



CIRCUIT-BREAKER SZ S00, FOR TRANSFORMER PROT. A-RELEASE 3.5...5A, N-RELEASE 104A, SCREW CONNECTION, STANDARD SW. CAPACITY W. TRANSVERSE AUX. SWITCH 1NO+1NC

product brand name		SIRIUS
Product designation		3RV2 circuit breaker

General technical data:		
Active power loss total typical	W	6
Insulation voltage	V	690
<ul style="list-style-type: none"> with degree of pollution 3 Rated value 		
Shock resistance		25g / 11 ms
<ul style="list-style-type: none"> acc. to IEC 60068-2-27 		
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
<ul style="list-style-type: none"> of the main contacts typical 		100 000
<ul style="list-style-type: none"> of the auxiliary contacts typical 		100 000
Electrical endurance (switching cycles)		
<ul style="list-style-type: none"> typical 		100 000
Temperature compensation	°C	-20 ... +60
Protection class IP		
<ul style="list-style-type: none"> on the front 		IP20
<ul style="list-style-type: none"> of the terminal 		IP20
Equipment marking		
<ul style="list-style-type: none"> acc. to DIN EN 81346-2 		Q

Main circuit:		
Number of poles for main current circuit		3
Adjustable response value current of the current-dependent overload release	A	3.5 ... 5
Operating voltage		

• Rated value	V	690
• at AC-3 Rated value maximum	V	690
Operating frequency Rated value	Hz	50 ... 60
Operating current Rated value	A	5
Operating current		
• at AC-3		
— at 400 V Rated value	A	5
Operating power		
• at AC-3		
— at 230 V Rated value	W	1 100
— at 400 V Rated value	W	2 200
— at 500 V Rated value	W	2 200
— at 690 V Rated value	W	4 000
Operating frequency		
• at AC-3 maximum	1/h	15

Auxiliary circuit:

Number of NC contacts		
• for auxiliary contacts		1
Number of NO contacts		
• for auxiliary contacts		1
Number of CO contacts		
• for auxiliary contacts		0
Product expansion Auxiliary switch		Yes
Design of the auxiliary switch		transverse
Operating current of the auxiliary contacts at AC-15		
• at 24 V	A	2
• at 120 V	A	0.5
• at 125 V	A	0.5
• at 230 V	A	0.5
Operating current of the auxiliary contacts at DC-13		
• at 24 V	A	1
• at 60 V	A	0.15

Protective and monitoring functions:

Trip class		CLASS 10
Design of the overload circuit breaker		thermal
Operational short-circuit current breaking capacity (Ics) with AC		
• at 240 V Rated value	kA	100
• at 400 V Rated value	kA	100
• at 500 V Rated value	kA	100
• at 690 V Rated value	kA	4

Maximum short-circuit current breaking capacity (I_{cu})		
• with AC at 240 V Rated value	kA	100
• with AC at 400 V Rated value	kA	100
• with AC at 500 V Rated value	kA	100
• with AC at 690 V Rated value	kA	6
Breaking capacity short-circuit current (I_{cn})		
• with 1 current path for DC at 150 V Rated value	kA	10
• with 2 current paths in series for DC at 300 V Rated value	kA	10
• with 3 current paths in series for DC at 450 V Rated value	kA	10
Response value current of the instantaneous short-circuit release	A	104

UL/CSA ratings:

Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	A	5
• at 600 V Rated value	A	5
yielded mechanical performance [hp]		
• for single-phase AC motor at 110/120 V Rated value	metric hp	0.167
• for single-phase AC motor at 230 V Rated value	metric hp	0.5
• for three-phase AC motor at 200/208 V Rated value	metric hp	1
• for three-phase AC motor at 220/230 V Rated value	metric hp	1
• for three-phase AC motor at 460/480 V Rated value	metric hp	3
• for three-phase AC motor at 575/600 V Rated value	metric hp	3
Contact rating of the auxiliary contacts acc. to UL		C300 / R300

Short-circuit:

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: 10 A, miniature circuit breaker C 6 A (short-circuit current I _k < 400 A)
Design of the fuse link for IT network for short-circuit protection of the main circuit		
• at 400 V		gL/gG 32 A
• at 500 V		gL/gG 32 A
• 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	mm	97
Width	mm	45
Depth	mm	96
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 	mm	0 0 50 50 0 0 0 50 30 50 0 0 50 50 30

Connections/ Terminals:

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
Product function		
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 		No
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 • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing 		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 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)

<ul style="list-style-type: none"> • for AWG conductors for auxiliary contacts 		2x (20 ... 16), 2x (18 ... 14)
Tightening torque		
<ul style="list-style-type: none"> • for main contacts with screw-type terminals 	N·m	0.8 ... 1.2
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 		M3
<ul style="list-style-type: none"> • of the auxiliary and control contacts 		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 	%	40
<ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	%	40
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	50
T1 value for proof test interval or service life acc. to IEC 61508	y	10
Protection against electrical shock		finger-safe

Mechanical data:

Size of the circuit-breaker		S00
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Ambient conditions:




Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
<ul style="list-style-type: none"> • during operation 	°C	-20 ... +60
<ul style="list-style-type: none"> • during storage 	°C	-50 ... +80
<ul style="list-style-type: none"> • during transport 	°C	-50 ... +80
Relative humidity during operation	%	10 ... 95





Display:

Display version		
<ul style="list-style-type: none"> • for switching status 		Handle

Certificates/ approvals:

General Product Approval			Declaration of Conformity	Test Certificates	
 CCC	 CSA		 EG-Konf.	Special Test Certificate	Declaration of the Compliance with the order

Test Certificates	Shipping Approval				
Type Test Certificates/Test Report	 ABS	 BUREAU VERITAS	 DNV	 GL	 LRS

Shipping Approval			other		
 PRS	 RINA	 RMRS	Environmental Confirmations	Confirmation	 VDE

other
other

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

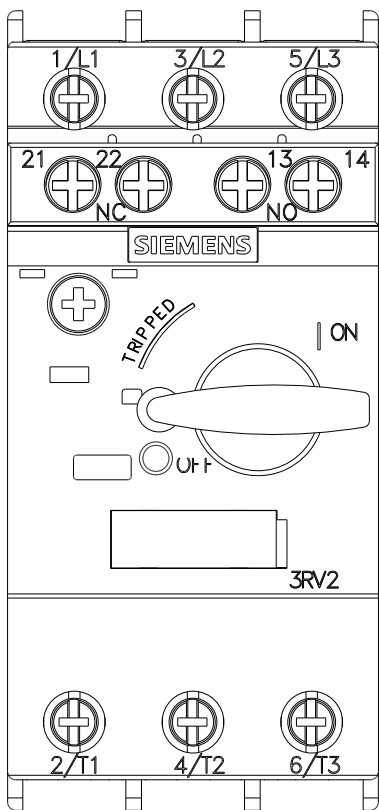
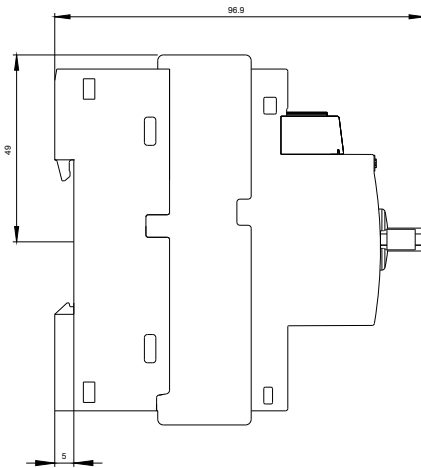
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RV24111FA15>

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

<http://support.automation.siemens.com/WW/view/en/3RV24111FA15/all>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RV24111FA15&lang=en





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