



CONTACTOR, AC-3, 15KW/400V, 1NO+1NC,  
AC 24V 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</b>		
• during storage	°C	-55 ... +80
• during operating	°C	-25 ... +60
<b>Shock resistance</b>		
• at rectangular impulse		
• at AC		8,3g / 5 ms, 5,3g / 10 ms
• at sine pulse		
• at AC		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>		
• of the contactor / typical		10,000,000

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

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	50
A	42
A	32
A	32
A	22

**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	15
kW	15
kW	11

**Active power loss / per conductor / typical**

W	2.7
---	-----

**Off-load operating frequency**

- at AC

1/h	5,000
-----	-------

• at DC	1/h	1,500
<b>Frequency of operation / at AC-1 / according to IEC 60947-6-2</b>	1/h	1,000
<b>Frequency of operation / at AC-2 / according to IEC 60947-6-2</b>	1/h	750
<b>Frequency of operation / at AC-3 / according to IEC 60947-6-2</b>	1/h	750
<b>Frequency of operation / at AC-4 / according to IEC 60947-6-2</b>	1/h	250

<b>Control circuit:</b>		
<b>Type of voltage / of the controlled supply voltage</b>		AC
<b>Control supply voltage / 1</b>		
• at 50 Hz / for AC / rated value	V	24
• at 60 Hz / for AC / rated value	V	24
<b>Operating range factor control supply voltage rated value / of the magnet coil</b>		
• at 50 Hz / for AC		0.8 ... 1.1
• at 60 Hz / for AC		0.85 ... 1.1
<b>Apparent pull-in power / of the solenoid / for AC</b>	V·A	81
<b>Apparent holding power / of the solenoid / for AC</b>	V·A	10.5
<b>Inductive power factor</b>		
• with the pull-in power of the coil		0.82
• with the pull-in power of the coil		0.25
<b>Closing delay</b>		
• at AC	ms	8 ... 40
<b>Opening delay</b>		
• at AC	ms	4 ... 16
<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>		1
<b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b>		1
<b>Operating current / of the auxiliary contacts</b>		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V	A	10
• 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
- at DC-13
  - at 24 V
  - at 48 V
  - at 60 V
  - at 110 V
  - at 220 V

A	1
A	10
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:

<b>mounting position</b>		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
<b>Type of mounting</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<b>Type of fixing/fixation / series installation</b>		Yes
<b>Width</b>	mm	45
<b>Height</b>	mm	85
<b>Depth</b>	mm	97
<b>Distance, to be maintained, to the ranks assembly / sideways</b>	mm	0
<b>Distance, to be maintained, to earthed part / sideways</b>	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

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>)

- with conductor end processing
- for AWG conductors / for auxiliary contacts

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	2
hp	5
hp	10
hp	10
hp	20
hp	25

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

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

A	27
A	27

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

A600 / Q600

### Sicherheitsrelevante Kenngrößen:

#### 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

<b>Proportion of dangerous failures</b>		
• with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	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		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:

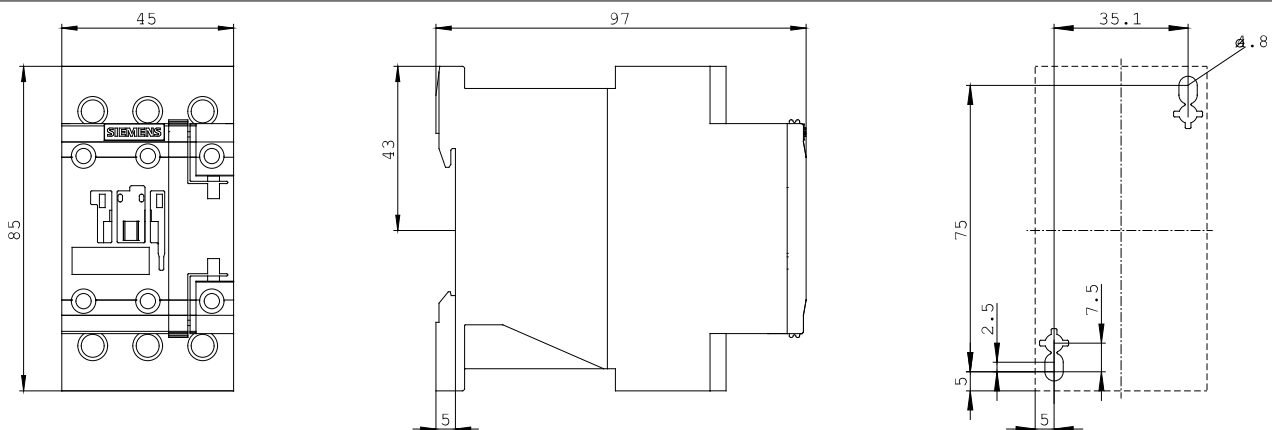
<http://www.siemens.com/cax>

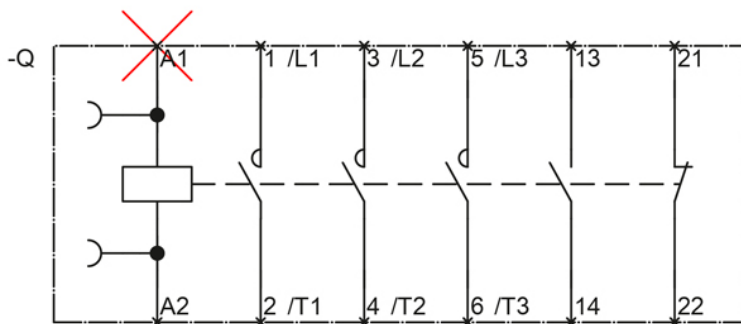
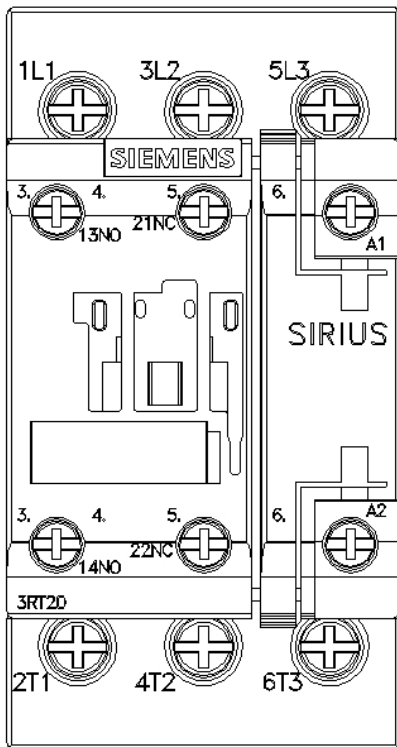
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2027-1AC20/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2027-1AC20](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2027-1AC20)





last change:

Jul 26, 2012