# SIEMENS

## **Product data sheet**

### 3RV2021-4EA15-ZX95



CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 27...32A, N-RELEASE 400A, SCREW CONNECTION, STANDARD SW. CAPACITY, W. TRANSVERSE AUX. SWITCH 1NO+1NC

General technical data:			
product brand name		SIRIUS	
product designation		3RV2 circuit breaker	
Size of the circuit-breaker		SO	
Number of poles / for main current circuit		3	
Product function			
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>		No	
overload protection		Yes	
phase disturbance recognition		Yes	
short-circuit to earth recognition		No	
Product component			
auxiliary switch		Yes	
undervoltage release mechanism		No	
• trip indicator		No	
Product extension			
auxiliary switch		Yes	
optional / motor drive		No	
Impulse voltage resistance / rated value	kV	6	
Protection class IP / on the front		IP20	
Protection against electrical shock		finger-safe	

International and the height over sea for an international internation and the height over sea for an international internation and the height over sea for an international internation and the height over sea for an international internatio	Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature       "C       -50 +80         • during storage       "C       -50 +80         • during operating       "C       -50 +80         • during operating       "C       -20 +60         Active power loss / total / typical       W       12.2         Main circuit:       Service power / at AC-3       V       15,000         • at 400 V / rated value       W       15,000       • at 600 V / rated value         • at 500 V / rated value       W       30,000       00         Operational current / at AC-3 / at 400 V / rated value       A       32         Mechanical operating cycles as operating time / of the main contacts / typical       100,000       100,000         Frequency of oparation / at AC-3 / according to IEC 60947-6-2       1/h       15         Auxiliary circuit:       0       100,000       100,000         Auxiliary circuit:       0       100,000       100,000         Design of the auxiliary switch       transverse       0       100,000         Number of change-over switches / for auxiliary contacts       0       0       100,000         Design of the fuse link / for short-circuit protection of the auxiliary contacts / typical       0       100,000       100,000       100,000       100,000	-		
• during transport°C-50 +80• during operating°C-50 +80• during operating°C-20 +60Active power loss / total / typicalW12.2Main circuit:V15,000Service power / at AC-3W15,000• at 400 V / rated valueW18,500• at 600 V / rated valueW30,000Operational current / at AC-3 / at 400 V / rated valueA32Mechanical operating types as operating time / of the main contacts / typical100,000Frequency of operation / at AC-3 / according to IEC 60947-6-21/h15Auxiliary circuit:V10,000Design of the auxiliary switchIransverseNumber of change-over switches / for auxiliary contacts0Mechanical operating cycles as operating time / of the auxiliary contacts / typical100,000Design of the fuse link / for short-circuit protection of the auxiliary switch / required2Operating current / of the suiliary contacts / at AC-15 / at 24 VAOperating current / of the auxiliary contactsA• at 200 VA• at 200 VA• at 200 VA• at 200 VA	-	_	25g7 11 ms
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Active power loss / total / typicalC-20 +60Active power loss / total / typicalW12.2Main circuit:V12.2Service power / at AC-3V15,000• at 400 V / rated valueW15,000• at 600 V / rated valueW30,000Operational current / at AC-3 / at 400 V / rated valueA32Main circuit:I100,000Operational current / at AC-3 / according to IEC 60947-6-21/h15Prequency of operation / at AC-3 / according to IEC 60947-6-21/h15Number of change-over switches / for auxiliary contacts0Number of change-over switches / for auxiliary contacts0Design of the auxiliary switchIIDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredA2Operating current / of the auxiliary contacts / typicalC3Operating current / of the auxiliary contacts / typical0Design of the auxiliary switchIIDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredA2Operating current / of the auxiliary contacts / ta AC-15 / at 24 VA2Operating current / of the auxiliary contactsA2· at AC-15 • at 230 VA0.5		-	
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Main circuit:         Service power / at AC-3       V         • at 400 V / rated value       W         • at 500 V / rated value       W         • at 500 V / rated value       W         • at 690 V / rated value       W         Operational current / at AC-3 / at 400 V / rated value       A         Active power / at AC-3 / at 400 V / rated value       A         Mechanical operating cycles as operating time / of the main contacts / typical       100,000         Frequency of operation / at AC-3 / according to IEC 60947-6-2       1/h       15         Auxiliary circuit:       V       Innuber of change-over switches / for auxiliary contacts       0         Number of change-over switches / for auxiliary contacts       0       0         Mechanical operating cycles as operating time / of the auxiliary contacts / typical       100,000       0         Design of the fuse link / for short-circuit protection of the auxiliary switch / required       A       2         Operating current / of the auxiliary contacts / at AC-15 / at 24 V       A       2         Operating current / of the auxiliary contacts       A       2         Operating current / of the auxiliary c		-	
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• at 400 V / rated valueW15,000• at 500 V / rated valueW18,500• at 690 V / rated valueW30,000Operational current / at AC-3 / at 400 V / rated valueA32Mechanical operating cycles as operating time / of the main contacts / typical100,000Frequency of operation / at AC-3 / according to IEC 60947-6-21/h15Auxiliary circuit:Image: Comparison of the auxiliary switch0Number of change-over switches / for auxiliary contacts00Mechanical operating cycles as operating time / of the auxiliary contacts / typical100,000Design of the auxiliary switchImage: Comparison of the auxiliary switch0Number of change-over switches / for auxiliary contacts0Image: Comparison of the auxiliary switchDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredA2Operating current / of the auxiliary contacts / at AC-15 / at 24 VA2Operating current / of the auxiliary contactsA0.5• at AC-15 • at 200 VA0.5	Main circuit:		
• at 500 V / rated valueW18,500• at 690 V / rated valueW30,000Operational current / at AC-3 / at 400 V / rated valueA32Mechanical operating cycles as operating time / of the main contacts / typical100,000Frequency of operation / at AC-3 / according to IEC 60947-6-21/h15VAuxiliary circuit:Design of the auxiliary switchtransverseNumber of change-over switches / for auxiliary contacts00Mechanical operating cycles as operating time / of the auxiliary contacts / typical00Design of the auxiliary switchfor auxiliary contacts0Number of change-over switches / for auxiliary contacts00Design of the fuse link / for short-circuit protection of the auxiliary switch / requiredFuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current Ik < 400 A)Operating current / of the auxiliary contacts / at AC-15 / at 24 VA2• at 230 V • at 230 V • at DC-13A0.5	Service power / at AC-3		
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Operational current / at AC-3 / at 400 V / rated valueA32Mechanical operating cycles as operating time / of the main contacts / typical100,000Frequency of operation / at AC-3 / according to IEC 60947-6-21/h15Auxiliary circuit:Design of the auxiliary switchtransverseNumber of change-over switches / for auxiliary contacts0Mechanical operating cycles as operating time / of the auxiliary contacts / typical0Design of the fuse link / for short-circuit protection of the auxiliary switch / required0Design of the fuse link / for short-circuit protection of the auxiliary switch / required0Operating current / of the auxiliary contacts / at AC-15 • at 230 VA2Operating Current / of the auxiliary contactsA2	• at 500 V / rated value	W	18,500
Mechanical operating cycles as operating time / of the main contacts / typical100,000Frequency of operation / at AC-3 / according to IEC 60947-6-21/h15Auxiliary circuit:transverseDesign of the auxiliary switchtransverseNumber of change-over switches / for auxiliary contacts0Mechanical operating cycles as operating time / of the auxiliary contacts / typical100,000Design of the fuse link / for short-circuit protection of the auxiliary switch / required100,000Operating current / of the auxiliary contacts / at AC-15 / at 24 VA2Operating current / of the auxiliary contactsA0.5• at AC-15 • at 230 VA0.5	• at 690 V / rated value	W	30,000
contacts / typicalImage: contacts / typicalFrequency of operation / at AC-3 / according to IEC 60947-6-21/h15Auxiliary circuit:Auxiliary circuit:Design of the auxiliary switchtransverseNumber of change-over switches / for auxiliary contacts00Mechanical operating cycles as operating time / of the auxiliary contacts / typical100,000100,000Design of the fuse link / for short-circuit protection of the auxiliary switch / requiredFuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current lk < 400 A)Operating current / of the auxiliary contactsA2Operating current / of the auxiliary contactsA0.5• at AC-15 • at 230 V • at DC-13A0.5	Operational current / at AC-3 / at 400 V / rated value	А	32
Auxiliary circuit:Design of the auxiliary switchtransverseNumber of change-over switches / for auxiliary contacts0Mechanical operating cycles as operating time / of the auxiliary contacts / typical100,000Design of the fuse link / for short-circuit protection of the auxiliary switch / requiredFuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current lk < 400 A)Operating current / of the auxiliary contactsA2Operating current / of the auxiliary contactsA0.5• at AC-15 • at 230 V • at DC-13A0.5			100,000
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auxiliary switch / required(short-circuit current lk < 400 A)		_	100,000
Operating current / of the auxiliary contacts     • at AC-15       • at 230 V     A       • at DC-13     O.5		_	
• at AC-15 • at 230 V A 0.5 • at DC-13	Operating current / of the auxiliary contacts / at AC-15 / at 24 V	А	2
• at 230 V A 0.5 • at DC-13	Operating current / of the auxiliary contacts	_	
• at DC-13	• at AC-15		
	• at 230 V	А	0.5
• at 24 V A 1	• at DC-13		
	• at 24 V	А	1
• at 60 V A 0.15	• at 60 V	А	0.15
Protection function:	Protection function:		
Trip class CLASS 10	Trip class		CLASS 10
Adjustable response current / of the current-dependent     A     27 32       overload release     A     27 32		А	27 32
Breaking capacity limit short-circuit current (Icu)	Breaking capacity limit short-circuit current (lcu)		
• at 400 V / rated value A 55,000	• at 400 V / rated value	А	55,000
• at 500 V / rated value A 10,000	• at 500 V / rated value	А	10,000
• at 690 V / rated value A 4,000	• at 690 V / rated value	А	4,000
Safety:	Safety:		

Proportion of dangerous failures		
<ul> <li>with high demand rate / according to SN 31920</li> </ul>	%	40
<ul> <li>with low demand rate / according to SN 31920</li> </ul>	%	40
Failure rate (FIT value) / with low demand rate / according to SN 31920	FIT	50
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

		/
Installation	mounting	/dimensions:

Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
mounting position		any
Depth	mm	96
Height	mm	97
Width	mm	45

Connections:			
Arrangement of electrical connectors / for main current circuit		Top and bottom	
Design of the electrical connection			
for main current circuit		screw-type terminals	
<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals	
Type of the connectable conductor cross-section			
for main contacts			
• solid		2x (1 2.5 mm²), 2x (2.5 10 mm²)	
finely stranded			
<ul> <li>with conductor end processing</li> </ul>		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)	
for auxiliary contacts			
• solid		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
finely stranded			
<ul> <li>with conductor end processing</li> </ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
for AWG conductors / for auxiliary contacts		2x (20 16), 2x (18 14)	
UL/CSA ratings:			
yielded mechanical performance (hp)			
<ul> <li>for single-phase squirrel cage motors</li> </ul>			
• at 110/120 V / rated value	hp	2	
• at 230 V / rated value	hp	5	
<ul> <li>for three-phase squirrel cage motors</li> </ul>			
• at 200/208 V / rated value	hp	7.5	
• at 220/230 V / rated value	hp	10	

• at 460/480 V / rated value	hp	20
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	А	27
Contact rating designation / for auxiliary contacts / according to UL		C300 / R300

Certificates/approvals:						
For use in hazardous locations	Test Certificates		Shipping Approval	other		
$\langle \mathcal{F}_{\mathbf{x}} \rangle$	Special Test Certificate	Type Test Certificates/Test	ĴÅ	other		

Report

### Further information:

ATEX

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

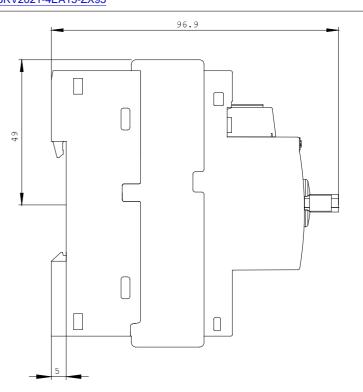
Industry Mall (Online ordering system) http://www.siemens.com/industrial-controls/mall

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Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RV2021-4EA15-ZX95/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RV2021-4EA15-ZX95



#### last change: