SIEMENS

Data sheet 3RV2032-4EA15



Circuit breaker size S2 for motor protection, CLASS 10 A-release 22...32 A N-release 416 A screw terminal increased switching capacity with transverse auxiliary switches 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 	18 W
at AC in hot operating state per pole	6 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation in networks with grounded star point	
 between main and auxiliary circuit 	400 V
between main and auxiliary circuit	400 V
shock resistance acc. to IEC 60068-2-27	25g / 11 ms Sinus
mechanical service life (switching cycles)	
 of the main contacts typical 	50 000
of auxiliary contacts typical	50 000
electrical endurance (switching cycles) typical	50 000
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
reference code acc. to IEC 81346-2	Q
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
 ambient temperature during operation 	-20 +60 °C
 ambient temperature during storage 	-50 +80 °C
 ambient temperature during transport 	-50 +80 °C
temperature compensation	-20 +60 °C
relative humidity during operation	10 95 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the	22 32 A

current dependent everleed release	
current-dependent overload release	
 operating voltage rated value 	690 V
operating voltage at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	32 A
operational current at AC-3 at 400 V rated value	32 A
operating power at AC-3	
at 230 V rated value	7 500 W
 at 400 V rated value 	15 000 W
 at 500 V rated value 	18 500 W
at 690 V rated value	30 000 W
operating frequency at AC-3 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 10
design of the overload release	thermal
breaking capacity operating short-circuit current (Ics)	
at AC	400 kA
at 240 V rated value at 400 V rated value	100 kA
 at 400 V rated value 	50 kA
-t 500 \ /tdd	0.1-4
at 500 V rated value	8 kA
at 690 V rated value	8 kA 4 kA
at 690 V rated value breaking capacity maximum short-circuit current (Icu)	4 kA
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value	4 kA 100 kA
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value	4 kA 100 kA 100 kA
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value	4 kA 100 kA 100 kA 15 kA
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value	4 kA 100 kA 100 kA
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit	4 kA 100 kA 100 kA 15 kA 6 kA
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings	4 kA 100 kA 100 kA 15 kA 6 kA
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor	4 kA 100 kA 100 kA 15 kA 6 kA 416 A
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value	4 kA 100 kA 100 kA 15 kA 6 kA 416 A
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit tripunit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value	4 kA 100 kA 100 kA 15 kA 6 kA 416 A
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value yielded mechanical performance [hp]	4 kA 100 kA 100 kA 15 kA 6 kA 416 A
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value for single-phase AC motor	4 kA 100 kA 100 kA 15 kA 6 kA 416 A
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value for single-phase AC motor at 110/120 V rated value	4 kA 100 kA 100 kA 15 kA 6 kA 416 A 32 A 32 A 3 hp
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit tripunit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value for single-phase AC motor at 110/120 V rated value at 230 V rated value at 230 V rated value	4 kA 100 kA 100 kA 15 kA 6 kA 416 A
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 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	4 kA 100 kA 100 kA 15 kA 6 kA 416 A 32 A 32 A 3 hp 5 hp
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 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 at 200/208 V rated value	4 kA 100 kA 100 kA 15 kA 6 kA 416 A 32 A 32 A 3 hp 5 hp 10 hp
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit tripunit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value for single-phase AC motor at 110/120 V rated value at 230 V rated value for 3-phase AC motor at 200/208 V rated value at 220/230 V rated value at 220/230 V rated value	4 kA 100 kA 100 kA 15 kA 6 kA 416 A 32 A 32 A 3 hp 5 hp 10 hp 10 hp
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value for single-phase AC motor at 110/120 V rated value at 230 V rated value for 3-phase AC motor at 200/208 V rated value at 220/230 V rated value at 460/480 V rated value at 460/480 V rated value	4 kA 100 kA 100 kA 15 kA 6 kA 416 A 32 A 32 A 3 hp 5 hp 10 hp 10 hp 25 hp
at 690 V rated value breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value for single-phase AC motor at 110/120 V rated value at 230 V rated value for 3-phase AC motor at 200/208 V rated value at 220/230 V rated value at 220/230 V rated value	4 kA 100 kA 100 kA 15 kA 6 kA 416 A 32 A 32 A 3 hp 5 hp 10 hp 10 hp



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 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	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	10 mm
— forwards	0 mm
• for live parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	10 mm
— forwards	0 mm
Connections/ Terminals	
product function removable terminal for auxiliary and control circuit	No
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 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 	
— 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
 tightening torque 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 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 acc. to SN 31920	5 000
proportion of dangerous failures	
 with low demand rate acc. to SN 31920 	50 %
with high demand rate acc. to SN 31920	50 %
failure rate [FIT]	
with low demand rate acc. to SN 31920	50 FIT
T1 value for proof test interval or service life acc. to IEC 61508	10 y
protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front
display version for switching status	finger-safe, for vertical contact from the front Handle

General Product Approval









<u>KC</u>



For use in hazardous locations

Declaration of Conformity

Test Certificates







Miscellaneous

Type Test
Certificates/Test
Report

Type Test
Certificates/Test
Report

Test Certificates

Marine / Shipping

Type Test
Certificates/Test
Report

Type Test
Certificates/Test
Report

Special Test Certificate







Marine / Shipping

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=3RV2032-4EA15

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2032-4EA15

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2032-4EA15

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

3RV2032-4EA15&lang=en http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=

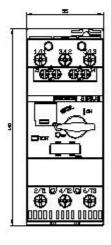
Characteristic: Tripping characteristics, I2t, Let-through current

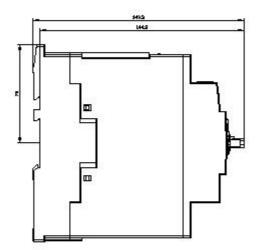
https://support.industry.siemens.com/cs/ww/en/ps/3RV2032-4EA15/char

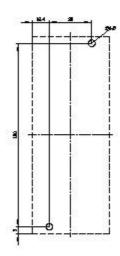
Further characteristics (e.g. electrical endurance, switching frequency)

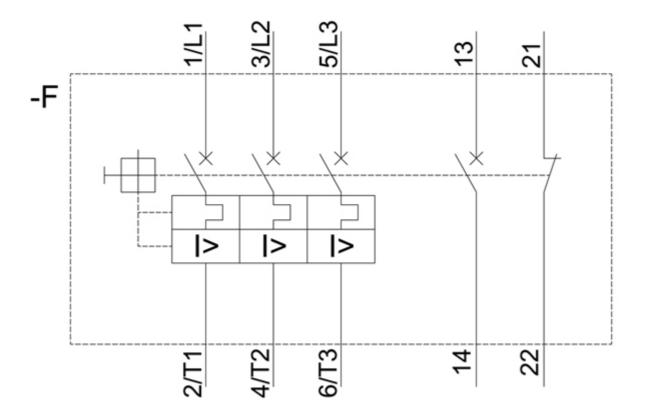
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2032-4EA15&objecttype=14&gridview=view1











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