## **SIEMENS**

Data sheet 3RV2321-4EC20



CIRCUIT-BREAKER SZ S0, FOR STARTER COMBINATION, RATED CURRENT 32A, N-RELEASE 400A, SPRING-L. CONNECTION, STANDARD SW. CAPACITY

product brand name	SIRIUS
Product designation	3RV2 circuit breaker

General technical data:			
Active power loss total typical	W	11	
Insulation voltage			
<ul> <li>with degree of pollution 3 Rated value</li> </ul>	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)			
<ul> <li>of the main contacts typical</li> </ul>		100 000	
<ul> <li>of the auxiliary contacts typical</li> </ul>		100 000	
Electrical endurance (switching cycles)			
• typical		100 000	
Protection class IP			
• on the front		IP20	
<ul> <li>of the terminal</li> </ul>		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	32
Operating current		
• at AC-3		
— at 400 V Rated value	Α	32
Operating power		
• at AC-3		
— at 230 V Rated value	W	7 500
— at 400 V Rated value	W	15 000
— at 500 V Rated value	W	18 500
— at 690 V Rated value	W	30 000
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:		
Operational short-circuit current breaking capacity (Ics) with AC		
at 240 V Rated value	kA	100
at 400 V Rated value	kA	25
at 500 V Rated value     at 500 V Rated value	kA	5
at 690 V Rated value	kA	2
Maximum short-circuit current breaking capacity (Icu)		-
• with AC at 240 V Rated value	kA	100
with AC at 400 V Rated value	kA	55
with AC at 500 V Rated value	kA	10
	kA	4
• with AC at 690 V Rated value	kA	4
with AC at 690 V Rated value  Breaking capacity short-circuit current (Icn)		
<ul> <li>with AC at 690 V Rated value</li> <li>Breaking capacity short-circuit current (Icn)</li> <li>with 1 current path for DC at 150 V Rated value</li> </ul>	kA	10
with AC at 690 V Rated value  Breaking capacity short-circuit current (Icn)		
<ul> <li>with AC at 690 V Rated value</li> <li>Breaking capacity short-circuit current (Icn)</li> <li>with 1 current path for DC at 150 V Rated value</li> <li>with 2 current paths in series for DC at 300 V</li> </ul>	kA	10
<ul> <li>with AC at 690 V Rated value</li> <li>Breaking capacity short-circuit current (Icn)</li> <li>with 1 current path for DC at 150 V Rated value</li> <li>with 2 current paths in series for DC at 300 V Rated value</li> </ul>	kA kA	10 10

UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
● at 480 V Rated value	Α	32
● at 600 V Rated value	Α	32
yielded mechanical performance [hp]		
<ul> <li>for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	2
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	5
<ul> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>	metric hp	7.5
<ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>	metric hp	10
• for three-phase AC motor at 460/480 V Rated value	metric hp	20
Short-circuit:		
Product function Short circuit protection		Yes
Design of the short-circuit trip		magnetic
Design of the fuse link for IT network for short-circuit protection of the main circuit		
● at 400 V		gL/gG 63 A
● at 500 V		gL/gG 63 A
● at 690 V		gL/gG 63 A
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	mm	119
Width	mm	45
Depth	mm	96
Required spacing		
<ul><li>with side-by-side mounting</li></ul>		
— 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

30

mm

— 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	spring-loaded terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Product function	
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>	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)
<ul> <li>finely stranded without core end processing</li> </ul>	2x (1 6 mm²)
<ul> <li>for AWG conductors for main contacts</li> </ul>	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		
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	%	40
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	%	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			
<ul> <li>during operation</li> </ul>	°C	-20 <b>+</b> 60	
during storage	°C	-50 <b>+</b> 80	

°C -50 ... +80 · during transport Relative humidity during operation % 10 ... 95

Display:

Display version

Handle • for switching status

Certificates/ approvals:

**General Product Approval** 

**Declaration of** Conformity

**Test Certificates** 









Type Test Certificates/Test Report

**Special Test** Certificate

**Test** 

**Shipping Approval** Certificates

Declaration of the Compliance with the order











**Shipping Approval** 

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

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

http://support.automation.siemens.com/WW/view/en/3RV23214EC20/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=3RV23214EC20&lang=en





