



CIRCUIT-BREAKER SZ S00, FOR TRANSFORMER PROT. A-RELEASE 0.28...0.4A, N-RELEASE 8.2A, 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	5
Insulation voltage	V	690
<ul style="list-style-type: none"> <li>with degree of pollution 3 Rated value</li> </ul>		
Shock resistance		25g / 11 ms
<ul style="list-style-type: none"> <li>acc. to IEC 60068-2-27</li> </ul>		
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
<ul style="list-style-type: none"> <li>of the main contacts typical</li> </ul>		100 000
<ul style="list-style-type: none"> <li>of the auxiliary contacts typical</li> </ul>		100 000
Electrical endurance (switching cycles)		
<ul style="list-style-type: none"> <li>typical</li> </ul>		100 000
Temperature compensation	°C	-20 ... +60
Protection class IP		
<ul style="list-style-type: none"> <li>on the front</li> </ul>		IP20
<ul style="list-style-type: none"> <li>of the terminal</li> </ul>		IP20
Equipment marking		
<ul style="list-style-type: none"> <li>acc. to DIN EN 81346-2</li> </ul>		Q

Main circuit:		
Number of poles for main current circuit		3
Adjustable response value current of the current-dependent overload release	A	0.28 ... 0.4
Operating voltage		

• 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	0.4
<b>Operating current</b>		
• at AC-3		
— at 400 V Rated value	A	0.4
<b>Operating power</b>		
• at AC-3		
— at 230 V Rated value	W	60
— at 400 V Rated value	W	90
— at 500 V Rated value	W	120
— at 690 V Rated value	W	180
<b>Operating frequency</b>		
• at AC-3 maximum	1/h	15

#### Auxiliary circuit:

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

#### Protective and monitoring functions:

<b>Trip class</b>		CLASS 10
<b>Design of the overload circuit breaker</b>		thermal
<b>Operational short-circuit current breaking capacity (Ics) with AC</b>		
• 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	100

<b>Maximum short-circuit current breaking capacity (I<sub>cu</sub>)</b>		
• 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	100
<b>Breaking capacity short-circuit current (I<sub>cn</sub>)</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	8.2

#### UL/CSA ratings:

<b>Full-load current (FLA) for three-phase AC motor</b>		
• at 480 V Rated value	A	0.4
• at 600 V Rated value	A	0.4
<b>Contact rating of the auxiliary contacts acc. to UL</b>		C300 / R300

#### 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</b>		Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current I <sub>k</sub> < 400 A)
• for short-circuit protection of the auxiliary switch required		

#### 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
• for auxiliary and control 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 (0,75 ... 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>
— finely stranded with core end processing		2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
• for AWG conductors for main contacts		2x (18 ... 14), 2x 12
• for auxiliary contacts		
— single or multi-stranded		2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
— finely stranded with core end processing		2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
• for AWG conductors for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14)
<b>Tightening torque</b>		
• for main contacts with screw-type terminals	N·m	0.8 ... 1.2
<b>Design of screwdriver shaft</b>		Diameter 5 to 6 mm
<b>Design of the thread of the connection screw</b>		
• for main contacts		M3
• of the auxiliary and control contacts		M3

#### 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>		S00
------------------------------------	--	-----

**Ambient conditions:**

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

**Display:**

<b>Display version</b>		Handle
• for switching status		

**Certificates/ approvals:**

General Product Approval	Declaration of Conformity	Test Certificates
--------------------------	---------------------------	-------------------



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

[Special Test Certificate](#)

Test Certificates	Shipping Approval
-------------------	-------------------

[Type Test Certificates/Test Report](#)



Shipping Approval	other
-------------------	-------



[Environmental Confirmations](#)

[Confirmation](#)



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

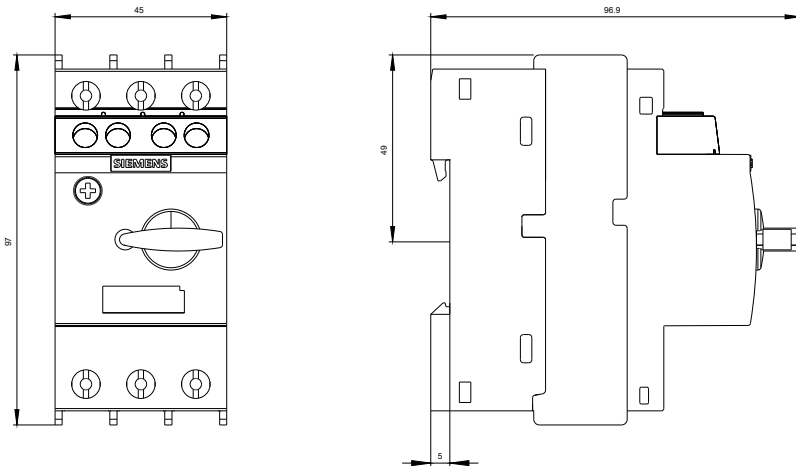
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RV24110EA15>

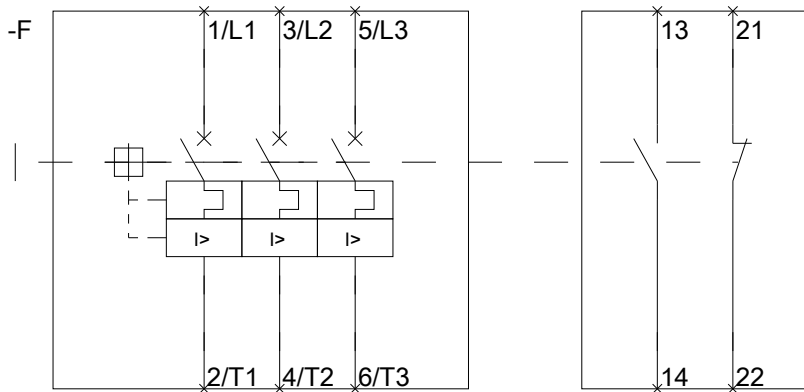
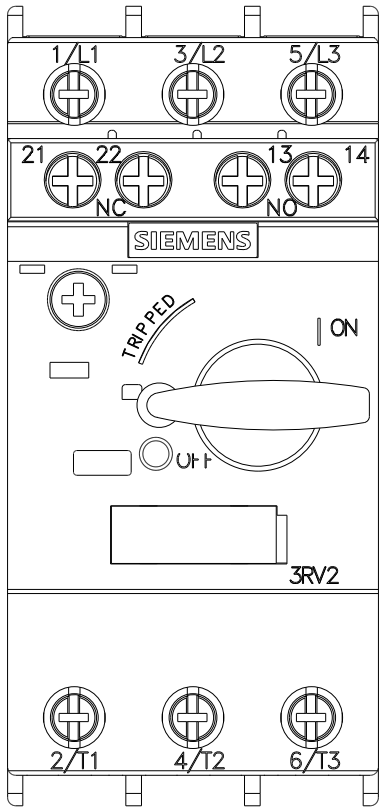
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RV24110EA15/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=3RV24110EA15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RV24110EA15&lang=en)





last modified:

11.03.2015