



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

#### General technical data:

<b>product brand name</b>		SIRIUS
<b>Size of the contactor</b>		S0
<b>Product extension / auxiliary switch</b>		No
<b>Product extension / function module for communication</b>		No
<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 DC		10g / 5 ms, 7,5g / 10 ms
• at sine pulse		
• at DC		15g / 5 ms, 10g / 10 ms
<b>Impulse voltage resistance / rated value</b>	kV	6
<b>Insulation voltage / rated value</b>	V	690

<b>Maximum permissible voltage for protective separation / between coil and main contacts / in accordance with EN 60947-1</b>	V	400
<b>Mechanical operating cycles as operating time</b>		
• of the contactor / typical		10,000,000
• of the contactor with added auxiliary switch block / typical		10,000,000
• of the contactor with added electronics-compatible auxiliary switch block / typical		5,000,000
<b>Main circuit:</b>		
<b>Number of NC contacts / for main contacts</b>		0
<b>Number of NO contacts / for main contacts</b>		3
<b>Operating current / at AC-1 / at 400 V</b>		
• at 40 °C ambient temperature / rated value	A	40
• at 60 °C ambient temperature / rated value	A	35
<b>Connectable conductor cross-section / in main circuit</b>		
• at AC-1		
• at 40 °C / minimum permissible	m <sup>2</sup>	10
• at 60 °C / minimum permissible	m <sup>2</sup>	10
<b>Operational current</b>		
• at AC-2 / at 400 V / rated value	A	17
• at AC-3		
• at 400 V / rated value	A	17
• at 500 V / rated value	A	17
• at 690 V / rated value	A	13
• at AC-4 / at 400 V / rated value	A	15.5
<b>Operational current</b>		
• with 1 current path / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	4.5
• at 220 V / rated value	A	1
• at 440 V / rated value	A	0.4
• at 600 V / rated value	A	0.25
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• at 220 V / rated value	A	5
• at 440 V / rated value	A	1
• at 600 V / rated value	A	0.8
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35

• at 220 V / rated value	A	35
• at 440 V / rated value	A	2.9
• at 600 V / rated value	A	1.4
<b>Operational current</b>		
• 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
• at 220 V / rated value	A	1
• at 440 V / rated value	A	0.09
• at 600 V / rated value	A	0.06
• 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
• at 220 V / rated value	A	3
• at 440 V / rated value	A	0.27
• at 600 V / rated value	A	0.16
• 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
• at 220 V / rated value	A	10
• at 440 V / rated value	A	0.6
• at 600 V / rated value	A	0.6
<b>Service power</b>		
• at AC-1		
• at 230 V / rated value	kW	13.3
• at 400 V / rated value	kW	23
• at 500 V / rated value	kW	29
• at 690 V / rated value	kW	40
• at AC-2 / at 400 V / rated value	kW	7.5
• at AC-3		
• at 230 V / rated value	kW	4
• at 400 V / rated value	kW	7.5
• at 690 V / rated value	kW	11
• at AC-4 / at 400 V / rated value	kW	7.5
<b>Active power loss / at AC-3 / at 400 V / with rated operational current value / per conductor</b>	W	0.9
<b>Off-load operating frequency</b>		
• 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
- at AC-2 / according to IEC 60947-6-2
- at AC-3 / according to IEC 60947-6-2
- at AC-4 / according to IEC 60947-6-2

1/h	1,000
1/h	1,000
1/h	1,000
1/h	300

#### Control circuit:

<b>Type of voltage / of the controlled supply voltage</b>		DC
<b>Control supply voltage</b>		
• for DC / rated value	V	24
<b>operating range factor control 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>Residual current / of electronics / for control with signal &lt;0&gt;</b>		
• at 230 V / with AC / maximum permissible	mA	6
• at 24 V / with DC / maximum permissible	mA	16

#### 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>		2
<b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b>		2
<b>Operating current / of the auxiliary contacts</b>		
• [nicht versorgt: PMD_ABP551_001_000]		
•	A	2
• at 690 V	A	1

#### UL/CSA ratings:

<b>yielded mechanical performance (hp)</b>		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	1
• at 230 V / rated value	hp	3
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	3
• at 220/230 V / rated value	hp	5

<ul style="list-style-type: none"> <li>• at 460/480 V / rated value</li> <li>• at 575/600 V / rated value</li> </ul>	hp	10
	hp	15
<b>Operating current (FLA) / for three-phase squirrel cage motors</b>		
<ul style="list-style-type: none"> <li>• at 480 V / rated value</li> <li>• at 600 V / rated value</li> </ul>	A	14
	A	17
<b>Contact rating designation / for auxiliary contacts / according to UL</b>		A600 / Q600

### 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>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	151
<b>Distance, to be maintained, to the ranks assembly / sideways</b>	mm	0

### 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

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>)

• for AWG conductors / for auxiliary contacts

2x (20 ... 16), 2x (18 ... 14)

**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

**Proportion of dangerous failures**

• with low demand rate / according to SN 31920

%

40

• with high demand rate / according to SN 31920

%

73

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

• according to SN 31920

FIT

100

**Product function**

• mirror contact to IEC 60947-4-1

Yes

• comment

with 3RH29

• positively driven operation to IEC 60947-5-1

No

**Certificates/approvals:**

**General Product Approval**

**EMC**

**Functional Safety / Safety of Machinery**



CCC



CSA



GOST



UL



C-TICK

[Type Examination](#)

**Declaration of Conformity**

**Test Certificates**



EG-Konf.

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

**Shipping Approval**



ABS



BUREAU VERITAS



DNV



GL



LRS



PRS

**Shipping Approval**

**other**



RINA



RMRS

[Confirmation](#)



VDE

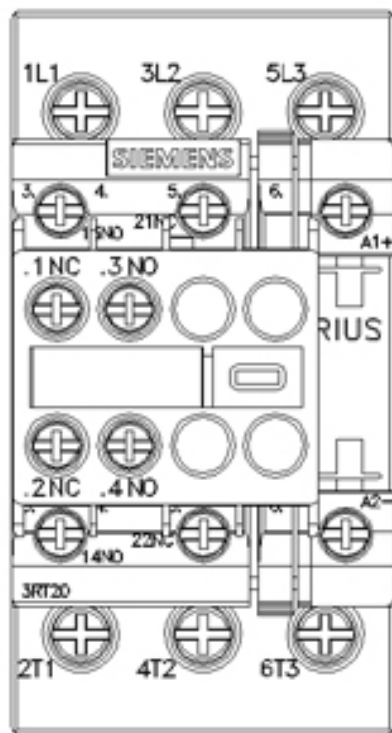
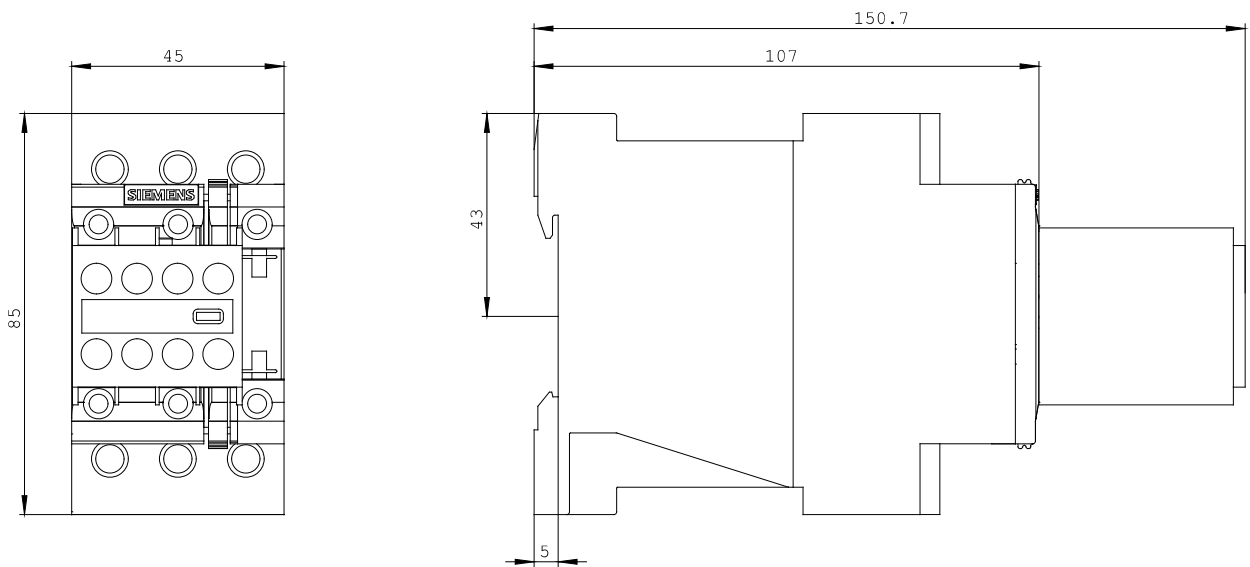
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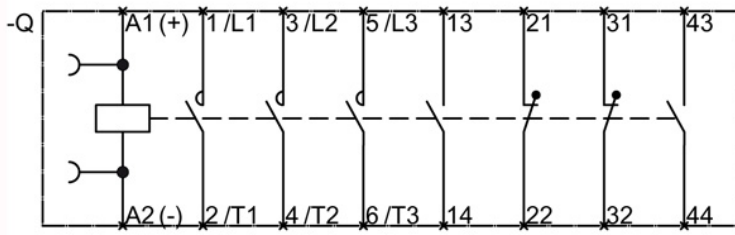
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last change:

Feb 15, 2013