# **SIEMENS**

Data sheet 3RV2021-1BA10

CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL. 1.4...2A, N-RELEASE 26A, SCREW CONNECTION, STANDARD SW. CAPACITY



Figure similar

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] total typical	6 W	
Insulation voltage with degree of pollution 3 rated	690 V	
value		
Surge voltage resistance rated value	6 kV	
maximum permissible voltage for safe isolation		
<ul> <li>in networks with grounded star point between</li> </ul>	400 V	
main and auxiliary circuit		
<ul> <li>in networks with grounded star point between</li> </ul>	400 V	
main and auxiliary circuit		

Protection class IP	
• on the front	IP20
of the terminal	IP20
Mechanical service life (switching cycles)	
of the main contacts typical	100 000
of auxiliary contacts typical	100 000
Electrical endurance (switching cycles)	
• typical	100 000
Type of protection	Increased safety
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	Q
Ambient conditions	
Ambient temperature	
<ul><li>during operation</li></ul>	-20 +60 °C
<ul><li>during storage</li></ul>	-50 +80 °C
during transport	-50 +80 °C
Temperature compensation	-20 +60 °C
Main circuit	
Number of poles for main current circuit	3
Adjustable pick-up value current of the current- dependent overload release	1.4 2 A
Operating voltage	
• rated value	690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
Operating frequency rated value	50 60 Hz
Operating current rated value	2 A
Operating current	
• at AC-3	
— at 400 V rated value	2 A
Operating power	
● at AC-3	
— at 230 V rated value	370 W
— at 400 V rated value	750 W
— at 500 V rated value	750 W
— at 690 V rated value	1 100 W
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
Operational short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	100 kA
• at 500 V rated value	100 kA
• at 690 V rated value	10 kA
Maximum short-circuit current breaking capacity (Icu)	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	100 kA
• at AC at 500 V rated value	100 kA
• at AC at 690 V rated value	10 kA
Breaking capacity short-circuit current (Icn)	
• at 1 current path at DC at 150 V rated value	10 kA
<ul> <li>with 2 current paths in series at DC at 300 V rated value</li> </ul>	10 kA
<ul> <li>with 3 current paths in series at DC at 450 V rated value</li> </ul>	10 kA
UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	2 A
• at 600 V rated value	2 A
Yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 230 V rated value	0.125 hp
• for three-phase AC motor	
— at 460/480 V rated value	0.75 hp
— at 575/600 V rated value	1 hp
Short-circuit protection	
Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic
Installation/ mounting/ dimensions	
Mounting position	any

Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Height	97 mm
Width	45 mm
Depth	96 mm
Required spacing	
with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— downwards	50 mm
— at the side	0 mm
for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— at the side	30 mm
— downwards	50 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— downwards	50 mm
— at the side	30 mm
Connections/Terminals	

Connections/Terminals		
Product function		
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>	No	
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		
<ul><li>— single or multi-stranded</li></ul>	2x (1 2,5 mm²), 2x (2,5 10 mm²)	
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²	
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (16 12), 2x (14 8)	
Tightening torque		
<ul> <li>for main contacts with screw-type terminals</li> </ul>	2 2.5 N·m	
Design of screwdriver shaft	Diameter 5 to 6 mm	
Size of the screwdriver tip	Pozidriv 2	

## Safety related data

B10 value	
• with high demand rate acc. to SN 31920	5 000
Proportion of dangerous failures	
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	50 %
• with high demand rate acc. to SN 31920	50 %
Failure rate [FIT]	
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	50 FIT
T1 value for proof test interval or service life acc. to IEC 61508	10 y
Display version	
• for switching status	Handle

## Certificates/approvals

#### **General Product Approval**

For use in hazardous locations











For use in hazardous locations	Declaration of Conformity	Test Certificates		Marine / Ship	pping
		Special Test	Type Test	CAN A	WAU VER







Special Test
Certificate

Type Test
Certificates/Test
Report

KC





other

## Marine / Shipping



LRS









Confirmation

#### other Railway

Environmental Confirmations



Miscellaneous

Vibration and Shock

#### Further informatior

#### Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

#### Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2021-1BA10

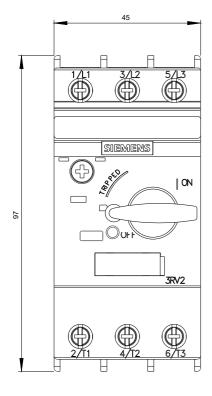
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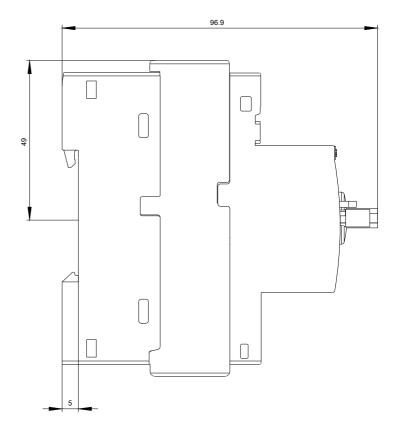
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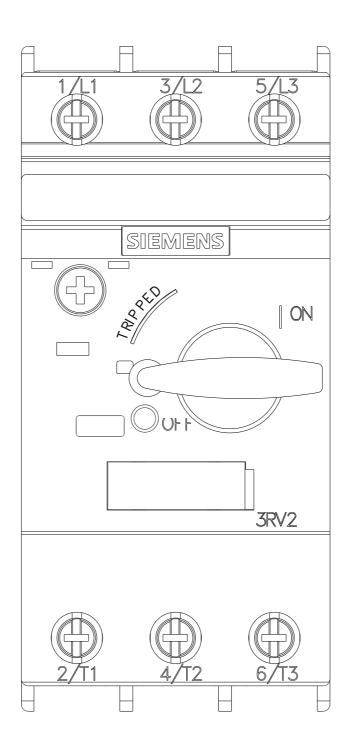
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

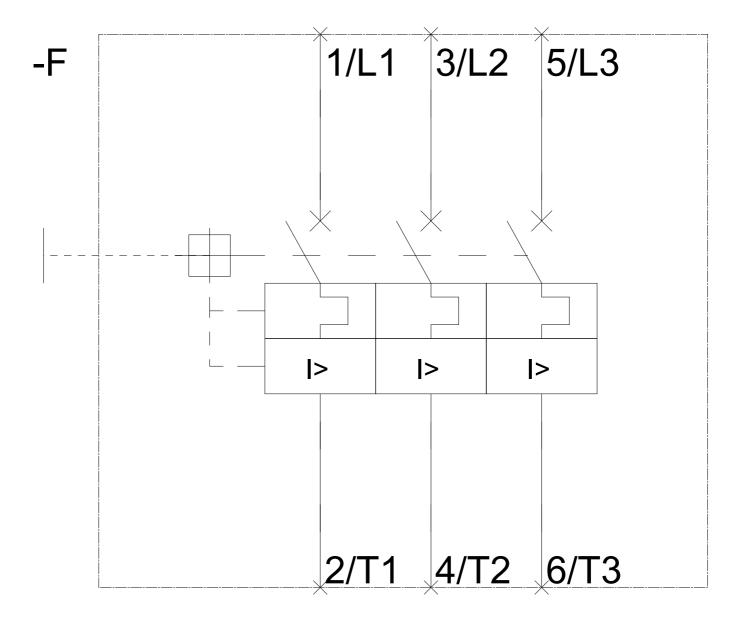
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1BA10

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2021-1BA10&lang=en









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