

CONTACTOR, AC-3, 7.5KW/400V, 1NO+1NC,  
AC(40-60HZ)/DC ACTUAT. , UC 200...280V,  
3-POLE, SZ S0 SCREW TERMINAL

General technical data:		
Product brand name		SIRIUS
Size of the contactor		S0
Product extension / auxiliary switch		Yes
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 AC</li><li>• at DC</li></ul></li><li>• at sine pulse<ul style="list-style-type: none"><li>• at AC</li><li>• at DC</li></ul></li></ul>		<div>7,5g / 5 ms, 4,7g / 10 ms</div> <div>10g / 5 ms, 7,5g / 10 ms</div> <div>11,8g / 5 ms, 7,4g / 10 ms</div> <div>15g / 5 ms, 10g / 10 ms</div>
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
Mechanical operating cycles as operating time		

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

10,000,000  
10,000,000  
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
  - at 60 °C ambient temperature / rated value
- at AC-2 / at 400 V / rated value
- at AC-3 / at 400 V / rated value
- at AC-4 / at 400 V / rated value

A 40  
A 35  
A 17  
A 17  
A 15.5

#### Operating current

- with 1 current path / at DC-1
  - at 24 V / rated value
  - at 110 V / rated value
- with 2 current paths in series / at DC-1
  - at 24 V / rated value
  - at 110 V / rated value
- with 3 current paths in series / at DC-1
  - at 24 V / rated value
  - at 110 V / rated value
- with 1 current path / at DC-3 / at DC-5
  - at 24 V / rated value
  - at 110 V / rated value
- with 2 current paths in series / at DC-3 / at DC-5
  - at 24 V / rated value
  - at 110 V / rated value
- with 3 current paths in series / at DC-3 / at DC-5
  - at 24 V / rated value
  - at 110 V / rated value

A 35  
A 4.5  
A 35  
A 35  
A 35  
A 35  
A 20  
A 2.5  
A 35  
A 15  
A 35  
A 35

#### Service power

- at AC-2 / at 400 V / rated value
- at AC-3 / at 400 V / rated value
- at AC-4 / at 400 V / rated value

kW 7.5  
kW 7.5  
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>Design of the surge suppressor</b>		with varistor
<b>Type of voltage / of the controlled supply voltage</b>		AC/DC
<b>Control supply voltage / 1</b>		
• for DC / rated value	V	230
• for DC / initial rated value	V	200
• for DC / final rated value	V	280
• at 50 Hz / for AC / rated value	V	230
• at 50 Hz / for AC / initial rated value	V	200
• at 50 Hz / for AC / final rated value	V	280
• at 60 Hz / for AC / rated value	V	230
• at 60 Hz / for AC / initial rated value	V	200
• at 60 Hz / for AC / final rated value	V	280
<b>Working range factor supply voltage rated value / of the magnet coil</b>		
• at 50 Hz / for AC		0.7 ... 1.3
• at 60 Hz / for AC		0.7 ... 1.3
• for DC		0.7 ... 1.3
<b>Apparent pull-in power / of the solenoid / for AC</b>	V·A	16.1
<b>Apparent holding power / of the solenoid / for AC</b>	V·A	3.6
<b>Inductive power factor</b>		
• with the pull-in power of the coil		0.99
• with the pull-in power of the coil		0.36
<b>Pull-in power / of the solenoid / for DC</b>	W	15
<b>Holding power / of the solenoid / for DC</b>	W	1.83
<b>Closing delay</b>		
• at AC	ms	60 ... 80
• at DC	ms	50 ... 75
<b>Opening delay</b>		
• at AC	ms	35 ... 45
• at DC	ms	40 ... 50
<b>Arcing time</b>	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	A	6
• at 48 V	A	2
• at 60 V	A	2
• at 110 V	A	1
• at 220 V	A	0.3

Short-circuit:		
Design of the fuse link		
• for short-circuit protection of the auxiliary switch / required		fuse gL/gG: 10 A
• for short-circuit protection of the main circuit		
• with type of assignment 1 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A
• at type of coordination 2 / required		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	107
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

### Test Certificates

[Manufacturer](#)

[other](#)

### Shipping Approval



ABS



DNV



GL



LRS



PRS



RINA

### Shipping Approval

other

[Manufacturer](#)



RMRS



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

<b>Operating current (FLA) / for three-phase squirrel cage motors</b>  • at 480 V / rated value  • at 600 V / rated value	A	14
	A	17
<b>Contact rating designation / for auxiliary contacts / according to UL</b>		A600 / Q600

#### Safety-related Parameter:

<b>B10 value / with high demand rate</b>  • according to SN 31920		1,000,000
<b>T1 value / for proof test interval or service life</b>  • according to IEC 61508	a	20
<b>Proportion of dangerous failures</b>  • with low demand rate / according to SN 31920  • with high demand rate / according to SN 31920	%	40
	%	73
<b>Failure rate (FIT value) / with low demand rate</b>  • according to SN 31920	FIT	100
<b>Product function</b>  • mirror contact to IEC 60947-4-1  • positively driven operation to IEC 60947-5-1		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:

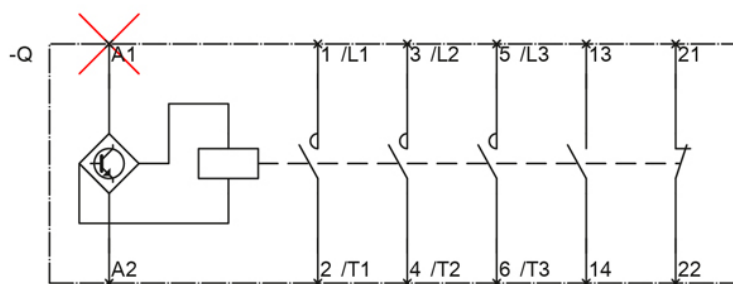
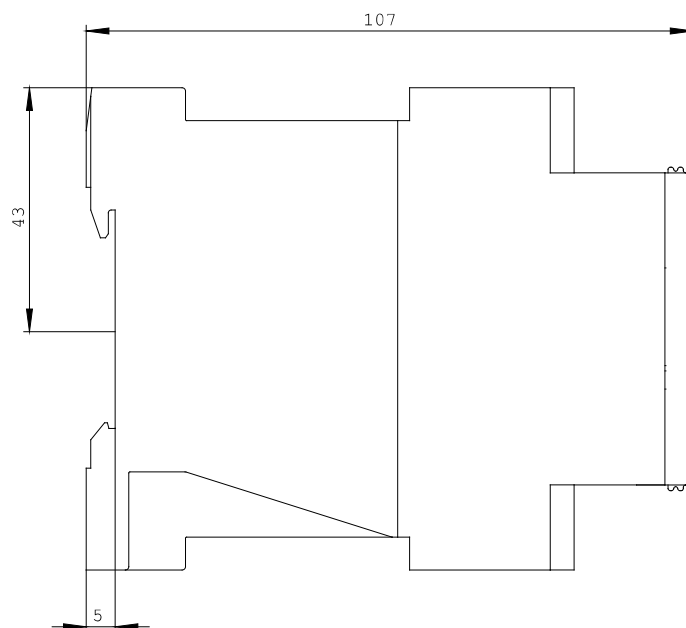
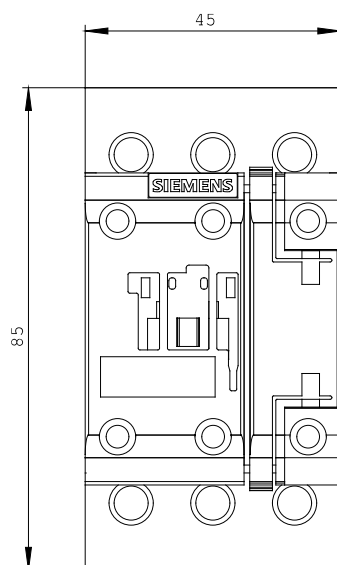
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RT2025-1NP30/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2025-1NP30](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1NP30)



last change:

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