



CIRCUIT-BREAKER SZ S00, FOR STARTER COMBINATION, RATED CURRENT 12.5A, 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
Size of contactor can be combined company-specific		S00
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
Operating voltage		
• Rated value	V	690

<ul style="list-style-type: none"> • at AC-3 Rated value maximum 	V	690
Operating frequency Rated value	Hz	50 ... 60
Operating current Rated value	A	12.5
Operating current		
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V Rated value 	A	12.5
Operating power		
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 230 V Rated value — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value 	W	3 000
	W	5 500
	W	7 500
	W	7 500
Operating frequency		
<ul style="list-style-type: none"> • at AC-3 maximum 	1/h	15

Auxiliary circuit:

Number of NC contacts		
<ul style="list-style-type: none"> • for auxiliary contacts 		0
Number of NO contacts		
<ul style="list-style-type: none"> • for auxiliary contacts 		0
Number of CO contacts		
<ul style="list-style-type: none"> • for auxiliary contacts 		0
Product expansion Auxiliary switch		Yes

Protective and monitoring functions:

Operational short-circuit current breaking capacity (Ics) with AC		
<ul style="list-style-type: none"> • at 240 V Rated value • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value 	kA	100
	kA	100
	kA	42
	kA	4
Maximum short-circuit current breaking capacity (Icu)		
<ul style="list-style-type: none"> • with AC at 240 V Rated value • with AC at 400 V Rated value • with AC at 500 V Rated value • with AC at 690 V Rated value 	kA	100
	kA	100
	kA	42
	kA	6
Breaking capacity short-circuit current (Icn)		
<ul style="list-style-type: none"> • with 1 current path for DC at 150 V Rated value • with 2 current paths in series for DC at 300 V Rated value • with 3 current paths in series for DC at 450 V Rated value 	kA	10
	kA	10
	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		
• at 480 V Rated value	A	12.5
• at 600 V Rated value	A	12.5
yielded mechanical performance [hp]		
• for single-phase AC motor at 110/120 V Rated value	metric hp	0.5
• for single-phase AC motor at 230 V Rated value	metric hp	2
• for three-phase AC motor at 200/208 V Rated value	metric hp	3
• for three-phase AC motor at 220/230 V Rated value	metric hp	3
• for three-phase AC motor at 460/480 V Rated value	metric hp	7.5
• for three-phase AC motor at 575/600 V Rated value	metric hp	10

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		
• at 400 V		gL/gG 63 A
• at 500 V		gL/gG 50 A
• at 690 V		gL/gG 40 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		
• with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— 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
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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	
• for switching status	Handle

Certificates/ approvals:

General Product Approval	Declaration of Conformity	Test Certificates
 CCC	 EAC	 EG-Konf.
 CSA	KTL	Special Test Certificate

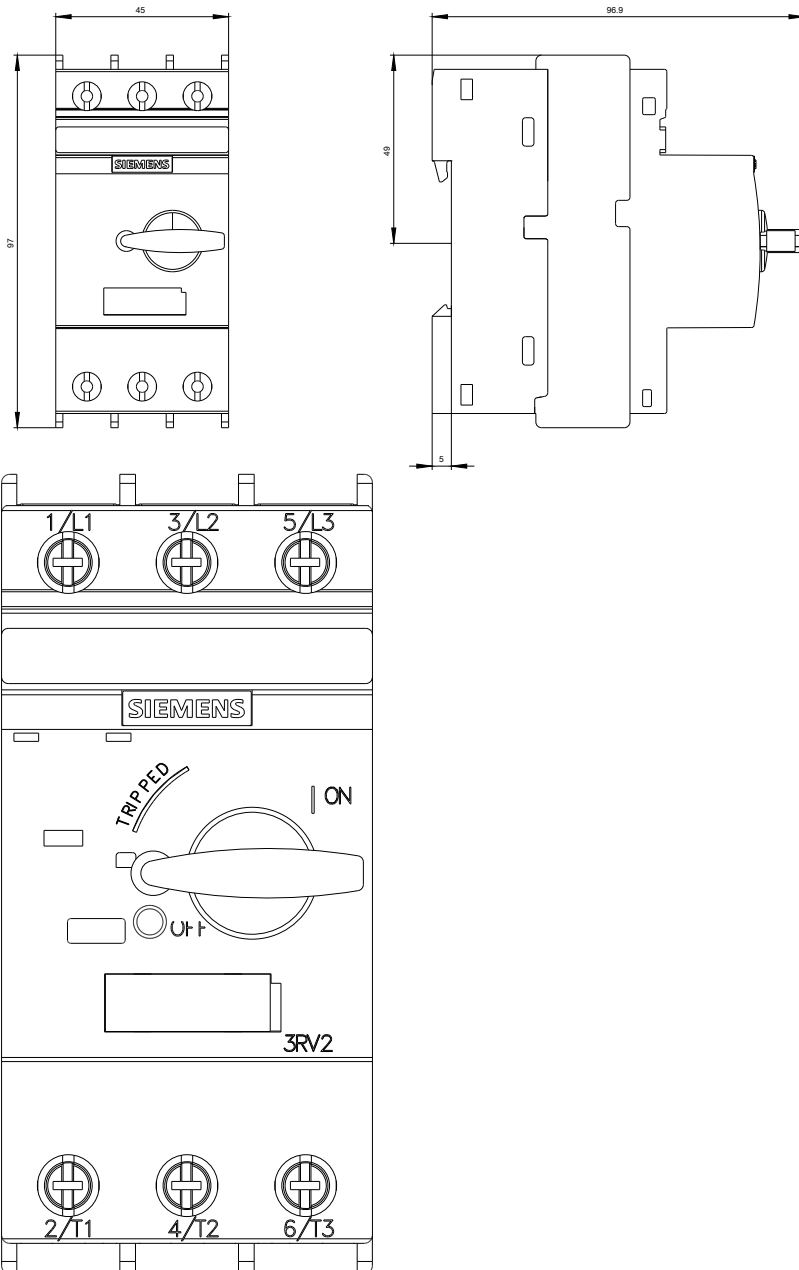
Test Certificates	Shipping Approval
Declaration of the Compliance with the order	 ABS
Type Test Certificates/Test Report	 BUREAU VERITAS
	 DNV
	 GL

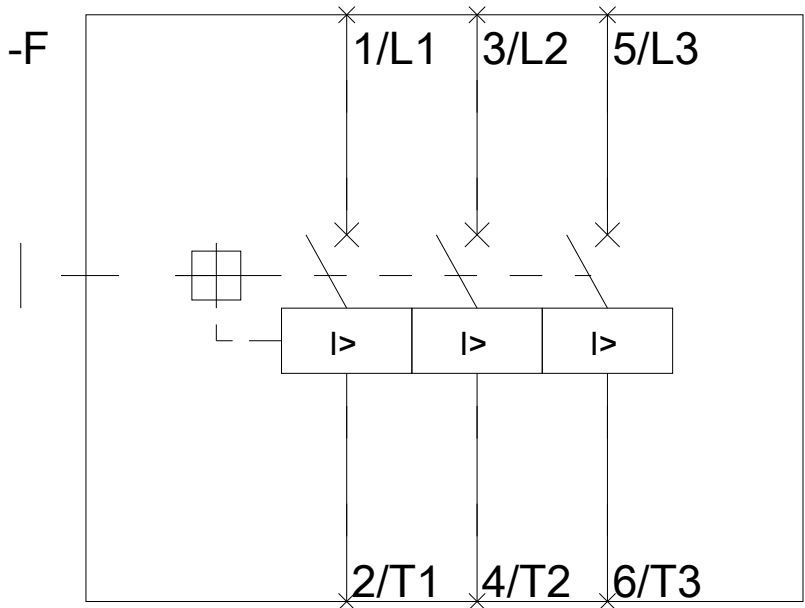
Shipping Approval	other
 LRS	Environmental Confirmations
 PRS	Confirmation
 RINA	
 RMRS	

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=3RV23111KC10>





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