



CIRCUIT-BREAKER SZ S0,  
FOR MOTOR PROTECTION, CLASS 10,  
A-RELEASE 17...22A, N-RELEASE 286A,  
SCREW CONNECTION, STANDARD SW. CAPACITY,

#### General technical data:

<b>product brand name</b>		SIRIUS
<b>product designation</b>		3RV2 circuit breaker
<b>Size of the circuit-breaker</b>		S0
<b>Trip class</b>		CLASS 10
<b>Protection class IP / on the front</b>		IP20
<b>Degree of pollution</b>		3
<b>Installation altitude / at a height over sea level / maximum</b>	m	2,000
<b>Ambient temperature</b>		
• during storage	°C	-50 ... +80
• during operating	°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>Active power loss / total / typical</b>	W	9.9
<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 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

#### Main circuit:

<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	11,000
• at 690 V / rated value	W	18,500
<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	286 ... 286
• of the current-dependent overload release	A	17 ... 22
<b>Service power / at AC-3 / at 230 V / rated value</b>	W	5,500
<b>Continuous current / rated value</b>	A	22

#### 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 contacts</b>		0

#### Inputs/ Outputs:

<b>Number of digital inputs</b>		0
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**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:****mounting position**

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 97

**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

screw-type terminals

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

- for main contacts

- solid
- finely stranded
  - with conductor end processing
- for AWG conductors / for main contacts

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 10 mm<sup>2</sup>)

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>), 1x 10 mm<sup>2</sup>

2x (16 ... 12), 2x (14 ... 8)

### Certificates/approvals:

#### Verification of suitability

- für Staubexplosionsschutz für Zone 21/22
- for gas explosion protection for zone 1/2

CE / UL / CSA / CCC

no

no

#### General Product Approval

For use in hazardous locations

Declaration of Conformity



CCC



CSA



GOST



UL



ATEX



EG-Konf.

#### Test Certificates

[other](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

#### Shipping Approval



ABS



BUREAU VERITAS



GL



LRS



PRS



RINA

#### Shipping Approval

[other](#)



RMRS



VDE

[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 1.5

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

<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
<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**

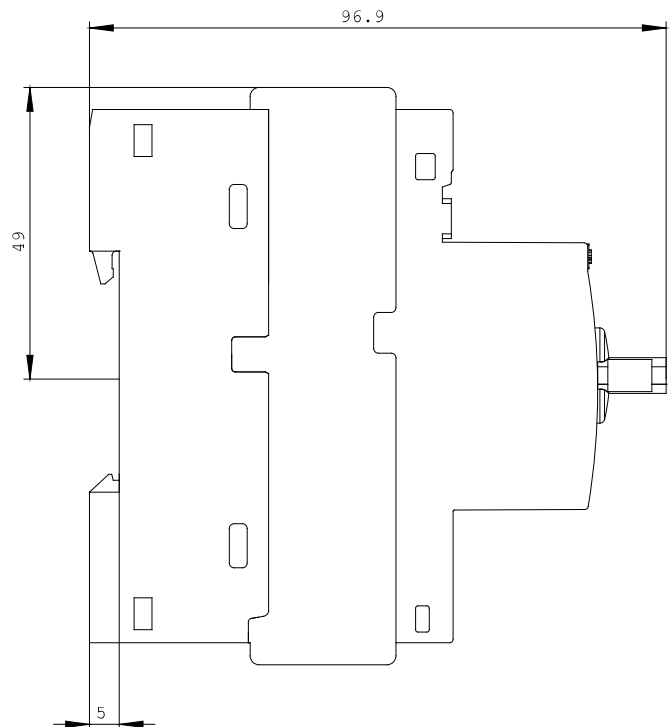
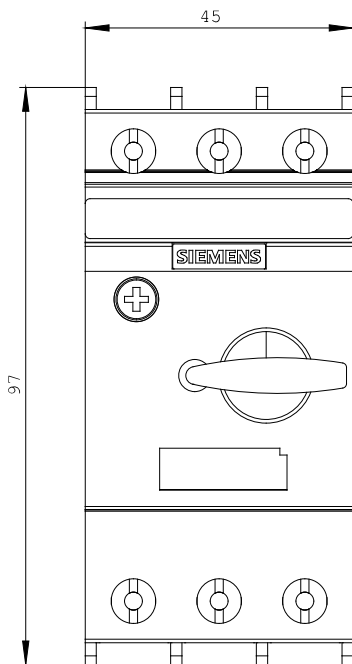
<http://www.siemens.com/cax>

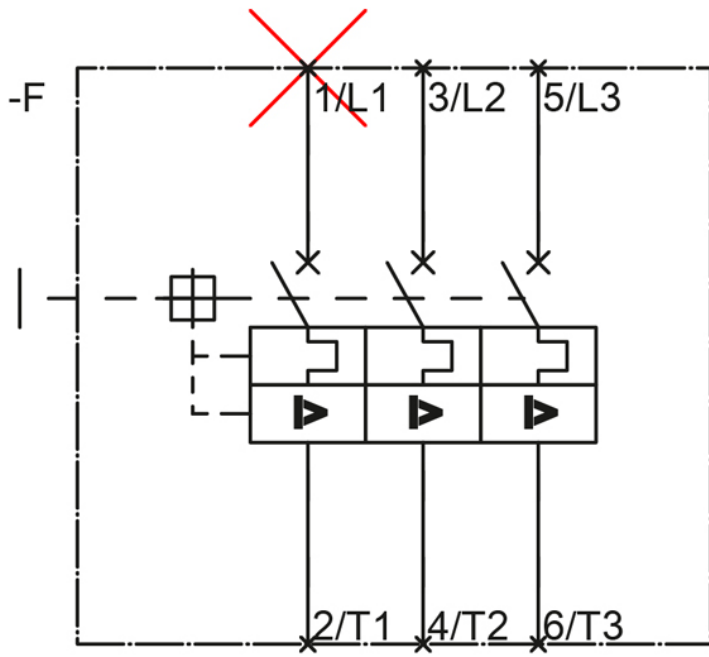
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RV2021-4CA10/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RV2021-4CA10](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2021-4CA10)





last change:

Sep 12, 2012