## **SIEMENS**

Data sheet 3RV2321-1FC10



CIRCUIT-BREAKER SZ S0, FOR STARTER COMBINATION, RATED CURRENT 5A, N-REL. 65A 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			
<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	
• 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
<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	690

	_	
Operating frequency Rated value	Hz	50 60
Operating current Rated value	Α	5
Operating current		
• at AC-3		
— at 400 V Rated value	Α	5
Operating power		
• at AC-3		
— at 230 V Rated value	W	1 100
— at 400 V Rated value	W	2 200
— at 500 V Rated value	W	2 200
— at 690 V Rated value	W	4 000
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	100
at 500 V Rated value     at 500 V Rated value	kA	100
at 690 V Rated value     at 690 V Rated value	kA	4
Maximum short-circuit current breaking capacity (Icu)	- NA	7
with AC at 240 V Rated value	kA	100
with AC at 400 V Rated value	kA	100
with AC at 400 V Rated value      with AC at 500 V Rated value	kA	100
with AC at 690 V Rated value	kA	6
Breaking capacity short-circuit current (Icn)	IV t	Ŭ
• with 1 current path for DC at 150 V Rated value	kA	10
·	kA	10
<ul> <li>with 2 current paths in series for DC at 300 V</li> <li>Rated value</li> </ul>	NΛ	
<ul> <li>with 3 current paths in series for DC at 450 V</li> <li>Rated value</li> </ul>	kA	10
Response value current of the instantaneous short-	A	65

JL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	Α	5
• at 600 V Rated value	Α	5
yielded mechanical performance [hp]		
<ul> <li>for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	0.167
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	0.5
<ul> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>	metric hp	1
<ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>	metric hp	1
• for three-phase AC motor at 460/480 V Rated value	metric hp	3
• 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
nstallation/ mounting/ dimensions: mounting position		any
Mounting type		screw and snap-on mounting onto 35 mm standard
mounting type		mounting rail according to DIN EN 60715
Loight		
Height	mm	97
Width	mm	97 45
	_	
Width	mm	45
Width Depth	mm	45
Width Depth Required spacing	mm	45
Width Depth Required spacing  • with side-by-side mounting	mm mm	45 96
Width  Depth  Required spacing  • with side-by-side mounting — forwards	mm mm	45 96 0
Width Depth Required spacing  • with side-by-side mounting — forwards — Backwards	mm mm mm	45 96 0 0
Width Depth Required spacing  • with side-by-side mounting  — forwards  — Backwards  — upwards	mm mm mm mm	45 96 0 0 50
Width  Depth  Required spacing  • with side-by-side mounting  — forwards  — Backwards  — upwards  — downwards	mm mm mm mm mm	45 96 0 0 50 50
Width  Depth  Required spacing  • with side-by-side mounting  — forwards  — Backwards  — upwards  — downwards  — at the side	mm mm mm mm mm	45 96 0 0 50 50
Width  Depth  Required spacing  • with side-by-side mounting  — forwards  — Backwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards	mm mm mm mm mm mm	45 96 0 0 50 50 0
Width  Depth  Required spacing  • with side-by-side mounting  — forwards  — Backwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards  — Backwards	mm mm mm mm mm mm mm	45 96 0 0 0 50 50 0
Width  Depth  Required spacing  • with side-by-side mounting  — forwards  — Backwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards  — Backwards  — upwards	mm mm mm mm mm mm mm mm	45 96 0 0 50 50 0 0 0 50
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	mm mm mm mm mm mm mm mm mm	45 96 0 0 50 50 0 0 0 50 30
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	mm mm mm mm mm mm mm mm	45 96 0 0 50 50 0 0 0 50
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	mm mm mm mm mm mm mm mm mm	45 96 0 0 50 50 0 0 0 50 30

— 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		Top and bottom
circuit		
Product function		
<ul> <li>removable terminal for auxiliary and control</li> </ul>		No
circuit		
Type of connectable conductor cross-section		
• for main contacts		
<ul> <li>single or multi-stranded</li> </ul>		2x (1 2,5 mm²), 2x (2,5 10 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
<ul> <li>for AWG conductors for main contacts</li> </ul>		2x (16 12), 2x (14 8)
Tightening torque		
<ul> <li>for main contacts with screw-type terminals</li> </ul>	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		
<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	
during transport	°C	-50 <b>+</b> 80	

Relative humidity during operation

%

10 ... 95

Display:

Display version

• for switching status

Handle

Certificates/ approvals:

**General Product Approval** 

**Declaration of** Conformity

**Test** Certificates





**KTL** 





**Special Test** Certificate

**Test Certificates** 

**Shipping Approval** 

Declaration of the Compliance with the order

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=3RV23211FC10

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

http://support.automation.siemens.com/WW/view/en/3RV23211FC10/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=3RV23211FC10&lang=en



