

CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-REL. 0.7...1A, N-RELEASE 13A, SPRING-L. CONNECTION STANDARD SW. CAPACITY



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
Power loss [W] total typical	6 W
Insulation voltage with degree of pollution 3 rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
• in networks with grounded star point between main and auxiliary circuit	400 V
• in networks with grounded star point between main and auxiliary circuit	400 V
Protection class IP	
• on the front	IP20
• of the terminal	IP20

<b>Shock resistance</b>	
• acc. to IEC 60068-2-27	25g / 11 ms
<b>Mechanical service life (switching cycles)</b>	
• of the main contacts typical	100 000
• of 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 pick-up value current of the current-dependent overload release</b>	0.7 ... 1 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>	1 A
<b>Operating current</b>	
• at AC-3	
— at 400 V rated value	1 A
<b>Operating power</b>	
• at AC-3	
— at 230 V rated value	180 W
— at 400 V rated value	250 W
— at 500 V rated value	370 W
— at 690 V rated value	550 W
<b>Operating frequency</b>	
• at AC-3 maximum	15 1/h

#### Auxiliary circuit:

<b>Number of NC contacts</b>	
• for auxiliary contacts	0
<b>Number of NO contacts</b>	
• for auxiliary contacts	0
<b>Number of CO contacts</b>	
• for auxiliary contacts	0

#### 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>	
• at 240 V rated value	100 kA
• at 400 V rated value	100 kA
• at 500 V rated value	100 kA
• at 690 V rated value	100 kA
<b>Maximum short-circuit current breaking capacity (Icu)</b>	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	100 kA
• at AC at 500 V rated value	100 kA
• at AC at 690 V rated value	100 kA
<b>Breaking capacity short-circuit current (Icn)</b>	
• at 1 current path at DC at 150 V rated value	10 kA
• with 2 current paths in series at DC at 300 V rated value	10 kA
• with 3 current paths in series at DC at 450 V rated value	10 kA
<b>Response value current of the instantaneous short-circuit release</b>	13 A

#### UL/CSA ratings:

<b>Full-load current (FLA) for three-phase AC motor</b>	
• at 480 V rated value	1 A
• at 600 V rated value	1 A
• Yielded mechanical performance [hp] for three-phase AC motor	
— at 575/600 V rated value	0.5 hp

#### Short-circuit protection

<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>	
• at 500 V	gL/gG 10 A
• at 690 V	gL/gG 10 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>	106 mm
<b>Width</b>	45 mm
<b>Depth</b>	96 mm
<b>Required spacing</b>	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— 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	spring-loaded terminals
<b>Arrangement of electrical connectors for main current circuit</b>	Top and bottom
<b>Type of connectable conductor cross-sections</b>	
• for main contacts	
— single or multi-stranded	2x (0,5 ... 4 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0.5 ... 2.5 mm <sup>2</sup> )
— finely stranded without core end processing	2x (0.5 ... 2.5 mm <sup>2</sup> )
• at AWG conductors for main contacts	2x (20 ... 12)
<b>Design of screwdriver shaft</b>	Diameter 5 to 6 mm

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>Failure rate [FIT]</b>	
• with low demand rate acc. to SN 31920	50 FIT
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	10 y
<b>Display version</b>	
• for switching status	Handle

Certificates/approvals

<b>General Product Approval</b>	<b>For use in hazardous locations</b>
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<b>For use in hazardous locations</b>	<b>Declaration of Conformity</b>	<b>Test Certificates</b>	<b>Shipping Approval</b>
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Shipping Approval



<b>Shipping Approval</b>	<b>other</b>	<b>Railway</b>
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Further information

**Information- and Downloadcenter (Catalogs, Brochures,...)**

<http://www.siemens.com/industrial-controls/catalogs>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV20110JA20>

**Cax online generator**

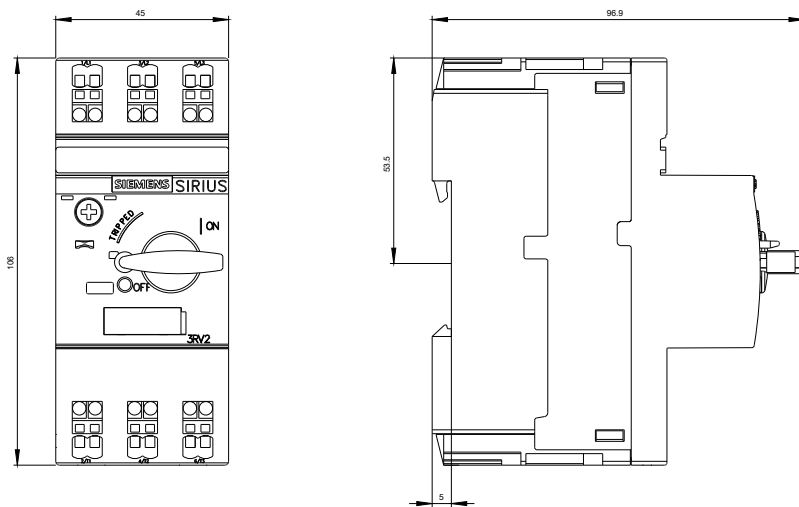
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20110JA20>

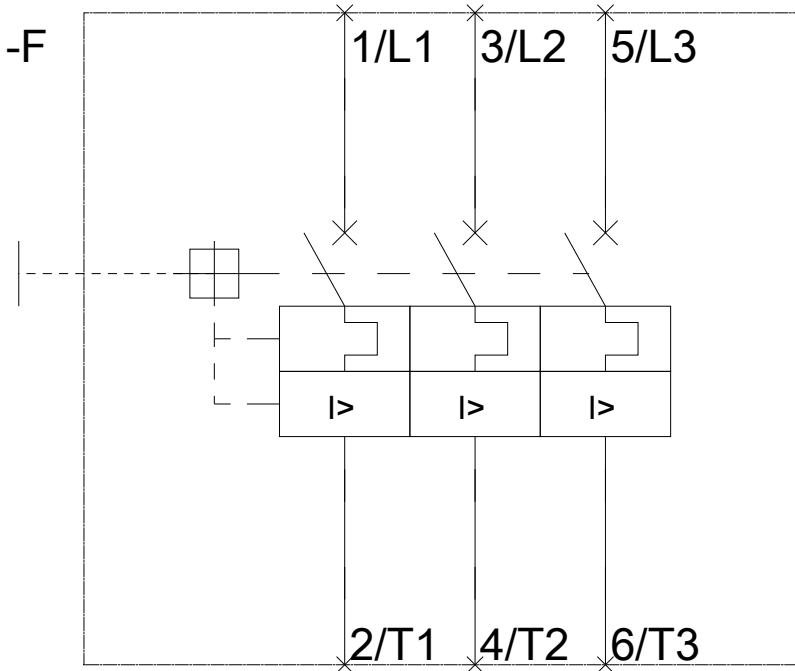
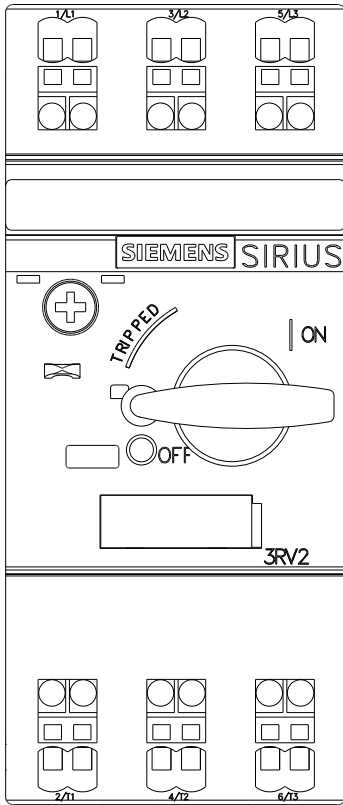
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RV20110JA20>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV20110JA20&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV20110JA20&lang=en)





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