## **SIEMENS**

Data sheet 3RV2411-1CA10



Circuit breaker size S00 for transformer protection A-release 1.8...2.5 A N release 52 A screw terminal Standard switching capacity

	SIRIUS
product designation	Circuit breaker
design of the product	For transformer 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] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	7.25 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	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)	
<ul> <li>of the main contacts typical</li> </ul>	100 000
<ul> <li>of auxiliary contacts typical</li> </ul>	100 000
electrical endurance (operating cycles) typical	100 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-20 +60 °C
during storage	-50 +80 °C
	-50 100 0
during transport	-50 +80 °C
during transport  relative humidity during operation	
	-50 +80 °C
relative humidity during operation	-50 +80 °C
relative humidity during operation  Main circuit	-50 +80 °C 10 95 %
relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current-	-50 +80 °C 10 95 %
relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current-dependent overload release	-50 +80 °C 10 95 %
relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current-dependent overload release  operating voltage	-50 +80 °C 10 95 % 3 1.8 2.5 A
relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current- dependent overload release  operating voltage  • rated value	-50 +80 °C 10 95 % 3 1.8 2.5 A 20 690 V
relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current- dependent overload release  operating voltage  • rated value  • at AC-3 rated value maximum	-50 +80 °C 10 95 % 3 1.8 2.5 A 20 690 V 690 V
relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current- dependent overload release  operating voltage  • rated value  • at AC-3 rated value maximum  • at AC-3e rated value maximum	-50 +80 °C 10 95 %  3  1.8 2.5 A  20 690 V  690 V
relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current- dependent overload release  operating voltage  • rated value  • at AC-3 rated value maximum  • at AC-3e rated value maximum  operating frequency rated value	-50 +80 °C 10 95 %  3  1.8 2.5 A  20 690 V  690 V  690 V  50 60 Hz
relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current- dependent overload release  operating voltage  • rated value  • at AC-3 rated value maximum  • at AC-3e rated value maximum  operating frequency rated value  operational current rated value	-50 +80 °C 10 95 %  3  1.8 2.5 A  20 690 V  690 V  690 V  50 60 Hz

operating power	
• at AC-3	
— at 230 V rated value	0.4 kW
— at 400 V rated value	0.8 kW
— at 500 V rated value	1.1 kW
— at 690 V rated value	1.5 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	1.1 kW
— at 690 V rated value	1.5 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
Protective and monitoring functions	
product function	
ground fault detection	No
-	Yes
phase failure detection  trip class	CLASS 10
·	thermal
design of the overload release	tiletitidi
maximum short-circuit current breaking capacity (Icu)  • at AC at 240 V rated value	100 kA
	100 kA
at AC at 500 V rated value	100 kA
at AC at 500 V rated value	100 kA
at AC at 690 V rated value	10 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
<ul> <li>at 400 V rated value</li> </ul>	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	52 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	2.5 A
at 600 V rated value	2.5 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 230 V rated value	0.17 hp
• for 3-phase AC motor	
— at 200/208 V rated value	0.5 hp
— at 220/230 V rated value	0.5 hp
— at 460/480 V rated value	1 hp
— at 575/600 V rated value	1.5 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 400 V	gL/gG 25 A
• at 500 V	gL/gG 25 A
• at 690 V	gL/gG 20 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	97 mm
width	45 mm
depth	97 mm
uopul	V

required spacing	0
with side-by-side mounting at the side	0 mm
• for grounded parts at 400 V	••
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
for live parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
<ul><li>for grounded parts at 500 V</li></ul>	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for grounded parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
• for live parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
arrangement of electrical connectors for main current	Top and bottom
circuit	·
type of connectable conductor cross-sections	
• for main contacts	
<ul><li>— solid or stranded</li></ul>	2x (0,75 2,5 mm²), 2x 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG cables for main contacts</li> </ul>	2x (18 14), 2x 12
tightening torque	
• for main contacts with screw-type terminals	0.8 1.2 N·m
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	
• for main contacts	M3
Safety related data	
B10 value	
with high demand rate according to SN 31920	5 000
proportion of dangerous failures	
with low demand rate according to SN 31920	50 %
with high demand rate according to SN 31920	50 %
failure rate [FIT]	
with low demand rate according to SN 31920	50 FIT
T1 value for proof test interval or service life according to IEC	10 a
61508	10 0
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 version for switching status	Handle
Certificates/ approvals	
General Product Approval	Declaration of Con-



Confirmation



<u>KC</u>





**Declaration of Con**formity

**Test Certificates** 

Marine / Shipping



Special Test Certific-

Type Test Certificates/Test Report







Marine / Shipping

other

Railway







Confirmation



Confirmation

Railway

Vibration and Shock

## **Further information**

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RV2411-1CA10

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2411-1CA10}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1CA10

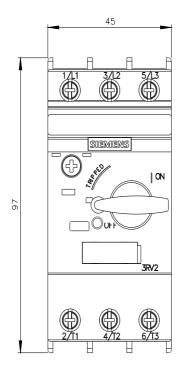
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

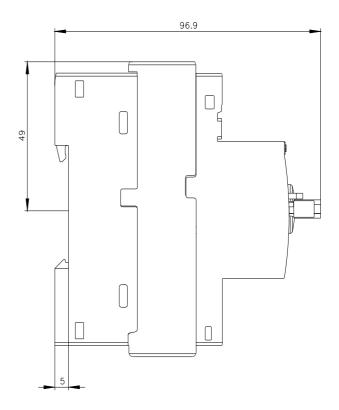
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2411-1CA10&lang=en

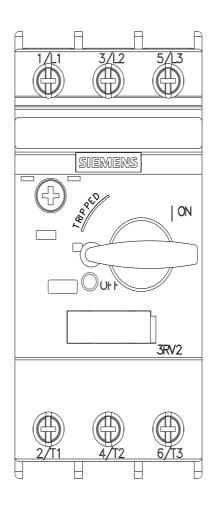
Characteristic: Tripping characteristics, I2t, Let-through current

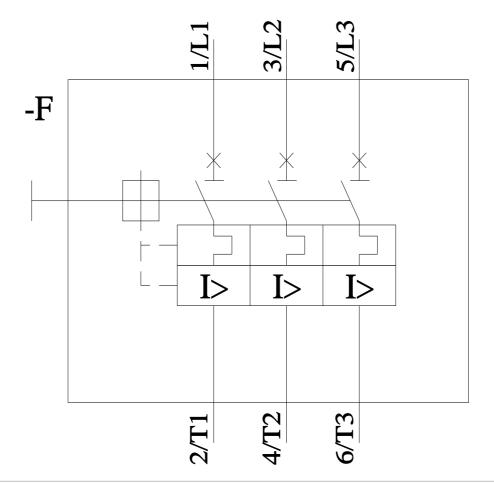
https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-1CA10/char

Further characteristics (e.g. electrical endurance, switching frequency)
<a href="http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2411-1CA10&objecttype=14&gridview=view1">http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2411-1CA10&objecttype=14&gridview=view1</a>









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