



CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-REL.1.1...1.6A, N-RELEASE 21A, SCREW CONNECTION, STANDARD SW. CAPACITY, W. TRANSVERSE AUX. SWITCH 1NO+1NC

product brand name	SIRIUS
Product designation	3RV2 circuit breaker

**General technical data:**

Size of contactor can be combined company-specific	S0
Product expansion	Yes
• Auxiliary switch	
Active power loss total typical	6 W
Insulation voltage	690 V
• with degree of pollution 3 Rated value	
Surge voltage resistance Rated value	6 kV
Protection class IP	IP20
• on the front	
• of the terminal	IP20
Mechanical service life (switching cycles)	100 000
• of the main contacts typical	
• of the auxiliary contacts typical	100 000
Electrical endurance (switching cycles)	100 000
• typical	
Temperature compensation	-20 ... +60 °C
Type of protection	Increased safety

**Ambient conditions:**

Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	-20 ... +60 °C
• during operation	

<ul style="list-style-type: none"> <li>during storage</li> </ul>	-50 ... +80 °C
<ul style="list-style-type: none"> <li>during transport</li> </ul>	-50 ... +80 °C
<b>Relative humidity during operation</b>	10 ... 95 %

#### Main circuit:

<b>Adjustable response value current of the current-dependent overload release</b>	1.1 ... 1.6 A
<b>Operating voltage</b>	
<ul style="list-style-type: none"> <li>Rated value</li> </ul>	690 V
<ul style="list-style-type: none"> <li>at AC-3 Rated value maximum</li> </ul>	690 V
<b>Operating frequency Rated value</b>	50 ... 60 Hz
<b>Operating current Rated value</b>	1.6 A
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>at AC-3</li> </ul>	
<ul style="list-style-type: none"> <li>— at 400 V Rated value</li> </ul>	1.6 A
<b>Operating power</b>	
<ul style="list-style-type: none"> <li>at AC-3</li> </ul>	
<ul style="list-style-type: none"> <li>— at 230 V Rated value</li> </ul>	250 W
<ul style="list-style-type: none"> <li>— at 400 V Rated value</li> </ul>	550 W
<ul style="list-style-type: none"> <li>— at 500 V Rated value</li> </ul>	750 W
<ul style="list-style-type: none"> <li>— at 690 V Rated value</li> </ul>	1 100 W
<b>Operating frequency</b>	
<ul style="list-style-type: none"> <li>at AC-3 maximum</li> </ul>	15 1/h

#### Auxiliary circuit:

<b>Number of NC contacts</b>	
<ul style="list-style-type: none"> <li>for auxiliary contacts</li> </ul>	1
<b>Number of NO contacts</b>	
<ul style="list-style-type: none"> <li>for auxiliary contacts</li> </ul>	1
<b>Number of CO contacts</b>	
<ul style="list-style-type: none"> <li>for auxiliary contacts</li> </ul>	0
<b>Design of the auxiliary switch</b>	transverse
<b>Operating current of the auxiliary contacts at AC-15</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> </ul>	2 A
<ul style="list-style-type: none"> <li>at 120 V</li> </ul>	0.5 A
<ul style="list-style-type: none"> <li>at 125 V</li> </ul>	0.5 A
<ul style="list-style-type: none"> <li>at 230 V</li> </ul>	0.5 A
<b>Operating current of the auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> </ul>	1 A
<ul style="list-style-type: none"> <li>at 60 V</li> </ul>	0.15 A

#### 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) at AC</b>	
<ul style="list-style-type: none"> <li>• at 240 V Rated value</li> <li>• at 400 V Rated value</li> <li>• at 500 V Rated value</li> <li>• at 690 V Rated value</li> </ul>	<p>100 kA</p> <p>100 kA</p> <p>100 kA</p> <p>100 kA</p>
<b>Maximum short-circuit current breaking capacity (Icu)</b>	
<ul style="list-style-type: none"> <li>• at AC at 240 V Rated value</li> <li>• with AC at 400 V Rated value</li> <li>• at AC at 500 V Rated value</li> <li>• at AC at 690 V Rated value</li> </ul>	<p>100 kA</p> <p>100 kA</p> <p>100 kA</p> <p>100 kA</p>
<b>Breaking capacity short-circuit current (Icn)</b>	
<ul style="list-style-type: none"> <li>• with 1 current path at DC at 150 V Rated value</li> <li>• with 2 current paths in series at DC at 300 V Rated value</li> <li>• with 3 current paths in series at DC at 450 V Rated value</li> </ul>	<p>10 kA</p> <p>10 kA</p> <p>10 kA</p>
<b>Response value current of the instantaneous short-circuit release</b>	21 A

#### UL/CSA ratings:

<b>Full-load current (FLA) for three-phase AC motor</b>	
<ul style="list-style-type: none"> <li>• at 480 V Rated value</li> <li>• at 600 V Rated value</li> </ul>	<p>1.6 A</p> <p>1.6 A</p>
<b>yielded mechanical performance [hp]</b>	
<ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 230 V Rated value</li> </ul> </li> <li>• for three-phase AC motor <ul style="list-style-type: none"> <li>— at 460/480 V Rated value</li> <li>— at 575/600 V Rated value</li> </ul> </li> </ul>	<p>0.1 hp</p> <p>0.75 hp</p> <p>0.75 hp</p>
<b>Contact rating of the auxiliary contacts acc. to UL</b>	C300 / R300

#### Short-circuit:

<b>Design of the short-circuit trip</b>	magnetic
<b>Design of the fuse link</b>	
<ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current I <sub>k</sub> < 400 A)
<b>Design of the fuse link for IT network for short-circuit protection of the main circuit</b>	
<ul style="list-style-type: none"> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	<p>gL/gG 20 A</p> <p>gL/gG 16 A</p>

#### Installation/ mounting/ dimensions:

<b>mounting position</b>	any
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<b>Mounting type</b>	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
<b>Height</b>	97 mm
<b>Width</b>	45 mm
<b>Depth</b>	96 mm
<b>Required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 50 mm</li> <li>— downwards 50 mm</li> <li>— at the side 0 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 50 mm</li> <li>— at the side 30 mm</li> <li>— downwards 50 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 50 mm</li> <li>— downwards 50 mm</li> <li>— at the side 30 mm</li> </ul> </li> </ul>	

<b>Connections/ Terminals:</b>	
<b>Product function</b>	
<ul style="list-style-type: none"> <li>• removable terminal for auxiliary and control circuit</li> </ul>	No
<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>	screw-type terminals screw-type terminals
<b>Arrangement of electrical connectors for main current circuit</b>	Top and bottom
<b>Type of connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— single or multi-stranded 2x (0,75 ... 2,5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup></li> <li>— finely stranded with core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</li> </ul> </li> <li>• for AWG conductors for main contacts 2x (18 ... 14), 2x 12</li> </ul>	
<b>Type of connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— single or multi-stranded 2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</li> </ul> </li> </ul>	

<ul style="list-style-type: none"> <li>• for AWG conductors for auxiliary contacts</li> </ul>	2x (20 ... 16), 2x (18 ... 14)
<b>Design of screwdriver shaft</b>	Diameter 5 to 6 mm
<b>Design of the thread of the connection screw</b>	
<ul style="list-style-type: none"> <li>• for main contacts</li> </ul>	M3
<ul style="list-style-type: none"> <li>• of the auxiliary and control contacts</li> </ul>	M3

**Safety related data:**

<b>B10 value with high demand rate acc. to SN 31920</b>	50 000
<b>Proportion of dangerous failures</b>	
<ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> </ul>	40 %
<ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul>	40 %
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	10 y

**Mechanical data:**

<b>Size of the circuit-breaker</b>	S00
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**Display:**

<b>Display version</b>	
<ul style="list-style-type: none"> <li>• for switching status</li> </ul>	Handle

**Certificates/ approvals:**

General Product Approval	For use in hazardous locations	Declaration of Conformity
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Test Certificates	Shipping Approval
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[Typprüfbescheinigung/Werkszeugnis](#)

[spezielle Prüfbescheinigungen](#)

[Werksbescheinigungen](#)



Shipping Approval	other
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[Umweltbestätigung](#)

other
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[Bestätigungen](#)



### 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**

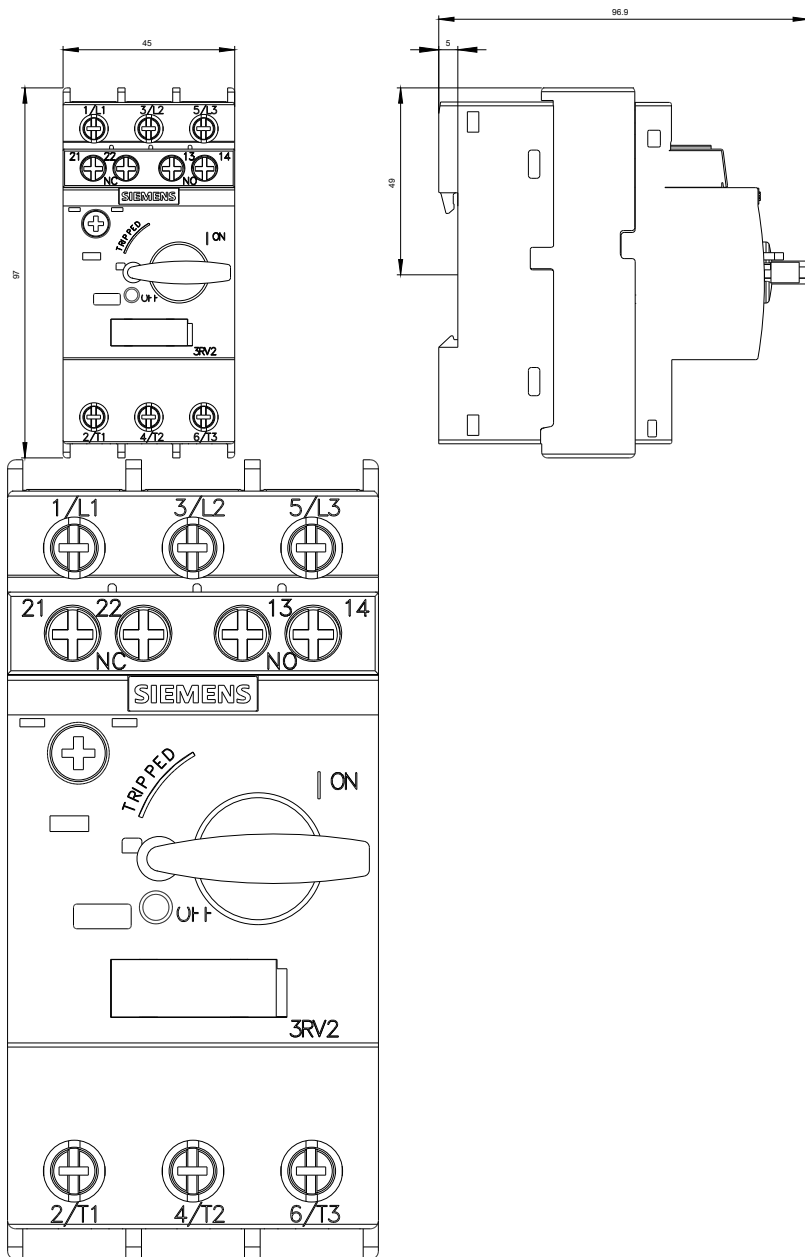
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RV20111AA15>

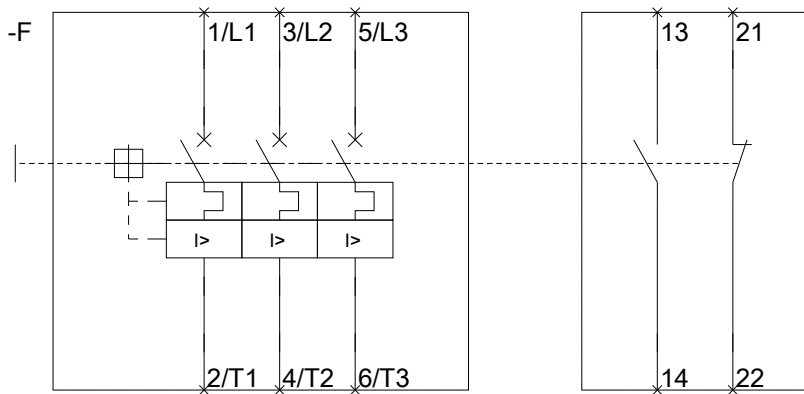
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RV20111AA15>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RV20111AA15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RV20111AA15&lang=en)





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