

CONTACTOR, AC-3, 7.5KW/400V, 1NO+1NC,  
AC(40-60HZ)/DC ACTUAT. , UC 21...28V,  
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>		7,5g / 5 ms, 4,7g / 10 ms 10g / 5 ms, 7,5g / 10 ms  11,8g / 5 ms, 7,4g / 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		

- 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

#### Control circuit:

<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 / initial rated value	V	21
• for DC / final rated value	V	28
• at 50 Hz / for AC / rated value	V	24
• at 50 Hz / for AC / initial rated value	V	21
• at 50 Hz / for AC / final rated value	V	28
• at 60 Hz / for AC / rated value	V	24
• at 60 Hz / for AC / initial rated value	V	21
• at 60 Hz / for AC / final rated value	V	28
<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	6.5
<b>Apparent holding power / of the solenoid / for AC</b>	V·A	1.3
<b>Inductive power factor</b>		
• with the pull-in power of the coil		0.96
• with the pull-in power of the coil		0.78
<b>Pull-in power / of the solenoid / for DC</b>	W	6.7
<b>Holding power / of the solenoid / for DC</b>	W	0.8
<b>Closing delay</b>		
• at AC	ms	60 ... 80
• at DC	ms	60 ... 75
<b>Opening delay</b>		
• at AC	ms	30 ... 45
• at DC	ms	30 ... 45
<b>Arcing time</b>	ms	10 ... 10

#### Auxiliary circuit:

<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	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
- 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:

<b>Built in orientation</b>		vertical
<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	107
<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:

<b>Design of the electrical connection</b> <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>		screw-type terminals screw-type terminals
<b>Type of the connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> <li>• finely stranded <ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul> </li> </ul> </li> <li>• for AWG conductors / for main contacts</li> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded <ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul> </li> </ul> </li> <li>• for AWG conductors / for auxiliary contacts</li> </ul>		2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²) 2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)  2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm² 2x (16 ... 12), 2x (14 ... 8)  2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)  2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 2x (20 ... 16), 2x (18 ... 14)

#### Certificates/approvals:

##### General Product Approval



CQC



CSA

[ROSTEST](#)



UL

##### Test Certificates

[Manufacturer](#)

##### 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

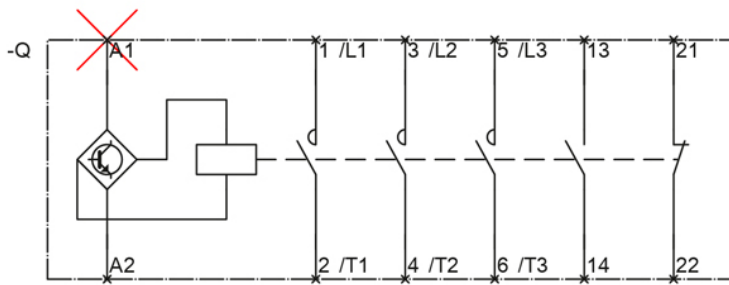
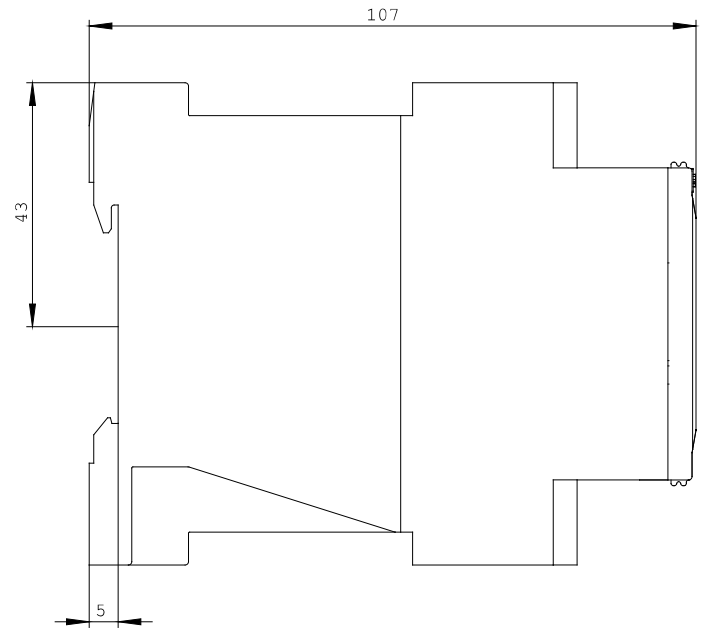
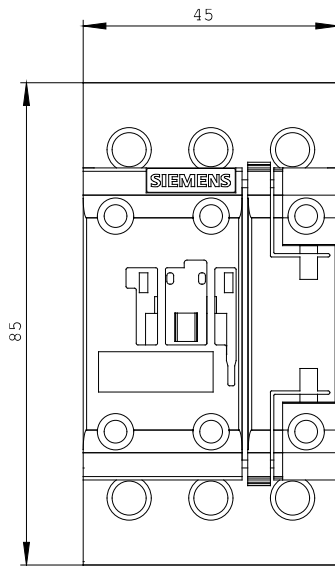
hp	1
hp	3
hp	3
hp	5
hp	10
hp	15

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

• at 480 V / rated value	A	14
• at 600 V / rated value	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	%	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:	
<b>Information- and Downloadcenter (Catalogs, Brochures,...)</b>	
<a href="http://www.siemens.com/industrial-controls/catalogs">http://www.siemens.com/industrial-controls/catalogs</a>	
<b>Industry Mall (Online ordering system)</b>	
<a href="http://www.siemens.com/industrial-controls/mall">http://www.siemens.com/industrial-controls/mall</a>	
<b>Cax online generator:</b>	
<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>	
<b>Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)</b>	
<a href="http://support.automation.siemens.com/WW/view/en/3RT2025-1NB30/all">http://support.automation.siemens.com/WW/view/en/3RT2025-1NB30/all</a>	
<b>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)</b>	
<a href="http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1NB30">http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1NB30</a>	



last change:

Oct 17, 2011