SIEMENS

Data sheet 3RV2031-4UB15





Circuit breaker size S2 for motor protection class 20 A-release 32...40 A N-release 585 A screw terminal Standard switching capacity with transverse auxiliary switch 1 NO+1 NC



product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S2
size of contactor can be combined company-specific	S2
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	20 W
 at AC in hot operating state per pole 	6.7 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus
mechanical service life (operating cycles)	
 of the main contacts typical 	50 000
of auxiliary contacts typical	50 000
electrical endurance (operating cycles) typical	50 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/15/2014
SVHC substance name	Lead - 7439-92-1
Weight	1.129 kg
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
during transport	-50 +80 °C
relative humidity during operation	10 95 %
Environmental footprint	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	239.877 kg
global warming potential [CO2 eq] during manufacturing	12.8 kg
global warming potential [CO2 eq] during sales	0.477 kg
global warming potential [CO2 eq] during operation	230 kg
global warming potential [CO2 eq] after end of life	-3.4 kg
Siemens Eco Profile (SEP)	Siemens EcoTech

Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	32 40 A
type of voltage for main current circuit	AC
operating voltage	
rated value	20 690 V
 at AC-3 rated value maximum 	690 V
at AC-3e rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	40 A
operational current	
 at AC-3 at 400 V rated value 	40 A
at AC-3e at 400 V rated value	40 A
operating power	
• at AC-3	
— at 230 V rated value	11 kW
— at 400 V rated value	18.5 kW
— at 500 V rated value	22 kW
— at 690 V rated value	37 kW
• at AC-3e	
— at 230 V rated value	11 kW
— at 400 V rated value	18.5 kW
— at 500 V rated value	22 kW
— at 690 V rated value	37 kW
operating frequency	
• at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
Auxiliary circuit	
design of the auxiliary switch	transverse
type of voltage for auxiliary and control circuit	AC/DC
number of NC contacts for auxiliary contacts	. 1
number of NO contacts for auxiliary contacts	1
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	2 A
at 24 V at 230 V	
operational current of auxiliary contacts at DC-13	0.5 A
• 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
maximum short-circuit current breaking capacity (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	10 kA
• at AC at 690 V rated value	4 kA
operating short-circuit current breaking capacity (lcs) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	30 kA
• at 500 V rated value	5 kA
10001/	2 kA
at 690 V rated value	2101
response value current of instantaneous short-circuit trip unit	585 A

full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	40 A
at 600 V rated value	40 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 110/120 V rated value	3 hp
— at 230 V rated value	7.5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	15 hp
 at 220/230 V rated value 	15 hp
— at 460/480 V rated value	30 hp
— at 575/600 V rated value	40 hp
contact rating of auxiliary contacts according to UL	C300 / R300
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link	
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	125
● at 500 V	100
• at 690 V	80
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN 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	Top and bottom

circuit	
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)
for AWG cables for main contacts	2x (18 3), 1x (18 2)
type of connectable conductor cross-sections	ZX (10 5), 1X (10 2)
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)
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)
·	ZX (20 10), ZX (10 14)
tightening torque	3 4.5 N·m
for main contacts with screw-type terminals for cuviling contacts with screw type terminals	
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	
product function suitable for safety function	Yes
suitability for use	
 safety-related switching on 	No
safety-related switching OFF	Yes
service life maximum	10 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
 with high demand rate according to SN 31920 	50 %
B10 value with high demand rate according to SN 31920	5 000
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
T1 value	
 for proof test interval or service life according to IEC 61508 	10 a
Electrical Safety	
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	
display version for switching status	Handle
Approvals Certificates	

General Product Approval









<u>KC</u>



General Product Approval

Test Certificates

Marine / Shipping

BIS CRS

Type Test Certificates/Test Report

Special Test Certificate













Miscellaneous

Confirmation



Railway

Environment

Special Test Certific-<u>ate</u>

Confirmation



EcoTech

Environmental Confirmations

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RV2031-4UB15

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4UB15

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4UB15

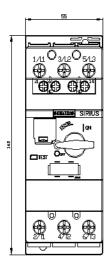
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

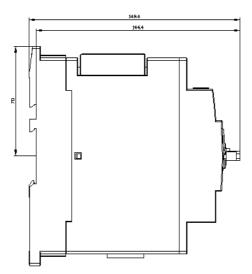
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2031-4UB15&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

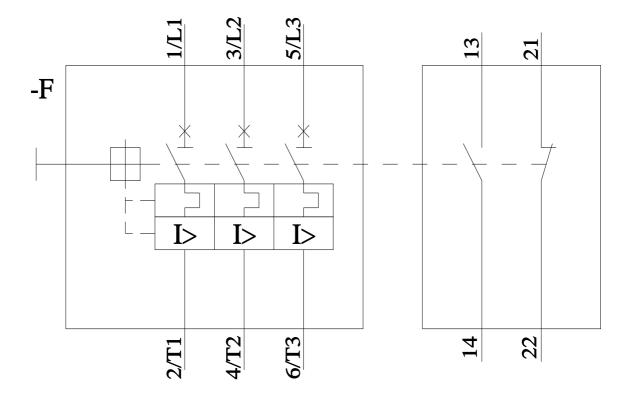
https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4UB15/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4UB15&objecttype=14&gridview=view1









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