

CIRCUIT-BREAKER SZ S00,  
FOR MOTOR PROTECTION, CLASS 10,  
A-RELEASE 7...10A, N-RELEASE 130A,  
SPRING-L. CONNECTION,

**General technical data:**

<b>Product brand name</b>		SIRIUS
<b>Product designation</b>		3RV2 circuit breaker
<b>Size of the circuit-breaker</b>		S00
<b>Trip class</b>		CLASS 10
<b>Protection class IP / frontal/front side</b>		IP20
<b>Degree of pollution</b>		3
<b>Altitude of installation site / at a height over sea level / maximum</b>	m	2,000
<b>Ambient temperature</b>		
• during storage	°C	-50 ... 80
• during the operating phase	°C	-20 ... 60
• during transport	°C	-50 ... 80
<b>Resistance against shock</b>		25g / 11 ms
<b>Impulse voltage resistance / rated value</b>	kV	6
<b>Insulation voltage / rated value</b>	V	690
<b>Real loss power / total / typical</b>	W	7
<b>Item designation</b>		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		F
• according to DIN EN 61346-2		F
<b>Mechanical switching cycle as operating period</b>		
• of the main contacts / typical		100,000
• of the auxiliary contacts / typical		100,000
<b>Type of the driving mechanism / Motor drive</b>		No
<b>design of the operating mechanism</b>		selector switch
<b>Product function</b>		
• Overload protection		Yes
• Short-circuit to earth recognition		No
• Phase disturbance recognition		Yes
<b>Product component</b>		
• auxiliary switch		No

• Undervoltage release mechanism		No
• trip indicator		No
<b>Product extension / optional / Motor drive</b>		No

#### Main circuit:

<b>Number of poles / for main current circuit</b>		3
<b>Operating voltage / at 3 AC / rated value / maximum</b>	V	690
<b>Operating current / at AC-3 / at 400 V / rated value</b>	A	8.5
<b>Service power / at AC-3</b>		
• at 400 V / rated value	W	4,000
• at 500 V / rated value	W	5,500
• at 690 V / rated value	W	7,500
<b>Switching frequency / at AC-3 / according to IEC 60947-6-2 / maximum</b>	1/h	15
<b>Arrangement of electrical connectors / for main current circuit</b>		Top and bottom
<b>Adjustable response current</b>		
• of the current-dependent overload release	A	7 ... 10
<b>Service power / at AC-3 / at 230 V / rated value</b>	W	2,200
<b>Continuous current / rated value</b>	A	10

#### Auxiliary circuit:

<b>Product extension / auxiliary switch</b>		Yes
<b>Number of NC contacts / for auxiliary contacts / instantaneous switching</b>		0
<b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b>		0
<b>Number of change-over switches / for auxiliary contact</b>		0

#### Inputs/ Outputs:

<b>Number of digital inputs</b>		0
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#### Short-circuit:

<b>Breaking capacity limit short-circuit current (I<sub>cu</sub>)</b>		
• at 400 V / rated value	A	100,000
• at 500 V / rated value	A	42,000
• at 690 V / rated value	A	6,000
<b>Design of the overcurrent release and short-circuit release</b>		thermomagnetic

#### Installation/mounting/dimensions:

<b>built in orientation</b>		any
<b>Type of fixing/fixation</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
<b>Width</b>	mm	45

<b>Height</b>	mm	109
<b>Depth</b>	mm	91
<b>distance, to be maintained, to the ranks assembly</b>		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	50
• downwards	mm	50
• sideways	mm	0
<b>distance, to be maintained, to earthed part</b>		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	50
• sideways	mm	30
• downwards	mm	50
<b>distance, to be maintained, conductive elements</b>		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	50
• downwards	mm	50
• sideways	mm	30

#### Connections:

<b>Product function</b>		
• removable terminal for main circuit		No
• removable terminal for auxiliary and control circuit		No
<b>design of the electrical connection</b>		
• for main current circuit		spring-loaded terminals
<b>Type of the connectable conductor cross-section</b>		
• for main contacts		
• unifilar		2x (0.5 ... 4 mm <sup>2</sup> )
• stranded wire		2x (0.5 ... 4 mm <sup>2</sup> )
• stranded wire		
• with conductor end processing		2 x (0.5 ... 2.5 mm <sup>2</sup> )
• without conductor final cutting		2x (0.5 ... 2.5 mm <sup>2</sup> )
• at AWG-conductors / for main contacts		2x (20 ... 12)

#### Certificates/approvals:

<b>verification of suitability</b>		CE / UL / CSA
• für Staubexplosionsschutz für Zone 21/22		no
• for gas explosion protection for zone 1/2		no

## Safety:

<b>B10 value / with high demand rate</b> <ul style="list-style-type: none"><li>• according to SN 31920</li></ul>		50,000
<b>T1 value / for proof test interval or service life</b> <ul style="list-style-type: none"><li>• according to IEC 61508</li></ul>	a	10
<b>Failure rate (FIT value) / with low demand rate</b> <ul style="list-style-type: none"><li>• according to SN 31920</li></ul>	FIT	50
<b>Proportion of dangerous failures</b> <ul style="list-style-type: none"><li>• with low demand rate / according to SN 31920</li><li>• with high demand rate / according to SN 31920</li></ul>	%	40
	%	40
<b>Protection against electrical shock</b>		finger-safe

## Further information:

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

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

### Global Industry Mall (Online ordering system)

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

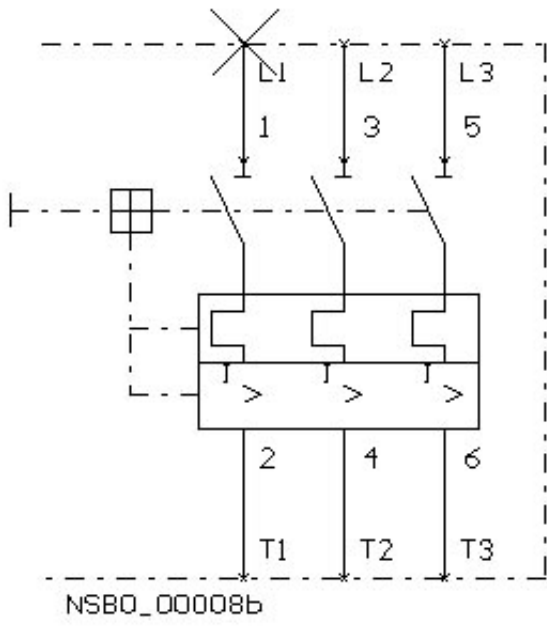
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WWW/view/en/3RV2011-1JA20/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RV2011-1JA20](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2011-1JA20)





last change:

Apr 26, 2010