



CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL. 0.45...0.63A, N-REL.8.2A SCREW CONNECTION, STANDARD SW. CAPACITY

Figure similar

product brand name	SIRIUS
Product designation	3RV2 circuit breaker

General technical data:

Size of contactor can be combined company-specific	S2
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
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	-20 ... +60 °C
Type of protection	Increased safety

Ambient conditions:

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

<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>	0.45 ... 0.63 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>	0.63 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>	0.63 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>	90 W
<ul style="list-style-type: none"> <li>— at 400 V Rated value</li> </ul>	180 W
<ul style="list-style-type: none"> <li>— at 500 V Rated value</li> </ul>	180 W
<ul style="list-style-type: none"> <li>— at 690 V Rated value</li> </ul>	250 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>	0
<b>Number of NO contacts</b>	
<ul style="list-style-type: none"> <li>for auxiliary contacts</li> </ul>	0
<b>Number of CO contacts</b>	
<ul style="list-style-type: none"> <li>for auxiliary contacts</li> </ul>	0

#### 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> </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>with 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> <li>• at AC at 690 V Rated value</li> </ul>	100 kA 100 kA
<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>	10 kA 10 kA 10 kA
<b>Response value current of the instantaneous short-circuit release</b>	8.2 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>	0.63 A 0.63 A

#### Short-circuit:

<b>Design of the short-circuit trip</b>	magnetic
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#### 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> </ul> </li> </ul>	0 mm 0 mm 50 mm 50 mm 0 mm  0 mm 0 mm 50 mm 30 mm 50 mm  0 mm 0 mm 50 mm 50 mm

— at the side

30 mm

#### 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></ul>	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</li><li>finely stranded with core end processing</li></ul></li><li>for AWG conductors for main contacts</li></ul>	2x (1 ... 2,5 mm <sup>2</sup> ), 2x (2,5 ... 10 mm <sup>2</sup> ) 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup> 2x (16 ... 12), 2x (14 ... 8)
<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>	M4

#### 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>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>	S0
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#### Display:

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

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Shipping Approval	other
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### 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**

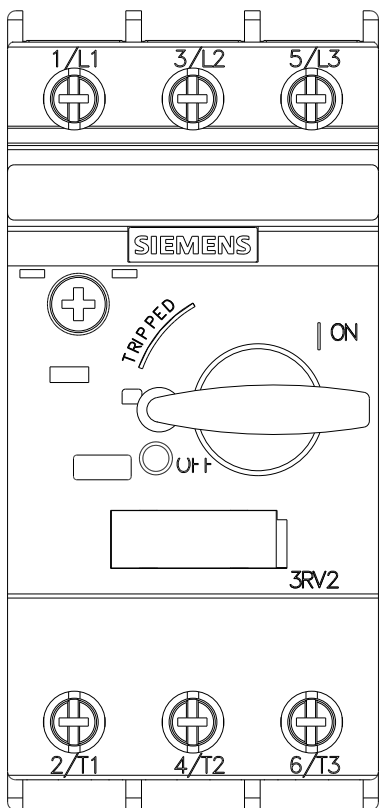
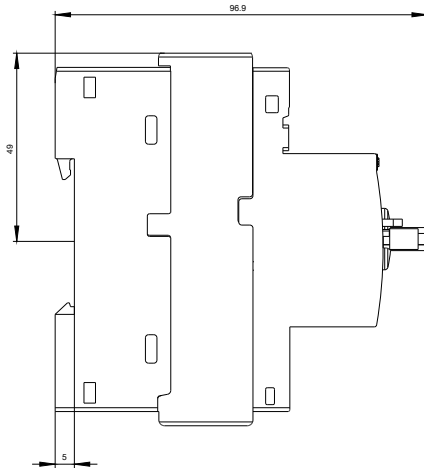
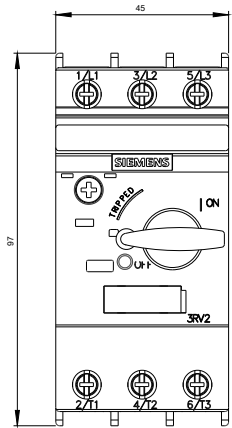
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RV20210GA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV20210GA10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RV20210GA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RV20210GA10&lang=en)





last modified:

29.06.2015