# **SIEMENS**

Product data sheet 3RV2021-4BA10



CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 14...20A, N-RELEASE 260A, SCREW CONNECTION, STANDARD SW. CAPACITY,

General technical data:			
product brand name		SIRIUS	
product designation		3RV2 circuit breaker	
Size of the circuit-breaker		S0	
Trip class		CLASS 10	
Protection class IP / on the front		IP20	
Degree of pollution		3	
Installation altitude / at a height over sea level / maximum	m	2,000	
Ambient temperature			
during storage	°C	-50 +80	
during operating	°C	-20 +60	
during transport	°C	-50 +80	
Resistance against shock		25g / 11 ms	
Impulse voltage resistance / rated value	kV	6	
Insulation voltage / rated value	V	690	
Active power loss / total / typical	W	9.6	
Item designation			
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		F	
according to DIN EN 61346-2		F	

Mechanical operating cycles as operating time		
of the main contacts / typical		100,000
of the auxiliary contacts / typical		100,000
Type of the driving mechanism / motor drive		No
Design of the operating mechanism		selector switch
Product function		
overload protection		Yes
phase disturbance recognition		Yes
Product component		
auxiliary switch		No
undervoltage release mechanism		No
• trip indicator		No
Product extension / optional / motor drive		No
Main circuit:		
Number of poles / for main current circuit		3
Operating voltage / at AC-3 / rated value / maximum	V	690
Operating current / at AC-3 / at 400 V / rated value	A	15.5
Service power / at AC-3		
• at 400 V / rated value	W	7,500
• at 500 V / rated value	W	11,000
• at 690 V / rated value	W	15,000
Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum	1/h	15
Arrangement of electrical connectors / for main current circuit		Top and bottom
Adjustable response current		
of the non-delayed short-circuit release	Α	260 260
of the current-dependent overload release	Α	14 20
Service power / at AC-3 / at 230 V / rated value	W	5,500
Continuous current / rated value	Α	20
Auxiliary circuit:		
Product extension / auxiliary switch		Yes
Number of NC contacts / for auxiliary contacts / instantaneous switching		0
Number of NO contacts / for auxiliary contacts / instantaneous switching		0
Number of change-over switches / for auxiliary contacts		0
Inputs/ Outputs:		
Number of digital inputs		0

Short-circuit:		
Breaking capacity limit short-circuit current (lcu)		
• at 400 V / rated value	Α	55,000
• at 500 V / rated value	Α	10,000
• at 690 V / rated value	Α	4,000
Design of the overcurrent release and short-circuit release		thermomagnetic

Installation/mounting/dimensions:			
Built in orientation		any	
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715	
Width	mm	45	
Height	mm	97	
Depth	mm	91	
Distance, to be maintained, to the ranks assembly			
• forwards	mm	0	
• backwards	mm	0	
• upwards	mm	50	
• downwards	mm	50	
• sidewards	mm	0	
Distance, to be maintained, to earthed part			
• forwards	mm	0	
• backwards	mm	0	
• upwards	mm	50	
• sidewards	mm	30	
• downwards	mm	50	
Distance, to be maintained, conductive elements			
• forwards	mm	0	
• backwards	mm	0	
• upwards	mm	50	
• downwards	mm	50	
• sidewards	mm	30	

Connections:			
Product function			
• removable terminal for main circuit	No		
• removable terminal for auxiliary and control circuit	No		
Design of the electrical connection			
for main current circuit	screw-type terminals		
Type of the connectable conductor cross-section			
• for main contacts			

• solid

• finely stranded

• with conductor end processing

• for AWG conductors / for main contacts

2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)

2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²

For use in hazardous locations

2x (16 ... 12), 2x (14 ... 8)

## Certificates/approvals:

Verification of suitability

• für Staubexplosionsschutz für Zone 21/22

• for gas explosion protection for zone 1/2

CE / UL / CSA

no

no

## **General Product Approval**











#### **Test Certificates**

other

Special Test Certificate Type Test
Certificates/Test
Report

## **Shipping Approval**





GL









other



Declaration of Conformity

other

## UL/CSA ratings

ob ook ratings			
yielded mechanical performance (hp)			
<ul> <li>for single-phase squirrel cage motors</li> </ul>			
• at 110/120 V / rated value	hp	1.5	
• at 230 V / rated value	hp	3	
<ul> <li>for three-phase squirrel cage motors</li> </ul>			
• at 200/208 V / rated value	hp	5	
• at 220/230 V / rated value	hp	5	
• at 460/480 V / rated value	hp	10	
Operating current (FLA) / for three-phase squirrel cage motors			
• at 480 V / rated value	Α	14	

B10 value / with high demand rate	
• according to SN 31920	50,000
T1 value / for proof test interval or service life	

according to IEC 61508	а	10
Failure rate (FIT value) / with low demand rate		
according to SN 31920	FIT	50
Proportion of dangerous failures		
• with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	40
Protection against electrical shock		finger-safe

## Further information:

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

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

#### Industry Mall (Online ordering system)

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

#### **CAx-Online-Generator**

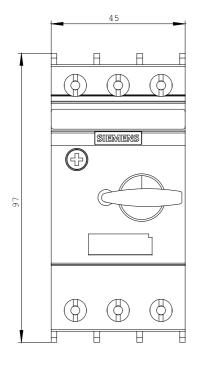
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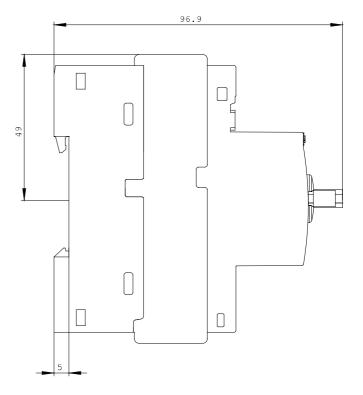
## Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RV2021-4BA10/all

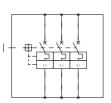
## Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RV2021-4BA10}$ 









last change: Mar 27, 2012