

Siemens  
EcoTech



Circuit breaker size S00 for motor protection, CLASS 10 with overload relay function A-release 1.1...1.6 A N-release 21 A screw terminal Standard switching capacity



product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection with overload relay function
product type designation	3RV2
<b>General technical data</b>	
size of the circuit-breaker	S00
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	7.25 W
• at AC in hot operating state per pole	2.4 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
shock resistance according to IEC 60068-2-27	25g / 11 ms
mechanical service life (operating cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
electrical endurance (operating cycles) typical	100 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Weight	408 g
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
relative humidity during operation	10 ... 95 %
<b>Environmental footprint</b>	
Environmental Product Declaration (EPD)	Yes
global warming potential [CO2 eq] total	74.698 kg
global warming potential [CO2 eq] during manufacturing	1.98 kg
global warming potential [CO2 eq] during sales	0.134 kg
global warming potential [CO2 eq] during operation	72.7 kg
global warming potential [CO2 eq] after end of life	-0.116 kg
Siemens Eco Profile (SEP)	Siemens EcoTech

Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	1.1 ... 1.6 A
type of voltage for main current circuit	AC
operating voltage <ul style="list-style-type: none"> <li>• rated value</li> <li>• at AC-3 rated value maximum</li> <li>• at AC-3e rated value maximum</li> </ul>	20 ... 690 V 690 V 690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	1.6 A
operational current <ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> <li>• at AC-3e at 400 V rated value</li> </ul>	1.6 A 1.6 A
operating power <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> <li>• at AC-3e <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>	0.3 kW 0.55 kW 0.8 kW 1.1 kW 0.3 kW 0.55 kW 0.8 kW 1.1 kW
operating frequency <ul style="list-style-type: none"> <li>• at AC-3 maximum</li> <li>• at AC-3e maximum</li> </ul>	15 1/h 15 1/h
Auxiliary circuit	
design of the auxiliary switch	laterally
type of voltage for auxiliary and control circuit	AC/DC
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15 <ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 230 V</li> </ul>	1.5 A 1.5 A
operational current of auxiliary contacts at DC-13 <ul style="list-style-type: none"> <li>• at 24 V</li> </ul>	1 A
Protective and monitoring functions	
product function <ul style="list-style-type: none"> <li>• ground fault detection</li> <li>• phase failure detection</li> </ul>	No Yes
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (I <sub>cu</sub> ) <ul style="list-style-type: none"> <li>• at AC at 240 V rated value</li> <li>• at AC at 400 V rated value</li> <li>• at AC at 500 V rated value</li> <li>• at AC at 690 V rated value</li> </ul>	100 kA 100 kA 100 kA 100 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> ) at AC <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 100 kA 100 kA
response value current of instantaneous short-circuit trip unit	21 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor <ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul>	1.6 A 1.6 A
yielded mechanical performance [hp]	

<ul style="list-style-type: none"> <li>● for single-phase AC motor <ul style="list-style-type: none"> <li>— at 230 V rated value</li> </ul> </li> <li>● for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul>	<p>0.1 hp</p> <p>1 hp</p> <p>0.8 hp</p>	
<b>contact rating of auxiliary contacts according to UL</b>	C600 / R300	
<b>Short-circuit protection</b>		
<b>product function short circuit protection</b>	Yes	
<b>design of the short-circuit trip</b>	magnetic	
<b>design of the fuse link</b>	fuse gL/gG: 6 A, quick: 10 A	
<ul style="list-style-type: none"> <li>● for short-circuit protection of the auxiliary switch required</li> </ul>		
<b>design of the fuse link for IT network for short-circuit protection of the main circuit</b>	gL/gG 20 A gL/gG 16 A	
<ul style="list-style-type: none"> <li>● at 500 V</li> <li>● at 690 V</li> </ul>		
<b>Installation/ mounting/ dimensions</b>		
<b>mounting position</b>	any	
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715	
<b>height</b>	97 mm	
<b>width</b>	65 mm	
<b>depth</b>	97 mm	
<b>required spacing</b>	<p>0 mm</p> <p>30 mm</p> <p>30 mm</p> <p>9 mm</p> <p>30 mm</p> <p>30 mm</p> <p>9 mm</p> <p>30 mm</p> <p>30 mm</p> <p>9 mm</p> <p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>30 mm</p> <p>0 mm</p> <p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>30 mm</p> <p>0 mm</p>	
<ul style="list-style-type: none"> <li>● with side-by-side mounting at the side</li> </ul>		
<ul style="list-style-type: none"> <li>● for grounded parts at 400 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul>		
<ul style="list-style-type: none"> <li>● for live parts at 400 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul>		
<ul style="list-style-type: none"> <li>● for grounded parts at 500 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul>		
<ul style="list-style-type: none"> <li>● for live parts at 500 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul>		
<ul style="list-style-type: none"> <li>● for grounded parts at 690 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— backwards</li> <li>— at the side</li> <li>— forwards</li> </ul> </li> </ul>		
<ul style="list-style-type: none"> <li>● for live parts at 690 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— backwards</li> <li>— at the side</li> <li>— forwards</li> </ul> </li> </ul>		
<b>Connections/ Terminals</b>		
<b>type of electrical connection</b>		screw-type terminals
<ul style="list-style-type: none"> <li>● for main current circuit</li> <li>● for auxiliary and control circuit</li> </ul>		
<b>arrangement of electrical connectors for main current circuit</b>		Top and bottom
<b>type of connectable conductor cross-sections</b>		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> )
<ul style="list-style-type: none"> <li>● for main contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> </ul>		

<ul style="list-style-type: none"> <li>for AWG cables for main contacts</li> </ul>	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>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>for AWG cables 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 size 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

product function suitable for safety function	Yes
<b>suitability for use</b> <ul style="list-style-type: none"> <li>safety-related switching on</li> <li>safety-related switching OFF</li> </ul>	No Yes
<b>service life maximum</b>	10 a
<b>test wear-related service life necessary</b>	Yes
<b>proportion of dangerous failures</b> <ul style="list-style-type: none"> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> </ul>	40 % 50 %
<b>B10 value with high demand rate according to SN 31920</b>	5 000
<b>failure rate [FIT] with low demand rate according to SN 31920</b>	50 FIT

#### ISO 13849

<b>device type according to ISO 13849-1</b>	3
<b>overdimensioning according to ISO 13849-2 necessary</b>	Yes

#### IEC 61508

<b>safety device type according to IEC 61508-2</b>	Type A
<b>T1 value</b> <ul style="list-style-type: none"> <li>for proof test interval or service life according to IEC 61508</li> </ul>	10 a

#### Electrical Safety

<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front

#### Display

display version for switching status	Handle
--------------------------------------	--------

#### Approvals Certificates

##### General Product Approval



[KC](#)



General Product Approval	Test Certificates	Maritime application
--------------------------	-------------------	----------------------



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Maritime application	other
----------------------	-------



[Miscellaneous](#)

[Confirmation](#)



[Special Test Certificate](#)

[Confirmation](#)



[Environmental Confirmations](#)

### Further information

**Information on the packaging**

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

**Information for data generation and storage**

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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

<https://www.siemens.com/ic10>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2111-1AA10>

**Cax online generator**

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2111-1AA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-1AA10>

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

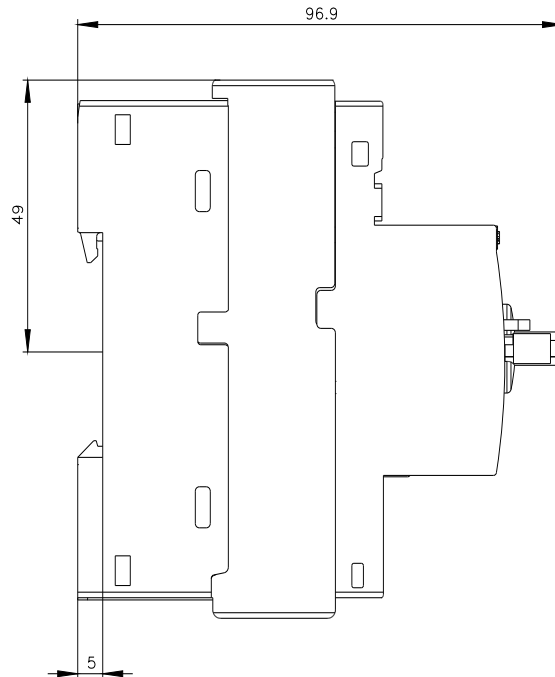
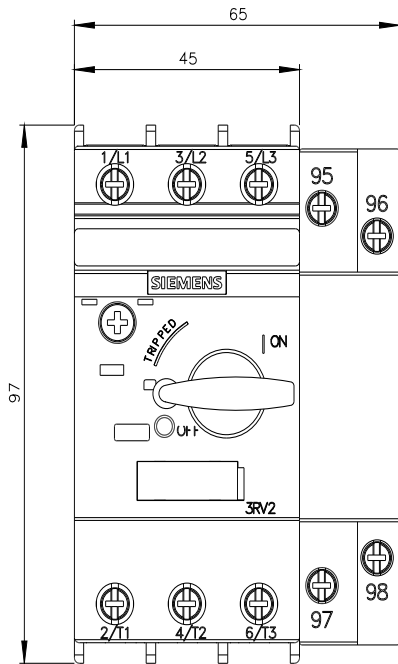
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2111-1AA10&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-1AA10&lang=en)

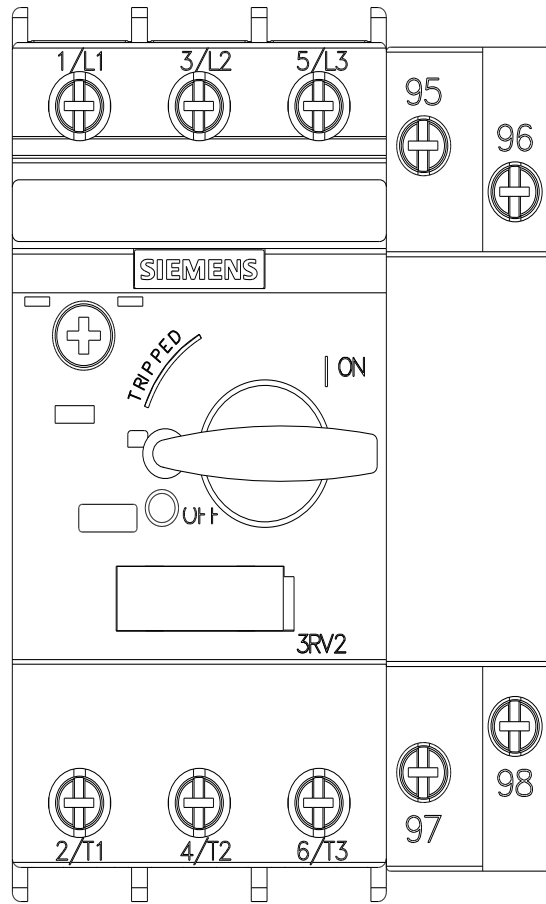
**Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-1AA10/char>

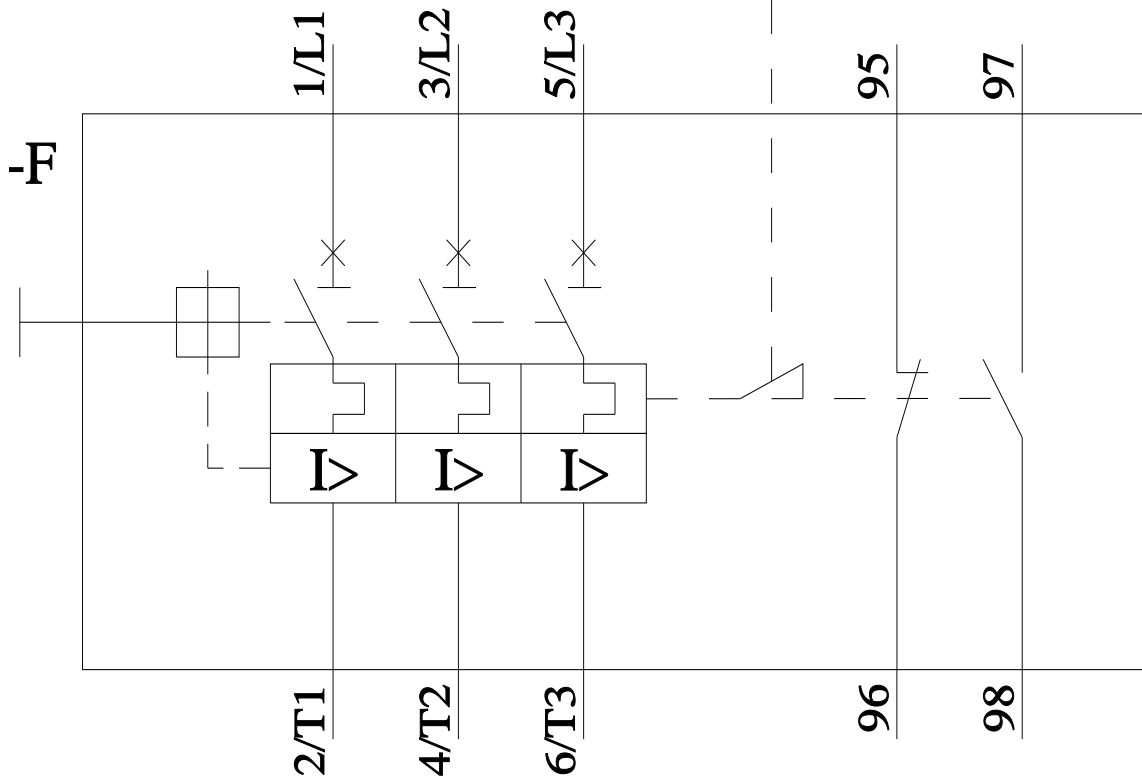
**Further characteristics (e.g. electrical endurance, switching frequency)**

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2111-1AA10&objecttype=14&gridview=view1>





**TEST**



last modified:

11/11/2025