SIEMENS

Data sheet 3RV2411-0BA20



Circuit breaker size S00 for transformer protection A-release 0.14...0.2 A N-release 4.2 A Spring-type terminal Standard switching capacity

product designation design of the product product type designation 3RV2 General technical data size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch yes power loss [W] for rated value of the current • 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 rated value • of the main contacts typical • of the main contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) • of the main contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81046-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum of uning operation • during peration • during prasport relative humidity during operation Indicate Indicate Indicate Indicate Indicate Indicate Indicate	product brand name	SIRIUS
Seneral technical data	product designation	Circuit breaker
size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch 1	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 shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical low 000 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 aumient temperature • during operation • during operation • 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 operational current rated value operational current value operation and current value operation and current value operation and current value operation and current value operation of the current operation of the current operation of the current operation of the current value operation of the current value value operation of the current value operation of the current value operation of the current value value operation of the current value operation of the current value operation of the current value value o	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	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 insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60088-2-27 get mechanical service life (switching cycles) of the main contact typical of auxiliary contacts typical of auxiliary contacts typical electrical endurance (switching cycles) poration abitude at height above sea level maximum electrical endurance (switching cycles) abitude at height above sea level maximum electrical endurance (switching cycles) by to the main current cycles electrical endurance (switching cycles) electrical endurance (switching cycles) 100 000 electricale	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 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) 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 olduring operation -20 +60 °C olduring transport -50 +80 °C 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 orated value 20 690 V at AC-3e rated value maximum 690 V operational current rated value operational current rated value operational current rated value operational current operational current rated value operational current	size of contactor can be combined company-specific	S00, S0
at AC in hot operating state 5.5 W 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 get y and 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 Question of auxiliary contacts typical electrical endurance (switching cycles) typical reference rode according to IEC 81346-2 Question of auxiliary contacts typical ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage during transport relative humidity during operation adjustable current response value current of the current-dependent overload release operating voltage at AC-3e rated value maximum endured to the current rated value operational current 1.8 W 809 V 1.8 W 809 V 1.8 W	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 690 V shock resistance according to IEC 60068-2-27 25g / 11 ms mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical 100 000 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 10 95 % Main circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum • at AC-3e rated value maximum • operational current rated value operational current of the 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 Questiance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature 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 or rated value operation value operation requency rated value operational current of the KV set V set	 at AC in hot operating state 	5.5 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 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 • 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-3e rated value maximum • at AC-3e rated value maximum • at AC-3e rated value maximum operating frequency rated value operational current of poles for unit rated value operational current of the KV substance 7.50 / 110 / 100	at AC in hot operating state per pole	1.8 W
shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) of the main contacts typical of the main 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 oluring operation oluring storage oluring 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 or rated value at AC-3 rated value maximum operational 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 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 operating frequency rated value operational current rated value	surge voltage resistance rated value	6 kV
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 ouring operation ouring storage oduring storage ouring 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	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 ouring 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 electrical electrical value operating frequency rated value operational current over 100 000 100 00	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-3e rated value maximum operational current rated value operational current rated value operational current rated value 0.2 A operational current rated value operational current rated value operational current rated value operational current	 of the main contacts typical 	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 operating frequency rated value operational current	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 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 • rated value maximum 690 V • at AC-3 erated value maximum operational current rated value operational current rated value 0.2 A operational current rated value 0.2 A operational current rated value 0.2 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 operating frequency rated value operational current rated value operational current rated value operational current rated value operational current 2 000 m -20 +60 °C -50 +80	reference code according to IEC 81346-2	Q
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-3e rated value maximum operational current rated value operational current rated value operational current rated value 0.20 690 V operational current rated value 0.20 690 V operational current rated value 0.20 690 V	Substance Prohibitance (Date)	10/01/2009
ambient temperature • during operation • during storage • during transport • 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 • rated value • at AC-3 rated value maximum • at AC-3e rated value maximum operating frequency rated value operational current rated value operational current rated value 0.2 60 Hz operational current	Ambient conditions	
 during operation during storage during transport -50 +80 °C telative 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 at AC-3e rated value maximum at AC-3e rated value operating frequency rated value operational current rated value 0.2 A 	installation altitude at height above sea level maximum	2 000 m
 during storage during transport -50 +80 °C 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 operating frequency rated value operational current rated value 0.2 A 	ambient temperature	
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 • operating frequency rated value • operational current • O.14 0.2 A	during operation	-20 +60 °C
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 operating frequency rated value operational current rated value 0.2 A operational current	during storage	-50 +80 °C
Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • rated value maximum • at AC-3 rated value maximum • at AC-3e rated value maximum operating frequency rated value operational current rated value 0.2 A	during transport	-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 operational current 0.14 0.2 A 0.14 0.2 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 operational current 0.14 0.2 A 0.02 A 0.02 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 operational current	number of poles for main current circuit	3
 rated value at AC-3 rated value maximum at AC-3e rated value maximum operating frequency rated value operational current rated value operational current 		0.14 0.2 A
 at AC-3 rated value maximum at AC-3e rated value maximum operating frequency rated value operational current rated value operational current 	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 0.2 A operational current	 at AC-3 rated value maximum 	690 V
operational current rated value 0.2 A operational current	 at AC-3e rated value maximum 	690 V
operational current	operating frequency rated value	50 60 Hz
	operational current rated value	0.2 A
e at AC-3 at 400 V rated value	operational current	
♥ at no-o at not vialed value 0.2 A	 at AC-3 at 400 V rated value 	0.2 A

4.00	0.0.4
at AC-3e at 400 V rated value	0.2 A
operating power	
• at AC-3	
— at 230 V rated value	0 kW
— at 400 V rated value	0.1 kW
— at 500 V rated value	0.1 kW
— at 690 V rated value	0.1 kW
• at AC-3e	
— at 230 V rated value	0 kW
— at 400 V rated value	0.1 kW
— at 500 V rated value	0.1 kW
— at 690 V rated value	0.1 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
-	U
Protective and monitoring functions	
product function	
 ground fault detection 	No
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
 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	100 kA
breaking capacity operating short-circuit current (lcs)	
at AC	
 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	100 kA
response value current of instantaneous short-circuit trip unit	4.2 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	0.2 A
at 600 V rated value	0.2 A
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
	magnedo
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
height	106 mm
width	45 mm
	97 mm
depth required spacing	OF THIRD
required spacing	
• for grounded parts at 400 V	20 mm
— 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
 for grounded parts at 500 V 	
— 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	Offilia
type of electrical connection	
for main current circuit	enring leaded terminals
arrangement of electrical connectors for main current	spring-loaded terminals Top and bottom
circuit	Top and bottom
type of connectable conductor cross-sections	
 for main contacts 	
— solid or stranded	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
— finely stranded without core end processing	2x (0.5 2.5 mm²)
at AWG cables for main contacts	2x (20 12)
design of screwdriver shaft	Diameter 3 mm
size of the screwdriver tip	3,0 x 0,5 mm
<u> </u>	
Safety related data	
Safety related data B10 value	
Safety related data	3,0 x 0,5 mm
Safety related data B10 value • with high demand rate according to SN 31920 proportion of dangerous failures	3,0 x 0,5 mm
Safety related data B10 value • with high demand rate according to SN 31920	3,0 x 0,5 mm 5 000
Safety related data B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920	3,0 x 0,5 mm 5 000 50 %
Safety related data B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT]	3,0 x 0,5 mm 5 000 50 %
Safety related data B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920	3,0 x 0,5 mm 5 000 50 % 50 %
B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] • with low demand rate according to SN 31920 T1 value for proof test interval or service life according to	3,0 x 0,5 mm 5 000 50 % 50 % 50 FIT
B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] • with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529	3,0 x 0,5 mm 5 000 50 % 50 % 50 FIT 10 y IP20
Safety related data B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] • with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529	3,0 x 0,5 mm 5 000 50 % 50 % 50 FIT 10 y
B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] • with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529	3,0 x 0,5 mm 5 000 50 % 50 % 50 FIT 10 y IP20 finger-safe, for vertical contact from the front

General Product Approval





Confirmation



<u>KC</u>



Declaration of Conformity Test Certificates Marine / Shipping





Special Test Certificate

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=3RV2411-0BA20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2411-0BA20

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-0BA20

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2411-0BA20\&lang=en}}$

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2411-0BA20/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2411-0BA20&objecttype=14&gridview=view1

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