SIEMENS

Data sheet 3RV2031-4JB15



Circuit breaker size S2 for motor protection class 20 A-release 54...65 A N-release 845 A screw terminal Standard switching capacity with transverse auxiliary switches 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 according to IEC 60068-2-27 mechanical service [Ife (switching cycles) • of the main contacts typical • of auxiliary contacts • of auxiliary contacts • of auxiliary contacts • of auxiliary contacts •	product brand name	SIRIUS		
General technical data 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 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 electrical endurance (switching cycles) electrical endurance (switching cycles) typical electrical endurance (switching cycles) electric	product designation	Circuit breaker		
Size of the circuit-breaker S2	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 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 erated 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 26 W • at AC in hot operating state per pole 8.7 W insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value 66 kV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (switching cycles) • of the main contacts typical 20 000 • of auxiliary contacts typical 20 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 04/10/2015 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 • at AC-3e rated value maximum 690 V operational current rated value operational current value operational value value operational value value operational value value value value value operation	General technical data	General technical data		
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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 oduring operation during storage during transport relative humidity during operation Adin 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 e at AC-3 rated value maximum operational current rated value	mechanical service life (switching cycles)			
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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 rated value operational current 10 95 % 54 65 A 52 65 A	 during storage 	-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 24 65 A 20 690 V	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 3 54 65 A 52 54 65 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 54 65 A 20 690 V	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 65 A operational current	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 	•	54 65 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 65 A operational current	 at AC-3 rated value maximum 	690 V		
operational current rated value 65 A operational current	 at AC-3e rated value maximum 	690 V		
operational current	operating frequency rated value	50 60 Hz		
·	operational current rated value	65 A		
at AC-3 at 400 V rated value 65 A	operational current			
	at AC-3 at 400 V rated value	65 A		

1400 1400 14 14 14	05.4
at AC-3e at 400 V rated value	65 A
operating power	
• at AC-3	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	45 kW
— at 690 V rated value	55 kW
• at AC-3e	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	45 kW
— at 690 V rated value	55 kW
operating frequency	OO RVV
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
	UA
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 	65 kA
 at AC at 400 V rated value 	65 kA
 at AC at 500 V rated value 	8 kA
 at AC at 690 V rated value 	4 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 	5 kA
at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip	845 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	65 A
 at 600 V rated value 	
at 000 v rated value	62 A
yielded mechanical performance [hp]	62 A
	62 A
yielded mechanical performance [hp]	62 A 20 hp
yielded mechanical performance [hp] • for 3-phase AC motor	20 hp
yielded mechanical performance [hp] • for 3-phase AC motor — at 200/208 V rated value	20 hp 25 hp
yielded mechanical performance [hp] • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value	20 hp 25 hp 50 hp
yielded mechanical performance [hp] • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value	20 hp 25 hp 50 hp 60 hp
yielded mechanical performance [hp] • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value contact rating of auxiliary contacts according to UL	20 hp 25 hp 50 hp
yielded mechanical performance [hp] • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value	20 hp 25 hp 50 hp 60 hp

design of the short-circuit trip	magnetic
design of the fuse link	
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	160
● at 500 V	125
● at 690 V	100
nstallation/ 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	
with side-by-side mounting at the side	0 mm
 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
— at the side	10 mm
 for live parts at 500 V 	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
 for grounded parts at 690 V 	
— 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	0 (4 05 2) 4 (4 50 2)
— solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)
— finely stranded with core end processing	2x (1 25 mm²), 1x (1 35 mm²)
at AWG cables for main contacts	2x (18 2), 1x (18 1)
type of connectable conductor cross-sections	
for auxiliary contacts	0 (0 7 1 7 0) 0 (0 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
— 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	

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General Product Approval



Confirmation





<u>KC</u>



Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





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=3RV2031-4JB15

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4JB15

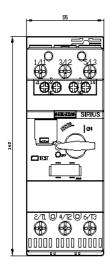
 $Service \& Support \ (Manuals, \ Certificates, \ Characteristics, \ FAQs, ...)$

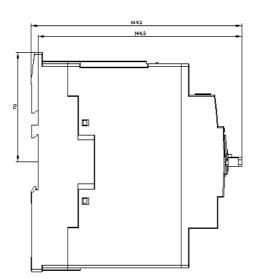
https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4JB15

Characteristic: Tripping characteristics, I²t, Let-through current

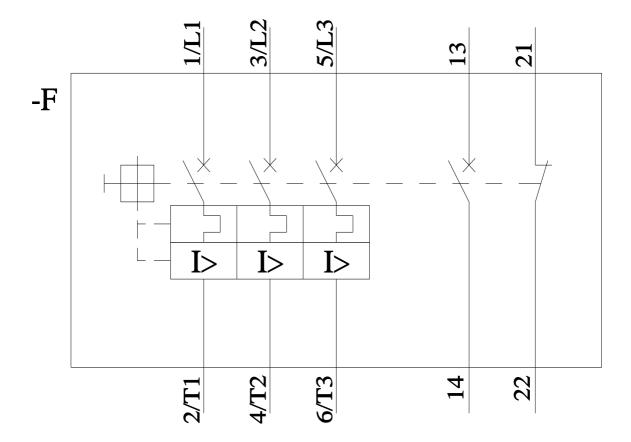
https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4JB15/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4JB15&objecttype=14&gridview=view1









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