



CIRCUIT-BREAKER SZ S0, FOR TRANSFORMER
 PROT. A-RELEASE 16...22A, N-RELEASE 364A,
 SCREW CONNECTION, STANDARD SW. CAPACITY

product brand name		SIRIUS
Product designation		3RV2 circuit breaker

General technical data:		
Active power loss total typical	W	8
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	16 ... 22
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	22
Operating current		
• at AC-3		
— at 400 V Rated value	A	22
Operating power		
• at AC-3		
— at 230 V Rated value	W	5 500
— at 400 V Rated value	W	11 000
— at 500 V Rated value	W	11 000
— at 690 V Rated value	W	18 500
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	25
• at 500 V Rated value	kA	5
• at 690 V Rated value	kA	2
Maximum short-circuit current breaking capacity (Icu)		
• with AC at 240 V Rated value	kA	100
• with AC at 400 V Rated value	kA	55
• with AC at 500 V Rated value	kA	10
• with AC at 690 V Rated value	kA	4
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	364

UL/CSA ratings:

Full-load current (FLA) for three-phase AC motor		
<ul style="list-style-type: none"> at 480 V Rated value 	A	22
<ul style="list-style-type: none"> at 600 V Rated value 	A	22
yielded mechanical performance [hp]		
<ul style="list-style-type: none"> for single-phase AC motor at 110/120 V Rated value 	metric hp	1.5
<ul style="list-style-type: none"> for single-phase AC motor at 230 V Rated value 	metric hp	3
<ul style="list-style-type: none"> for three-phase AC motor at 200/208 V Rated value 	metric hp	5
<ul style="list-style-type: none"> for three-phase AC motor at 220/230 V Rated value 	metric hp	7.5
<ul style="list-style-type: none"> for three-phase AC motor at 460/480 V Rated value 	metric hp	15

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 63 A
<ul style="list-style-type: none"> at 500 V 		gL/gG 50 A
<ul style="list-style-type: none"> at 690 V 		gL/gG 50 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 	mm	0
	mm	0
	mm	50
	mm	50
	mm	0

— 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 (1 ... 2,5 mm ²), 2x (2,5 ... 10 mm ²)
— finely stranded with core end processing		2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ²
• for AWG conductors for main contacts		2x (16 ... 12), 2x (14 ... 8)
Tightening torque		
• for main contacts with screw-type terminals	N·m	2 ... 2.5
Design of screwdriver shaft		Diameter 5 to 6 mm
Design of the thread of the connection screw		
• for main contacts		M4

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		S0
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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	 EG-Konf.	Special Test Certificate Declaration of Compliance with the order
 CSA		

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

Shipping Approval	other
 PRS	Environmental Confirmations
 RINA	Confirmation
 RMRS	 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

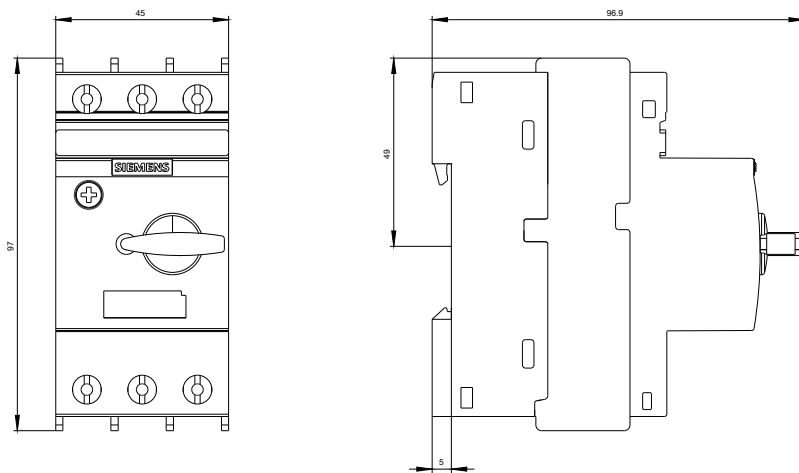
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV24214CA10>

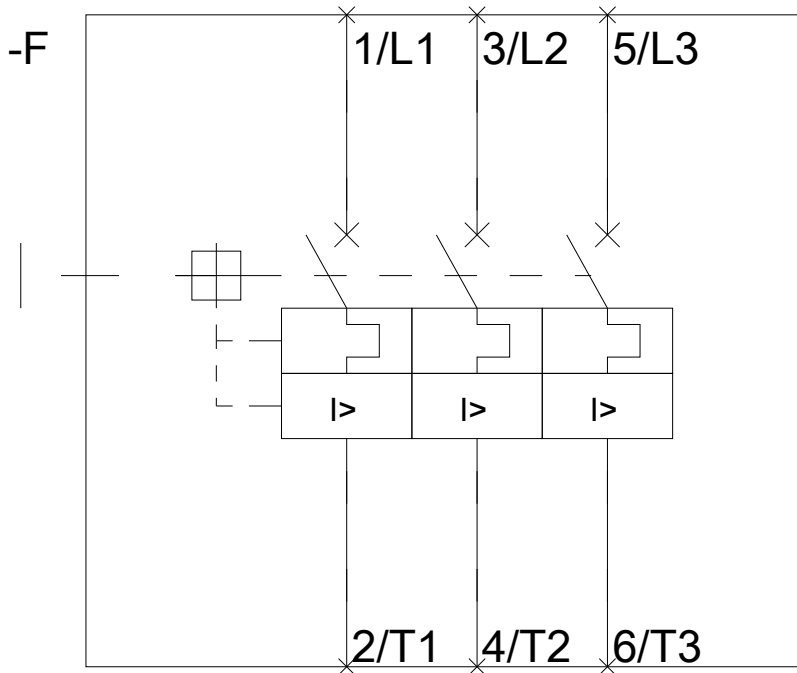
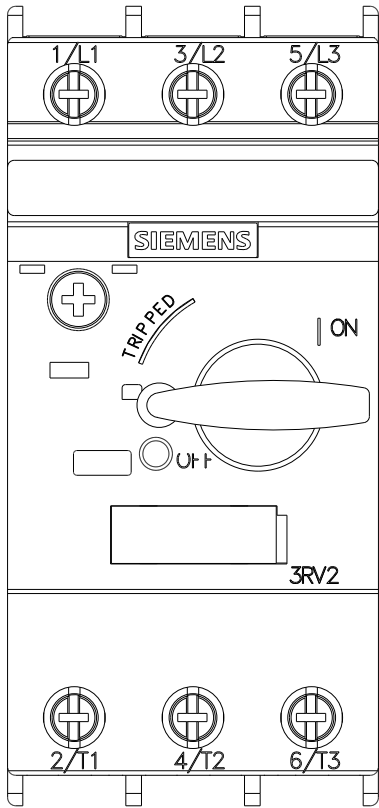
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RV24214CA10/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=3RV24214CA10&lang=en





last modified:

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