SIEMENS

Data sheet 3RV2031-4DB15



Circuit breaker size S2 for motor protection, Class 20 A-release 18...25 A N-release 325 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 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 code code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ablent temperature • during operation • during storage • during torage • during transport • during transport relative humidity durin operation Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage • at AC-3 rated value maximum • at AC-3 rated value maximum • at AC-3 rated value maximum • operating frequency rated value • at AC-3 rated value maximum • at AC-3 rated value maximum • operating frequency rated value • at AC-3 rated value maximum • operational current rated value • operational current • at AC-3 rated value • at AC-3 rated value maximum • operational current rated value • operational current • at AC-3 at 400 V rated value	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 shock resistance according to IEC 60088-2-27 mechanical service life (switching cycles) • of the main contacts typical electrical endurance (switching cycles) typical ference code according to IEC 81346-2 Substance Prohibitance (Dato) preference code according to IEC 81346-2 Quint substance Prohibitance (Dato) installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation multiput during operation value (Value and Value of Pole o	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 forerence 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 elative 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	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 [M] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole 4.8 W Insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) • of the main contact typical • of auxiliary contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical freference code according to IEC 81346-2 Qu Substance Prohibitance (Dato) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • 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-3 rated value maximum • operational current rated value operational current ated value operational current of value operational current ated value operational current ated value operational current	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 of auxiliary contacts typical selectrical endurance (switching cycles) typical for our of the main contacts (switching cycles) typical electrical endurance (switching cycles) typical for of auxiliary contacts typical electrical endurance (switching cycles) typical placetrical endurance (switching cycles) typical for our of the main contacts typical for our our our our our our our our our o	size of contactor can be combined company-specific	S2	
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 before 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 Questional conditions installation altitude at height above sea level maximum ambient temperature of during operation of utring 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 of at AC-3 rated value at AC-3 rated value maximum operational current operational current rated value operational current rated value operational current of AC	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 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 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 at AC-3a rated value maximum operational current rated value operational current of the KV Stouth Main current rated value operational current of the MV sum Sinus operational current of the V sum Sinus operations in	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 auxiliary 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 uring operation of uring storage of uring 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 operational current of the MV operationa	 at AC in hot operating state 	14.5 W	
surge voltage resistance rated value shock resistance according to IEC 60068-2-27 perhanical service life (switching cycles) of the main contacts typical of auxiliary contacts typical electrical endurance (switching cycles) typical freference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions Installation allitude at height above sea level maximum ambient temperature oluring operation oluring storage oluring 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 at AC-3 rated value maximum show the first part of the current rated value operational current of the current current care of the current rated value operational current	at AC in hot operating state per pole	4.8 W	
shock resistance according to IEC 60068-2-27 shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) of the main contacts typical of auxiliary contacts typical of auxiliary contacts typical foregreence code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature 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 at AC-3 rated value maximum operational current rated value	ŭ i	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 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 or at AC-3 rated value maximum operational current rated value	surge voltage resistance rated value	6 kV	
of the main contacts typical of auxiliary contacts typical of auxiliary contacts typical electrical endurance (switching cycles) typical so 000 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 operation during storage of during transport elative 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 at AC-3 rated value maximum operations current response value operational current rated value operational current of o00 o00 o00 o00 o00 o00 o00 o	shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus	
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 oduring operation during storage during transport relative humidity during operation Admin 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 operational current	mechanical service life (switching cycles)		
electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Installation altitude at height above sea level maximum ambient temperature during operation during storage during storage during transport relative humidity during operation Insumber of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage rate AC-3 rated value maximum electrical endurance (switching cycles) typical operational current rated value operational current	 of the main contacts typical 	50 000	
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 operational current rated value 25 A operational current rated value 25 A operational current rated value	of auxiliary contacts typical	50 000	
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 • at AC-3 rated value maximum • at AC-3e rated value maximum operational current rated value operational current rated value 25 A operational current rated value 25 A operational current rated value 25 A	electrical endurance (switching cycles) typical	50 000	
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 operational current rated value 20 690 V operational current rated value 50 60 Hz operational current rated value 25 A	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 20 690 V operational current rated value 50 60 Hz operational current rated value 25 A	Substance Prohibitance (Date)	10/15/2014	
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 25 A	Ambient conditions		
 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 at AC-3e rated value maximum operating frequency rated value operational current rated value operational current 25 A 	installation altitude at height above sea level maximum	2 000 m	
 during storage during transport folumentary during transport folumentary 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 	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 operating frequency rated value operational current rated value operational current 	 during operation 	-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 25 A operational current	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 18 25 A 20 690 V 690 V • at AC-3 rated value maximum 690 V operational current rated value 25 A operational current	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 25 A operational current	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 25 A 18 25 A 20 690 V 690 V 690 V 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 25 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 690 V operating frequency rated value operational current rated value operational current 20 690 V 690 V Operational current rated value 25 A operational current	•	18 25 A	
 at AC-3 rated value maximum at AC-3e rated value maximum operating frequency rated value operational current rated value operational current 25 A 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 25 A operational current	 at AC-3 rated value maximum 	690 V	
operational current rated value 25 A operational current	 at AC-3e rated value maximum 	690 V	
operational current	operating frequency rated value	50 60 Hz	
·	operational current rated value	25 A	
• at AC-3 at 400 V rated value 25 A	operational current		
	at AC-3 at 400 V rated value	25 A	

at AC-3e at 400 V rated value	25 A
operating power	
• at AC-3	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	15 kW
— at 690 V rated value	22 kW
• at AC-3e	ZZ KVV
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	15 kW
— at 690 V rated value	22 kW
operating frequency	4.F. 4.lb
• 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	325 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	25 A
at 600 V rated value	25 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 110/120 V rated value	2 hp
— at 230 V rated value	5 hp
 for 3-phase AC motor 	
— at 200/208 V rated value	7.5 hp
— at 220/230 V rated value	10 hp
— at 460/480 V rated value	20 hp
— at 575/600 V rated value	25 hp

contact rating of auxiliary contacts according to UL	C300 / R300
	C300 / K300
Short-circuit protection	V
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link	fund a C: 10 A ministure dispuit breaker C 6 A /about dispuit augment !!.
for short-circuit protection of the auxiliary switch required	fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current lk < 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
— 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	10 11111
•	50 mm
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 690 V	50
— 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	

Certificates/ approvais

General Product Approval



Confirmation





<u>KC</u>



Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping





10-6







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=3RV2031-4DB15

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4DB15

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4DB15

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2031-4DB15&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4DB15/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4DB15&objecttype=14&gridview=view1

6/25/2022 last modified: