



Circuit breaker size S00 for motor protection, CLASS 10 A-release 1.8...2.5 A N-release 33 A Screw terminal Standard switching capacity with transverse auxiliary switch 1 NO+1 NC

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV1
<b>General technical data</b>	
size of the circuit-breaker	S00
size of contactor can be combined company-specific	S00
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
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)	01/01/2013
SVHC substance name	Lead - 7439-92-1
<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>Main circuit</b>	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	1.8 ... 2.5 A
operating voltage	
• rated value	20 ... 690 V
• at AC-3 rated value maximum	690 V
• at AC-3e rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	2.5 A
operational current	
• at AC-3 at 400 V rated value	2.5 A
• at AC-3e at 400 V rated value	2.5 A

<b>operating power</b>	
<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>	0.4 kW 0.75 kW 1.1 kW 1.5 kW  0.4 kW 0.75 kW 1.1 kW 1.5 kW
<b>operating frequency</b>	
<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
<b>Auxiliary circuit</b>	
<b>design of the auxiliary switch</b>	transverse
<b>number of NC contacts for auxiliary contacts</b>	1
<ul style="list-style-type: none"> <li>note</li> </ul>	1
<b>number of NO contacts for auxiliary contacts</b>	1
<ul style="list-style-type: none"> <li>note</li> </ul>	1
number of CO contacts for auxiliary contacts	0
<b>operational current of auxiliary contacts at AC-15</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> <li>at 110 V</li> <li>at 120 V</li> <li>at 125 V</li> <li>at 230 V</li> </ul>	2 A 2 A 2 A 2 A 0.5 A
<b>operational current of auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> <li>at 60 V</li> </ul>	1 A 0.15 A
<b>Protective and monitoring functions</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>ground fault detection</li> <li>phase failure detection</li> </ul>	No 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>	
<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 10 kA 2 kA
<b>operating short-circuit current breaking capacity (I<sub>cs</sub>) at AC</b>	
<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 2 kA
response value current of instantaneous short-circuit trip unit	33 A
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b>	
<ul style="list-style-type: none"> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul>	2.5 A 2.5 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 230 V rated value</li> </ul> </li> <li>for 3-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>	0.17 hp  0.5 hp 0.5 hp 1 hp 1.5 hp
<b>contact rating of auxiliary contacts according to UL</b>	C300 / R300

Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link <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 <sub>k</sub> < 400 A)
design of the fuse link for IT network for short-circuit protection of the main circuit <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 35 A gL/gG 25 A gL/gG 25 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	90 mm
width	45 mm
depth	75 mm
required spacing <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><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>	20 mm 20 mm 9 mm  20 mm 20 mm 9 mm  20 mm 20 mm 9 mm  20 mm 20 mm 0 mm 9 mm 0 mm  20 mm 20 mm 0 mm 9 mm 0 mm
Connections/ Terminals	
type of electrical connection <ul style="list-style-type: none"><li>for main current circuit</li><li>for auxiliary and control circuit</li></ul>	screw-type terminals screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections <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>	2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x (1 ... 4 mm²) 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
type of connectable conductor cross-sections <ul style="list-style-type: none"><li>for auxiliary contacts<ul style="list-style-type: none"><li>solid or stranded</li></ul></li></ul>	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
tightening torque <ul style="list-style-type: none"><li>for main contacts with screw-type terminals</li></ul>	0.8 ... 1.2 N·m

• for auxiliary contacts with screw-type terminals	0.8 ... 1.2 N·m
<b>size of the screwdriver tip</b>	Pozidriv size 2
<b>design of the thread of the connection screw</b>	
• for main contacts	M3
• of the auxiliary and control contacts	M3
<b>Safety related data</b>	
product function suitable for safety function	Yes
<b>suitability for use</b>	
• safety-related switching on	No
• safety-related switching OFF	Yes
<b>service life maximum</b>	10 a
<b>test wear-related service life necessary</b>	Yes
<b>proportion of dangerous failures</b>	
• with low demand rate according to SN 31920	40 %
• with high demand rate according to SN 31920	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
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
<b>Display</b>	
display version for switching status	Rocker switch
<b>Approvals Certificates</b>	
General Product Approval	



EG-Konf.

[Confirmation](#)



CCC



UL

[KC](#)

General Product Approval	For use in hazardous locations	Test Certificates	Marine / Shipping
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ATEX



IECEX

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS

Marine / Shipping
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BUREAU  
VERITAS



DNV



LRS



PRS



RINA



RMRS

other	Railway	Environment
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[Miscellaneous](#)

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VDE

[Special Test Certificate](#)

[Environmental Confirmations](#)

Further information
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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=3RV1011-1CA15>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1CA15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1CA15>

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

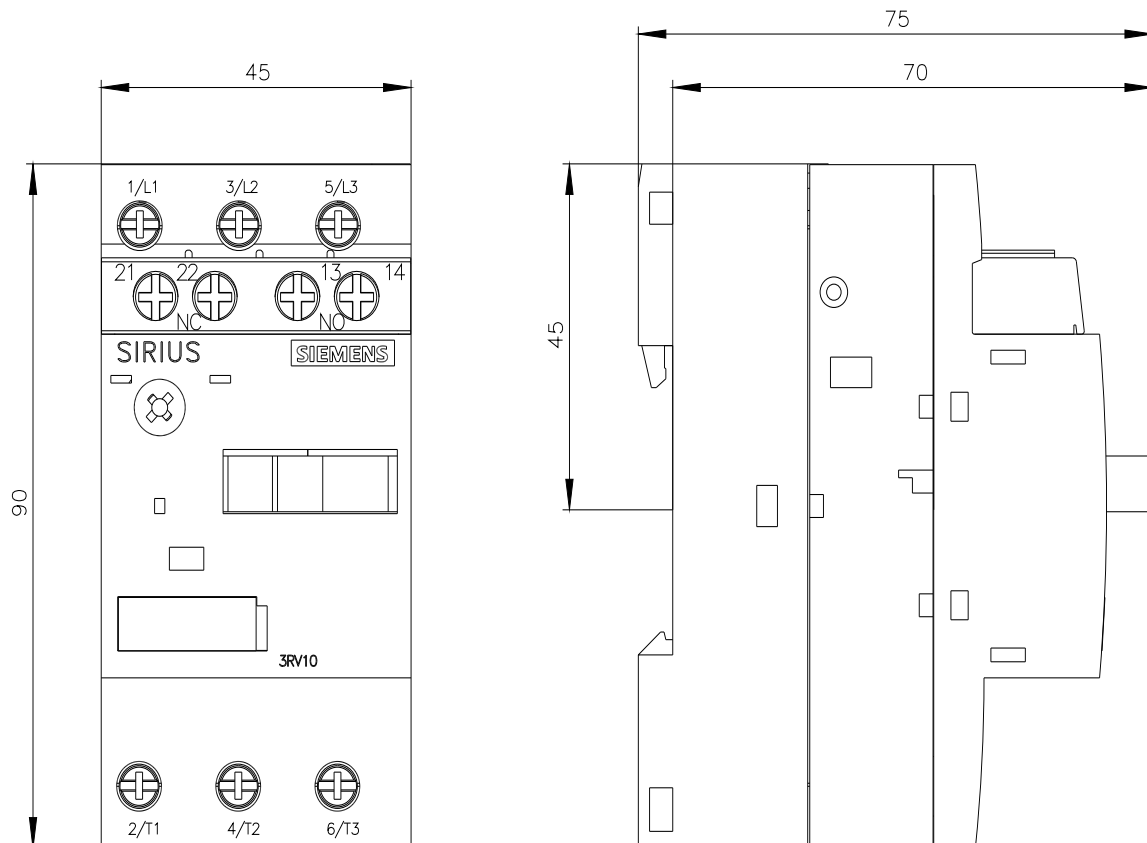
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV1011-1CA15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1CA15&lang=en)

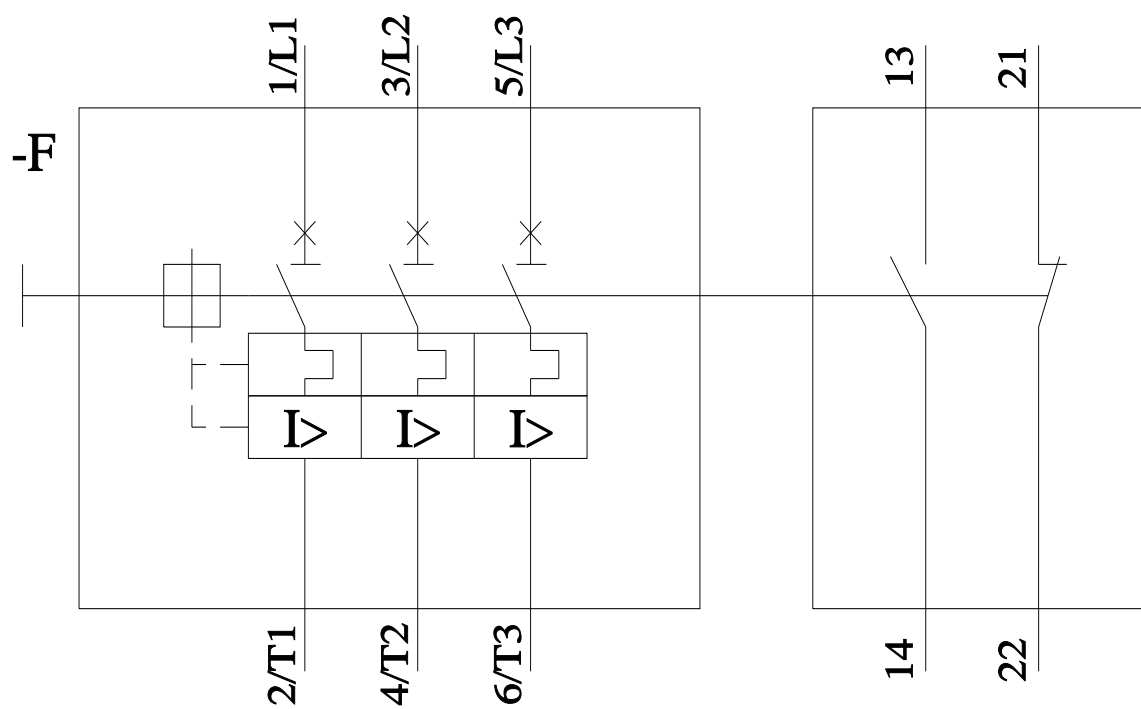
Characteristic: Tripping characteristics,  $I_t$ , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1CA15/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1CA15&objecttype=14&gridview=view1>





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