

CONTACTOR, AC-3, 5.5KW/400V, 1NO,  
DC 24V, COM. CAPABILITY 3-POLE,  
SZ S00 SPRING-LOADED TERMINAL

## General technical data:

product brand name		SIRIUS
Size of the contactor		S00
Product extension		
• auxiliary switch		Yes
• function module for communication		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
• during operating	°C	-25 ... +60
Shock resistance		
• at rectangular impulse		
• at DC		7.3g / 5 ms, 4.7g / 10 ms
• at sine pulse		
• at DC		11.4g / 5 ms, 7.3g / 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		30,000,000
• 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>Connectable conductor cross-section / in main circuit</b>		
• at AC-1		
• at 40 °C / minimum permissible	m <sup>2</sup>	4
• at 60 °C / minimum permissible	m <sup>2</sup>	2.5
<b>Operating current</b>		
• at AC-1 / up to 690 V		
• at 40 °C ambient temperature / rated value	A	22
• at 60 °C ambient temperature / rated value	A	20
• 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	9.2
• at 690 V / rated value	A	6.7
• at AC-4 / at 400 V / rated value	A	8.5
<b>Operational current / for ≥ 200000 operating cycles / at AC-4</b>		
• at 400 V / rated value	A	4.1
• at 690 V / rated value	A	3.3
<b>Operating current</b>		
• with 1 current path / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	2.1
• at 220 V / rated value	A	0.8
• at 440 V / rated value	A	0.6
• at 600 V / rated value	A	0.6
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	12
• at 220 V / rated value	A	1.6
• at 440 V / rated value	A	0.8
• at 600 V / rated value	A	0.7

<ul style="list-style-type: none"> <li>• with 3 current paths in series / at DC-1 <ul style="list-style-type: none"> <li>• at 24 V / rated value</li> <li>• at 110 V / rated value</li> <li>• at 220 V / rated value</li> <li>• at 440 V / rated value</li> <li>• at 600 V / rated value</li> </ul> </li> </ul>	A	20
	A	20
	A	20
	A	1.3
	A	1
<b>Operating current</b>		
<ul style="list-style-type: none"> <li>• with 1 current path / at DC-3 / at DC-5 <ul style="list-style-type: none"> <li>• at 24 V / rated value</li> <li>• at 110 V / rated value</li> </ul> </li> <li>• with 2 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> <li>• at 24 V / rated value</li> <li>• at 110 V / rated value</li> </ul> </li> <li>• with 3 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> <li>• at 24 V / rated value</li> <li>• at 110 V / rated value</li> <li>• at 220 V / rated value</li> <li>• at 440 V / rated value</li> <li>• at 600 V / rated value</li> </ul> </li> </ul>	A	20
	A	0.1
	A	20
	A	0.35
	A	20
	A	20
	A	1.5
	A	0.2
	A	0.2
<b>Service power</b>		
• at AC-1 / at 230 V / rated value	kW	7.5
• at AC-1 / at 400 V / rated value	kW	13
• at AC-1 / at 690 V / rated value	kW	22
• at AC-2 <ul style="list-style-type: none"> <li>• at 400 V / rated value</li> </ul>	kW	5.5
• at AC-3 <ul style="list-style-type: none"> <li>• at 230 V / rated value</li> <li>• at 400 V / rated value</li> <li>• at 690 V / rated value</li> </ul>	kW	3
	kW	5.5
	kW	5.5
• at AC-4 <ul style="list-style-type: none"> <li>• at 400 V / rated value</li> </ul>	kW	4
<b>Operating performance / for <math>\geq 200000</math> operating cycles / at AC-4</b>		
• at 400 V / rated value	kW	2
• at 690 V / rated value	kW	2.5
<b>Thermal short-time current / restricted to 10 s</b>		
	A	90
<b>Active power loss / at AC-3 / at 400 V / with rated Operating current value / per conductor</b>		
	W	1.2
<b>Off-load operating frequency</b>		
• at DC	1/h	10,000
<b>Frequency of operation</b>		

- with AC-1 / maximum
- with AC-2 / maximum
- with AC-3 / maximum
- with AC-4 / maximum

1/h	1,000
1/h	750
1/h	750
1/h	250

#### Control circuit/ Control:

<b>Voltage type / of control feed 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	4
<b>Holding power / of the solenoid / for DC</b>	W	4
<b>Closing delay</b>		
• at DC	ms	30 ... 100
<b>Opening delay</b>		
• at DC	ms	7 ... 13
<b>Arcing time</b>	ms	10 ... 15
<b>Residual current / of electronics / for control with signal &lt;0&gt;</b>		
• at 230 V / with AC / maximum permissible	mA	4
• at 24 V / with DC / maximum permissible	mA	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>		0
<b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b>		1
<b>Operational current</b>		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V / rated value	A	10
• at 400 V / rated value	A	3
• at 500 V / rated value	A	2
• at 690 V / rated value	A	1
<b>Operating current / at DC-12</b>		
• at 24 V / rated value	A	10
• at 48 V / rated value	A	6
• at 60 V / rated value	A	6
• at 110 V / rated value	A	3

• at 125 V / rated value	A	2
• at 220 V / rated value	A	1
• at 440 V / rated value	A	0.3
• at 600 V / rated value	A	0.15
<b>Operating current / at DC-13</b>		
• at 24 V / rated value	A	10
• at 48 V / rated value	A	2
• at 60 V / rated value	A	2
• at 110 V / rated value	A	1
• at 125 V / rated value	A	0.9
• at 220 V / rated value	A	0.3
• at 440 V / rated value	A	0.14
• at 600 V / rated value	A	0.1

#### UL/CSA ratings:

<b>yielded mechanical performance (hp)</b>		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	0.5
• at 230 V / rated value	hp	2
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	3
• at 220/230 V / rated value	hp	3
• at 460/480 V / rated value	hp	7.5
• at 575/600 V / rated value	hp	10
<b>Full-load current (FLA) / for 3-phase motor</b>		
• at 480 V / rated value	A	11
• at 600 V / rated value	A	11
<b>Contact rating designation / for auxiliary contacts / according to UL</b>		A600 / Q600

#### Short-circuit:

<b>Design of the fuse link</b>		
• for short-circuit protection of the auxiliary switch / required		fuse gL/gG: 10 A
• for short-circuit protection of the main circuit		
• with type of assignment 1 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
• at type of coordination 2 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20A

#### 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
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<b>Mounting type</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<b>Mounting type / series installation</b>		Yes
<b>Width</b>	mm	45
<b>Height</b>	mm	69.5
<b>Depth</b>	mm	73
<b>Distance, to be maintained, to the ranks assembly / sideways</b>	mm	0

#### Connections/ terminals:

##### Design of the electrical connection

• for main current circuit	spring-loaded terminals
• for auxiliary and control current circuit	spring-loaded terminals
• for main contacts / finely stranded / with conductor end processing	2x (0.5 ... 2.5 mm²)
• for main contacts / finely stranded / without conductor final cutting	2x (0.5 ... 2.5 mm²)
• for AWG conductors / for main contacts	2x (20 ... 12)
• for auxiliary contacts / finely stranded / with conductor end processing	2x (0.5 ... 2.5 mm²)
• for auxiliary contacts / finely stranded / without conductor final cutting	2x (0.5 ... 2.5 mm²)
• for AWG conductors / for auxiliary contacts	2x (20 ... 12)

#### Safety related data:

##### 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	%	40
• with high demand rate / according to SN 31920	%	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	Yes
• comment	with 3RH29
• positively driven operation to IEC 60947-5-1	No

#### Certificates/ approvals:

## General Product Approval



## Functional Safety / Safety of Machinery

[Type Examination](#)

## Declaration of Conformity



## Test Certificates

[other](#)

[Special Test  
Certificate](#)

[Type Test  
Certificates/Test  
Report](#)

## Shipping Approval



## Shipping Approval

[other](#)



[Confirmation](#)



[Environmental  
Confirmations](#)

## 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

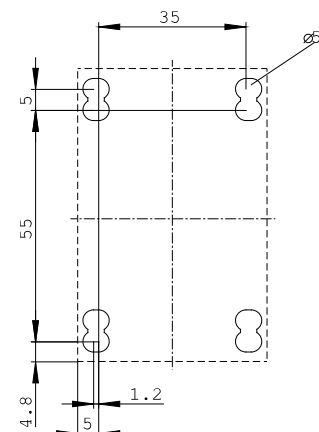
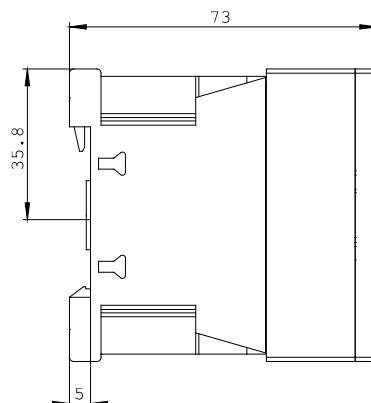
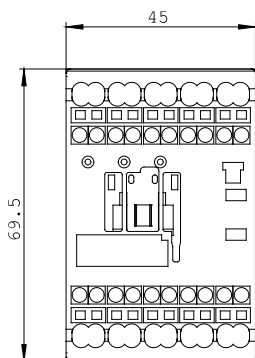
<http://www.siemens.com/cax>

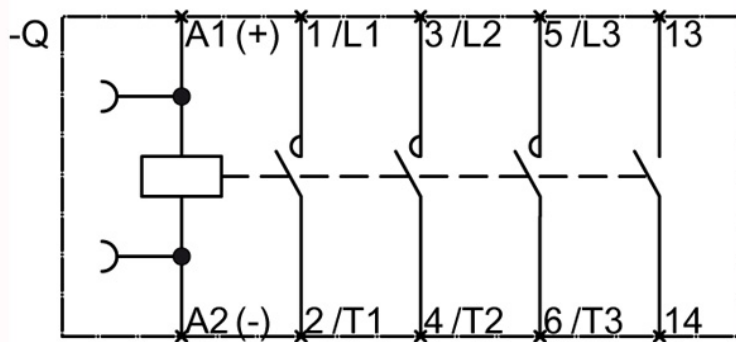
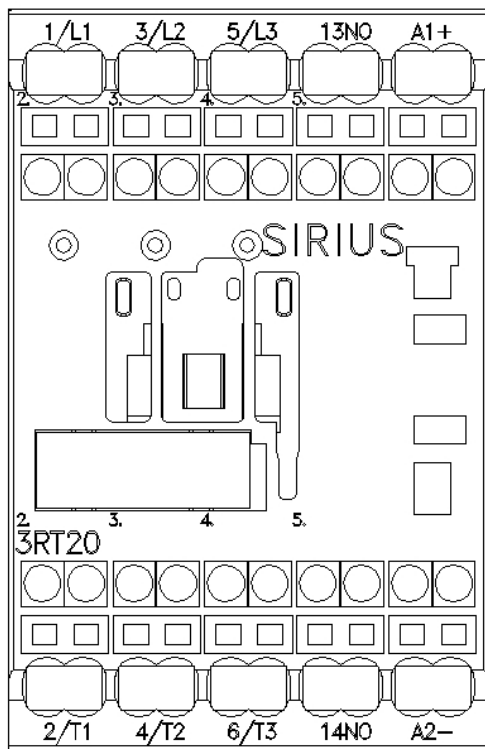
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2017-2BB41-0CC0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2017-2BB41-0CC0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2017-2BB41-0CC0)





last change:

Mar 17, 2014