## **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

Decorption   Circuit breaker   For transformer protection   SRV2	product brand name	SIRIUS
Separat technical data	product designation	Circuit breaker
size of the circuit-breaker  size of contactor can be combined company-specific  product extension auxiliary switch  power loss [W] for rated value of the current  • at AC in hot operating state per pole  • at AC in hot operating state per pole  insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value  shock resistance according to IEC 60068-2-27  mechanical service life (switching cycles)  • of the main contacts typical  • of auxiliary contacts (switching cycles) (bytoal)  reference code according to IEC 81346-2  Qu Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  1095 %  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  690 V  operational current rated value  operational current	design of the product	For transformer protection
size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value surge voltage resistance according to IEC 60068-2-27 geody in the main contacts typical • of the main contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport 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-3 rated value maximum operational current rated value	product type designation	3RV2
size of contactor can be combined company-specific product extension auxiliary switch  power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value shock resistance according to IEC 60068-2-27 25g / 11 ms  mechanical service life (switching cycles) • of the main contacts typical 100 000 • of auxiliary contacts typical 100 000 electrical endurance (switching cycles) 100 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/101/2009  Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation -20 +60 °C • during storage -50 +80 °C relative humidity during operation 10 95 %  Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum 690 V operational current rated value	General technical data	
product extension auxiliary switch power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole (asulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value surge voltage resistance rated value  shock resistance according to IEC 60068-2-27 get / 11 ms  mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical 100 000  reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature eluring operation -20 +60 °C -50 +80 °C -50	size of the circuit-breaker	S00
power loss [W] for rated value of the current  at AC in hot operating state at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) of the main contacts typical of awilliary contacts typical lelectrical endurance (switching cycles) typical 100 000 reference code according to IEC 81346-2 Quue substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature during storage during transport during storage during transport relative humidity during operation  mumber of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage rated value at AC-3e rated value maximum operational current rated value operational current rated value operational current operational current rated value operational current according to EC 3.4 W displayed to the current of the current of trade value operational current rated value operational current rated value operational current rated value operational current oper	size of contactor can be combined company-specific	S00, S0
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  surge voltage resistance rated value  shock resistance according to IEC 60068-2-27 25g / 11 ms  mechanical service life (switching cycles)  of the main contacts typical 100 000  electrical endurance (switching cycles) typical 100 000  electrical endurance (switching 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 ambient temperature  during operation -20 +60 °C  during storage -50 +80 °C  e during transport -50 +80 °C  relative humidity during operation 10 95 %  Main circuit 3  adjustable current response value current of the current-dependent overload release operating voltage  e rated value 20 690 V  e at AC-3a rated value maximum 690 V  e at AC-3a rated value maximum 690 V  operational current rated value 50 60 Hz  operational current rated value 50 60 Hz  operational current rated value operation current rated value operational current rated value oper	product extension auxiliary switch	Yes
at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles)  of the main contacts typical of auxiliary contacts typical lelectrical endurance (switching cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature of during storage of during storage of during transport 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 operational current rated value operational current rated value operational current rated value operational current of the Current of the Current voltage operation operational current rated value operational current of the Current operational current rated value operational current rated value operational current of the Current operational current rated value operational current of the Current operational current of the Current operational current rated value operational current of poles for main current operational current	power loss [W] for rated value of the current	
insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value  shock resistance according to IEC 60068-2-27  mechanical service life (switching cycles)  of the main contacts typical  of auxiliary contacts typical  electrical endurance (switching cycles) typical  reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  of during operation  of during storage  of during storage  of during transport  relative humidity during operation  mumber of poles for main current circuit  adjustable current response value current of the current-dependent overload release  operating voltage  operating voltage  operating frequency rated value  operational current  operational current  25	<ul> <li>at AC in hot operating state</li> </ul>	7.25 W
value  surge voltage resistance rated value shock resistance according to IEC 60068-2-27  mechanical service life (switching cycles)  • of the main contacts typical • of auxiliary contacts typical lectrical endurance (switching cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport 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-3e rated value maximum • appearation at C-30 690 V • at AC-3e rated value maximum operational current operational current rated value operational current on 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<ul> <li>at AC in hot operating state per pole</li> </ul>	2.4 W
shock resistance according to IEC 60068-2-27  mechanical service life (switching cycles)  of the main contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum oduring storage during storage during transport 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  at AC-3 rated value maximum of the ment of the current rated value operational current		690 V
mechanical service life (switching cycles)  of the main contacts typical of auxiliary contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature olduring operation olduring storage olduring transport 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 or rated value old AC-3 rated value maximum operational current rated value operational current	surge voltage resistance rated value	6 kV
of the main contacts typical of auxiliary contacts typical lectrical endurance (switching cycles) typical lectrical endurance (switching cycles) typical lectrical endurance (switching cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum  of during operation of during operation of during storage of during transport 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 orated value orated value maximum operating frequency rated value operational current	shock resistance according to IEC 60068-2-27	25g / 11 ms
of auxiliary contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature     ouring operation     during storage     during transport relative humidity during operation  Industrial adjustable current response value current of the current-dependent overload release  operating voltage     at AC-3 rated value maximum     at AC-3e rated value maximum operational current rated value operation opera	mechanical service life (switching cycles)	
electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport 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-3 rated value maximum • at AC-3 rated value maximum operational current rated value operational current rated value  operational current rated value operational current rated value operational current rated value  2.5 A operational current rated value operational current rated value operational current rated value operational current rated value operational current	<ul> <li>of the main contacts typical</li> </ul>	100 000
reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport  relative humidity during operation  10 95 %  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  690 V  operating frequency rated value  operational current rated value  50 60 Hz  operational current rated value  2.5 A	of auxiliary contacts typical	100 000
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport • during transport  relative humidity during operation  10 95 %  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  operational current rated value  operational current rated value  2.5 A  operational current rated value  2.5 A	electrical endurance (switching cycles) typical	100 000
installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport relative humidity during operation  10 95 %  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  operational current rated value  operational current rated value  2 0 690 V  operational current rated value  2 0 690 V  operational current rated value  2 0 690 V	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport • during transport  relative humidity during operation  10 95 %  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  operational current rated value  operational current rated value  20 690 V  operational current rated value  20 690 V  operational current rated value  20 690 V	Substance Prohibitance (Date)	10/01/2009
ambient temperature  • during operation • during storage • during transport  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  operational current rated value  operational current rated value  2.5 A  operational current rated value  2.5 A	Ambient conditions	
<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>storage</li> <li>telative humidity during operation</li> <li>mumber of poles for main current circuit</li> <li>adjustable current response value current of the current-dependent overload release</li> <li>operating voltage</li> <li>rated value</li> <li>at AC-3 rated value maximum</li> <li>at AC-3e rated value maximum</li> <li>operating frequency rated value</li> <li>operational current rated value</li> <li>coperational current</li> </ul>	installation altitude at height above sea level maximum	2 000 m
<ul> <li>during storage</li> <li>during transport</li> <li>-50 +80 °C</li> <li>relative humidity during operation</li> <li>10 95 %</li> <li>Main circuit</li> <li>number of poles for main current circuit</li> <li>adjustable current response value current of the current-dependent overload release</li> <li>operating voltage <ul> <li>rated value</li> <li>at AC-3 rated value maximum</li> <li>at AC-3e rated value maximum</li> <li>operating frequency rated value</li> <li>operational current rated value</li> </ul> </li> <li>operational current</li> <li>-50 +80 °C</li> <li>-50 +80 °C</li> <li>-60 W</li> <li>-60 W</li> <li>-60 Hz</li> <li>-50 +80 °C</li> <li>-60 W</li> <li>-60 Hz</li> <li>-50 +80 °C</li> <li>-60 Hz</li> <li>-60 Hz</li> <li>-50 +60 Hz</li> <li>-60 Hz<th>ambient temperature</th><th></th></li></ul>	ambient temperature	
<ul> <li>during transport</li> <li>relative humidity during operation</li> <li>10 95 %</li> </ul> Main circuit <ul> <li>number of poles for main current circuit</li> <li>adjustable current response value current of the current-dependent overload release</li> <li>operating voltage</li> <li>rated value</li> <li>at AC-3 rated value maximum</li> <li>at AC-3e rated value maximum</li> <li>operating frequency rated value</li> <li>operational current rated value</li> <li>2.5 A</li> </ul>	<ul> <li>during operation</li> </ul>	-20 +60 °C
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  2.5 A  operational current	<ul><li>during storage</li></ul>	-50 +80 °C
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  operational current  3  1.8 2.5 A  2.5 A  20 690 V  • at AC-3 rated value maximum  690 V  operational current rated value  2.5 A	<ul> <li>during transport</li> </ul>	-50 +80 °C
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  2.5 A  1.8 2.5 A  2.5 A  2.5 A	relative humidity during operation	10 95 %
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  20 690 V  • at AC-3e rated value maximum  690 V  operational current rated value  2.5 A	Main circuit	
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  20 690 V  690 V  50 U  0 Deperational current rated value  2.5 A	number of poles for main current circuit	3
<ul> <li>rated value</li> <li>at AC-3 rated value maximum</li> <li>at AC-3e rated value maximum</li> <li>operating frequency rated value</li> <li>operational current rated value</li> <li>operational current</li> </ul>		1.8 2.5 A
<ul> <li>at AC-3 rated value maximum</li> <li>at AC-3e rated value maximum</li> <li>operating frequency rated value</li> <li>operational current rated value</li> <li>operational current</li> </ul> 2.5 A	operating voltage	
at AC-3e rated value maximum     690 V     operating frequency rated value     operational current rated value     operational current	rated value	20 690 V
operating frequency rated value 50 60 Hz operational current rated value 2.5 A operational current	<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
operational current rated value 2.5 A operational current	<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	operating frequency rated value	50 60 Hz
	operational current rated value	2.5 A
• at AC-3 at 400 V rated value 2.5 A	operational current	
	• at AC-3 at 400 V rated value	2.5 A

a at AC 2a at 400 V rated value	25 A
at AC-3e at 400 V rated value	2.5 A
operating power	
• at AC-3	0.41114
— 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	
<ul> <li>at AC-3 maximum</li> </ul>	15 1/h
<ul> <li>at AC-3e maximum</li> </ul>	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	
•	No
ground fault detection     phase failure detection	
phase failure detection	Yes
trip class	CLASS 10
design of the overload release	thermal
breaking capacity maximum short-circuit current (Icu)	
at AC at 240 V rated value	100 kA
<ul> <li>at AC at 400 V rated value</li> </ul>	100 kA
<ul> <li>at AC at 500 V rated value</li> </ul>	100 kA
at AC at 690 V rated value	10 kA
breaking capacity operating short-circuit current (Ics)	
at AC	400 kA
• 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	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     at 600 V rated value	2.5 A
	2.071
yielded mechanical performance [hp]  • for single-phase AC motor	
at 230 V rated value	0.17 hp
	0.17 hp
• for 3-phase AC motor	0.5 hp
— 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 standard mounting rail
haisht	according to DIN EN 60715
height	97 mm
width	45 mm
depth	97 mm
• for grounded parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 400 V	9 111111
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for grounded parts at 500 V	o man
— 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     — solid or stranded	2v (0.75 2.5 mm²) 2v 4 mm²
Solid of stranded     finely stranded with core end processing	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for main contacts	2x (0.5 1.5 mmr), 2x (0.75 2.5 mmr) 2x (18 14), 2x 12
tightening torque	LA (10 17), LA 12
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	. 52.3 0120 2
• 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      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	10 y
IEC 61508  protection class IP on the front according to IEC	
	IP20

60529

touch protection on the front according to IEC 60529

display version for switching status

finger-safe, for vertical contact from the front

Handle

Certificates/ approvals

## **General Product Approval**





Confirmation



KC



**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping



**Special Test Certific**ate

Type Test Certificates/Test Report





Marine / Shipping











Confirmation

other

other

Railway



Confirmation

Vibration and Shock

## Further information

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

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, ...)

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

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)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2411-1CA10&objecttype=14&gridview=view1

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