



CIRCUIT-BREAKER SZ S0,  
FOR MOTOR PROTECTION, CLASS 10,  
W. OVERLOAD RELAY FUNCTION A-RELEASE14...20A,  
N-RELEASE260A, SCREW CONNECTION,  
STANDARD SW. CAPACITY

General technical data:		
product brand name		SIRIUS
product designation		3RV2 circuit breaker
Size of the circuit-breaker		S0
Number of poles / for main current circuit		3
Product function		
• removable terminal for auxiliary and control circuit		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

<b>Installation altitude / at a height over sea level / maximum</b>	m	2,000
<b>Resistance against shock</b>		25g / 11 ms
<b>Ambient temperature</b>		
• during transport	°C	-50 ... +80
• during storage	°C	-50 ... +80
• during operating	°C	-20 ... +60
<b>Active power loss / total / typical</b>	W	9.6

#### Main circuit:

<b>Operating voltage / rated value</b>	V	690
<b>Service power / at AC-3</b>		
• at 400 V / rated value	W	7,500
• at 500 V / rated value	W	11,000
• at 690 V / rated value	W	15,000
<b>Operational current / at AC-3 / at 400 V / rated value</b>	A	20
<b>Mechanical operating cycles as operating time / of the main contacts / typical</b>		100,000
<b>Frequency of operation / at AC-3 / according to IEC 60947-6-2</b>	1/h	15

#### Auxiliary circuit:

<b>Design of the auxiliary switch</b>		laterally
<b>Number of change-over switches / for auxiliary contacts</b>		0
<b>Mechanical operating cycles as operating time / of the auxiliary contacts / typical</b>		100,000
<b>Design of the fuse link / for short-circuit protection of the auxiliary switch / required</b>		fuse gL/gG: 6 A, quick: 10 A
<b>Operating current / of the auxiliary contacts / at AC-15 / at 24 V</b>	A	1.5
<b>Operating current / of the auxiliary contacts</b>		
• at AC-15		
• at 230 V	A	1.5
• at DC-13		
• at 24 V	A	1

#### Protection function:

<b>Trip class</b>		CLASS 10
<b>Adjustable response current / of the current-dependent overload release</b>	A	14 ... 20
<b>Breaking capacity limit short-circuit current (I<sub>cu</sub>)</b>		
• at 400 V / rated value	A	55,000
• at 500 V / rated value	A	10,000
• at 690 V / rated value	A	4,000

#### Safety:

<b>Proportion of dangerous failures</b>		
• with high demand rate / according to SN 31920	%	40
• with low demand rate / according to SN 31920	%	40
<b>Failure rate (FIT value) / with low demand rate / according to SN 31920</b>	FIT	50
<b>B10 value / with high demand rate / according to SN 31920</b>		50,000
<b>T1 value / for proof test interval or service life / according to IEC 61508</b>	a	10

#### Installation/mounting/dimensions:

<b>Type of mounting</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
<b>mounting position</b>		any
<b>Depth</b>	mm	96
<b>Height</b>	mm	97
<b>Width</b>	mm	65

#### Connections:

<b>Arrangement of electrical connectors / for main current circuit</b>		Top and bottom
<b>Design of the electrical connection</b>		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
<b>Type of the connectable conductor cross-section</b>		
• for main contacts		
• solid		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )
• finely stranded		
• with conductor end processing		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
• for AWG conductors / for main contacts		2x (16 ... 12), 2x (14 ... 8)
• for auxiliary contacts		
• solid		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• for AWG conductors / for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14)

#### UL/CSA ratings:

<b>yielded mechanical performance (hp)</b>		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	1.5
• at 230 V / rated value	hp	3
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	5
• at 220/230 V / rated value	hp	5

• at 460/480 V / rated value	hp	10
<b>Operating current (FLA) / for three-phase squirrel cage motors</b> • at 480 V / rated value	A	14
<b>Contact rating designation / for auxiliary contacts / according to UL</b>		C600 / R300

### Certificates/approvals:

General Product Approval	Declaration of Conformity	Test Certificates
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CSA



GOST



UL



EG-Konf.

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

### Shipping Approval



ABS



BUREAU VERITAS



DNV



GL



LRS



PRS

### Shipping Approval

other



RINA



RMRS



VDE

[other](#)

### 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:

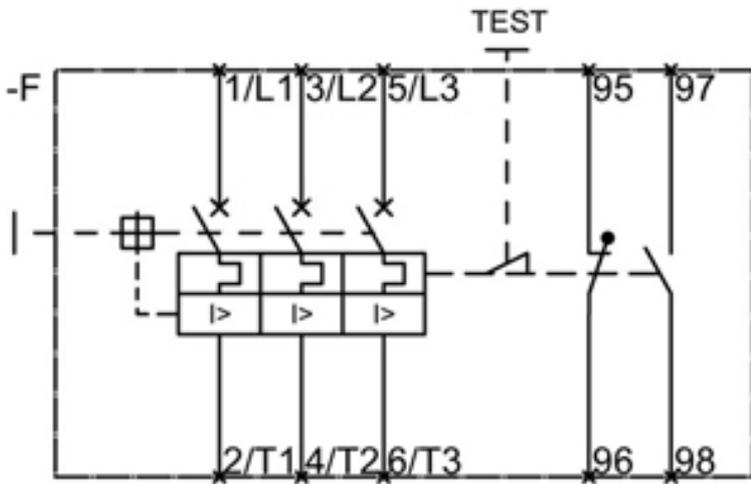
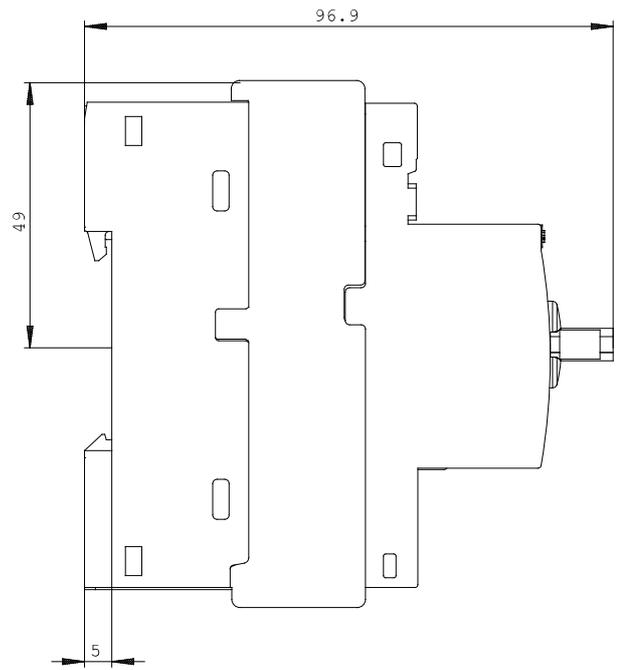
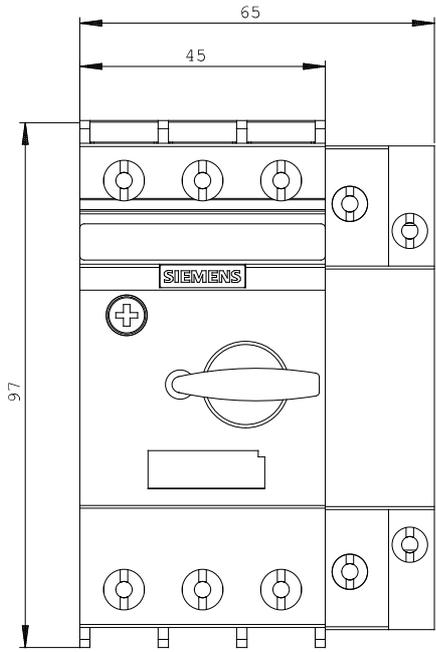
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RV2121-4BA10/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RV2121-4BA10](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2121-4BA10)



last change:

Feb 14, 2013