



CIRCUIT-BREAKER SZ S00, FOR PLANT PROTECTION, WITH APPROBATION CIRCUIT-BREAKER UL 489. CSA C22.2 NO.5-02. A-RELEASE 8 A, N-RELEASE 104 A, SCREW CONNECTION, STANDARD SW. CAPACITY

product brand name		SIRIUS
Product designation		3RV2 circuit breaker

#### General technical data:

<b>Active power loss total typical</b>	W	7
<b>Insulation voltage</b>		
• with degree of pollution 3 Rated value	V	690
<b>Shock resistance</b>		
• acc. to IEC 60068-2-27		25g / 11 ms
<b>Surge voltage resistance Rated value</b>	kV	6
<b>Mechanical service life (switching cycles)</b>		
• of the main contacts typical		100 000
• of the auxiliary contacts typical		100 000
<b>Electrical endurance (switching cycles)</b>		
• typical		100 000
<b>Temperature compensation</b>	°C	-20 ... +60
<b>Protection class IP</b>		
• on the front		IP20
• of the terminal		IP20
<b>Equipment marking</b>		
• acc. to DIN EN 81346-2		Q

#### Main circuit:

<b>Number of poles for main current circuit</b>		3
<b>Operating voltage</b>		
• Rated value	V	690

<ul style="list-style-type: none"> <li>• at AC-3 Rated value maximum</li> </ul>	V	690
Operating frequency Rated value	Hz	50 ... 60
<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>	W	1 500
	W	3 000
	W	4 000
	W	5 500
<b>Operating frequency</b>		
<ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>	1/h	15

<b>Auxiliary circuit:</b>		
<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
<b>Product expansion Auxiliary switch</b>		
		Yes

<b>Protective and monitoring functions:</b>		
<b>Design of the overload circuit breaker</b>		
		thermal
<b>Operational short-circuit current breaking capacity (Ics) with AC</b>		
<ul style="list-style-type: none"> <li>• at 240 V Rated value</li> </ul>	kA	100
<ul style="list-style-type: none"> <li>• at 400 V Rated value</li> </ul>	kA	100
<ul style="list-style-type: none"> <li>• at 500 V Rated value</li> </ul>	kA	42
<ul style="list-style-type: none"> <li>• at 690 V Rated value</li> </ul>	kA	4
<b>Maximum short-circuit current breaking capacity (Icu)</b>		
<ul style="list-style-type: none"> <li>• with AC at 240 V Rated value</li> <li>• with AC at 400 V Rated value</li> <li>• with AC at 500 V Rated value</li> <li>• with AC at 690 V Rated value</li> <li>• at 480 AC Y/277 V acc. to UL 489 Rated value</li> </ul>	kA	100
	kA	100
	kA	42
	kA	6
	A	65 000
<b>Breaking capacity short-circuit current (Icn)</b>		
<ul style="list-style-type: none"> <li>• with 1 current path for DC at 150 V Rated value</li> <li>• with 2 current paths in series for DC at 300 V Rated value</li> <li>• with 3 current paths in series for DC at 450 V Rated value</li> </ul>	kA	10
	kA	10
	kA	10
<b>Response value current of the instantaneous short-circuit release</b>		
	A	104

**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 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>		gL/gG 50 A gL/gG 40 A gL/gG 35 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>	mm	144
<b>Width</b>	mm	45
<b>Depth</b>	mm	97
<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>	mm	0 0 50 50 0  0 0 50 30 50  0 0 50 50 30

#### Connections/ Terminals:

<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>Product function</b>		
<ul style="list-style-type: none"> <li>• removable terminal for auxiliary and control circuit</li> </ul>		No
<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>		1 ... 10 mm <sup>2</sup> , max. 2x 10 mm <sup>2</sup> 1 ... 16 mm <sup>2</sup> , max. 6 + 16 mm <sup>2</sup> 2x 14
<b>Tightening torque</b>		
<ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> </ul>	N·m	2.5 ... 3
<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> </ul>	%	40
<ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul>	%	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
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#### Ambient conditions:

<b>Installation altitude at height above sea level maximum</b>	m	2 000
<b>Ambient temperature</b>		
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	°C	-20 ... +60
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	°C	-50 ... +80
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	°C	-50 ... +80
<b>Relative humidity during operation</b>	%	10 ... 95

#### Display:

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

#### Certificates/ approvals:

General Product Approval	Declaration of Conformity	Test Certificates
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

Shipping Approval
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Shipping Approval	other
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[Confirmation](#)

[Environmental Confirmations](#)



[other](#)

Further information
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**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**

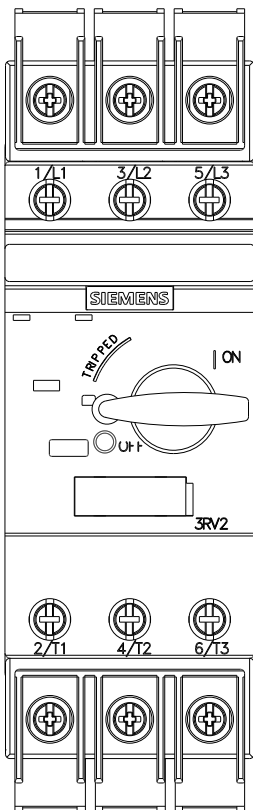
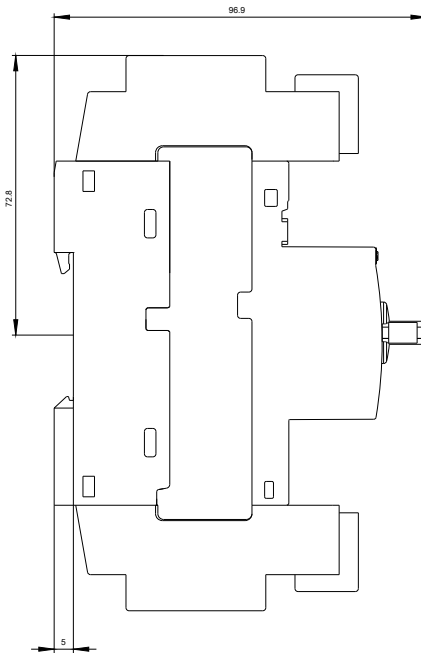
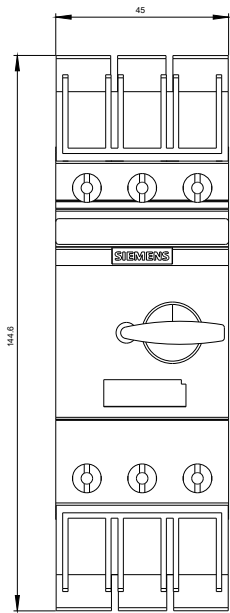
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV27111HD10>

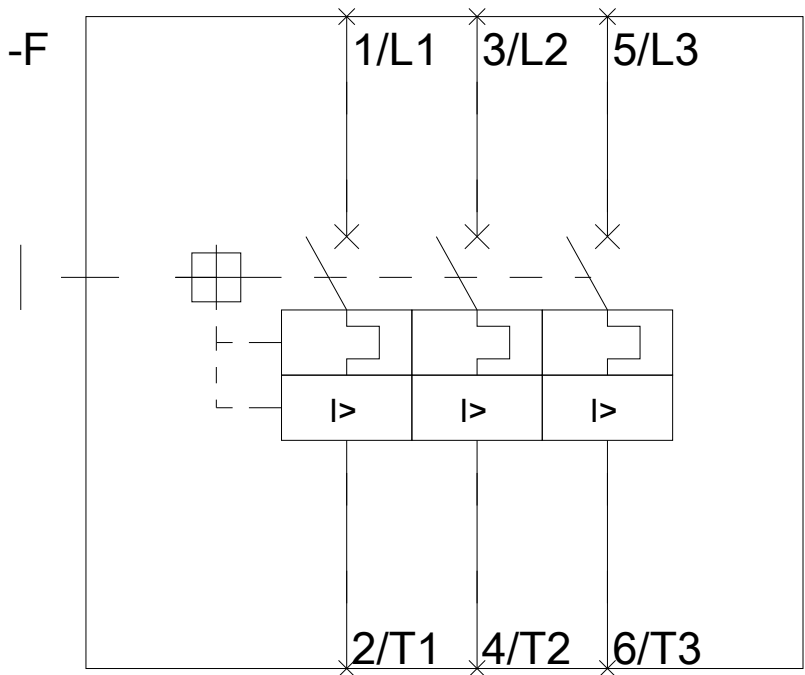
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RV27111HD10/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV27111HD10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV27111HD10&lang=en)





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