

CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-REL. 0.55...0.8A, N-RELEASE10A, SCREW CONNECTION, STANDARD SW. CAPACITY, W. TRANSVERSE AUX. SWITCH 1NO+1NC



product brand name	SIRIUS
Product designation	3RV2 circuit breaker
<b>General technical data:</b>	
Size of the circuit-breaker	S00
Size of contactor can be combined company-specific	S0
Product expansion	
• Auxiliary switch	Yes
Active power loss total typical	6 W
Insulation voltage with degree of pollution 3 Rated value	690 V
Surge voltage resistance Rated value	6 kV
Protection class IP	
• on the front	IP20
• of the terminal	IP20
Shock resistance	
• acc. to IEC 60068-2-27	25g / 11 ms
Mechanical service life (switching cycles)	
• of the main contacts typical	100 000
• of the auxiliary contacts typical	100 000

<b>Electrical endurance (switching cycles)</b>	
• typical	100 000
<b>Type of protection</b>	Increased safety
<b>Certificate of suitability relating to ATEX</b>	on request
<b>Protection against electrical shock</b>	finger-safe
Equipment marking acc. to DIN EN 81346-2	Q

#### Ambient conditions:

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

#### Main circuit:

<b>Number of poles for main current circuit</b>	3
<b>Adjustable response value current of the current-dependent overload release</b>	0.55 ... 0.8 A
<b>Operating voltage</b>	
• Rated value	690 V
• at AC-3 Rated value maximum	690 V
<b>Operating frequency Rated value</b>	50 ... 60 Hz
<b>Operating current Rated value</b>	0.8 A
<b>Operating current</b>	
• at AC-3	
— at 400 V Rated value	0.8 A
<b>Operating power</b>	
• at AC-3	
— at 230 V Rated value	120 W
— at 400 V Rated value	180 W
— at 500 V Rated value	250 W
— at 690 V Rated value	370 W
<b>Operating frequency</b>	
• at AC-3 maximum	15 1/h

#### Auxiliary circuit:

<b>Design of the auxiliary switch</b>	transverse
<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>	

<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>	0
<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 release</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> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at 400 V Rated value</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at 500 V Rated value</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at 690 V Rated value</li> </ul>	100 kA
<b>Maximum short-circuit current breaking capacity (Icu)</b>	
<ul style="list-style-type: none"> <li>• at AC at 240 V Rated value</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at AC at 400 V Rated value</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at AC at 500 V Rated value</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at AC at 690 V Rated value</li> </ul>	100 kA
<b>Breaking capacity short-circuit current (Icn)</b>	
<ul style="list-style-type: none"> <li>• at 1 current path at DC at 150 V Rated value</li> </ul>	10 kA
<ul style="list-style-type: none"> <li>• with 2 current paths in series at DC at 300 V Rated value</li> </ul>	10 kA
<ul style="list-style-type: none"> <li>• with 3 current paths in series at DC at 450 V Rated value</li> </ul>	10 kA
<b>Response value current of the instantaneous short-circuit release</b>	10 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> </ul>	0.8 A
<ul style="list-style-type: none"> <li>• at 600 V Rated value</li> </ul>	0.8 A
<b>Contact rating of the auxiliary contacts acc. to UL</b>	C300 / R300

#### Short-circuit protection

<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 690 V</li> </ul>	gL/gG 6 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>	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</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>0 mm</li> <li>0 mm</li> <li>50 mm</li> <li>50 mm</li> <li>0 mm</li> <li>0 mm</li> <li>0 mm</li> <li>50 mm</li> <li>30 mm</li> <li>50 mm</li> <li>0 mm</li> <li>0 mm</li> <li>50 mm</li> <li>50 mm</li> <li>30 mm</li> </ul>

**Connections/ Terminals:**

<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>	<ul style="list-style-type: none"> <li>screw-type terminals</li> <li>screw-type terminals</li> </ul>
<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</li> <li>— finely stranded with core end processing</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>2x (0,75 ... 2,5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup></li> <li>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</li> </ul>

<ul style="list-style-type: none"> <li>• for AWG conductors for main contacts</li> </ul>	2x (18 ... 14), 2x 12
<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</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG conductors for auxiliary contacts</li> </ul>	2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ) 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) 2x (20 ... 16), 2x (18 ... 14)
<b>Tightening torque</b> <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary contacts with screw-type terminals</li> </ul>	0.8 ... 1.2 N·m 0.8 ... 1.2 N·m
<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> <li>• of the auxiliary and control contacts</li> </ul>	M3 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> <li>• with high demand rate acc. to SN 31920</li> </ul>	40 % 40 %
<b>Failure rate [FIT]</b> <ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> </ul>	50 FIT
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	10 y
<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
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For use in hazardous locations	Declaration of Conformity	Test Certificates	Shipping Approval
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### Shipping Approval



Shipping Approval	other	Railway
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### Further information

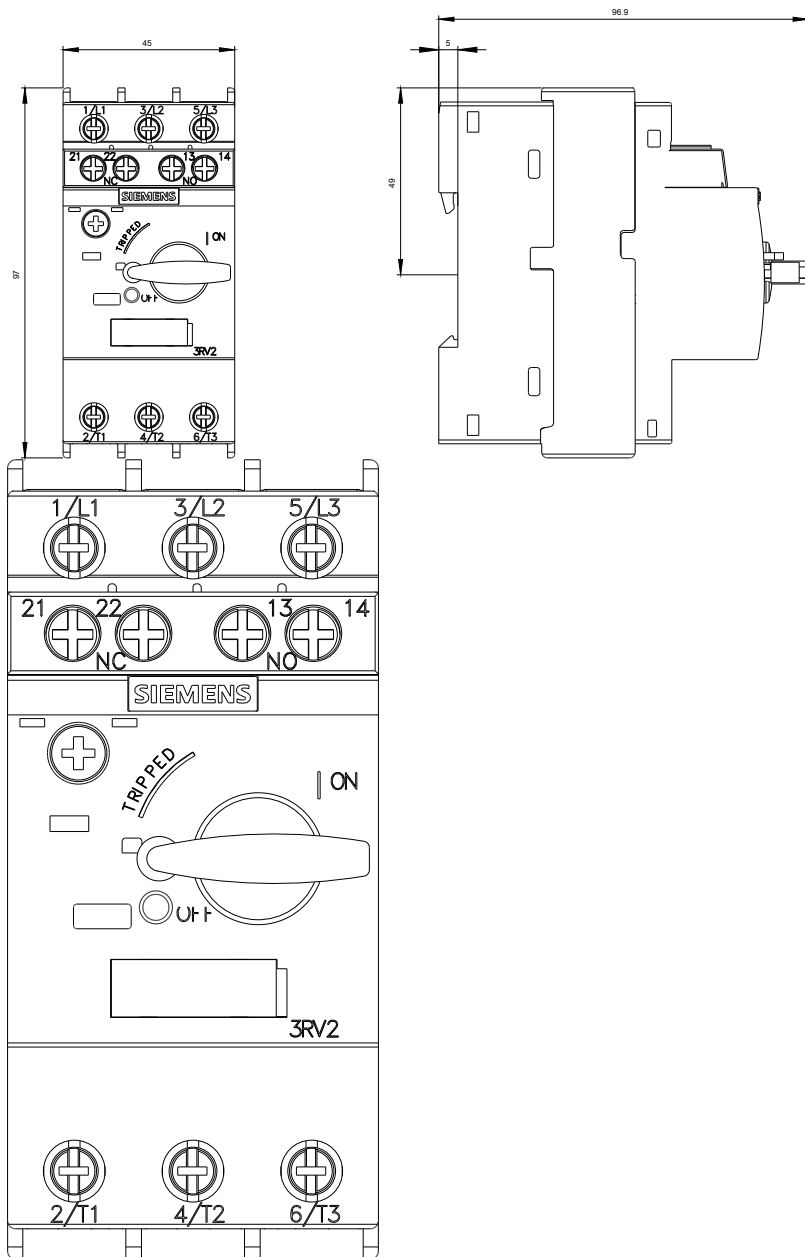
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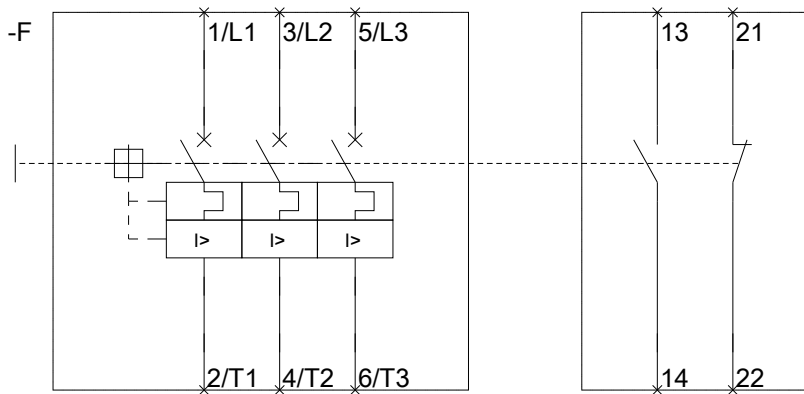
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<http://www.siemens.com/industrymall>

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<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20110HA15>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)  
<https://support.industry.siemens.com/cs/ww/en/ps/3RV20110HA15>

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