SIEMENS

Data sheet 3RV2031-4UA15





Circuit breaker size S2 for motor protection, CLASS 10 A-release 32...40 A N-release 585 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC



design of the product	Circuit breaker For motor protection 3RV2
product type designation	·
produce type deergrades.	2DV2
General technical data	OR VZ
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
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 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	32 40 A
operating voltage	
	20 690 V
• rated value	
	690 V
at AC-3 rated value maximum	690 V 690 V

operational current rated value	40 A
operational current rated value	TO / (
at AC-3 at 400 V rated value	40 A
at AC-3 at 400 V rated value at AC-3e at 400 V rated value	40 A
operating power	70 A
• at AC-3	
— at 230 V rated value	11 kW
	18.5 kW
— at 400 V rated value	22 kW
— at 500 V rated value	
— at 690 V rated value ● at AC-3e	37 kW
	11 kW
— at 230 V rated value	
— at 400 V rated value	18.5 kW
— at 500 V rated value	22 kW
— at 690 V rated value	37 kW
operating frequency	45.40
• 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	N.
ground fault detection	No
phase failure detection	Yes
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	400 4
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 (Ics) at AC	400 A
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 unit	585 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	40 A
at 600 V rated value	40 A
	40 A
yielded mechanical performance [hp]	40 A
yielded mechanical performance [hp] • for single-phase AC motor	
yielded mechanical performance [hp] ● for single-phase AC motor — at 110/120 V rated value	3 hp
yielded mechanical performance [hp] ● for single-phase AC motor — at 110/120 V rated value — at 230 V rated value	
yielded mechanical performance [hp] ● for single-phase AC motor — at 110/120 V rated value	3 hp 7.5 hp
yielded mechanical performance [hp] ● for single-phase AC motor — at 110/120 V rated value — at 230 V rated value	3 hp 7.5 hp 15 hp
yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor	3 hp 7.5 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	- The grant
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	0 mm
with side-by-side mounting at the side for grounded parts at 400 V	0 mm
for grounded parts at 400 V— downwards	50 mm
— downwards — upwards	50 mm
— upwards — at the side	10 mm
• for live parts at 400 V	10 timi
— 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	
— 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	
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)

product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF Yes service life maximum 10 a test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with low demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 SO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 T1 value • for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 display version for switching status Handle		
	tightening torque	
design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw of the auxiliary and control contacts of the auxiliary and control contacts of the auxiliary and control 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 **safety-related switching off **safety-related switching OFF **service life maximum **test wear-related service life necessary **proportion of dangerous failures **with low demand rate according to SN 31920 **with high demand rate according to SN 31920 **with high demand rate according to SN 31920 **with high demand rate according to SN 31920 **so PFI **safety device type according to ISO 13849-1 **device type according to ISO 13849-1 **overdimensioning according to ISO 13849-2 necessary **lec 61508 **safety device type according to IEC 61508-2 **Type A **Ti value **for proof test interval or service life according to IEC 61508-2 **Tope A **Ti value **of proof test interval or service life according to IEC 60529 **Jope A *	 for main contacts with screw-type terminals 	3 4.5 N·m
size of the screwdriver tip design of the thread of the connection screw	 for auxiliary contacts with screw-type terminals 	0.8 1.2 N·m
design of the thread of the connection screw	design of screwdriver shaft	Diameter 5 to 6 mm
of the auxiliary and control contacts of the auxiliary and control contacts safety related data product function suitable for safety function suitability for use osafety-related switching on safety-related switching OFF service life maximum 10 a test wear-related switching OFF with low demand rate according to SN 31920 with high demand rate according to SN 31920 with high demand rate according to SN 31920 with high demand rate according to SN 31920 for silurer ate [FIT] with low demand rate according to SN 31920 SO 13849 service type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 T1 value of proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front lossed witching status Handle	size of the screwdriver tip	Pozidriv size 2
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product function suitable for safety function product function suitable for safety function suitability for use safety-related switching on 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 with high demand rate according to SN 31920 shift high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 for FIT 180 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 lectrical Safety protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front observations of switching status display version for switching status Handle	• for main contacts	M6
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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 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 5000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 7000 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate	service life maximum	10 a
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ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary 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 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 display version for switching status Handle	B10 value with high demand rate according to SN 31920	5 000
device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary 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 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 display version for switching status Handle		50 FIT
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Type A Type A Type A To a of or proof test interval or service life according to IEC of 1508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 display display version for switching status Type A 10 a 10 a IP20 IP20 Inger-safe, for vertical contact from the front Handle	overdimensioning according to ISO 13849-2 necessary	Yes
T1 value • for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front Display display version for switching status Handle	IEC 61508	
for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front bisplay display version for switching status Handle	safety device type according to IEC 61508-2	Type A
Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front Display display version for switching status Handle	T1 value	
protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front Display display version for switching status Handle		10 a
touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front Display display version for switching status Handle	Electrical Safety	
Display display version for switching status Handle	protection class IP on the front according to IEC 60529	IP20
display version for switching status Handle	touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
	Display	
pprovals Certificates	display version for switching status	Handle
	Approvals Certificates	
General Product Approval	General Product Approval	





Confirmation





<u>KC</u>

General Product Approval

For use in hazardous locations

Test Certificates

Marine / Shipping







Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping











Miscellaneous

other

other Railway Environment



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

Confirmation





Environment

Environmental Confirmations

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=3RV2031-4UA15

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4UA15

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4UA15

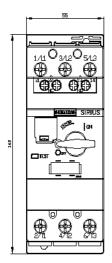
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

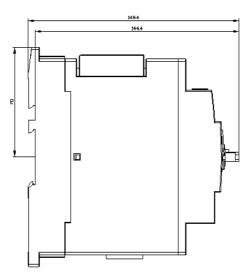
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2031-4UA15&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

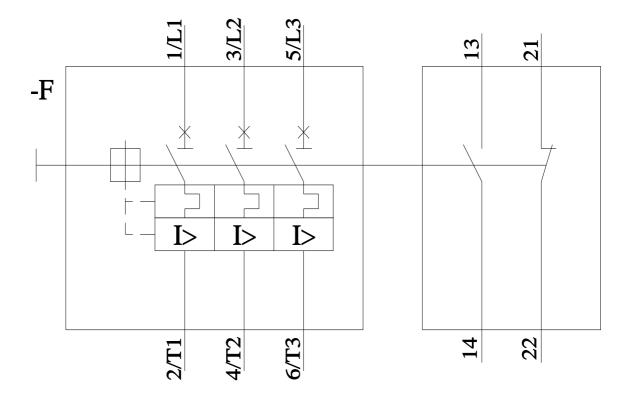
https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4UA15/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4UA15&objecttype=14&gridview=view1









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