



CONTACTOR, AC-3, 7.5KW/400V, 2NO+2NC,  
DC 24V, 3-POLE,  
SZ S0 SCREW TERMINAL PERMANENT AUX. SWITCH  
FOR SUVA APPLICATIONS

### General technical data:

Product brand name		SIRIUS
Size of the contactor		S0
Product extension / auxiliary switch		No
Protection class IP / on the front		IP20
Protection against electrical shock		finger-safe
Degree of pollution		3
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature / during storage	°C	-55 ... 80
Ambient temperature / during operating	°C	-25 ... 60
Shock resistance <ul style="list-style-type: none"> <li>• at rectangular impulse <ul style="list-style-type: none"> <li>• at DC</li> </ul> </li> <li>• at sine pulse <ul style="list-style-type: none"> <li>• at DC</li> </ul> </li> </ul>		10g / 5 ms, 7,5g / 10 ms  15g / 5 ms, 10g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
Mechanical operating cycles as operating time <ul style="list-style-type: none"> <li>• of the contactor / typical</li> <li>• of the contactor with added auxiliary switch block / typical</li> </ul>		10,000,000  10,000,000

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

5,000,000

#### Main circuit:

##### Number of NC contacts / for main contacts

0

##### Number of NO contacts / for main contacts

3

##### Operating current

- 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

##### Operating current

- 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

##### Service power

- 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

##### Active power loss / per conductor / typical

W 0.9

##### Off-load operating frequency

- at AC

1/h 5,000

- at DC

1/h 1,500

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

<b>Control circuit:</b>		
<b>Type of voltage / of the controlled supply voltage</b>		DC
<b>Control supply voltage / 1</b>		
• for DC / rated value	V	24
<b>Working range factor supply voltage rated value / of the magnet coil</b>		
• for DC		0.8 ... 1.1
<b>Pull-in power / of the solenoid / for DC</b>	W	5.9
<b>Holding power / of the solenoid / for DC</b>	W	5.9
<b>Closing delay</b>		
• at DC	ms	50 ... 170
<b>Opening delay</b>		
• at DC	ms	15 ... 17.5
<b>Arcing time</b>	ms	10 ... 10

<b>Auxiliary circuit:</b>		
<b>Contact reliability / of the auxiliary contacts</b>		1 faulty switching per 100 million (17 V, 1 mA)
<b>Number of NC contacts / for auxiliary contacts / instantaneous switching</b>		2
<b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b>		2
<b>Operating current / of the auxiliary contacts</b>		
• 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	A	6
• at 48 V	A	2
• at 60 V	A	2

- at 110 V
- at 220 V

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 151

##### 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
  - stranded
  - 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 ... 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



CQC



CSA

[ROSTEST](#)



UL

## Shipping Approval



ABS



DNV



GL



LRS



PRS



RINA

## Shipping Approval other



RMRS

[Manufacturer](#)



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
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### Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

%	40
%	73

### Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT	100
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### Product function

- mirror contact to IEC 60947-4-1

Yes

- positively driven operation to IEC 60947-5-1

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:

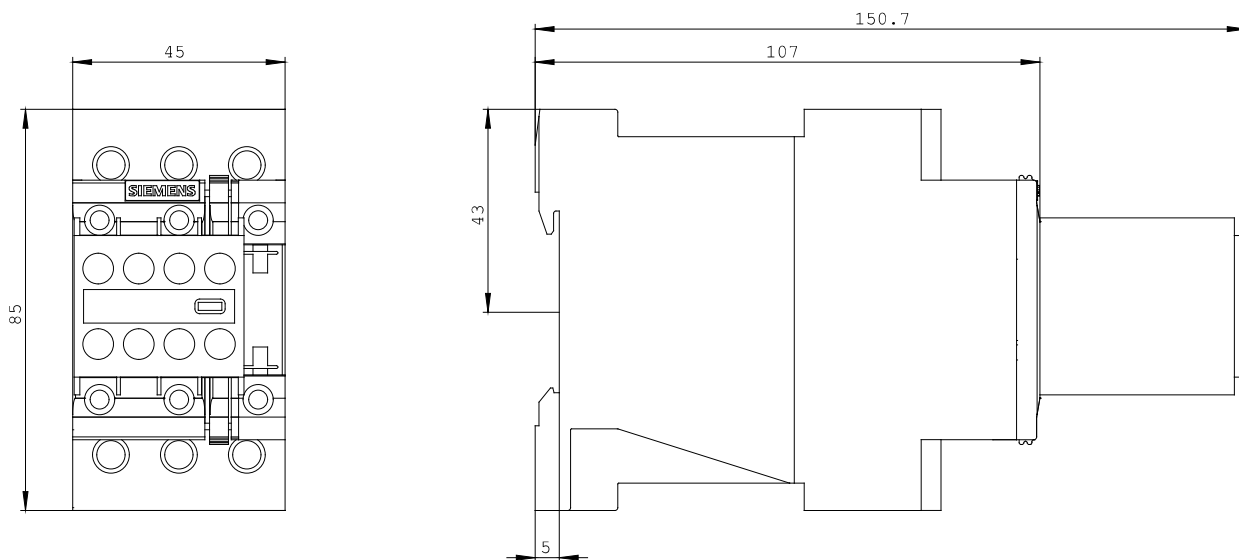
<http://www.siemens.com/cax>

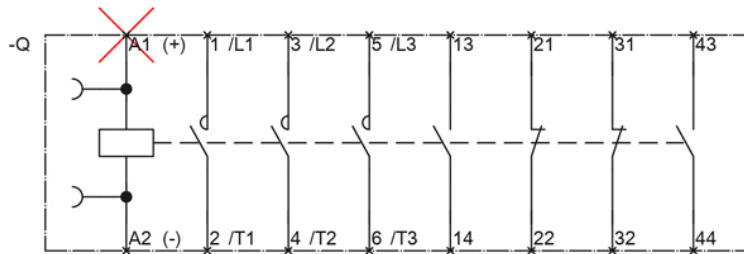
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2025-1BB44-3MA0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2025-1BB44-3MA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1BB44-3MA0)





last change:

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