# SIEMENS

## **Product data sheet**

#### 3RV2011-1EA15-ZW97



CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 2.8...4A, N-RELEASE 52A, SCREW CONNECTION, STANDARD SW. CAPACITY, W. TRANSVERSE AUX. SWITCH 1NO+1NC MULTI-UNIT PACKAGE = 12 UNITS

General technical data:				
product brand name		SIRIUS		
product designation		3RV2 circuit breaker		
Size of the circuit-breaker		S00		
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		
<ul> <li>undervoltage release mechanism</li> </ul>		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		

Installation altitude / at a height over sea level / maximum   Resistance against shock   Ambient temperature   • during transport   • during storage   • during operating   Active power loss / total / typical   Main circuit:   Service power / at AC-3   • at 400 V / rated value   • at 500 V / rated value   • at 690 V / rated value	°C °C ℃ W W	25g / 11 ms -50 +80 -50 +80 -20 +60 6.3 1,500 2,200 3,000 4		
Ambient temperature         • during transport         • during storage         • during operating         Active power loss / total / typical         Main circuit:         Service power / at AC-3         • at 400 V / rated value         • at 500 V / rated value         • at 690 V / rated value	°C °C W W W W	-50 +80 -50 +80 -20 +60 6.3 1,500 2,200 3,000		
<ul> <li>during transport</li> <li>during storage</li> <li>during operating</li> </ul> Active power loss / total / typical           Main circuit:           Service power / at AC-3           at 400 V / rated value           at 500 V / rated value           at 690 V / rated value	°C °C W W W W	-50 +80 -20 +60 6.3 1,500 2,200 3,000		
<ul> <li>during storage</li> <li>during operating</li> <li>Active power loss / total / typical</li> <li>Main circuit:</li> <li>Service power / at AC-3         <ul> <li>at 400 V / rated value</li> <li>at 500 V / rated value</li> <li>at 690 V / rated value</li> </ul> </li> </ul>	°C ₩ ₩ ₩ ₩	-20 +60 6.3 1,500 2,200 3,000		
<ul> <li>during operating</li> <li>Active power loss / total / typical</li> <li>Main circuit:</li> <li>Service power / at AC-3 <ul> <li>at 400 V / rated value</li> <li>at 500 V / rated value</li> <li>at 690 V / rated value</li> </ul> </li> </ul>	W W W W	6.3 1,500 2,200 3,000		
Active power loss / total / typical Main circuit: Service power / at AC-3 • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value	W W W	1,500 2,200 3,000		
Main circuit:         Service power / at AC-3         • at 400 V / rated value         • at 500 V / rated value         • at 690 V / rated value	W W	2,200 3,000		
Service power / at AC-3 • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value	W W	2,200 3,000		
<ul> <li>at 400 V / rated value</li> <li>at 500 V / rated value</li> <li>at 690 V / rated value</li> </ul>	W W	2,200 3,000		
<ul> <li>at 500 V / rated value</li> <li>at 690 V / rated value</li> </ul>	W W	2,200 3,000		
• at 690 V / rated value	W	3,000		
	A	4		
Operational current / at AC-3 / at 400 V / rated value				
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:				
Design of the auxiliary switch		transverse		
Number of change-over switches / for auxiliary contacts		0		
Mechanical operating cycles as operating time / of the auxiliary contacts / typical		100,000		
Design of the fuse link / for short-circuit protection of the auxiliary switch / required		Fuse 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 V	А	2		
Operating current / of the auxiliary contacts				
• at AC-15				
• at 230 V	А	0.5		
• at DC-13				
• at 24 V	А	1		
• at 60 V	А	0.15		
Protection function:				
Trip class		CLASS 10		
Adjustable response current / of the current-dependent overload release	A	2.8 4		
Breaking capacity limit short-circuit current (Icu)				
• at 400 V / rated value	А	100,000		
• at 500 V / rated value	A	100,000		
• at 690 V / rated value	А	6,000		
Safety:				

Proportion of dangerous failures		
with high demand rate / according to SN 31920	%	40
• with low demand rate / according to SN 31920	%	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

In stall stick		
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

Arrangement of electrical connectors / for main current circuit       Top and bottom         Design of the electrical connection       screw-type terminals         • for main current circuit       screw-type terminals         • for main contracts       screw-type terminals         • for main contacts       2x (0.75 2.5 mm <sup>3</sup> ), 2x 4 mm <sup>2</sup> • for main contacts       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> )         • for AWG conductor of processing       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> )         • for AWG conductors / for main contacts       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> )         • for AWG conductors / for main contacts       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> )         • for AWG conductors / for auxiliary contacts       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> )         • for auxiliary contacts       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> )         • for AWG conductors / for auxiliary contacts       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> )         • with conductor end processing       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> )         • for AWG conductors / for auxiliary contacts       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> )         • for AWG conductors / for auxiliary contacts       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> )         • for AWG conductors / for auxiliary contacts       0 10.5         • for Single-phase squirrel cage motors	Connections:			
• for main current circuitscrew-type terminals• for auxiliary and control current circuitscrew-type terminals <b>Type of the connectable conductor cross-section</b> screw-type terminals• for main contactssolid• solid2x (0.75 2.5 mm²), 2x 4 mm²• finely stranded2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• with conductor end processing2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for AWG conductors / for main contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for AWG conductors / for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for AWG conductors / for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for single-phase squirrel cage motors2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for single-phase squirrel cage motors-• at 110/120 V / rated valuehp• for three-phase squirrel cage motors-• at 200/208 V / rated valuehp• at 200/208 V / rated valuehp	Arrangement of electrical connectors / for main current circuit		Top and bottom	
• for auxiliary and control current circuitscrew-type terminalsType of the connectable conductor cross-sectionscrew-type terminals• for main contactssolid• solid2x (0.75 2.5 mm²), 2x 4 mm²• finely stranded2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• with conductor end processing2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for AWG conductors / for main contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• solid2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• finely stranded2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• with conductor end processing2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for AWG conductors / for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for AWG conductors / for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for single-phase squirrel cage motors2x (0.5 1.6 m²), 2x (0.75 2.5 mm²)• for single-phase squirrel cage motors9• at 110/120 V / rated valuehp• at 230 V / rated valuehp• at 230 V / rated valuehp• at 200/208 V / rated valuehp	Design of the electrical connection	-		
Type of the connectable conductor cross-section       ifor main contacts         • for main contacts       • solid         • solid       2x (0.75 2.5 mm²), 2x 4 mm²         • finely stranded       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • for AWG conductor end processing       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • for AWG conductors / for main contacts       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • for auxiliary contacts       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • finely stranded       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • finely stranded       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • finely stranded       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • for AWG conductor end processing       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • for AWG conductors / for auxiliary contacts       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • for AWG conductors / for auxiliary contacts       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • for single-phase squirrel cage motors       2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         • for single-phase squirrel cage motors       0.125         • at 110/120 V / rated value       hp       0.125         • at 230 V / rated value       hp       0.333         • for three-phase squirrel cage motors	for main current circuit		screw-type terminals	
• for main contactsImage: solidImage: solidImage: solid• solid2x (0.75 2.5 mm²), 2x 4 mm²• finely stranded2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for AWG conductors / for main contacts2x (18 14), 2x 12• for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• solid2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• finely stranded2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• with conductor end processing2x (20 16), 2x (18 14)• for AWG conductors / for auxiliary contacts2x (20 16), 2x (18 14)UL/CSA ratings:vielded mechanical performance (hp)• for single-phase squirrel cage motors-• at 110/120 V / rated valuehp• for three-phase squirrel cage motors-• at 230 V / rated valuehp• for three-phase squirrel cage motors-• at 200/208 V / rated valuehp• at 200	<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals	
<ul> <li>solid</li> <li>solid</li> <li>finely stranded</li> <li>with conductor end processing</li> <li>for AWG conductors / for main contacts</li> <li>for auxiliary contacts</li> <li>solid</li> <li>solid</li> <li>for auxiliary contacts</li> <li>solid</li> <li>if nely stranded</li> <li>with conductor end processing</li> <li>solid</li> <li>for auxiliary contacts</li> <li>solid</li> <li>for auxiliary contacts</li> <li>solid</li> <li>to solid</li> <li>to auxiliary contacts</li> <li>solid</li> <li>if nely stranded</li> <li>with conductor end processing</li> <li>tor AWG conductors / for auxiliary contacts</li> <li>tor AWG conductors / for auxiliary contacts</li> <li>tor single-phase squirrel cage motors</li> <li>at 110/120 V / rated value</li> <li>tor three-phase squirrel cage motors</li> <li>tor</li></ul>	Type of the connectable conductor cross-section			
<ul> <li>finely stranded         <ul> <li>with conductor end processing</li> <li>with conductors / for main contacts</li> <li>for AWG conductors / for main contacts</li> <li>a vitiliary contacts</li> <li>solid</li> <li>solid</li> <li>solid</li> <li>with conductor end processing</li> <li>solid</li> <li>with conductor end processing</li> <li>with conductor end processing</li> <li>with conductor end processing</li> <li>with conductors / for auxiliary contacts</li> </ul> </li> <li>with conductor of processing</li> <li>tor AWG conductors / for auxiliary contacts</li> <li>tor AWG conductors / for auxiliary contacts</li> <li>tor AWG conductors / for auxiliary contacts</li> </ul> <li>tor AWG conductors / for auxiliary contacts</li> <li>tor AWG conductors / for auxiliary contacts</li> <li>tor three-phase squirrel cage motors</li> <litor au<="" td=""><td>for main contacts</td><td></td><td></td></litor>	for main contacts			
• with conductor end processing2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• for AWG conductors / for main contacts2x (18 14), 2x 12• for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• solid2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• finely stranded2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• with conductor end processing2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)• tor AWG conductors / for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)2x (20 16), 2x (18 14)2x (20 16), 2x (18 14)UL/CSA ratings:yielded mechanical performance (hp)hp0.125• for single-phase squirrel cage motorshp0.333• at 230 V / rated valuehp0.333• for three-phase squirrel cage motorshp0.75	• solid		2x (0.75 2.5 mm²), 2x 4 mm²	
<ul> <li>for AWG conductors / for main contacts</li> <li>for auxiliary contacts</li> <li>solid</li> <li>solid</li> <li>finely stranded</li> <li>with conductor end processing</li> <li>for AWG conductors / for auxiliary contacts</li> <li>for Single-phase squirrel cage motors</li> <li>at 110/120 V / rated value</li> <li>hp</li> <li>0.125</li> <li>hp</li> <li>0.333</li> <li>for three-phase squirrel cage motors</li> <li>at 200/208 V / rated value</li> <li>hp</li> <li>0.75</li> </ul>	finely stranded			
<ul> <li>for auxiliary contacts</li> <li>solid</li> <li>solid</li> <li>finely stranded</li> <li>with conductor end processing</li> <li>for AWG conductors / for auxiliary contacts</li> <li>2x (0.5 1.5 mm<sup>2</sup>), 2x (0.75 2.5 mm<sup>2</sup>)</li> <li>2x (20 16), 2x (18 14)</li> </ul> UL/CSA ratings: yielded mechanical performance (hp) <ul> <li>for single-phase squirrel cage motors</li> <li>at 110/120 V / rated value</li> <li>hp</li> <li>0.125</li> <li>at 230 V / rated value</li> <li>hp</li> <li>0.333</li> </ul>	<ul> <li>with conductor end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
<ul> <li>solid</li> <li>finely stranded</li> <li>with conductor end processing</li> <li>for AWG conductors / for auxiliary contacts</li> <li>tor AWG conductors</li> <li>tor AWG conductors</li> <li>tor Auxiliary contacts</li> <li>tor</li></ul>	<ul> <li>for AWG conductors / for main contacts</li> </ul>	2x (18 14), 2x 12		
<ul> <li>finely stranded         <ul> <li>with conductor end processing</li> <li>for AWG conductors / for auxiliary contacts</li> </ul> </li> <li>the conductors / for auxiliary contacts</li> <li>the conductors / for auxiliary contacts</li> <li>the conductor = conductors</li> <li>the conductor = conductor = conductors</li> <li>the conductor = condotacondot = condotacondot = conductor</li></ul>	for auxiliary contacts			
• with conductor end processing • for AWG conductors / for auxiliary contacts $2x (0.5 1.5 mm^2), 2x (0.75 2.5 mm^2)$ $2x (20 16), 2x (18 14)$ UL/CSA ratings:vielded mechanical performance (hp) • for single-phase squirrel cage motors • at 110/120 V / rated valuehp0.125 0.333• for three-phase squirrel cage motors • at 200/208 V / rated valuehp0.75	• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
<ul> <li>for AWG conductors / for auxiliary contacts</li> <li>2x (20 16), 2x (18 14)</li> <li>UL/CSA ratings:</li> <li>yielded mechanical performance (hp)         <ul> <li>for single-phase squirrel cage motors</li> <li>at 110/120 V / rated value</li> <li>hp</li> <li>0.125</li> <li>at 230 V / rated value</li> <li>hp</li> <li>0.333</li> </ul> </li> <li>for three-phase squirrel cage motors         <ul> <li>at 200/208 V / rated value</li> <li>hp</li> <li>0.75</li> </ul> </li> </ul>	finely stranded			
UL/CSA ratings:         yielded mechanical performance (hp)       Image: Comparison of the sequirrel cage motors         • for single-phase squirrel cage motors       hp       0.125         • at 230 V / rated value       hp       0.333         • for three-phase squirrel cage motors       Image: Comparison of the sequirrel cage motors       Image: Comparison of the sequirrel cage motors         • at 200/208 V / rated value       hp       0.75	<ul> <li>with conductor end processing</li> </ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
yielded mechanical performance (hp)• for single-phase squirrel cage motors-• at 110/120 V / rated valuehp0.125• at 230 V / rated valuehp0.333• for three-phase squirrel cage motors• at 200/208 V / rated valuehp0.75	<ul> <li>for AWG conductors / for auxiliary contacts</li> </ul>		2x (20 16), 2x (18 14)	
<ul> <li>for single-phase squirrel cage motors</li> <li>at 110/120 V / rated value</li> <li>hp</li> <li>0.125</li> <li>hp</li> <li>0.333</li> <li>for three-phase squirrel cage motors</li> <li>at 200/208 V / rated value</li> <li>hp</li> <li>0.75</li> </ul>	UL/CSA ratings:			
• at 110/120 V / rated valuehp0.125• at 230 V / rated valuehp0.333• for three-phase squirrel cage motors	yielded mechanical performance (hp)			
<ul> <li>• at 230 V / rated value</li> <li>• for three-phase squirrel cage motors</li> <li>• at 200/208 V / rated value</li> <li>hp</li> <li>0.333</li> </ul>	<ul> <li>for single-phase squirrel cage motors</li> </ul>			
for three-phase squirrel cage motors <ul> <li>at 200/208 V / rated value</li> <li>hp</li> <li>0.75</li> </ul>	• at 110/120 V / rated value	hp	0.125	
• at 200/208 V / rated value hp 0.75	• at 230 V / rated value	hp	0.333	
	<ul> <li>for three-phase squirrel cage motors</li> </ul>			
• at 220/230 V / rated value hp 0.75	• at 200/208 V / rated value	hp	0.75	
	• at 220/230 V / rated value	hp	0.75	

• at 460/480 V / rated value	hp	2
• at 575/600 V / rated value	hp	3
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	А	3.4
• at 600 V / rated value	А	3.9
Contact rating designation / for auxiliary contacts / according to UL		C300 / R300

Certificates/approvals:					
General Product Ap	proval	For use in hazardous locations	Declaration of Conformity	Test Certificates	
(SA)		<b>Ex</b> ATEX	EG-Konf.	Special Test Certificate	<u>Type Test</u> Certificates/Test <u>Report</u>
Shipping Approval	other				
DNV DNV	<u>other</u>				

### Further information:

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

#### Industry Mall (Online ordering system)

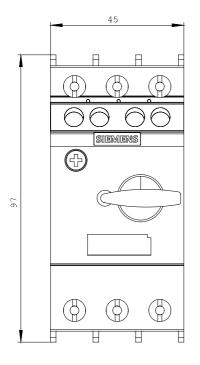
http://www.siemens.com/industrial-controls/mall

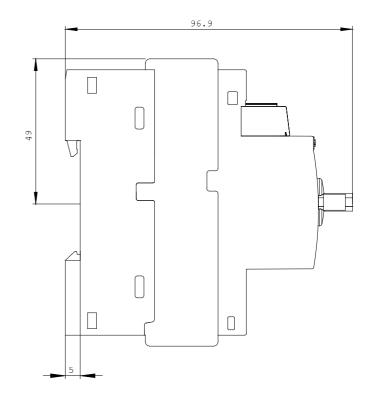
#### Cax online generator:

http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RV2011-1EA15-ZW97/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RV2011-1EA15-ZW97





last change:

Feb 14, 2013