



CONTACTOR, AC-3, 5.5KW/400V, 2NO+2NC,  
AC 24V 50/60HZ, 3-POLE,  
SZ S0 SCREW TERMINAL REMOVABLE AUX. SWITCH

General technical data:		
product brand name		SIRIUS
Size of the contactor		S0
Product extension / auxiliary switch		No
Product extension / function module for communication		No
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
• during operating	°C	-25 ... +60
Shock resistance		
• at rectangular impulse		
• at AC		7,5g / 5 ms, 4,7g / 10 ms
• at sine pulse		
• at AC		11,8g / 5 ms, 7,4g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	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	12
• at AC-3		
• at 400 V / rated value	A	12
• at 500 V / rated value	A	12
• at 690 V / rated value	A	9
• at AC-4 / at 400 V / rated value	A	12.5
<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	5.5
• at AC-3		
• at 230 V / rated value	kW	3
• at 400 V / rated value	kW	5.5
• at 690 V / rated value	kW	7.5
• at AC-4 / at 400 V / rated value	kW	5.5
<b>Active power loss / at AC-3 / at 400 V / with rated operational current value / per conductor</b>	W	0.5
<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>		AC
<b>Control supply voltage</b>		
• at 50 Hz / at AC / rated value	V	24
• at 60 Hz / at 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	68
<b>Apparent holding power / of the solenoid / for AC</b>	V·A	7.9
<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	9 ... 38
<b>Opening delay</b>		
• at AC	ms	4 ... 16
<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		

<ul style="list-style-type: none"> <li>• at 110/120 V / rated value</li> <li>• at 230 V / rated value</li> </ul>	hp	1
<ul style="list-style-type: none"> <li>• for three-phase squirrel cage motors</li> </ul>	hp	2
<ul style="list-style-type: none"> <li>• at 200/208 V / rated value</li> </ul>	hp	3
<ul style="list-style-type: none"> <li>• at 220/230 V / rated value</li> </ul>	hp	3
<ul style="list-style-type: none"> <li>• at 460/480 V / rated value</li> </ul>	hp	7.5
<ul style="list-style-type: none"> <li>• at 575/600 V / rated value</li> </ul>	hp	10
<b>Operating current (FLA) / for three-phase squirrel cage motors</b>		
<ul style="list-style-type: none"> <li>• at 480 V / rated value</li> </ul>	A	11
<ul style="list-style-type: none"> <li>• at 600 V / rated value</li> </ul>	A	11
<b>Contact rating designation / for auxiliary contacts / according to UL</b>		A600 / Q600

### Short-circuit:

<b>Design of the fuse link</b>		
<ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch / required</li> </ul>		fuse gL/gG: 10 A
<ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit</li> </ul>		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A
<ul style="list-style-type: none"> <li>• with type of assignment 1 / required</li> </ul>		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25A
<ul style="list-style-type: none"> <li>• at type of coordination 2 / required</li> </ul>		

### 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	141
<b>Distance, to be maintained, to the ranks assembly / sideways</b>	mm	0

### Connections:

<b>Design of the electrical connection</b>		
<ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>		screw-type terminals
<ul style="list-style-type: none"> <li>• for auxiliary and control current circuit</li> </ul>		screw-type terminals
<b>Type of the connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>• for main contacts</li> </ul>		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• solid</li> </ul>		
<ul style="list-style-type: none"> <li>• finely stranded</li> </ul>		
<ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul>		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>

- for AWG conductors / for main contacts
- for auxiliary contacts
  - solid
  - finely stranded
    - with conductor end processing
- for AWG conductors / for auxiliary contacts

	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)

### Sicherheitsrelevante Kenngrößen:

#### B10 value / with high demand rate

- according to SN 31920

	1,000,000
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#### 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
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#### Product function

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

Yes
with 3RH29
No

### Certificates/approvals:

<b>General Product Approval</b>	<b>EMC</b>	<b>Functional Safety / Safety of Machinery</b>
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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

**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**

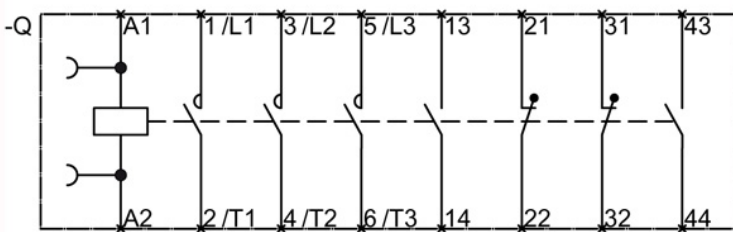
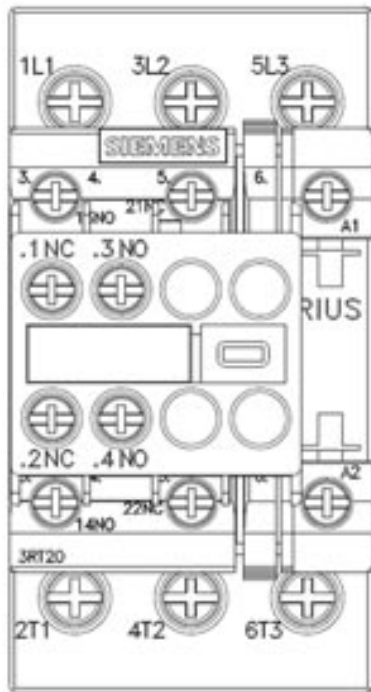
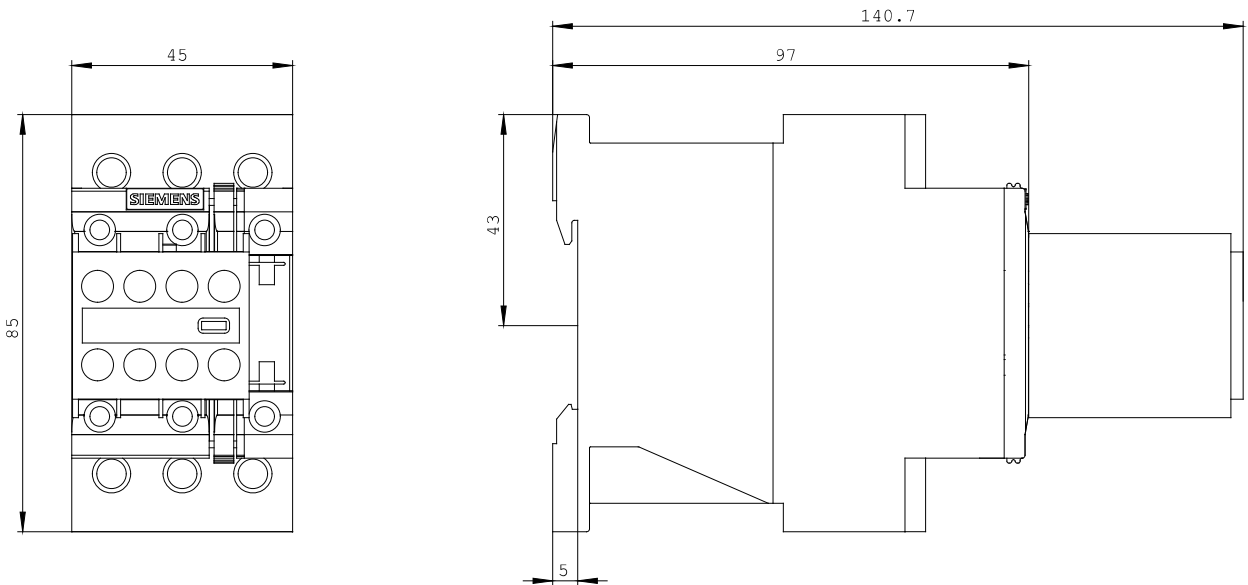
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RT2024-1AC24/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2024-1AC24](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2024-1AC24)



last change:

Feb 15, 2013