SIEMENS

Data sheet 3RV2031-4SB15



Circuit breaker size S2 for motor protection class 20 A-release 9.5...14 A N-release 208 A screw terminal Standard switching capacity with transverse auxiliary switch 1 NO+1 NC

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 • of auxiliary contacts typical • of auxiliary contacts • of auxiliary contacts • of auxiliary contacts • of	product brand name	SIRIUS	
Separative contact type designation SRV2	product designation	Circuit breaker	
size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch at AC in hot operating state at AC in hot operating state per pole insulation voltage with degree of poliution 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 electrical endurance (switching cycles) of auxiliary contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Amblent conditions installation altitude at height above sea level maximum ambient temperature olduring storage olduring storage olduring 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 old AC-3 rated value maximum operational current rated value	design of the product	For motor 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 solution of voltage visits 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 ambient temperature • during operation • during storage • during transport -50 +80 °C • 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 operating frequency rated value operational current value operational current rated value operational current value value operational current rated value operational current value value	product type designation	3RV2	
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product extension auxiliary switch power loss [M] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole at AC in hot operating state per pole 4.2 W	size of the circuit-breaker	S2	
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 auxiliary contacts typical for one of auxiliary contacts typical electrical endurance (switching cycles) typical for 000 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 -50 +80 °C 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-3e rated value maximum end operational current rated value operational current occurrent of the current operation of the current of the current of the current occurrent of the current occurrent	size of contactor can be combined company-specific	S2	
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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 operational current rated value 14 A operational current 20 00 m 20 +60 °C -20 +80 °C -50	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 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 14 A operational current 20 +60 °C -20 +60 °C -20 +80 °C -50	Substance Prohibitance (Date)	10/15/2014	
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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 10 95 % 9.5 14 A 20 690 V • at AC-3 rated value maximum 690 V operational current rated value 14 A	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 690 V • at AC-3 rated value maximum 690 V operating frequency rated value 50 60 Hz operational current 14 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 operational current 3 9.5 14 A 20 690 V 690 V 690 V 14 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 operational current 9.5 14 A 20 690 V 690 V 690 V 14 A	Main circuit		
current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum • at AC-3e rated value maximum 690 V operating frequency rated value operational current rated value 14 A	number of poles for main current circuit	3	
 rated value at AC-3 rated value maximum at AC-3e rated value maximum at AC-3e rated value maximum operating frequency rated value operational current rated value operational current 	•	9.5 14 A	
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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 14 A operational current	 at AC-3 rated value maximum 	690 V	
operational current rated value 14 A operational current	 at AC-3e rated value maximum 	690 V	
operational current	operating frequency rated value	50 60 Hz	
	operational current rated value	14 A	
• at AC-3 at 400 V rated value 14 A	operational current		
	at AC-3 at 400 V rated value	14 A	

at AC-3e at 400 V rated value	14 A
operating power	
• at AC-3	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
• at AC-3e	I I KVV
— at 230 V rated value	3 kW
— at 250 V rated value — at 400 V rated value	5.5 kW
— at 400 V rated value — at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
operating frequency	45 411-
• at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
Auxiliary circuit	
design of the auxiliary switch	transverse
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
operational current of auxiliary contacts at AC-15	
• at 24 V	2 A
• at 230 V	0.5 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1 A
● at 60 V	0.15 A
• at 110 V	0 A
• at 125 V	0 A
• at 220 V	0 A
Protective and monitoring functions	
product function	
ground fault detection	No
phase failure detection	Yes
trip class	CLASS 20
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	65 kA
at AC at 500 V rated value	12 kA
at AC at 690 V rated value	5 kA
breaking capacity operating short-circuit current (Ics)	
at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	30 kA
• at 500 V rated value	6 kA
• at 690 V rated value	3 kA
response value current of instantaneous short-circuit trip	208 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	14 A
 at 600 V rated value 	14 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	1.5 hp
— at 230 V rated value	3 hp
• for 3-phase AC motor	
— at 200/208 V rated value	5 hp
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 hp
— at 575/600 V rated value	15 hp

contact rating of auxiliary contacts according to UL	C300 / R300
Short-circuit protection	000071000
	Voo
product function short circuit protection	Yes
design of the short-circuit trip design of the fuse link	magnetic
for short-circuit protection of the auxiliary switch	fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current lk <
required	400 A)
design of the fuse link for IT network for short-circuit protection of the main circuit	
● at 240 V	none required
● at 400 V	100
● at 500 V	80
● at 690 V	63
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	140 mm
width	55 mm
depth	149 mm
required spacing	
• for grounded parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
for grounded parts at 500 V	
— downwards	50 mm
— upwards	50 mm
— upwards — at the side	10 mm
for live parts at 500 V	10 11111
Tor live parts at 500 v Ownwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for grounded parts at 690 V	F0
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control circuit	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
for main contacts	
— solid or stranded	2x (1 25 mm²), 1x (1 35 mm²)
 finely stranded with core end processing 	2x (1 16 mm²), 1x (1 25 mm²)
at AWG cables for main contacts	2x (18 3), 1x (18 2)
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)

tightening torque	
 for main contacts with screw-type terminals 	3 4.5 N·m
 for auxiliary 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 	M6
 of the auxiliary and control 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 61508	10 y
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



Confirmation





<u>KC</u>



Declaration of Conformity Test Certificates Marine / Shipping



Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping other











Confirmation

other Railway



Vibration and Shock

Confirmation

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=3RV2031-4SB15

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2031-4SB15}$

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

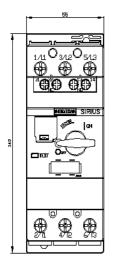
https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4SB15

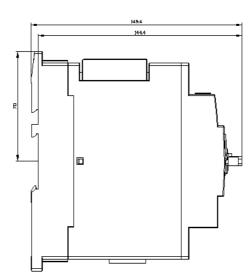
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2031-4SB15&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

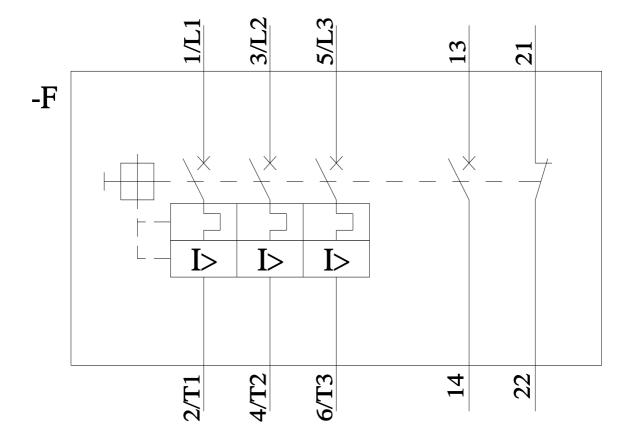
https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4SB15/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4SB15&objecttype=14&gridview=view1









last modified: 6/25/2022 🖸