

CIRCUIT-BREAKER SIZE S00, FOR MOTOR PROTECTION, CLASS 10, A-REL. 4.5...6.3A, N-REL. 82A SCREW TERMINAL, STANDARD SWITCHING CAPACITY, W. TRANSV. AUX. SWITCH 1NO+1NC



Figure similar

Product brand name	SIRIUS
Product designation	Circuit breaker
Design of the product	For motor protection
Product type designation	3RV1

General technical data	
Size of the circuit-breaker	S00
Size of contactor can be combined company-specific	S00
Product extension	
• 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

<b>Protection class IP</b>	
• on the front	IP20
• of the terminal	IP00
<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>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</b>	
• maximum	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
Relative humidity during operation	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>	4.5 ... 6.3 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>	6.3 A
<b>Operating current</b>	
• at AC-3	
— at 400 V rated value	6.3 A
<b>Operating power</b>	
• at AC-3	
— at 230 V rated value	1 500 W
— at 400 V rated value	2 200 W
— at 500 V rated value	3 000 W
— at 690 V rated value	5 500 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
— Note	1
<b>Number of NO contacts</b>	
• for auxiliary contacts	1
— Note	1
<b>Number of CO contacts</b>	
• for auxiliary contacts	0
<b>Operating current of auxiliary contacts at AC-15</b>	
• at 24 V	2 A
• at 110 V	2 A
• at 120 V	2 A
• at 125 V	2 A
• at 230 V	0.5 A
<b>Operating current of auxiliary contacts at DC-13</b>	
• at 24 V	1 A
• at 60 V	0.15 A

### Protective and monitoring functions

<b>Product function</b>	
• Ground fault detection	No
• Phase failure detection	Yes
<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	100 000 A
• at 400 V rated value	100 000 A
• at 500 V rated value	3 000 A
• at 690 V rated value	2 000 A
<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	3 kA
• at AC at 690 V rated value	2 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</b>	

- of instantaneous short-circuit trip unit

82 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>	6.3 A
<ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>	6.3 A
<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>	0.25 hp 0.5 hp 1 hp 1.5 hp 3 hp 5 hp
<b>Contact rating of auxiliary contacts according to UL</b>	C300 / R300

### Short-circuit protection

<b>Product function Short circuit protection</b>	Yes
<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 gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ 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 240 V</li> <li>• at 400 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	none required gL/gG 50 A gL/gG 40 A gL/gG 40 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>	90 mm
<b>Width</b>	45 mm
<b>Depth</b>	81 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> <li>• for auxiliary and control current circuit</li> </ul>	screw-type terminals screw-type terminals

<b>Arrangement of electrical connectors for main current circuit</b>	Top and bottom
<b>Type of connectable conductor cross-sections</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>	<p>2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>), 2x (1 ... 4 mm<sup>2</sup>)</p> <p>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</p>
<b>Type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— single or multi-stranded</li> </ul> </li> </ul>	<p>2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)</p>
<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>	<p>0.8 ... 1.2 N·m</p> <p>0.8 ... 1.2 N·m</p>
<b>Size of the screwdriver tip</b>	Pozidriv 2
<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>	<p>M3</p> <p>M3</p>

Safety related data	
<b>B10 value</b>	
<ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul>	5 000
<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>	<p>50 %</p> <p>50 %</p>
<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>Display version</b>	
<ul style="list-style-type: none"> <li>• for switching status</li> </ul>	Rocker switch

Certificates/approvals
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General Product Approval	For use in hazardous locations
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Declaration of Conformity	Test Certificates	Marine / Shipping
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[Special Test Certificate](#)



Marine / Shipping	other
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[Confirmation](#)

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Further information

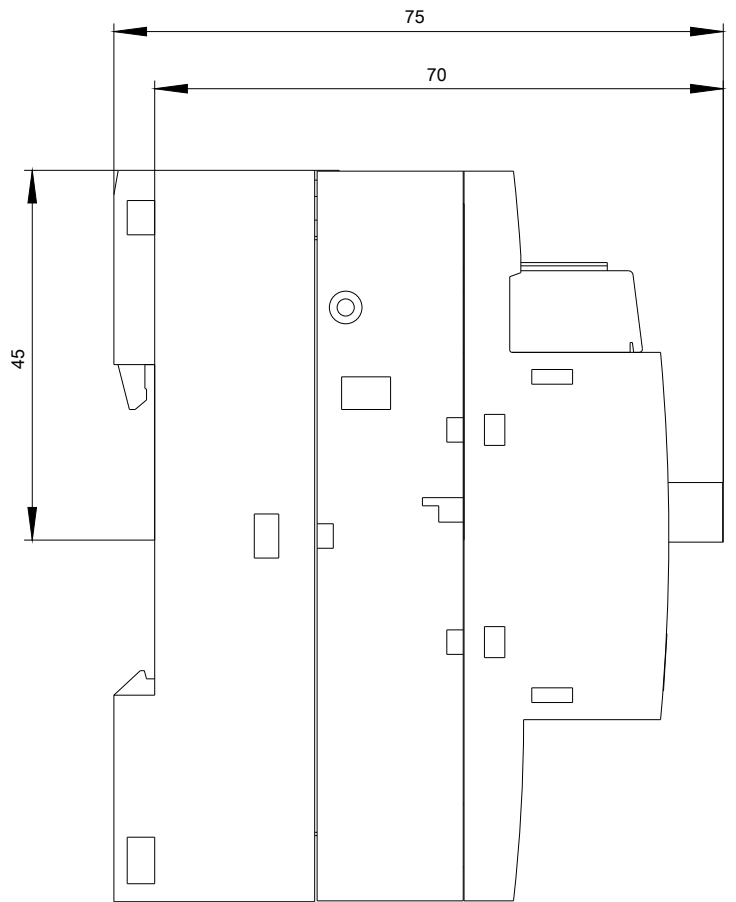
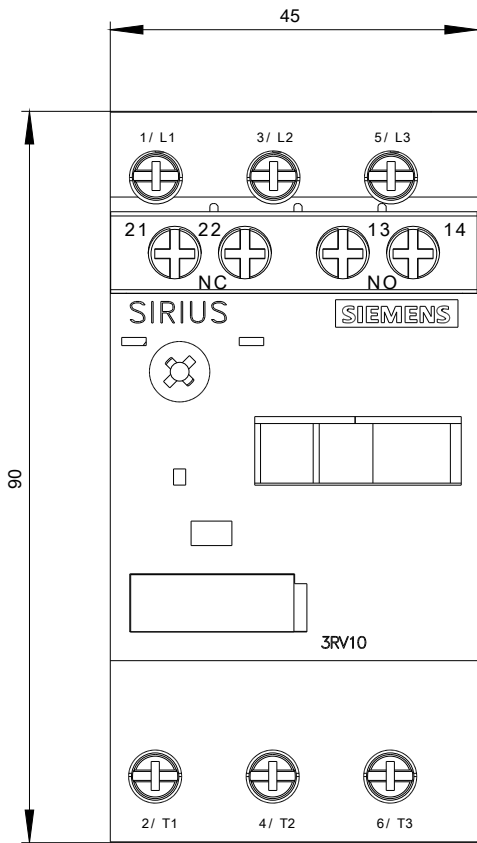
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<http://www.siemens.com/industrial-controls/catalogs>

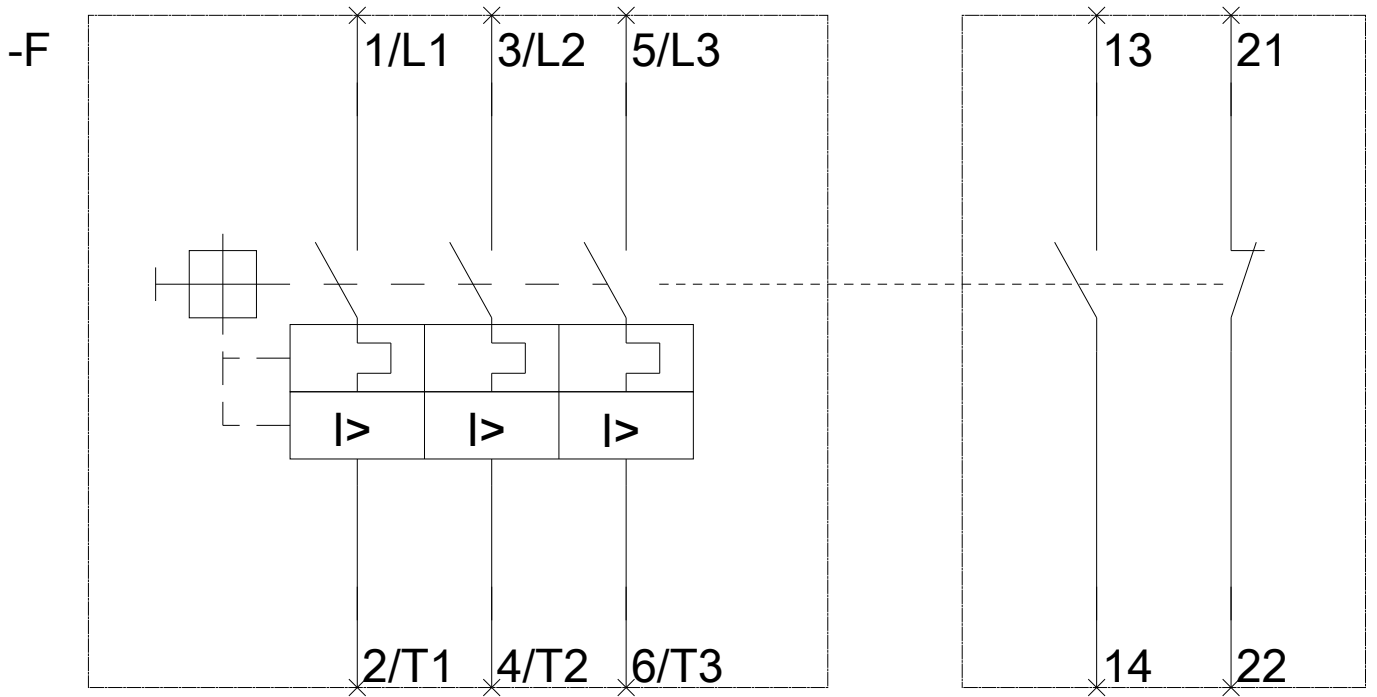
**Industry Mall (Online ordering system)**  
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV1011-1GA15>

**Cax online generator**  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1GA15>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1GA15>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV1011-1GA15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1GA15&lang=en)





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