



CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 9..12.5A, N-RELEASE 163A, SCREW CONNECTION, STANDARD SW. CAPACITY

product brand name	SIRIUS
Product designation	3RV2 circuit breaker
<b>General technical data:</b>	
Size of contactor can be combined company-specific	S2
Product expansion	
• Auxiliary switch	Yes
Active power loss total typical	7 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
<b>Ambient conditions:</b>	
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>	9 ... 12.5 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>	12.5 A
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>at AC-3 <ul style="list-style-type: none"> <li>— at 400 V Rated value</li> </ul> </li> </ul>	12.5 A
<b>Operating power</b>	
<ul style="list-style-type: none"> <li>at AC-3 <ul style="list-style-type: none"> <li>— at 230 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> </li> </ul>	3 000 W 5 500 W 7 500 W 7 500 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> <li>at 400 V Rated value</li> <li>at 500 V Rated value</li> <li>at 690 V Rated value</li> </ul>	100 kA 100 kA 42 kA 4 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> <li>with AC at 400 V Rated value</li> </ul>	100 kA 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>	<p>42 kA</p> <p>6 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>	163 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>12.5 A</p> <p>12.5 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 110/120 V Rated value</li> <li>— at 230 V Rated value</li> </ul> </li> <li>• for three-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V Rated value</li> <li>— at 220/230 V Rated value</li> <li>— at 460/480 V Rated value</li> <li>— at 575/600 V Rated value</li> </ul> </li> </ul>	<p>0.5 hp</p> <p>2 hp</p> <p>3 hp</p> <p>3 hp</p> <p>7.5 hp</p> <p>10 hp</p>

#### Short-circuit:

<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>	
<ul style="list-style-type: none"> <li>• at 400 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	<p>gL/gG 63 A</p> <p>gL/gG 50 A</p> <p>gL/gG 40 A</p>

#### 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> </ul> </li> </ul>	<p>0 mm</p> <p>0 mm</p> <p>50 mm</p>

— downwards	50 mm
— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— at the side	30 mm
— downwards	50 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— downwards	50 mm
— at the side	30 mm

#### Connections/ Terminals:

<b>Product function</b>	
• removable terminal for auxiliary and control circuit	No
<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>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
<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

#### 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>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>	
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- for switching status


Handle

### Certificates/ approvals:

General Product Approval		For use in hazardous locations	Declaration of Conformity
 CSA	 UL	<a href="#">KTL</a>	 EAC
		 ATEX	 EG-Konf.

Test Certificates	Shipping Approval		
<a href="#">Typprüfbescheinigung/Werkszeugnis</a>	<a href="#">Werksbescheinigung</a>	<a href="#">spezielle Prüfbescheinigung</a>	 ABS
			 BUREAU VERITAS
			 DNV

Shipping Approval	other				
 GL	 LRS	 PRS	 RINA	 RMRS	<a href="#">Bestätigungen</a>

other
<a href="#">Umweltbestätigung</a>  VDE

### 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**

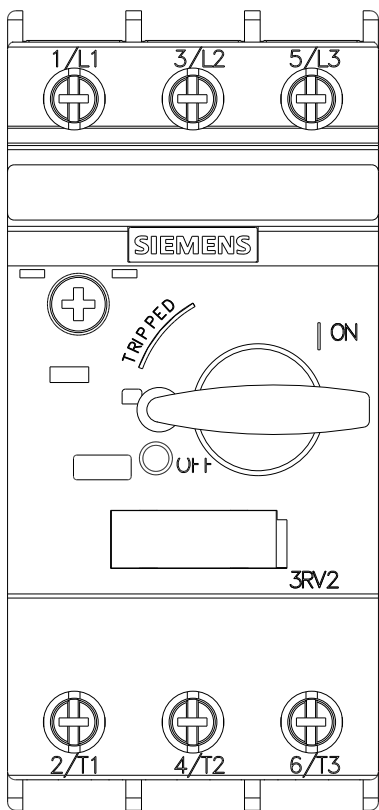
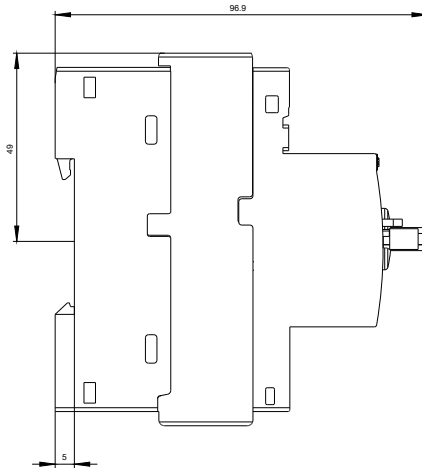
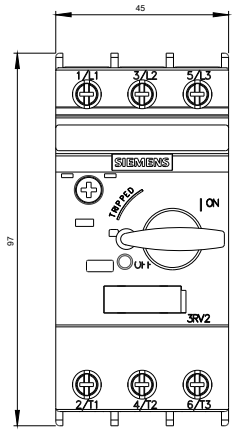
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20111KA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV20111KA10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV20111KA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV20111KA10&lang=en)





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