



CONTACTOR, AC-3, 7.5KW/400V, 1NO+1NC,  
AC 230V 50/60HZ, 3-POLE,  
SZ S0 SCREW TERMINAL

**General technical data:**

<b>product brand name</b>		SIRIUS
<b>Size of the contactor</b>		S0
<b>Product extension / auxiliary switch</b>		Yes
<b>Protection class IP / on the front</b>		IP20
<b>Protection against electrical shock</b>		finger-safe
<b>Degree of pollution</b>		3
<b>Installation altitude / at a height over sea level / maximum</b>	m	2,000
<b>Ambient temperature / during storage</b>	°C	-55 ... +80
<b>Ambient temperature / during operating</b>	°C	-25 ... +60
<b>Shock resistance</b>		
<ul style="list-style-type: none"> <li>• at rectangular impulse                             <ul style="list-style-type: none"> <li>• at AC</li> </ul> </li> <li>• at sine pulse                             <ul style="list-style-type: none"> <li>• at AC</li> </ul> </li> </ul>		7,5g / 5 ms, 4,7g / 10 ms
		11,8g / 5 ms, 7,4g / 10 ms
<b>Impulse voltage resistance / rated value</b>	kV	6
<b>Insulation voltage / rated value</b>	V	690
<b>Mechanical operating cycles as operating time</b>		
<ul style="list-style-type: none"> <li>• of the contactor / typical</li> </ul>		10,000,000
<ul style="list-style-type: none"> <li>• of the contactor with added auxiliary switch block / typical</li> </ul>		10,000,000

- of the contactor with added electronics-compatible auxiliary switch block / typical

5,000,000

**Main circuit:**

<b>Number of NC contacts / for main contacts</b>		0
<b>Number of NO contacts / for main contacts</b>		3
<b>Operating current</b>		
• at AC-1 / at 400 V		
• at 40 °C ambient temperature / rated value	A	40
• at 60 °C ambient temperature / rated value	A	35
• at AC-2 / at 400 V / rated value	A	17
• at AC-3 / at 400 V / rated value	A	17
• at AC-4 / at 400 V / rated value	A	15.5
<b>Operating current</b>		
• with 1 current path / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	4.5
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	2.5
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	15
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
<b>Service power</b>		
• at AC-2 / at 400 V / rated value	kW	7.5
• at AC-3 / at 400 V / rated value	kW	7.5
• at AC-4 / at 400 V / rated value	kW	7.5
<b>Active power loss / per conductor / typical</b>	W	0.9
<b>Off-load operating frequency</b>		
• at AC	1/h	5,000
• at DC	1/h	1,500

Frequency of operation / at AC-1 / according to IEC 60947-6-2	1/h	1,000
Frequency of operation / at AC-2 / according to IEC 60947-6-2	1/h	1,000
Frequency of operation / at AC-3 / according to IEC 60947-6-2	1/h	1,000
Frequency of operation / at AC-4 / according to IEC 60947-6-2	1/h	300

#### Control circuit:

Type of voltage / of the controlled supply voltage		AC
Control supply voltage / 1		
• at 50 Hz / for AC / rated value	V	230
• at 60 Hz / for AC / rated value	V	230
operating range factor control supply voltage rated value / of the magnet coil		
• at 50 Hz / for AC		0.8 ... 1.1
• at 60 Hz / for AC		0.85 ... 1.1
Apparent pull-in power / of the solenoid / for AC	V·A	68
Apparent holding power / of the solenoid / for AC	V·A	7.9
Inductive power factor		
• with the pull-in power of the coil		0.82
• with the pull-in power of the coil		0.25
Closing delay		
• at AC	ms	9 ... 38
Opening delay		
• at AC	ms	4 ... 16
Arcing time	ms	10 ... 10

#### Auxiliary circuit:

Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
Number of NC contacts / for auxiliary contacts / instantaneous switching		1
Number of NO contacts / for auxiliary contacts / instantaneous switching		1
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V	A	6
• at 400 V	A	3
• at DC-12		
• at 48 V	A	6
• at 60 V	A	6
• at 110 V	A	3
• at 220 V	A	1

- at DC-13
- at 24 V
- at 48 V
- at 60 V
- at 110 V
- at 220 V

A	6
A	2
A	2
A	1
A	0.3

### Short-circuit:

#### Design of the fuse link

- for short-circuit protection of the auxiliary switch / required
- for short-circuit protection of the main circuit
  - with type of assignment 1 / required
- at type of coordination 2 / required

fuse gL/gG: 10 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25A

### Installation/mounting/dimensions:

#### Built in orientation

vertical

#### Type of mounting

screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022

#### Type of fixing/fixation / series installation

Yes

#### Width

mm 45

#### Height

mm 85

#### Depth

mm 97

#### Distance, to be maintained, to the ranks assembly / sideways

mm 0

#### Distance, to be maintained, to earthed part / sideways

mm 6

### Connections:

#### Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

screw-type terminals

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

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (20 ... 16), 2x (18 ... 14)

## Certificates/approvals:

### General Product Approval



CCC



CSA



GOST



UL



EG-Konf.

### Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

### Shipping Approval



ABS



DNV



GL



LRS



PRS



RINA

### Shipping Approval

other



RMRS

[Confirmation](#)



VDE

## 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
  - at 575/600 V / rated value

hp	1
hp	3
hp	3
hp	5
hp	10
hp	15

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

- at 480 V / rated value
- at 600 V / rated value

A	14
A	17

### Contact rating designation / for auxiliary contacts / according to UL

A600 / Q600

## Safety:related Parameter:

### B10 value / with high demand rate

- according to SN 31920

1,000,000

### T1 value / for proof test interval or service life

- according to IEC 61508

a 20

### Proportion of dangerous failures

- with low demand rate / according to SN 31920

% 40

<ul style="list-style-type: none"> <li>with high demand rate / according to SN 31920</li> </ul>	%	73
<b>Failure rate (FIT value) / with low demand rate</b> <ul style="list-style-type: none"> <li>according to SN 31920</li> </ul>	FIT	100
<b>Product function</b> <ul style="list-style-type: none"> <li>mirror contact to IEC 60947-4-1</li> <li>positively driven operation to IEC 60947-5-1</li> </ul>	Yes	No

**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:**

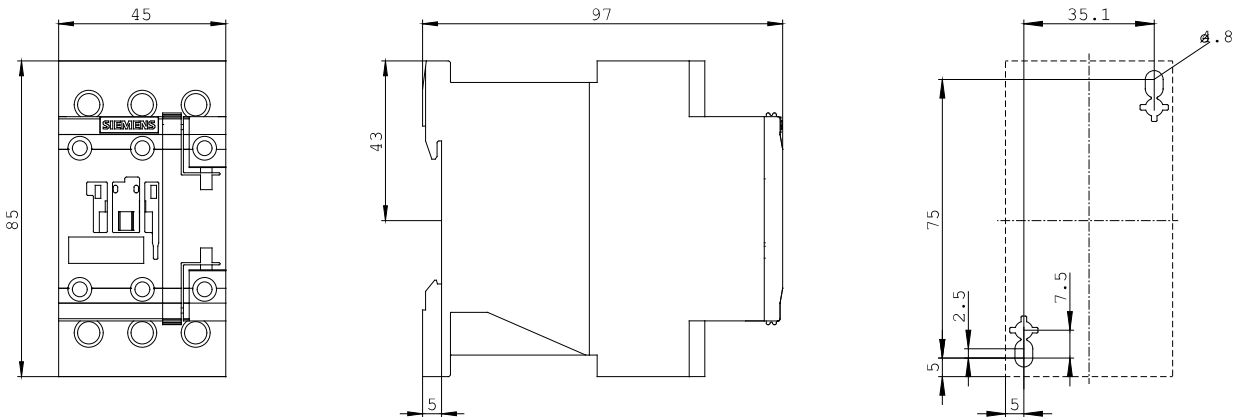
<http://www.siemens.com/cax>

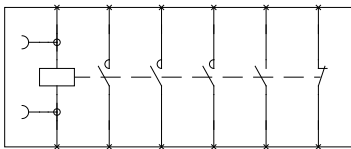
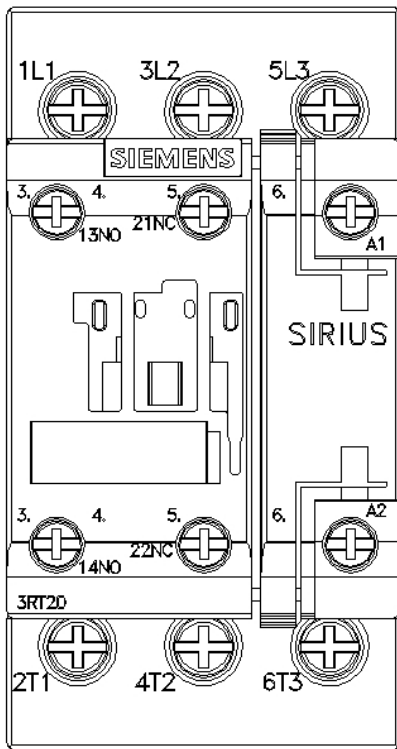
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RT2025-1AL20/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2025-1AL20](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1AL20)





last change:

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