

CONTACTOR, AC-3, 5.5KW/400V, 1NO,  
AC 220V 50HZ 240V 60 HZ, 3-POLE,  
SZ S00 SCREW TERMINAL

General technical data:

<b>product brand name</b>		SIRIUS
<b>Size of the contactor</b>		S00
<b>Product extension</b>		
• auxiliary switch		Yes
• function module for communication		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 AC		7,3g / 5 ms, 4,7g / 10 ms
• at sine pulse		
• at AC		11,4g / 5 ms, 7,3g / 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		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	mm <sup>2</sup>	4
• at 60 °C / minimum permissible	mm <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 AC	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>		AC
<b>Control supply voltage</b>		
• at 50 Hz / at AC / rated value	V	220
• at 60 Hz / at AC / rated value	V	240
<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	43
<b>Apparent holding power / of the solenoid / for AC</b>	V·A	6.5
<b>Inductive power factor</b>		
• with the pull-in power of the coil		0.8
• with the pull-in power of the coil		0.25
<b>Closing delay</b>		
• at AC	ms	8 ... 33
<b>Opening delay</b>		
• at AC	ms	4 ... 15
<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>Operating 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
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### 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
<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	57.5
<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
- for auxiliary and control current circuit
- for main contacts / finely stranded / with conductor end processing
- for AWG conductors / for main contacts
- for auxiliary contacts / finely stranded / with conductor end processing
- for AWG conductors / for auxiliary contacts

screw-type terminals  
screw-type terminals  
2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
2x (20 ... 16), 2x (18 ... 14), 2x 12  
2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
2x (20 ... 16), 2x (18 ... 14), 2x 12

#### Safety related data:

<b>B10 value / with high demand rate</b>		1,000,000
<ul style="list-style-type: none"> <li>• according to SN 31920</li> </ul>		
<b>T1 value / for proof test interval or service life</b>		20
<ul style="list-style-type: none"> <li>• according to IEC 61508</li> </ul>	a	
<b>Proportion of dangerous failures</b>		
<ul style="list-style-type: none"> <li>• with low demand rate / according to SN 31920</li> </ul>	%	40
<ul style="list-style-type: none"> <li>• with high demand rate / according to SN 31920</li> </ul>	%	73
<b>Failure rate (FIT value) / with low demand rate</b>		100
<ul style="list-style-type: none"> <li>• according to SN 31920</li> </ul>	FIT	
<b>Product function</b>		
<ul style="list-style-type: none"> <li>• mirror contact to IEC 60947-4-1</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• comment</li> </ul>		with 3RH29
<ul style="list-style-type: none"> <li>• positively driven operation to IEC 60947-5-1</li> </ul>		No

#### Certificates/ approvals:

General Product Approval

Functional Safety / Safety of Machinery

Declaration of Conformity



[Type Examination](#)



Test Certificates

[Special Test Certificate](#)

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

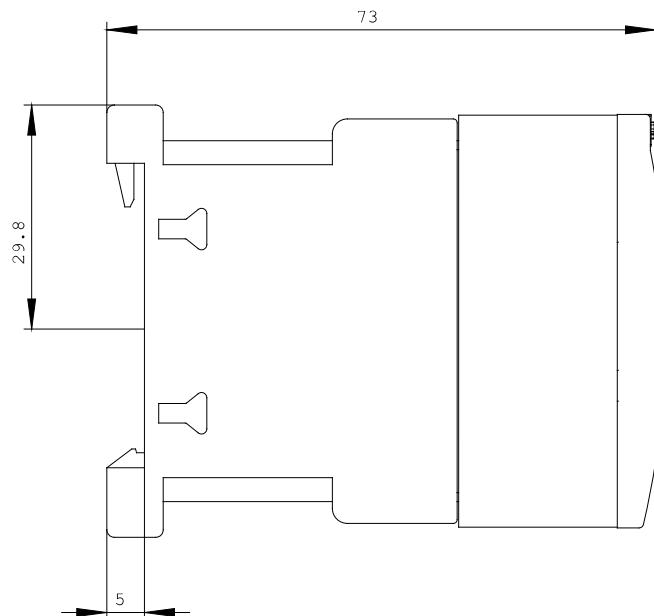
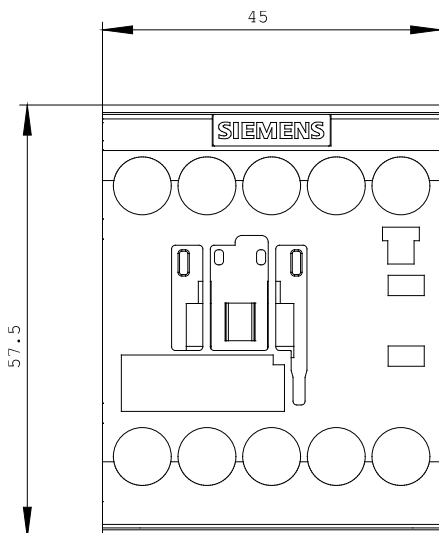
<http://www.siemens.com/cax>

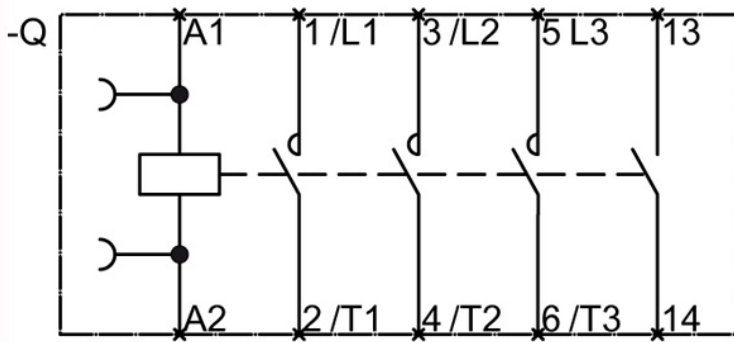
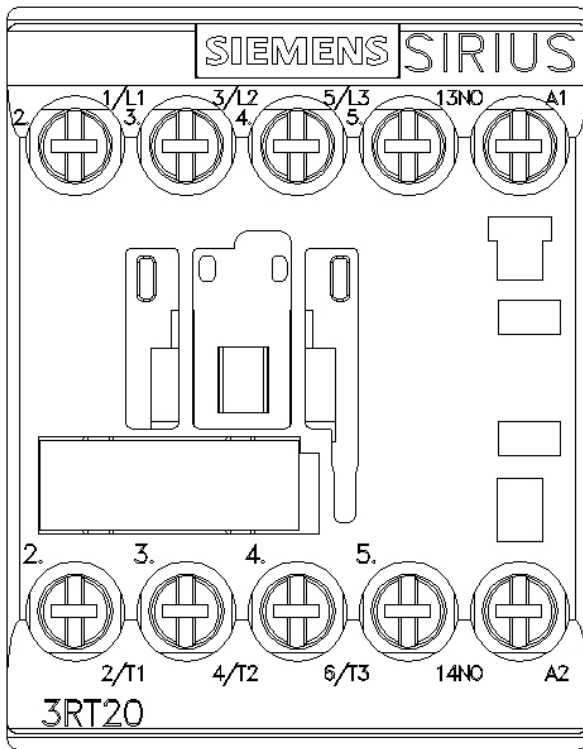
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2017-1AP61/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2017-1AP61](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2017-1AP61)





last change:

Apr 21, 2014