SIEMENS

Data sheet 3RV2021-1HA20



CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL. 5.5...8A, N-REL. 104A SPRING-L. CONNECTION, STANDARD SW. CAPACITY

Figure similar

product brand name	SIRIUS
Product designation	3RV2 circuit breaker

General technical data:			
Active power loss total typical	W	7	
Insulation voltage			
 with degree of pollution 3 Rated value 	V	690	
Shock resistance			
• acc. to IEC 60068-2-27		25g / 11 ms	
Surge voltage resistance Rated value	kV	6	
Mechanical service life (switching cycles)			
 of the main contacts typical 		100 000	
 of the auxiliary contacts typical 		100 000	
Electrical endurance (switching cycles)			
• typical		100 000	
Temperature compensation	°C	-20 +60	
Size of contactor can be combined company-specific		S00	
Protection class IP			
• on the front		IP20	
of the terminal		IP20	
Type of protection		Increased safety	
Equipment marking			
● acc. to DIN EN 81346-2		Q	

Main circuit:		
Number of poles for main current circuit	3	

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Adjustable response value current of the current- dependent overload release	Α	5.5 8
Operating voltage		
Rated value	V	690
at AC-3 Rated value maximum	V	690
Operating frequency Rated value	Hz	50 60
Operating current Rated value	A	8
Operating current		
● at AC-3		
— at 400 V Rated value	Α	8
Operating power		
● at AC-3		
— at 230 V Rated value	W	1 500
— at 400 V Rated value	W	3 000
— at 500 V Rated value	W	4 000
— at 690 V Rated value	W	5 500
Operating frequency		
• at AC-3 maximum	1/h	15
Auxiliary circuit: Number of NC contacts		
• for auxiliary contacts		0
Number of NO contacts		ŭ
• for auxiliary contacts		0
Number of CO contacts		
• for auxiliary contacts		0
Product expansion Auxiliary switch		Yes
Protective and monitoring functions:		CLACC 40
Trip class		CLASS 10
Design of the overload circuit breaker Operational short-circuit current breaking capacity		thermal
(Ics) with AC		
• at 240 V Rated value	kA	100
• at 400 V Rated value	kA	42
at 500 V Rated value	kA	42
• at 690 V Rated value	kA	4
Maximum short-circuit current breaking capacity (Icu)		
• with AC at 240 V Rated value	kA	100
with AC at 400 V Rated value	kA	100
with AC at 500 V Rated value	kA	42
with AC at 690 V Rated value	kA	6
Breaking capacity short-circuit current (Icn)		
• with 1 current path for DC at 150 V Rated value	kA	10
I can one pater for Bo at 100 v reated value		

 with 2 current paths in series for DC at 300 V Rated value 	kA	10
 with 3 current paths in series for DC at 450 V Rated value 	kA	10
Response value current of the instantaneous short- circuit release	Α	104
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
● at 480 V Rated value	Α	8
• at 600 V Rated value	Α	8
yielded mechanical performance [hp]		
 for single-phase AC motor at 110/120 V Rated value 	metric hp	0.333
 for single-phase AC motor at 230 V Rated value 	metric hp	1
 for three-phase AC motor at 200/208 V Rated value 	metric hp	2
 for three-phase AC motor at 220/230 V Rated value 	metric hp	2
 for three-phase AC motor at 460/480 V Rated value 	metric hp	5
 for three-phase AC motor at 575/600 V Rated value 	metric hp	5
Short-circuit:	_	
Product function Short circuit protection		Yes
Design of the short-circuit trip		magnetic
In stallation / manustical discountings		
Installation/ mounting/ dimensions: mounting position		any
Mounting type		screw and snap-on mounting onto 35 mm standard
Mountaing type		mounting rail according to DIN EN 60715
Height	mm	109
Width	mm	45
Depth	mm	96
Required spacing		
• with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— at the side	mm	0
• for grounded parts		
— forwards	mm	0

— Backwards	mm	0
— upwards	mm	50
— at the side	mm	30
— downwards	mm	50
• for live parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— at the side	mm	30
onnections/ Terminals:		
ype of electrical connection		

Connections/ Terminals:	
Type of electrical connection	
• for main current circuit	spring-loaded terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Product function	
 removable terminal for auxiliary and control circuit 	No
Type of connectable conductor cross-section	
• for main contacts	
— single or multi-stranded	2x (1 10 mm²)
 finely stranded with core end processing 	2x (1 6 mm²)
 finely stranded without core end processing 	2x (1 6 mm²)
 for AWG conductors for main contacts 	2x (18 8)
Design of screwdriver shaft	Diameter 5 to 6 mm

Safety related data:			
B10 value with high demand rate acc. to SN 31920		50 000	
Proportion of dangerous failures			
 with low demand rate acc. to SN 31920 	%	40	
 with high demand rate acc. to SN 31920 	%	40	
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	50	
T1 value for proof test interval or service life acc. to IEC 61508	У	10	
Protection against electrical shock		finger-safe	

Mechanical data:		
Size of the circuit-breaker	S0	

Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		

Ambient temperature		
 during operation 	°C	-20 + 60
during storage	°C	-50 + 80
 during transport 	°C	-50 + 80
Relative humidity during operation	%	10 95

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Display version

• for switching status Handle

Certificates/ approvals:

General Product Approval

Declaration of Conformity

Test Certificates











Type Test
Certificates/Test
Report

Test Certificates

Shipping Approval

Special Test Certificate Declaration of the Compliance with the order









 GL

Shipping Approval



LRS







other

Environmental Confirmations

Confirmation

other



other

Further information

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

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

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20211HA20

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

http://support.automation.siemens.com/WW/view/en/3RV20211HA20/all





