



CIRCUIT-BREAKER SZ S00, FOR TRANSFORMER
 PROT. A-RELEASE 5.5...8A, N-RELEASE 163A,
 SCREW CONNECTION, STANDARD SW. CAPACITY

product brand name		SIRIUS
Product designation		3RV2 circuit breaker

General technical data:		
Active power loss total typical	W	7
Insulation voltage		
• with degree of pollution 3 Rated value	V	690
Shock resistance		
• acc. to IEC 60068-2-27		25g / 11 ms
Surge voltage resistance Rated value	kV	6
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
Temperature compensation	°C	-20 ... +60
Protection class IP		
• on the front		IP20
• of the terminal		IP20
Equipment marking		
• 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	5.5 ... 8
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	8
Operating current		
• at AC-3		
— at 400 V Rated value	A	8
Operating power		
• at AC-3		
— at 230 V Rated value	W	1 500
— at 400 V Rated value	W	3 000
— at 500 V Rated value	W	4 000
— at 690 V Rated value	W	5 500
Operating frequency		
• at AC-3 maximum	1/h	15

Auxiliary circuit:

Number of NC contacts		
• for auxiliary contacts		0
Number of NO contacts		
• for auxiliary contacts		0
Number of CO contacts		
• for auxiliary contacts		0
Product expansion Auxiliary switch		Yes

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	42
• at 690 V Rated value	kA	4
Maximum short-circuit current breaking capacity (Icu)		
• 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	42
• with AC at 690 V Rated value	kA	6
Breaking capacity short-circuit current (Icn)		
• 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

<ul style="list-style-type: none"> 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	163

UL/CSA ratings:

Full-load current (FLA) for three-phase AC motor		
<ul style="list-style-type: none"> at 480 V Rated value 	A	8
<ul style="list-style-type: none"> at 600 V Rated value 	A	8
yielded mechanical performance [hp]		
<ul style="list-style-type: none"> for single-phase AC motor at 110/120 V Rated value 	metric hp	0.333
<ul style="list-style-type: none"> for single-phase AC motor at 230 V Rated value 	metric hp	1
<ul style="list-style-type: none"> for three-phase AC motor at 200/208 V Rated value 	metric hp	2
<ul style="list-style-type: none"> for three-phase AC motor at 220/230 V Rated value 	metric hp	2
<ul style="list-style-type: none"> for three-phase AC motor at 460/480 V Rated value 	metric hp	5
<ul style="list-style-type: none"> for three-phase AC motor at 575/600 V Rated value 	metric hp	5

Short-circuit:

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 		gL/gG 50 A
<ul style="list-style-type: none"> at 500 V 		gL/gG 40 A
<ul style="list-style-type: none"> at 690 V 		gL/gG 35 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 	mm	0
<ul style="list-style-type: none"> — Backwards 	mm	0
<ul style="list-style-type: none"> — upwards 	mm	50
<ul style="list-style-type: none"> — downwards 	mm	50
<ul style="list-style-type: none"> — at the side 	mm	0

• for grounded parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— at the side	mm	30
— downwards	mm	50
• for live parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— at the side	mm	30

Connections/ Terminals:

Type of electrical connection		
• for main current circuit		screw-type terminals
Arrangement of electrical connectors for main current circuit		Top and bottom
Product function		
• removable terminal for auxiliary and control circuit		No
Type of connectable conductor cross-section		
• for main contacts		
— single or multi-stranded		2x (0,75 ... 2,5 mm ²), 2x 4 mm ²
— finely stranded with core end processing		2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• for AWG conductors for main contacts		2x (18 ... 14), 2x 12
Tightening torque		
• 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		
• for main contacts		M3

Safety related data:

B10 value with high demand rate acc. to SN 31920		50 000
Proportion of dangerous failures		
• with low demand rate acc. to SN 31920	%	40
• 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
-----------------------------	--	-----

Ambient conditions:





Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
• during operation	°C	-20 ... +60
• during storage	°C	-50 ... +80
• during transport	°C	-50 ... +80
Relative humidity during operation	%	10 ... 95





Display:


Display version		Handle
• for switching status		

Certificates/ approvals:

General Product Approval	Declaration of Conformity	Test Certificates
 CCC	 EAC	 EG-Konf.
 CSA	KTL	Type Test Certificates/Test Report

Test Certificates	Shipping Approval
Declaration of the Compliance with the order	 ABS
Special Test Certificate	 BUREAU VERITAS
	 DNV
	 GL

Shipping Approval	other
 LRS	Environmental Confirmations
 PRS	Confirmation
 RINA	
 RMRS	

other	
 VDE	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

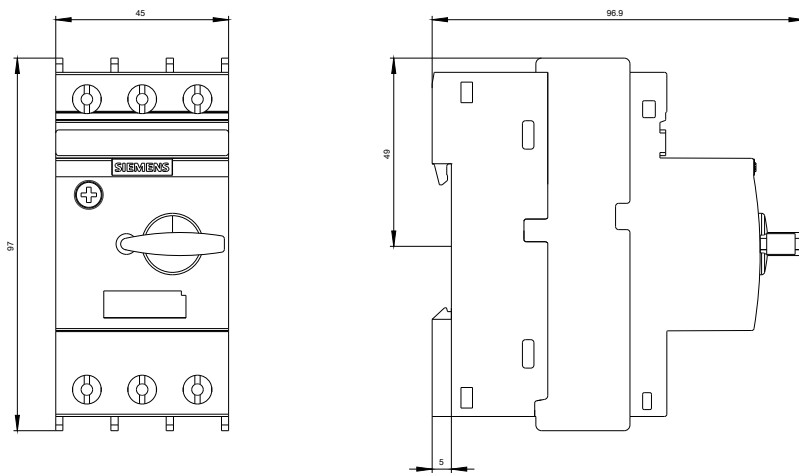
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV24111HA10>

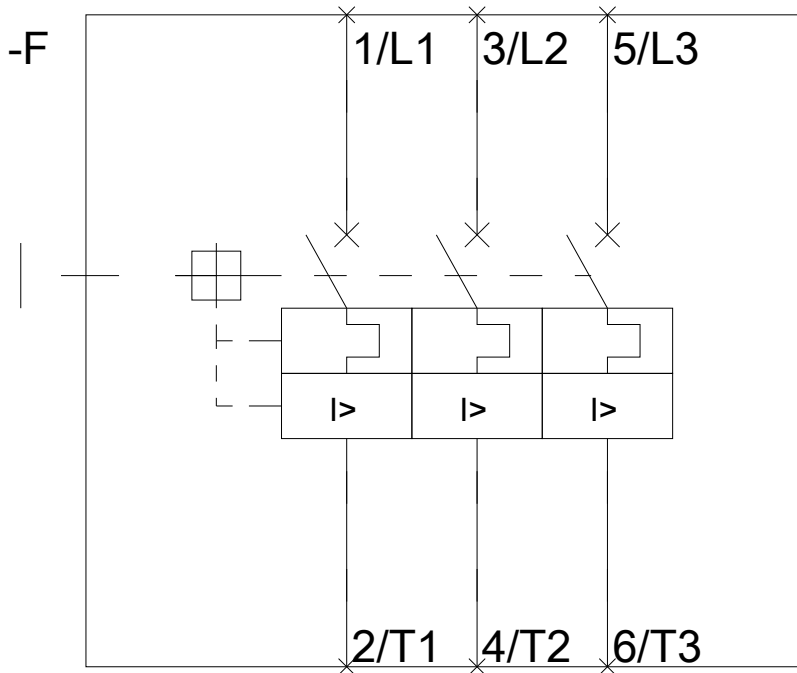
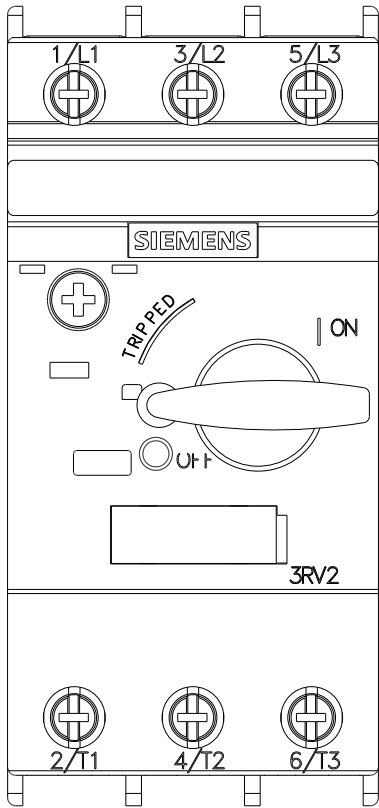
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RV24111HA10/all>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV24111HA10&lang=en





last modified:

11.03.2015