

Circuit breaker size S00 for motor protection, CLASS 10 A-release 0.35...0.5 A N-release 6.5 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC



Product brand name	SIRIUS
Product designation	Circuit breaker
Design of the product	For motor protection
Product type designation	3RV2
General technical data	
Size of the circuit-breaker	S00
Size of contactor can be combined company-specific	S00, S0
Product extension	
• Auxiliary switch	Yes
Power loss [W] total typical	5 W
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
Certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
<b>Protection against electrical shock</b>	finger-safe
<b>Reference code acc. to DIN EN 81346-2</b>	Q

#### Ambient conditions

<b>Installation altitude at height above sea level</b>	
• maximum	2 000 m
<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>	0.35 ... 0.5 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>	0.5 A
<b>Operating current</b>	
• at AC-3	
— at 400 V rated value	0.5 A
<b>Operating power</b>	
• at AC-3	
— at 230 V rated value	60 W
— at 400 V rated value	120 W
— at 500 V rated value	120 W
— at 690 V rated value	180 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 for auxiliary contacts</b>	1
<b>Number of NO contacts for auxiliary contacts</b>	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 120 V	0.5 A
• at 125 V	0.5 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 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</b>	
• of instantaneous short-circuit trip unit	6.5 A

## UL/CSA ratings

<b>Full-load current (FLA) for three-phase AC motor</b>	
• at 480 V rated value	0.5 A
• at 600 V rated value	0.5 A
<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 gL/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 690 V</li> </ul>	gL/gG 4 A
<b>Installation/ mounting/ dimensions</b>	
<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>	97 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 0 mm</li> <li>Backwards 0 mm</li> <li>upwards 50 mm</li> <li>downwards 50 mm</li> <li>at the side 0 mm</li> </ul> </li> <li>for grounded parts <ul style="list-style-type: none"> <li>forwards 0 mm</li> <li>Backwards 0 mm</li> <li>upwards 50 mm</li> <li>at the side 30 mm</li> <li>downwards 50 mm</li> </ul> </li> <li>for live parts <ul style="list-style-type: none"> <li>forwards 0 mm</li> <li>Backwards 0 mm</li> <li>upwards 50 mm</li> <li>downwards 50 mm</li> <li>at the side 30 mm</li> </ul> </li> </ul>	
<b>Connections/Terminals</b>	
<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> <li>• at AWG conductors for main contacts</li> </ul>	2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup> 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) 2x (18 ... 14), 2x 12
<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> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG conductors for auxiliary contacts</li> </ul>	2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ) 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) 2x (20 ... 16), 2x (18 ... 14)
<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>	0.8 ... 1.2 N·m 0.8 ... 1.2 N·m
<b>Design of screwdriver shaft</b>	Diameter 5 to 6 mm
<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>	M3 M3

#### 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>	50 % 50 %
<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>T1 value for proof test interval or service life acc. to IEC 61508</b>	10 y
<b>Display version</b> <ul style="list-style-type: none"> <li>• for switching status</li> </ul>	Handle

#### Certificates/approvals

General Product Approval	For use in hazardous locations
--------------------------	--------------------------------



CCC



CSA



UL

[KC](#)



ATEX

For use in hazardous locations	Declaration of Conformity	Test Certificates	Marine / Shipping
--------------------------------	---------------------------	-------------------	-------------------



IECEX



EG-Konf.

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS

## Marine / Shipping



LRS



PRS



RINA



RMRS



DNVGL.COM/AF

other	Railway
-------	---------

[Confirmation](#)



VDE

[Vibration and Shock](#)

## 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=3RV2011-0FA15>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-0FA15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0FA15>

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

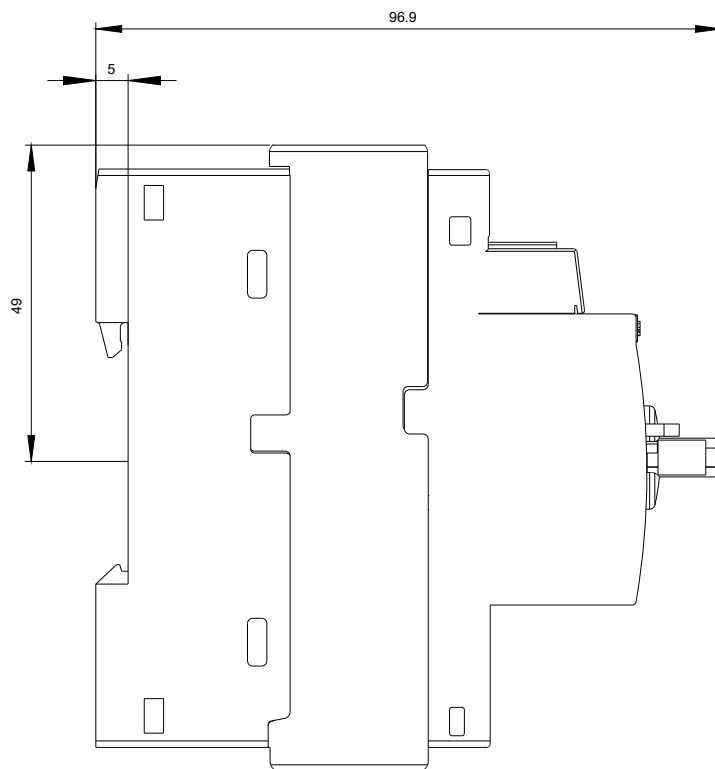
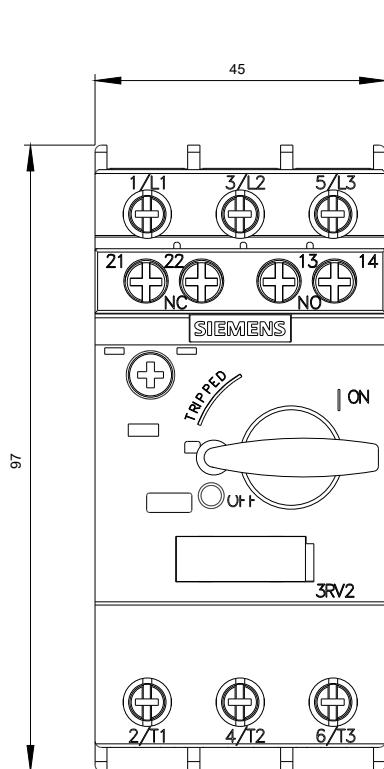
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-0FA15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-0FA15&lang=en)

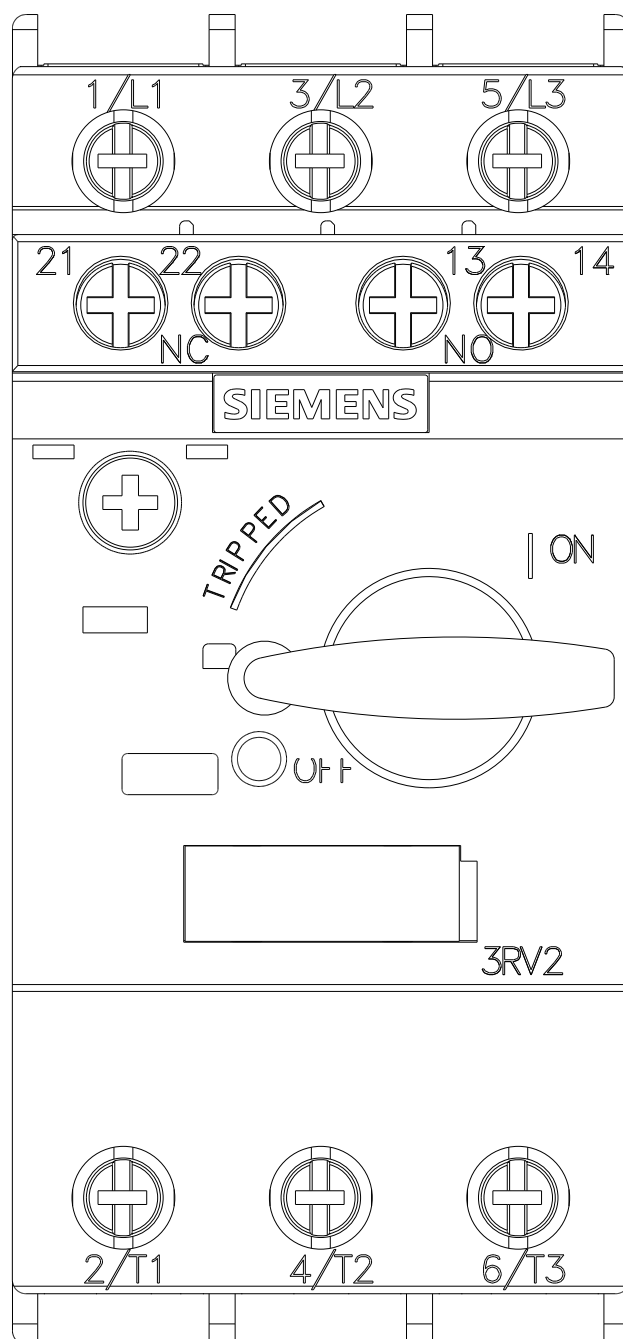
### Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0FA15/char>

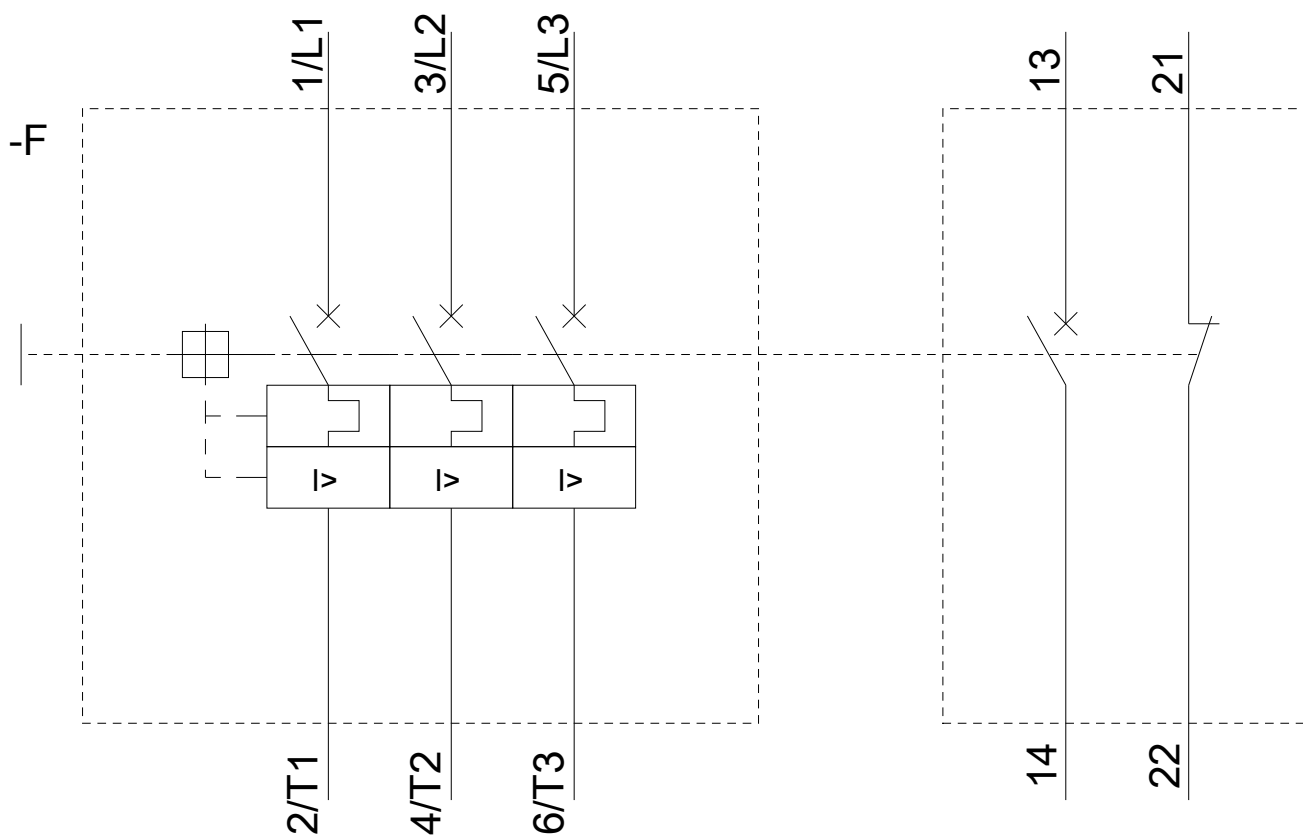
### Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-0FA15&objecttype=14&gridview=view1>









last modified:

06/07/2019