SIEMENS

Data sheet 3RV2321-1EC20



CIRCUIT-BREAKER SZ S0, FOR STARTER COMBINATION, RATED CURRENT 4A, N-REL. 52A 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	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
Protection class IP		
• on the front		IP20
of the terminal		IP20
Equipment marking		
• acc. to DIN EN 81346-2		Q

Main circuit:		
Number of poles for main current circuit		3
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	Α	4
Operating current		
• at AC-3		
— at 400 V Rated value	Α	4
Operating power		
• at AC-3		
— at 230 V Rated value	W	750
— at 400 V Rated value	W	1 500
— at 500 V Rated value	W	2 200
— at 690 V Rated value	W	3 000
Operating frequency		
• at AC-3 maximum	1/h	15
uxiliary 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:		
Operational short-circuit current breaking capacity		
(Ics) with AC	1.14	400
at 240 V Rated value	kA	100
• at 400 V Rated value	kA	100
● at 500 V Rated value	kA	100
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	100
• 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
 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-	Α	52

UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
● at 480 V Rated value	Α	4
● at 600 V Rated value	Α	4
yielded mechanical performance [hp]		
 for single-phase AC motor at 110/120 V Rated value 	metric hp	0.125
 for single-phase AC motor at 230 V Rated value 	metric hp	0.333
 for three-phase AC motor at 200/208 V Rated value 	metric hp	0.75
 for three-phase AC motor at 220/230 V Rated value 	metric hp	0.75
 for three-phase AC motor at 460/480 V Rated value 	metric hp	2
• for three-phase AC motor at 575/600 V Rated value	metric hp	3
Short-circuit:		
Product function Short circuit protection		Yes
Design of the short-circuit trip		magnetic
Installation/ mounting/ dimensions:		
mounting position		any
Mounting type		any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
	mm	screw and snap-on mounting onto 35 mm standard
Mounting type	mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Mounting type Height		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Mounting type Height Width	mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45
Mounting type Height Width Depth	mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45
Mounting type Height Width Depth Required spacing	mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45
Mounting type Height Width Depth Required spacing • with side-by-side mounting	mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards	mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards	mm mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards	mm mm mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96 0 0 50
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards	mm mm mm mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96 0 0 50 50
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side	mm mm mm mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96 0 0 50 50
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	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96 0 0 50 50 0
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts — forwards — Backwards — Backwards	mm mm mm mm mm mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96 0 0 0 50 50 0
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts — forwards — Backwards — upwards — upwards	mm mm mm mm mm mm mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96 0 0 0 0 0 0 0
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts — forwards — Backwards — at the side • at the side • at the side • at the side • at the side — at the side	mm mm mm mm mm mm mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96 0 0 0 0 0 50 50 50
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts — forwards — Backwards — at the side • at the side — downwards — at the side — downwards	mm mm mm mm mm mm mm mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96 0 0 0 0 50 50 30
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts — forwards — Backwards — at the side • at the side • at the side • at the side • at the side — at the side	mm mm mm mm mm mm mm mm mm	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 109 45 96 0 0 0 0 50 50 30

— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— at the side	mm	30
octions/ Torminals:		

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		

111	2 000
°C	-20 + 60
°C	-50 + 80
°C	-50 + 80
%	10 95
	°C °C

Display:

Display version

• for switching status

Handle

Certificates/ approvals:

General Product Approval

Declaration of Conformity

Test Certificates





FA



Declaration of the Compliance with the order

Test Certificates

Shipping Approval

Type Test
Certificates/Test
Report

Special Test Certificate









GL

Shipping Approval











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

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV23211EC20}\\$

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

http://support.automation.siemens.com/WW/view/en/3RV23211EC20/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV23211EC20&lang=en





