SIEMENS

Data sheet 3RV2021-1CA10



CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL.1.8...2.5A, N-REL.33A SCREW CONNECTION, STANDARD SW. CAPACITY

Figure similar

product brand name	SIRIUS
Product designation	3RV2 circuit breaker

General technical data:		
Active power loss total typical	W	6
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		S2
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

Adirectable management of the comment	Δ.	40.05
Adjustable response value current of the current- dependent overload release	Α	1.8 2.5
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	2.5
Operating current		
• at AC-3		
— at 400 V Rated value	Α	2.5
Operating power		
• at AC-3		
— at 230 V Rated value	W	370
— at 400 V Rated value	W	750
— at 500 V Rated value	W	1 100
— at 690 V Rated value	W	1 500
Operating frequency		
• at AC-3 maximum	1/h	15
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
Product expansion Auxiliary switch		Yes
Protective and monitoring functions:		
Trip class		CLASS 10
Design of the overload circuit breaker		thermal
Operational short-circuit current breaking capacity		
(Ics) with AC	kA	100
at 240 V Rated valueat 400 V Rated value	kA	100
	kA kA	100
at 500 V Rated valueat 690 V Rated value	kA kA	10
Maximum short-circuit current breaking capacity (Icu)	N/A	10
with AC at 240 V Rated value	kA	100
with AC at 400 V Rated value with AC at 400 V Rated value	kA	100
	kA	100
with AC at 500 V Rated value with AC at 600 V Rated value	kA kA	10
with AC at 690 V Rated value Brooking congeity short circuit current (lon)	KA	10
Breaking capacity short-circuit current (Icn)	kA	10
 with 1 current path for DC at 150 V Rated value 	N/N	10

 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	33
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
● at 480 V Rated value	Α	2.5
• at 600 V Rated value	Α	2.5
yielded mechanical performance [hp]		
 for single-phase AC motor at 230 V Rated value 	metric hp	0.167
 for three-phase AC motor at 200/208 V Rated value 	metric hp	0.5
 for three-phase AC motor at 220/230 V Rated value 	metric hp	0.5
 for three-phase AC motor at 460/480 V Rated value 	metric hp	1
• for three-phase AC motor at 575/600 V Rated	metric	1.5
value	hp	
Chart sineit.		
Short-circuit:		
Product function Short circuit protection		Yes
		Yes magnetic
Product function Short circuit protection		
Product function Short circuit protection Design of the short-circuit trip		
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions:		magnetic
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height	mm	any screw and snap-on mounting onto 35 mm standard
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width	mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth		any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth Required spacing	mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth Required spacing • with side-by-side mounting	mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45 96
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth Required spacing	mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45 96
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth Required spacing • with side-by-side mounting	mm mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45 96
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards	mm mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45 96
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards	mm mm mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45 96
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards	mm mm mm mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45 96
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards	mm mm mm mm mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45 96
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side	mm mm mm mm mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45 96
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions: mounting position Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts	mm mm mm mm mm mm	any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 45 96 0 0 50 50 0

— 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

Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		screw-type 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 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 conductors for main contacts 		2x (16 12), 2x (14 8)
Tightening torque		
 for main contacts with screw-type terminals 	N·m	2 2.5
Design of screwdriver shaft		Diameter 5 to 6 mm
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		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

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











Declaration of the Compliance with the order

Test Certificates

Shipping Approval

Special Test Certificate Type Test
Certificates/Test
Report









 GL

Shipping Approval



LRS







other

Confirmation

Environmental Confirmations

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=3RV20211CA10

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

http://support.automation.siemens.com/WW/view/en/3RV20211CA10/all



