SIEMENS

Data sheet 3RV2021-4EA15





Circuit breaker size S0 for motor protection, CLASS 10 A-release 27...32 A N-release 400 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

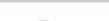


product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S0
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	13.25 W
 at AC in hot operating state per pole 	4.4 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
mechanical service life (operating cycles)	
 of the main contacts typical 	100 000
 of auxiliary contacts typical 	100 000
electrical endurance (operating cycles) typical	100 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1 Lead titanium zirconium oxide - 12626-81-2
Weight	0.395 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	75.078 kg
global warming potential [CO2 eq] during manufacturing	2.68 kg
global warming potential [CO2 eq] during sales	0.143 kg
global warming potential [CO2 eq] during operation	72.7 kg
global warming potential [CO2 eq] after end of life	-0.445 kg

Siemens Eco Profile (SEP) Nimino riccut number of poles for main current circuit adjustable current response value current of the current- dependant overload release type of voltage for main current circuit AC operating voltage • rated value • at AC-3 rated value maximum • at AC-3 at 400 V rated value • at AC-3 at 500 V rated value • at AC-3	
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maximum short-circuit current breaking capacity (Icu)	
• at AC at 240 V rated value 100 kA	
• at AC at 400 V rated value 55 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	
at 240 V rated value 100 kA	
at 400 V rated value 25 kA	
at 500 V rated value 5 kA	
• at 690 V rated value 2 kA	
response value current of instantaneous short-circuit trip unit 400 A	
UL/CSA ratings	

full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	32 A
at 600 V rated value	32 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
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	magnotio
for short-circuit protection of the auxiliary switch required	Fuse gL/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 400 V	gL/gG 63 A
● at 500 V	gL/gG 63 A
• at 690 V	gL/gG 63 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	97 mm
width	45 mm
depth	97 mm
required spacing	
with side-by-side mounting at the side	0 mm
• for grounded parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for grounded parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
for grounded parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— upwards — backwards	0 mm
— at the side	30 mm
— at the side — forwards	0 mm
for live parts at 690 V	O IIIIII
ior live parts at 690 v — downwards	50 mm
	50 mm
— upwards	
— backwards	0 mm
— at the side	30 mm
— forwards	0 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 2.5 mm²), 2x (2.5 10 mm²)	
 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²	
for AWG cables for main contacts	2x (16 12), 2x (14 8)	
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)	
tightening torque		
 for main contacts with screw-type terminals 	2 2.5 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	M4	
 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	50 FIT	
31920		
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

For use in hazardous locations

Test Certificates

Marine / Shipping





Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping

other











Confirmation

other

Railway

Environment

Miscellaneous



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

Confirmation



EcoTech



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=3RV2021-4EA15

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2021-4EA15}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4EA15

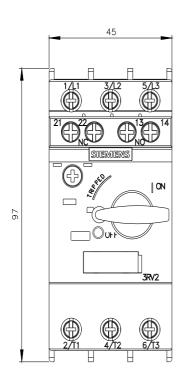
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

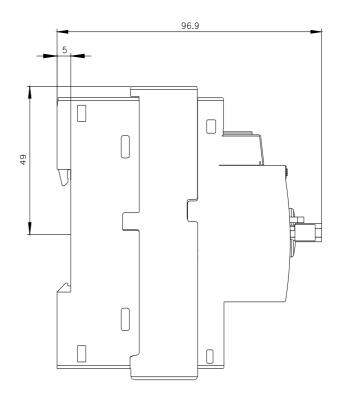
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4EA15&lang=en

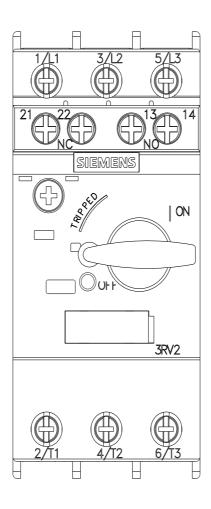
Characteristic: Tripping characteristics, I2t, Let-through current

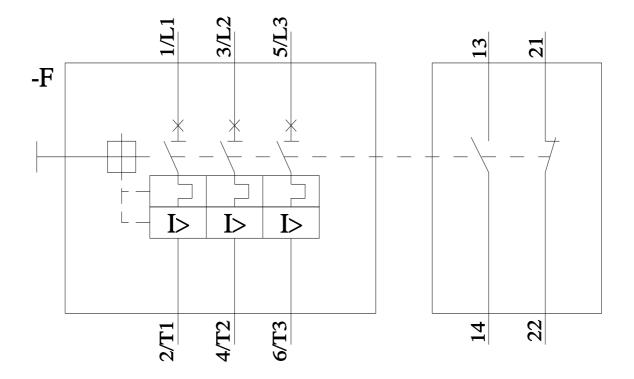
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4EA15/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-4EA15&objecttype=14&gridview=view1









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