

CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 2.8...4A, N-RELEASE 52A, SCREW CONNECTION, STANDARD SW. CAPACITY, W. TRANSVERSE AUX. SWITCH 1NO+1NC



product brand name	SIRIUS
Product designation	3RV2 circuit breaker
General technical data:	
Size of the circuit-breaker	S00
Size of contactor can be combined company-specific	S0
Product expansion	
• Auxiliary switch	Yes
Active power loss total typical	6 W
Insulation voltage with degree of pollution 3 Rated value	690 V
Surge voltage resistance Rated value	6 kV
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 the auxiliary contacts typical	100 000

Electrical endurance (switching cycles)	
• typical	100 000
Type of protection	Increased safety
Certificate of suitability relating to ATEX	on request
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	Q

Ambient conditions:

Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• 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 response value current of the current-dependent overload release	2.8 ... 4 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	4 A
Operating current	
• at AC-3	
— 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:

Design of the auxiliary switch	transverse
Number of NC contacts	
• for auxiliary contacts	1
Number of NO contacts	
• for auxiliary contacts	1
Number of CO contacts	

<ul style="list-style-type: none"> • for auxiliary contacts 	0
Operating current of the auxiliary contacts at AC-15	
<ul style="list-style-type: none"> • at 24 V 	2 A
<ul style="list-style-type: none"> • at 120 V 	0.5 A
<ul style="list-style-type: none"> • at 125 V 	0.5 A
<ul style="list-style-type: none"> • at 230 V 	0.5 A
Operating current of the auxiliary contacts at DC-13	
<ul style="list-style-type: none"> • at 24 V 	1 A
<ul style="list-style-type: none"> • at 60 V 	0.15 A

Protective and monitoring functions:

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 	100 kA
<ul style="list-style-type: none"> • at 400 V Rated value 	100 kA
<ul style="list-style-type: none"> • at 500 V Rated value 	100 kA
<ul style="list-style-type: none"> • at 690 V Rated value 	4 kA
Maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> • at AC at 240 V Rated value 	100 kA
<ul style="list-style-type: none"> • at AC at 400 V Rated value 	100 kA
<ul style="list-style-type: none"> • at AC at 500 V Rated value 	100 kA
<ul style="list-style-type: none"> • at AC at 690 V Rated value 	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 	10 kA
<ul style="list-style-type: none"> • with 2 current paths in series at DC at 300 V Rated value 	10 kA
<ul style="list-style-type: none"> • with 3 current paths in series at DC at 450 V Rated value 	10 kA
Response value current of the instantaneous short-circuit release	52 A

UL/CSA ratings:

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V Rated value 	4 A
<ul style="list-style-type: none"> • at 600 V Rated value 	4 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 	0.125 hp 0.333 hp
<ul style="list-style-type: none"> • for three-phase AC motor <ul style="list-style-type: none"> — at 200/208 V Rated value — at 220/230 V Rated value 	0.75 hp 0.75 hp

— at 460/480 V Rated value	2 hp
— at 575/600 V Rated value	3 hp
Contact rating of the auxiliary contacts acc. to UL	C300 / R300

Short-circuit protection

Design of the short-circuit trip	magnetic	
Design of the fuse link	Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ A)	
<ul style="list-style-type: none"> • for short-circuit protection of the auxiliary switch required 		
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 		gL/gG 32 A
<ul style="list-style-type: none"> • at 500 V 		gL/gG 32 A
<ul style="list-style-type: none"> • at 690 V 		gL/gG 25 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	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 		0 mm
		0 mm
		50 mm
		50 mm
		0 mm
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards 		0 mm
		0 mm
		50 mm
		30 mm
		50 mm
<ul style="list-style-type: none"> • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 		0 mm
		0 mm
		50 mm
		50 mm
		30 mm

Connections/ Terminals:

Product function	
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<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 for auxiliary and control current circuit 	screw-type terminals screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-section <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 for 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
Type of connectable conductor cross-section <ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> single or multi-stranded finely stranded with core end processing for AWG conductors for auxiliary contacts 	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14)
Tightening torque <ul style="list-style-type: none"> for main contacts with screw-type terminals for auxiliary contacts with screw-type terminals 	0.8 ... 1.2 N·m 0.8 ... 1.2 N·m
Design of screwdriver shaft	Diameter 5 to 6 mm
Design of the thread of the connection screw <ul style="list-style-type: none"> for main contacts of the auxiliary and control contacts 	M3 M3

Safety related data:

B10 value with high demand rate acc. to SN 31920	50 000
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 	40 % 40 %
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
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KTL



For use in hazardous locations	Declaration of Conformity	Test Certificates	Shipping Approval
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Typprüfbescheinigung/Werkszeugnis

spezielle Prüfbescheinigung
n

Werksbescheinigung
gen



Shipping Approval



Shipping Approval	other	Railway
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Umweltbestätigung

Bestätigungen



Schwingen/Schocke
n

Further information

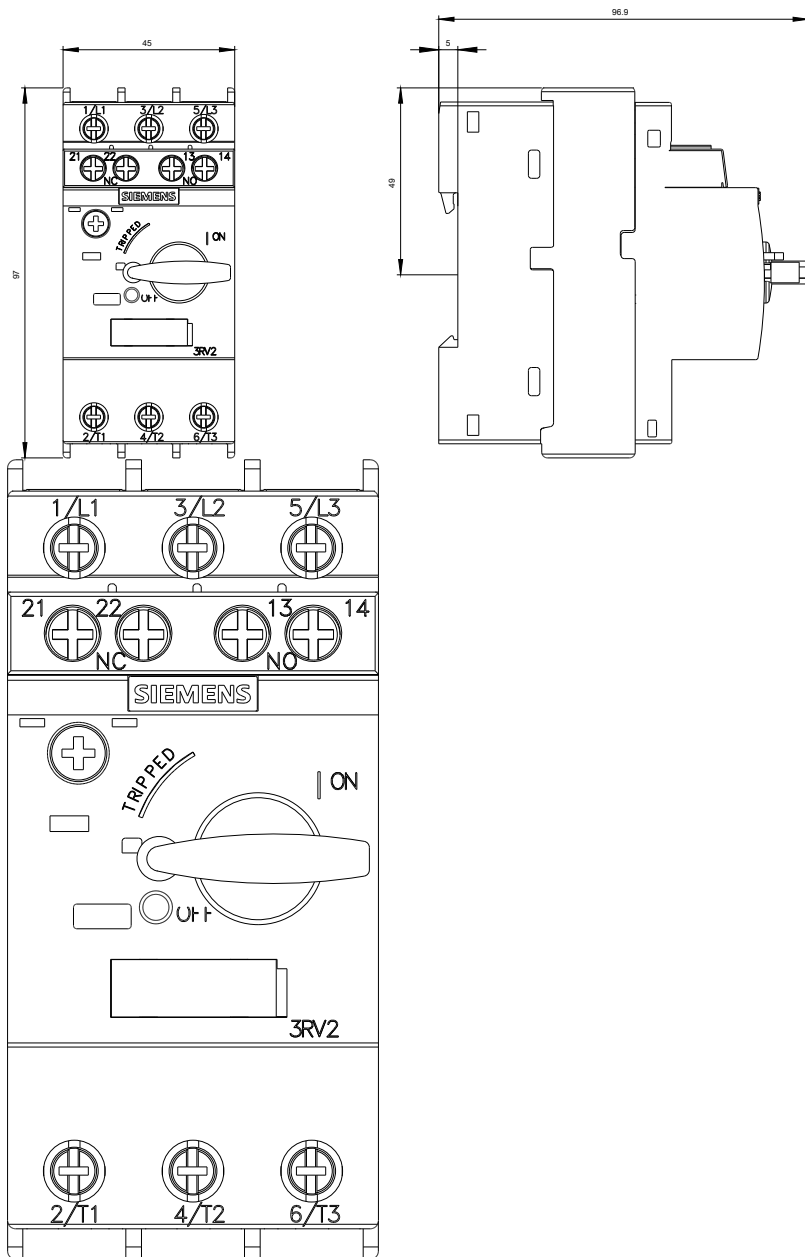
Information- and Downloadcenter (Catalogs, Brochures,...)
<http://www.siemens.com/industrial-controls/catalogs>

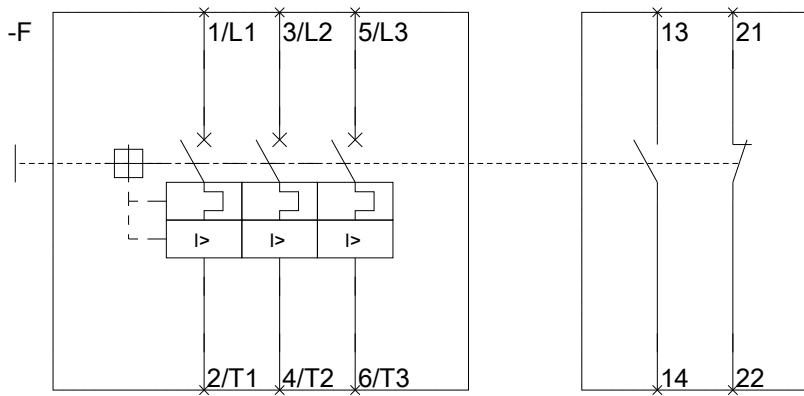
Industry Mall (Online ordering system)
<http://www.siemens.com/industrymall>

Cax online generator
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20111EA15>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RV20111EA15>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV20111EA15&lang=en





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