



CIRCUIT-BREAKER SZ S0, FOR STARTER COMBINATION, RATED CURRENT 20A, N-RELEASE 260A, SCREW CONNECTION, STANDARD SW. CAPACITY

product brand name		SIRIUS
Product designation		3RV2 circuit breaker

**General technical data:**

<b>Active power loss total typical</b>	W	8
<b>Insulation voltage</b>	V	690
• with degree of pollution 3 Rated value		
<b>Shock resistance</b>		25g / 11 ms
• acc. to IEC 60068-2-27		
<b>Surge voltage resistance Rated value</b>	kV	6
<b>Mechanical service life (switching cycles)</b>		
• of the main contacts typical		100 000
• of the auxiliary contacts typical		100 000
<b>Electrical endurance (switching cycles)</b>		
• typical		100 000
<b>Protection class IP</b>		
• on the front		IP20
• of the terminal		IP20
<b>Equipment marking</b>		
• acc. to DIN EN 81346-2		Q

**Main circuit:**

<b>Number of poles for main current circuit</b>		3
<b>Operating voltage</b>		
• Rated value	V	690
• at AC-3 Rated value maximum	V	690

Operating frequency Rated value	Hz	50 ... 60
<b>Operating current Rated value</b>	A	20
<b>Operating current</b>		
• at AC-3		
— at 400 V Rated value	A	20
<b>Operating power</b>		
• at AC-3		
— at 230 V Rated value	W	5 500
— at 400 V Rated value	W	7 500
— at 500 V Rated value	W	11 000
— at 690 V Rated value	W	15 000
<b>Operating frequency</b>		
• at AC-3 maximum	1/h	15

#### Auxiliary circuit:

<b>Number of NC contacts</b>		
• for auxiliary contacts		0
<b>Number of NO contacts</b>		
• for auxiliary contacts		0
<b>Number of CO contacts</b>		
• for auxiliary contacts		0
<b>Product expansion Auxiliary switch</b>		Yes

#### Protective and monitoring functions:

<b>Operational short-circuit current breaking capacity (Ics) with AC</b>		
• 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
<b>Maximum short-circuit current breaking capacity (Icu)</b>		
• 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
<b>Breaking capacity short-circuit current (Icn)</b>		
• 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
<b>Response value current of the instantaneous short-circuit release</b>	A	260

### UL/CSA ratings:

<b>Full-load current (FLA) for three-phase AC motor</b>		
• at 480 V Rated value	A	20
• at 600 V Rated value	A	20
<b>yielded mechanical performance [hp]</b>		
• for single-phase AC motor at 110/120 V Rated value	metric hp	1.5
• for single-phase AC motor at 230 V Rated value	metric hp	3
• for three-phase AC motor at 200/208 V Rated value	metric hp	5
• for three-phase AC motor at 220/230 V Rated value	metric hp	5
• for three-phase AC motor at 460/480 V Rated value	metric hp	10

### Short-circuit:

<b>Product function Short circuit protection</b>		Yes
<b>Design of the short-circuit trip</b>		magnetic
<b>Design of the fuse link for IT network for short-circuit protection of the main circuit</b>		
• at 400 V		gL/gG 63 A
• at 500 V		gL/gG 50 A
• at 690 V		gL/gG 50 A

### Installation/ mounting/ dimensions:

<b>mounting position</b>		any
<b>Mounting type</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
<b>Height</b>	mm	97
<b>Width</b>	mm	45
<b>Depth</b>	mm	96
<b>Required spacing</b>		
• 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:

<b>Type of electrical connection</b>		
• for main current circuit		screw-type terminals
<b>Arrangement of electrical connectors for main current circuit</b>		Top and bottom
<b>Product function</b>		
• removable terminal for auxiliary and control circuit		No
<b>Type of connectable conductor cross-section</b>		
• for main contacts		
— single or multi-stranded		2x (1 ... 2,5 mm <sup>2</sup> ), 2x (2,5 ... 10 mm <sup>2</sup> )
— finely stranded with core end processing		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
• for AWG conductors for main contacts		2x (16 ... 12), 2x (14 ... 8)
<b>Tightening torque</b>		
• for main contacts with screw-type terminals	N·m	2 ... 2.5
<b>Design of screwdriver shaft</b>		Diameter 5 to 6 mm
<b>Design of the thread of the connection screw</b>		
• for main contacts		M4

#### Safety related data:

<b>B10 value with high demand rate acc. to SN 31920</b>		50 000
<b>Proportion of dangerous failures</b>		
• with low demand rate acc. to SN 31920	%	40
• with high demand rate acc. to SN 31920	%	40
<b>Failure rate [FIT] with low demand rate acc. to SN 31920</b>	FIT	50
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	y	10
<b>Protection against electrical shock</b>		finger-safe

#### Mechanical data:

<b>Size of the circuit-breaker</b>		S0
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#### Ambient conditions:

<b>Installation altitude at height above sea level maximum</b>	m	2 000
<b>Ambient temperature</b>		

- during operation
- during storage
- during transport

°C	-20 ... +60
°C	-50 ... +80
°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



CSA



EG-Konf.

[Special Test Certificate](#)

[Declaration of the Compliance with the order](#)

##### Test

##### Shipping Approval

##### Certificates

[Type Test Certificates/Test Report](#)



ABS



BUREAU VERITAS



DNV



GL



LRS

##### Shipping Approval

##### other



PRS



RINA



RMRS

[Confirmation](#)

[Environmental Confirmations](#)



VDE

##### other

[other](#)

#### Further information

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

##### Industry Mall (Online ordering system)

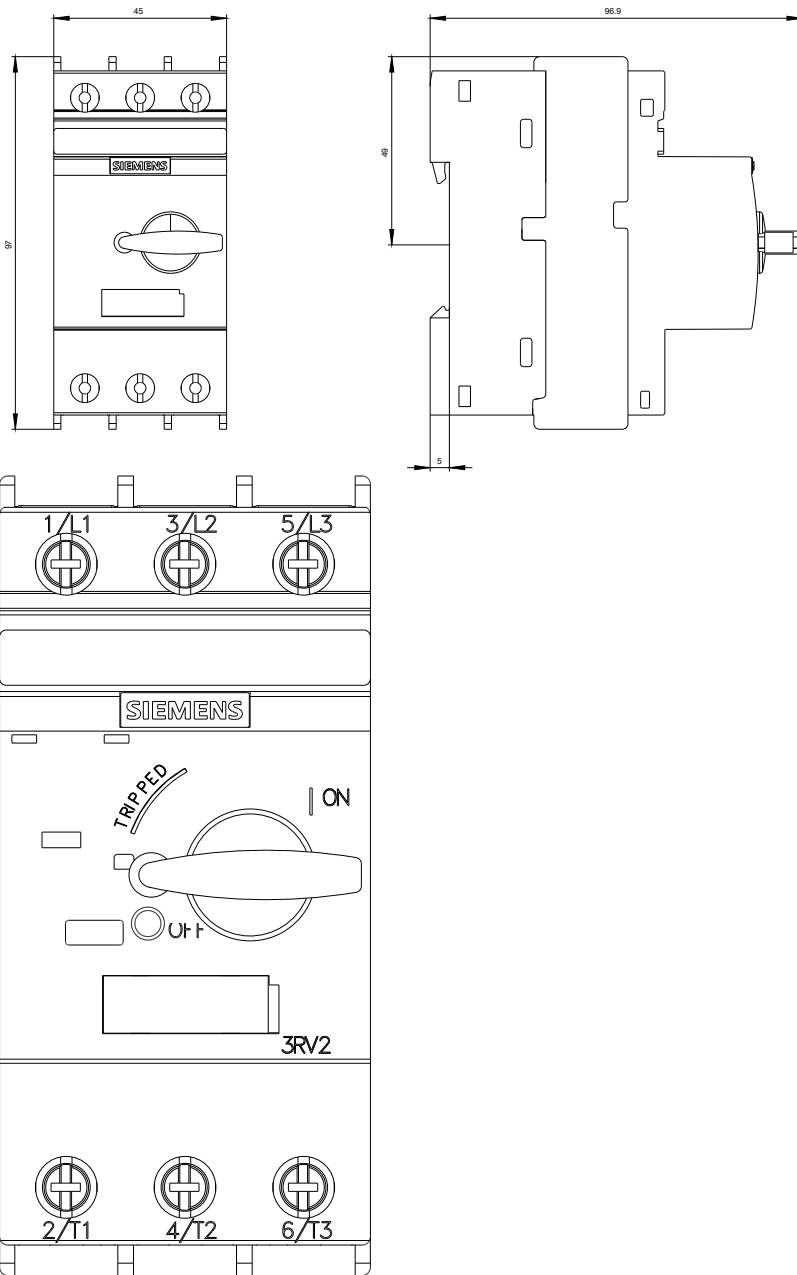
<http://www.siemens.com/industrymall>

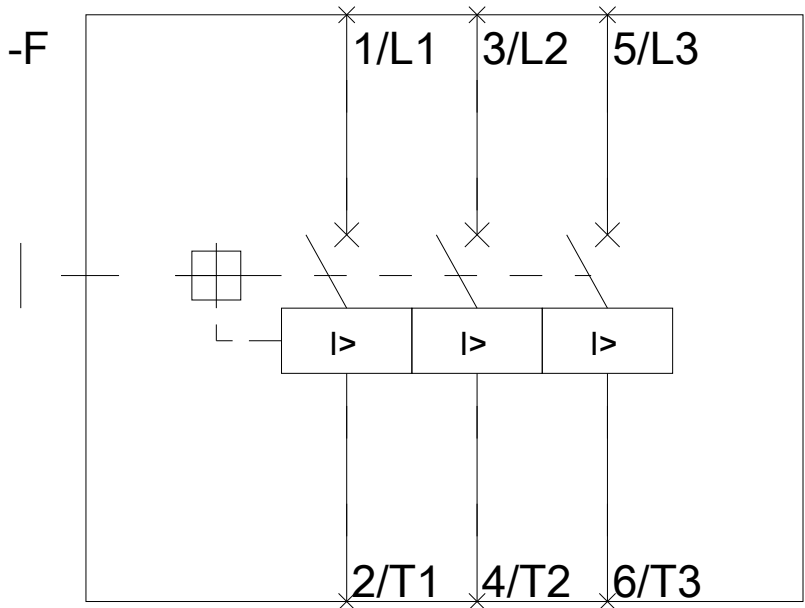
##### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV23214BC10>

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

<http://support.automation.siemens.com/WW/view/en/3RV23214BC10/all>





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