3RV2021-4BA10-0BA0

Data sheet





Special type Circuit breaker size S0 for motor protection, CLASS 10 A-release 13...20 A N-release 260 A screw terminal Standard switching capacity Ambient temperature -50 $^{\circ}\text{C}$ 500 switching cycles



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 	10.5 W
 at AC in hot operating state per pole 	3.5 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 	500
 of auxiliary contacts typical 	500
electrical endurance (operating cycles) typical	500
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-50 +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	13 20 A
operating voltage	
rated value	20 690 V
• at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	20 A

operational current	
at AC-3 at 400 V rated value	20 A
operating power	
• at AC-3	
— at 230 V rated value	5.5 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	11 kW
— at 690 V rated value	15 kW
operating frequency	
• at AC-3 maximum	15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
Protective and monitoring functions	
product function	
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)	
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	TIM
• at 240 V rated value	100 kA
at 400 V rated value	25 kA
at 500 V rated value	5 kA
	2 kA
at 690 V rated value	
response value current of instantaneous short-circuit trip unit	260 A
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit protection of the main circuit	
● at 400 V	gG 63 A
● at 500 V	gG 50 A
● at 690 V	gG 50 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	
width	97 mm
donth	97 mm 45 mm
depth	
required spacing	45 mm
<u> </u>	45 mm
required spacing	45 mm 97 mm
required spacing • with side-by-side mounting at the side	45 mm 97 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V	45 mm 97 mm 0 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards	45 mm 97 mm 0 mm 30 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side	45 mm 97 mm 0 mm 30 mm 30 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards	45 mm 97 mm 0 mm 30 mm 30 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards	45 mm 97 mm 0 mm 30 mm 30 mm 9 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — upwards	45 mm 97 mm 0 mm 30 mm 30 mm 9 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • at the side • for live parts at 400 V — downwards — upwards — upwards — at the side	45 mm 97 mm 0 mm 30 mm 30 mm 9 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V	45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards	45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 30 mm 30 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — upwards — at the side	45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 30 mm 9 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — upwards — upwards — at the side	45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 30 mm 30 mm
required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards	45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 30 mm 9 mm

— upwards	30 mm	
— at the side	9 mm	
• for grounded parts at 690 V		
— downwards	50 mm	
— upwards	50 mm	
— backwards	0 mm	
— at the side	30 mm	
— forwards	0 mm	
• for live parts at 690 V		
— downwards	50 mm	
— upwards	50 mm	
— backwards	0 mm	
— at the side	30 mm	
— forwards	0 mm	
Connections/ Terminals		
type of electrical connection		
for main current 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	
tightening torque		
 for main contacts with screw-type terminals 	2 2.5 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	
IEC 61508		
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		Test Certificates





Confirmation

<u>KC</u>



Type Test Certificates/Test Report

Test Certificates

Marine / Shipping

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











Marine / Shipping



Special Test Certific-

<u>ate</u>

Railway

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,...)

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2021-4BA10-0BA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4BA10-0BA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4BA10

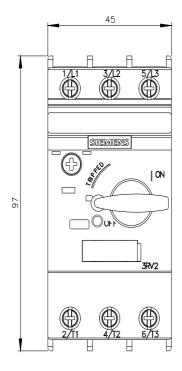
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4BA10-0BA0&lang=en

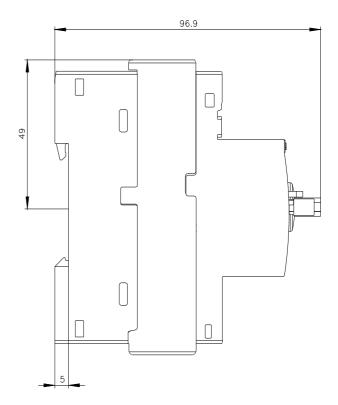
Characteristic: Tripping characteristics, I2t, Let-through current

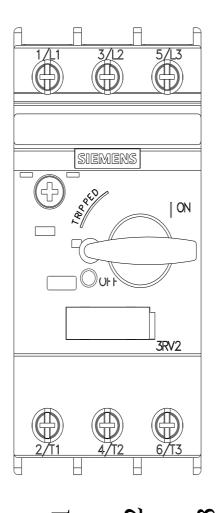
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4BA10-0BA0/char

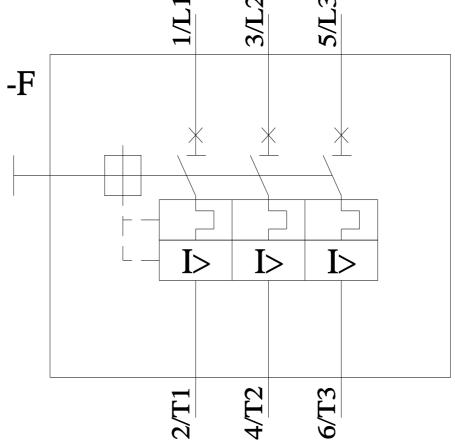
Further characteristics (e.g. electrical endurance, switching frequency)

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