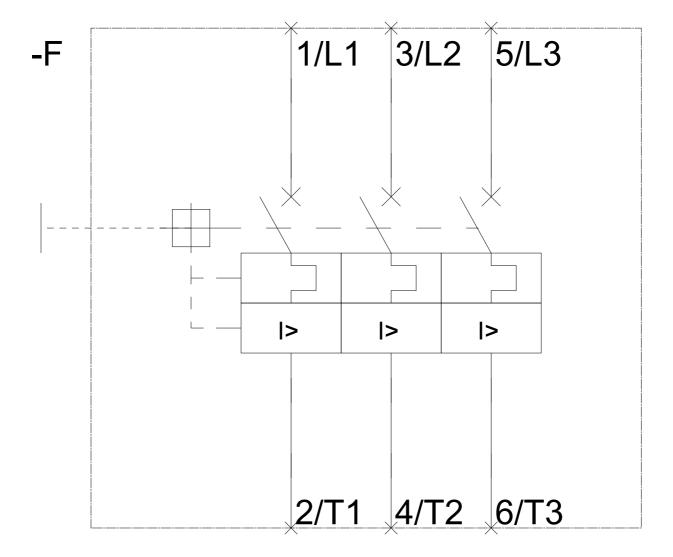
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1EA10

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1EA10&lang=en







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