



CONTACTOR, AC-3, 18.5KW/400V, 1NO+1NC,  
AC 230V 50HZ, 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>		8,3g / 5 ms, 5,3g / 10 ms
		13,5g / 5 ms, 8,3g / 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:

#### 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 50

- at 60 °C ambient temperature / rated value

A 42

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

A 38

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

A 38

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

A 22

#### 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 18.5

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

kW 18.5

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

kW 11

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

W 3.8

#### Off-load operating frequency

- 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	750
Frequency of operation / at AC-3 / according to IEC 60947-6-2	1/h	750
Frequency of operation / at AC-4 / according to IEC 60947-6-2	1/h	250

### Control circuit:

Type of voltage / of the controlled supply voltage		AC
Control supply voltage / 1		
• at 50 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
Apparent pull-in power / of the solenoid / for AC	V·A	77
Apparent holding power / of the solenoid / for AC	V·A	9.8
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	8 ... 40
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	A	6

- at 48 V
- at 60 V
- at 110 V
- at 220 V

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:  
100 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:  
35A

### 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

Declaration of Conformity



Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Shipping Approval



Shipping Approval

other



[Confirmation](#)



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	3
hp	5
hp	10
hp	10
hp	25
hp	25

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

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

A	34
A	27

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
	Yes
	No

**Product function**

- mirror contact to IEC 60947-4-1
- positively driven operation to IEC 60947-5-1

**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:**

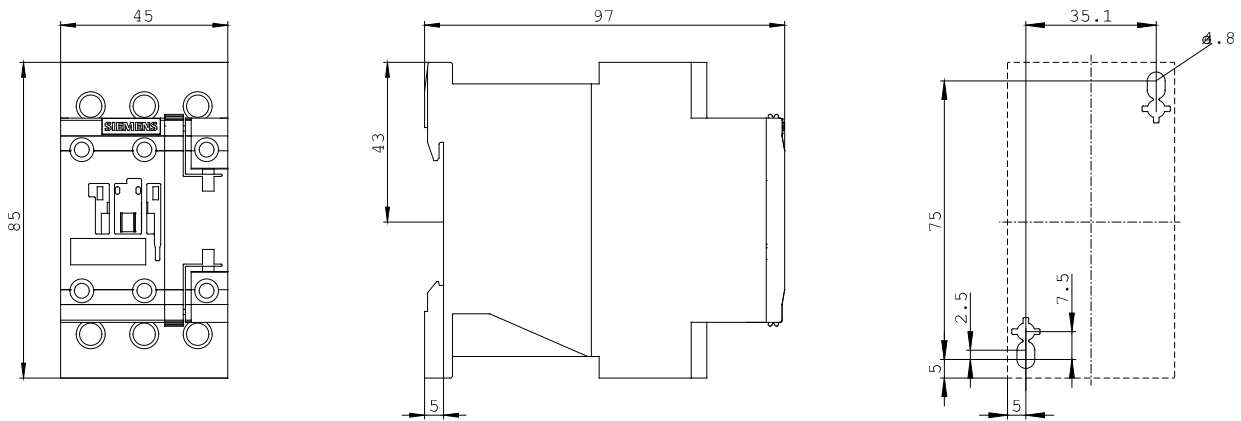
<http://www.siemens.com/cax>

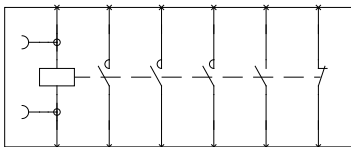
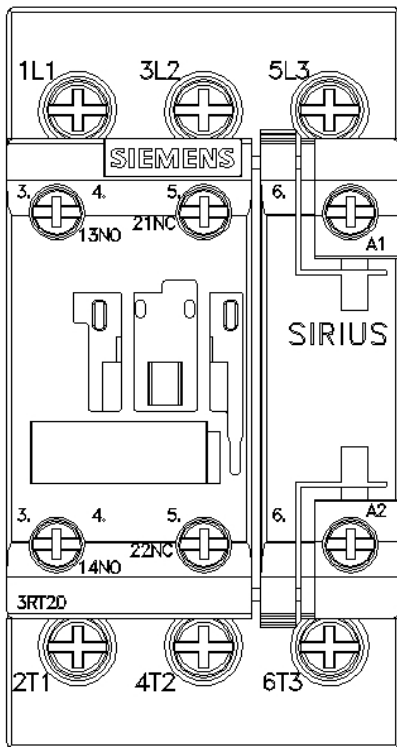
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RT2028-1AP00/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2028-1AP00](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2028-1AP00)





last change:

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