

Siemens  
EcoTech



Circuit breaker size S00 for transformer protection A-release 1.4...2 A N release 42  
A screw terminal Standard switching capacity



product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For transformer protection
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	0.343 kg
<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>	
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
<b>Main circuit</b>	

<b>number of poles for main current circuit</b>	3
<b>adjustable current response value current of the current-dependent overload release</b>	1.4 ... 2 A
<b>operating voltage</b>	
• rated value	20 ... 690 V
• at AC-3 rated value maximum	690 V
• at AC-3e rated value maximum	690 V
<b>operating frequency rated value</b>	50 ... 60 Hz
<b>operational current rated value</b>	2 A
<b>operational current</b>	
• at AC-3 at 400 V rated value	2 A
• at AC-3e at 400 V rated value	2 A
<b>operating power</b>	
• at AC-3	
— at 230 V rated value	0.4 kW
— at 400 V rated value	0.8 kW
— at 500 V rated value	0.8 kW
— at 690 V rated value	1.1 kW
• at AC-3e	
— at 230 V rated value	0.4 kW
— at 400 V rated value	0.8 kW
— at 500 V rated value	0.8 kW
— at 690 V rated value	1.1 kW
<b>operating frequency</b>	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	0
<b>number of NO contacts for auxiliary contacts</b>	0
number of CO contacts for auxiliary contacts	0
<b>Protective and monitoring functions</b>	
<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>maximum short-circuit current breaking capacity (I<sub>cu</sub>)</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	10 kA
<b>operating short-circuit current breaking capacity (I<sub>cs</sub>) 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	10 kA
response value current of instantaneous short-circuit trip unit	42 A
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b>	
• at 480 V rated value	2 A
• at 600 V rated value	2 A
<b>yielded mechanical performance [hp]</b>	
• for single-phase AC motor	
— at 230 V rated value	0.13 hp
• for 3-phase AC motor	
— at 460/480 V rated value	1 hp
— at 575/600 V rated value	1 hp
<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 for IT network for short-circuit</b>	

<b>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>	<ul style="list-style-type: none"> <li>gL/gG 25 A</li> <li>gL/gG 25 A</li> <li>gL/gG 20 A</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>	45 mm
<b>depth</b>	97 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>● with side-by-side mounting at the side</li> <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> <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> <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> <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> <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> <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>	<ul style="list-style-type: none"> <li>0 mm</li> <li>30 mm</li> <li>30 mm</li> <li>9 mm</li> <li>30 mm</li> <li>30 mm</li> <li>9 mm</li> <li>30 mm</li> <li>30 mm</li> <li>9 mm</li> <li>50 mm</li> <li>50 mm</li> <li>0 mm</li> <li>30 mm</li> <li>0 mm</li> <li>50 mm</li> <li>50 mm</li> <li>0 mm</li> <li>30 mm</li> <li>0 mm</li> </ul>
<b>Connections/ Terminals</b>	
<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>type of connectable conductor cross-sections</b>	
<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> <li>● for AWG cables for main contacts</li> </ul>	<ul style="list-style-type: none"> <li>2x (0,75 ... 2,5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup></li> <li>2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)</li> <li>2x (18 ... 14), 2x 12</li> </ul>
<b>tightening torque</b>	
<ul style="list-style-type: none"> <li>● for main contacts with screw-type terminals</li> </ul>	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> </ul>	M3
<b>Safety related data</b>	
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>	<ul style="list-style-type: none"> <li>No</li> <li>Yes</li> </ul>

service life maximum	10 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
• with low demand rate according to SN 31920	40 %
• with high demand rate according to SN 31920	50 %
B10 value with high demand rate according to SN 31920	5 000
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
T1 value	
• for proof test interval or service life according to IEC 61508	10 a
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Display	
display version for switching status	Handle
Approvals Certificates	
General Product Approval	



[Confirmation](#)



EG-Konf.



UL

[KC](#)

General Product Approval	Test Certificates	Marine / Shipping
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU VERITAS



DNV

Marine / Shipping	other
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LRS



PRS



RINA

[Confirmation](#)

[Miscellaneous](#)



VDE

Railway	Environment
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[Special Test Certificate](#)

[Confirmation](#)



Siemens EcoTech



[Environmental Confirmations](#)

#### Further information

Information on the packaging

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

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=3RV2411-1BA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2411-1BA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1BA10>

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

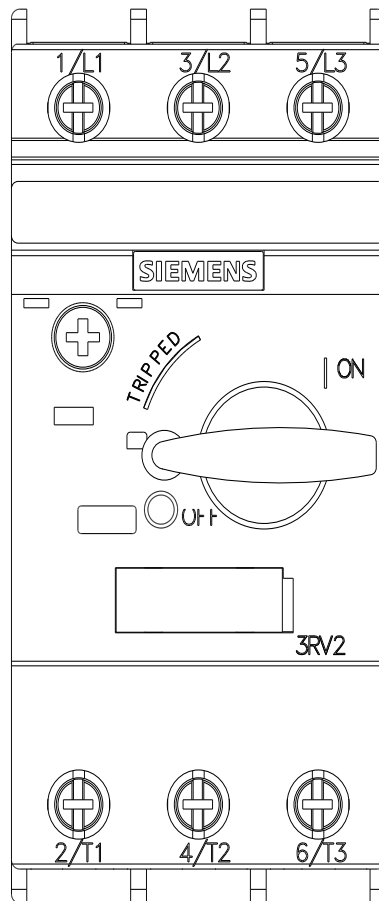
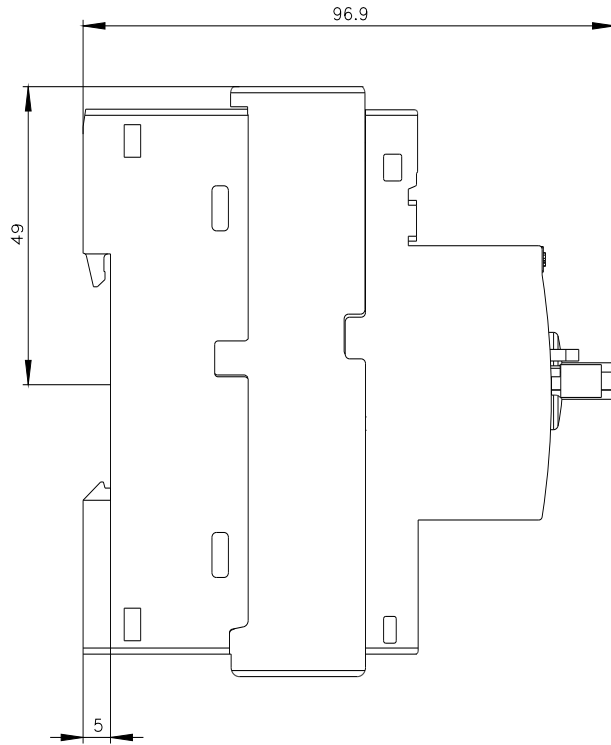
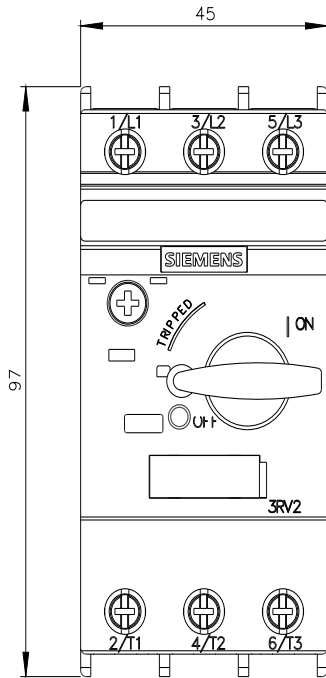
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2411-1BA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2411-1BA10&lang=en)

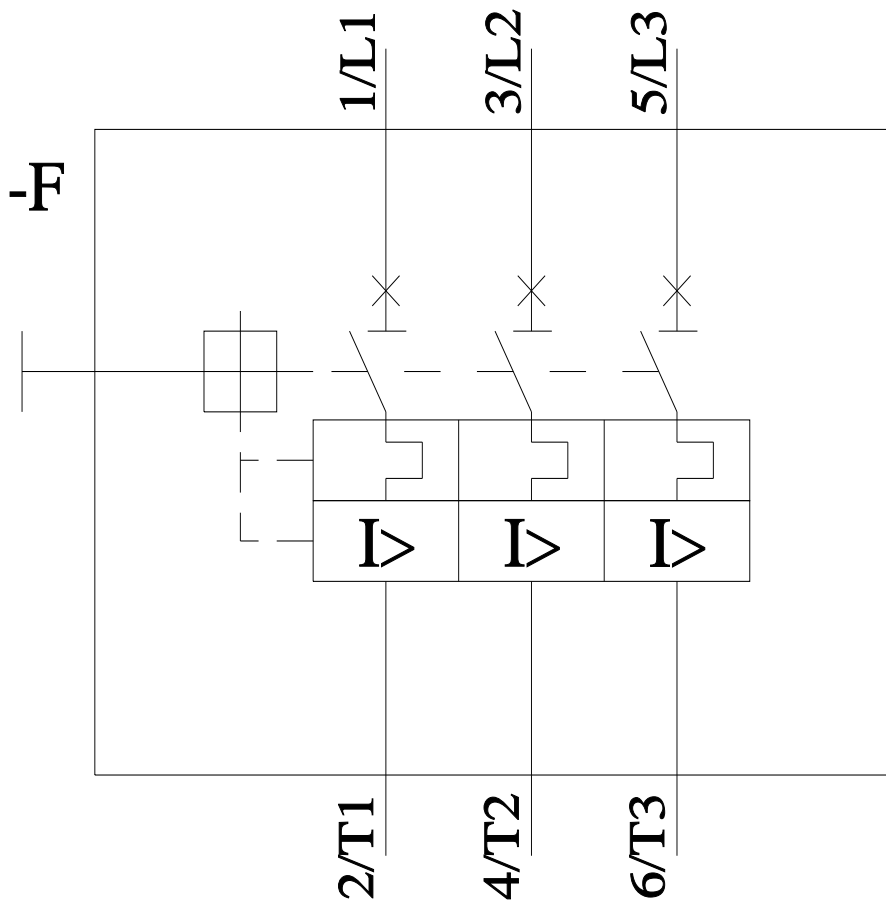
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1BA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2411-1BA10&objecttype=14&gridview=view1>





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