SIEMENS

Data sheet

3RV2021-1AA10

CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL.1.1...1.6A, N-REL.21A 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	SO
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 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
 in networks with grounded star point between main and auxiliary circuit 	400 V

Protection class IP	
• on the front	IP20
• of the terminal	IP20
Shock resistance	
• acc. to IEC 60068-2-27	25g / 11 ms
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
Certificate of suitability relating to ATEX	on request
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	Q
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
Temperature compensation	-20 +60 °C
Relative humidity during operation	10 95 %
Main circuit	2
Number of poles for main current circuit Adjustable pick-up value current of the current-	3 1.1 1.6 A
dependent overload release	1.1 1.0 A
Operating voltage	
 rated value 	690 V
 rated value at AC-3 rated value maximum 	690 V 690 V
• at AC-3 rated value maximum	
	690 V
• at AC-3 rated value maximum Operating frequency rated value	690 V 50 60 Hz
• at AC-3 rated value maximum Operating frequency rated value Operating current rated value	690 V 50 60 Hz
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 at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current at AC-3 at 400 V rated value Operating power at AC-3 at AC-3 at 230 V rated value at 400 V rated value at 400 V rated value at 500 V rated value 	690 V 50 60 Hz 1.6 A 1.6 A 250 W 550 W
 at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current at AC-3 at 400 V rated value Operating power at AC-3 	690 V 50 60 Hz 1.6 A 250 W 550 W 750 W

• 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	100 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	100 kA
Breaking capacity short-circuit current (Icn)	
• at 1 current path at DC at 150 V rated value	10 kA
 with 2 current paths in series at DC at 300 V rated value 	10 kA
 with 3 current paths in series at DC at 450 V rated value 	10 kA
Response value current	
• of instantaneous short-circuit trip unit	21 A
UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	1.6 A
• at 600 V rated value	1.6 A
Yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 230 V rated value	0.1 hp
 for three-phase AC motor 	

	— at 460/480 V rated value	0.75 hp		
Product function Short circuit protection Yes Design of the short-circuit trip magnetic Installation/ mounting/ dimensions any Mounting position any Mounting type corew 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 - gowards 50 mm - downwards 50 mm - downwards 50 mm - at the side 0 mm - browards 0 mm - browards 0 mm - downwards 50 mm - at the side 0 mm - at the side 0 mm - downwards 50 mm - of owards 0 mm - downwards 50 mm - at the side 30 mm - downwards 50 mm - of owards 50 mm - of wards				
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circuit Type of connectable conductor cross-sections	 for main current circuit 	screw-type terminals		
		Top and bottom		
• for main contacts	Type of connectable conductor cross-sections			

— single or multi-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
 at AWG conductors for main contacts 	2x (16 12), 2x (14 8)
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	Size 2 and Pozidriv 2
Design of the thread of the connection screw	
• for main contacts	M4
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 у
Display version	
 for switching status 	Handle
Certificates/approvals	

General Produc	t Approval			For use in haza	ardous locations
(SA)		<u>KC</u>	EHC	K ATEX	IECEx
Declaration of Conformity	Test Certificates		Marine / Ship	ping	
EG-Konf.	<u>Type Test</u> Certificates/Test <u>Report</u>	Special Test Certificate	ABS	B U R E A U VERITAS	Lloyd's Register Irs
Marine / Shippir	ng			other	
PRS	RINA	RMRS	DNVGLCOM/AF	<u>Confirmation</u>	
other	Railway				
Miscellaneous	Vibration and Shock				

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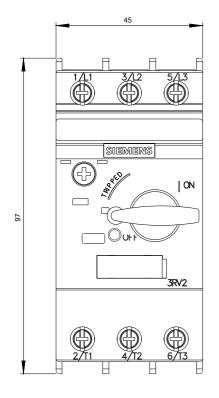
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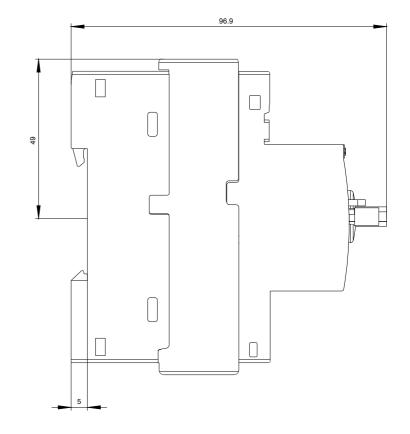
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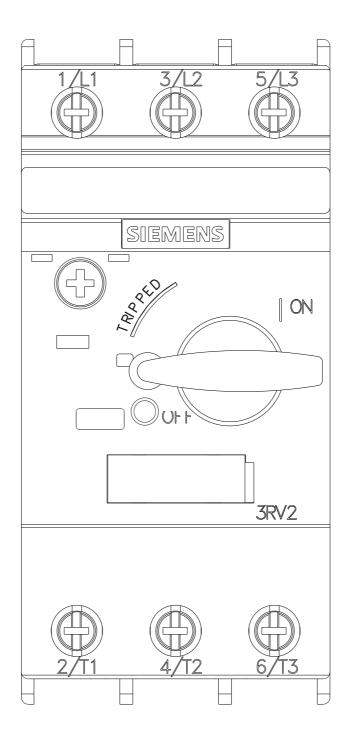
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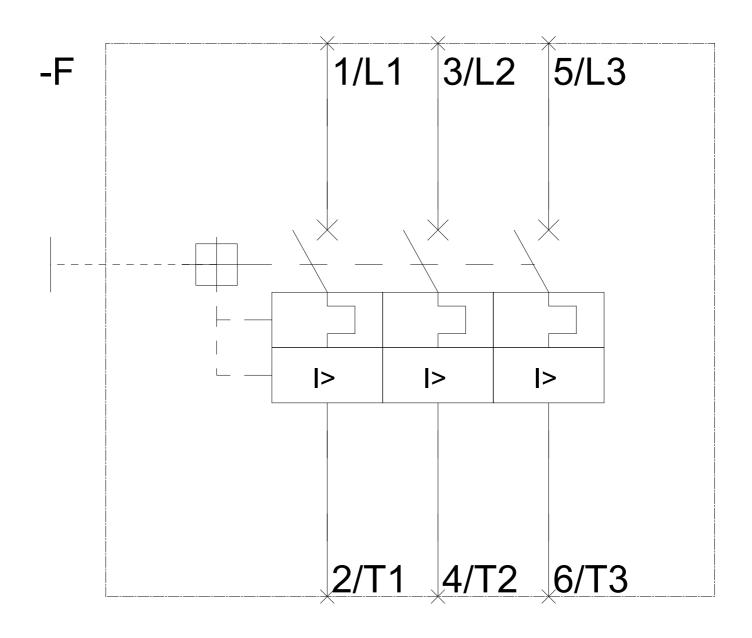
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