



CIRCUIT-BREAKER SZ S0,  
FOR TRANSFORMER PROT. A-RELEASE 20...25A,  
N-RELEASE 400A, SPRING-L. 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	10.4
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		F
• according to DIN EN 61346-2		F

<b>Mechanical operating cycles as operating time</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
• 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

<b>Main circuit:</b>		
<b>Number of poles / for main current circuit</b>		3
<b>Operating voltage / at AC-3 / rated value / maximum</b>	V	690
<b>Operating current / at AC-3 / at 400 V / rated value</b>	A	22
<b>Service power / at AC-3</b>		
• at 400 V / rated value	W	11,000
• at 500 V / rated value	W	15,000
• at 690 V / rated value	W	22,000
<b>Frequency of operation / 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 non-delayed short-circuit release	A	400 ... 400
• of the current-dependent overload release	A	20 ... 25
<b>Service power / at AC-3 / at 230 V / rated value</b>	W	5,500
<b>Continuous current / rated value</b>	A	25

<b>Auxiliary circuit:</b>		
<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 contacts</b>		0

<b>Inputs/ Outputs:</b>		
<b>Number of digital inputs</b>		0

**Short-circuit:****Breaking capacity limit short-circuit current (I<sub>cu</sub>)**

- at 400 V / rated value
- at 500 V / rated value
- at 690 V / rated value

A	55,000
A	10,000
A	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 119

**Depth**

mm 91

**Distance, to be maintained, to the ranks assembly**

- forwards
- backwards
- upwards
- downwards
- sideways

mm	0
mm	0
mm	50
mm	50
mm	0

**Distance, to be maintained, to earthed part**

- forwards
- backwards
- upwards
- sideways
- downwards

mm	0
mm	0
mm	50
mm	30
mm	50

**Distance, to be maintained, conductive elements**

- forwards
- backwards
- upwards
- downwards
- sideways

mm	0
mm	0
mm	50
mm	50
mm	30

**Connections:****Product function**

- removable terminal for main circuit
- removable terminal for auxiliary and control circuit

No  
No**Design of the electrical connection**

- for main current circuit

spring-loaded terminals

**Type of the connectable conductor cross-section**

- for main contacts

- solid
- stranded
- finely stranded
  - with conductor end processing
  - without conductor final cutting
- for AWG conductors / for main contacts

2x (1 ... 10 mm<sup>2</sup>)

2x (1 ... 10 mm<sup>2</sup>)

2x (1 ... 6 mm<sup>2</sup>)

2x (1 ... 6 mm<sup>2</sup>)

2x (18 ... 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



[ROSTEST](#)



[Manufacturer](#)

##### Shipping Approval



##### other

[Manufacturer](#)

[other](#)



#### UL/CSA ratings

##### yielded mechanical performance (hp)

- for single-phase squirrel cage motors
  - at 110/120 V / rated value
  - at 230 V / rated value
- for three-phase squirrel cage motors
  - at 200/208 V / rated value
  - at 220/230 V / rated value
  - at 460/480 V / rated value

hp 2

hp 3

hp 5

hp 7.5

hp 15

##### Operating current (FLA) / for three-phase squirrel cage motors

- at 480 V / rated value

A 21

#### Safety:

##### 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

a 10

<b>Failure rate (FIT value) / with low demand rate</b>		
• according to SN 31920	FIT	50
<b>Proportion of dangerous failures</b>		
• with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	40
<b>Protection against electrical shock</b>		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

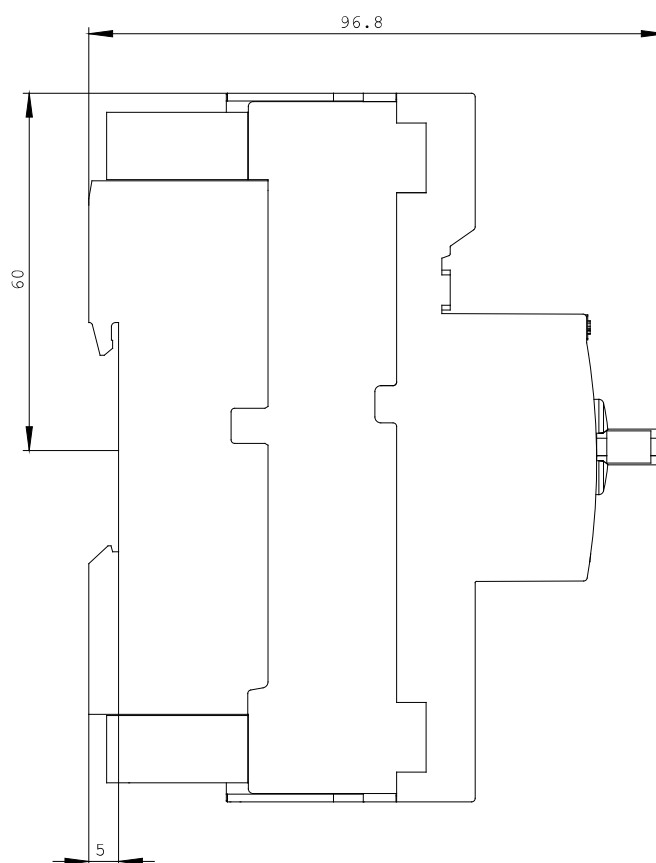
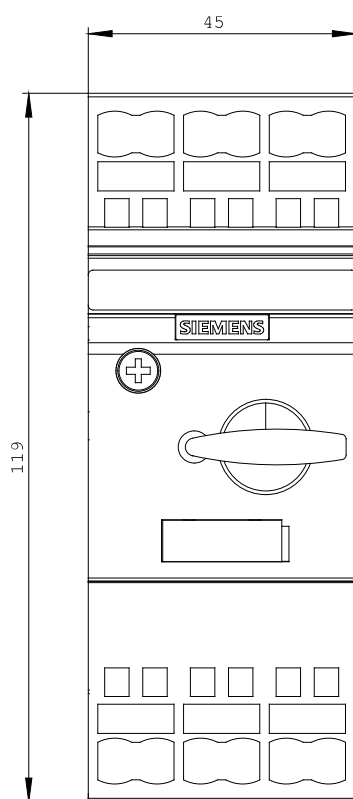
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RV2421-4DA20/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RV2421-4DA20](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2421-4DA20)





last change:

Oct 17, 2011