

4NO CONTACTOR, AC1: 18A DC 24V 4-POLE,  
4NO, 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		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 DC		6,7g / 5 ms, 4,2g / 10 ms
• at sine pulse		
• at DC		10,5g / 5 ms, 6,6g / 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>		4
<b>Connectable conductor cross-section / in main circuit</b>		
• at AC-1		
• at 40 °C / minimum permissible	m <sup>2</sup>	2.5
• 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	18
• at 60 °C ambient temperature / rated value	A	16
• at AC-2 / at 400 V / rated value	A	9
• at AC-3		
• at 400 V / rated value	A	9
• at AC-4 / at 400 V / rated value	A	8.5
<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
• 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
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	20
• at 220 V / rated value	A	16
• at 440 V / rated value	A	1.3
<b>Operating current</b>		
• 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> <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> </ul> </li> </ul>	A	20
	A	0.1
	A	20
	A	0.35
	A	20
	A	20
	A	1.5
	A	0.2
<b>Service power</b>		
<ul style="list-style-type: none"> <li>• at AC-1 / at 230 V / rated value</li> <li>• at AC-1 / at 400 V / rated value</li> <li>• at AC-2 <ul style="list-style-type: none"> <li>• at 400 V / rated value</li> </ul> </li> <li>• at AC-3 <ul style="list-style-type: none"> <li>• at 230 V / rated value</li> <li>• at 400 V / rated value</li> </ul> </li> <li>• at AC-4 <ul style="list-style-type: none"> <li>• at 400 V / rated value</li> </ul> </li> </ul>	kW	6.5
	kW	11
	kW	4
	kW	2.2
	kW	4
	kW	4
<b>Thermal short-time current / restricted to 10 s</b>	A	72
<b>Active power loss / at AC-3 / at 400 V / with rated Operating current value / per conductor</b>	W	0.7
<b>Off-load operating frequency</b>		
<ul style="list-style-type: none"> <li>• at DC</li> </ul>	1/h	10,000
<b>Frequency of operation</b>		
<ul style="list-style-type: none"> <li>• at AC-1 / according to IEC 60947-6-2</li> <li>• at AC-2 / according to IEC 60947-6-2</li> <li>• at AC-3 / according to IEC 60947-6-2</li> <li>• at AC-4 / according to IEC 60947-6-2</li> </ul>	1/h	1,000
	1/h	750
	1/h	750
	1/h	250
<b>Control circuit/ Control:</b>		
<b>Type of voltage / of the controlled supply voltage</b>		DC
<b>Control supply voltage</b>		
<ul style="list-style-type: none"> <li>• for DC / rated value</li> </ul>	V	24
<b>operating range factor control supply voltage rated value / of the magnet coil</b>		
<ul style="list-style-type: none"> <li>• for DC</li> </ul>		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

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>		0
<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
<b>Operating current / at DC-12</b>		
• 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 220 V / rated value	A	0.3
• 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	0.33
• at 230 V / rated value	hp	1
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	2
• at 220/230 V / rated value	hp	3
• at 460/480 V / rated value	hp	5

• at 575/600 V / rated value	hp	7.5
<b>Operating current (FLA) / for three-phase squirrel cage motors</b>		
• at 480 V / rated value	A	7.6
• at 600 V / rated value	A	9
<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: 35 A

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>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	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
- for auxiliary and control current circuit
- for main contacts / finely stranded / with conductor end processing
- for main contacts / finely stranded / without conductor final cutting
- for AWG conductors / for main contacts
- for auxiliary contacts / finely stranded / with conductor end processing
- for auxiliary contacts / finely stranded / without conductor final cutting
- for AWG conductors / for auxiliary contacts

spring-loaded terminals

screw-type terminals

2x (0.5 ... 2.5 mm²)

2x (0.5 ... 2.5 mm²)

2x (20 ... 16), 2x (18 ... 14), 2x 12

2x (0.5 ... 2.5 mm²)

2x (0.5 ... 2.5 mm²)

2x (20 ... 16), 2x (18 ... 14), 2x 12

#### Sicherheitsrelevante Kenngrößen:

<b>B10 value / with high demand rate</b>		
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• 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
• 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



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

[Environmental  
Confirmations](#)

#### Further information:

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

##### Industry Mall (Online ordering system)

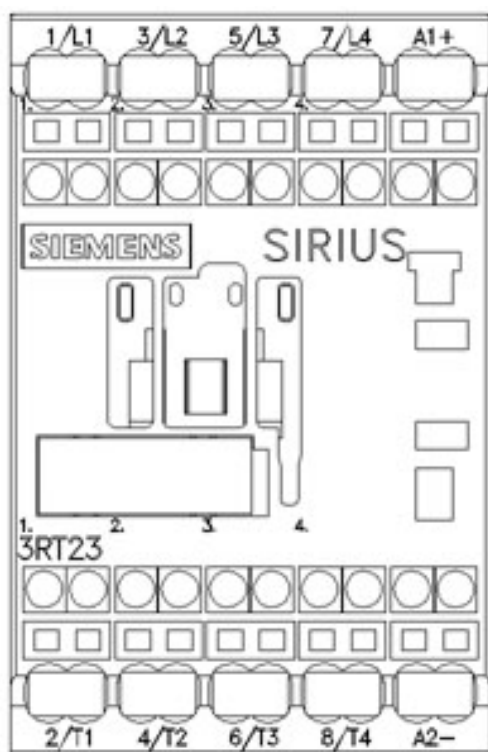
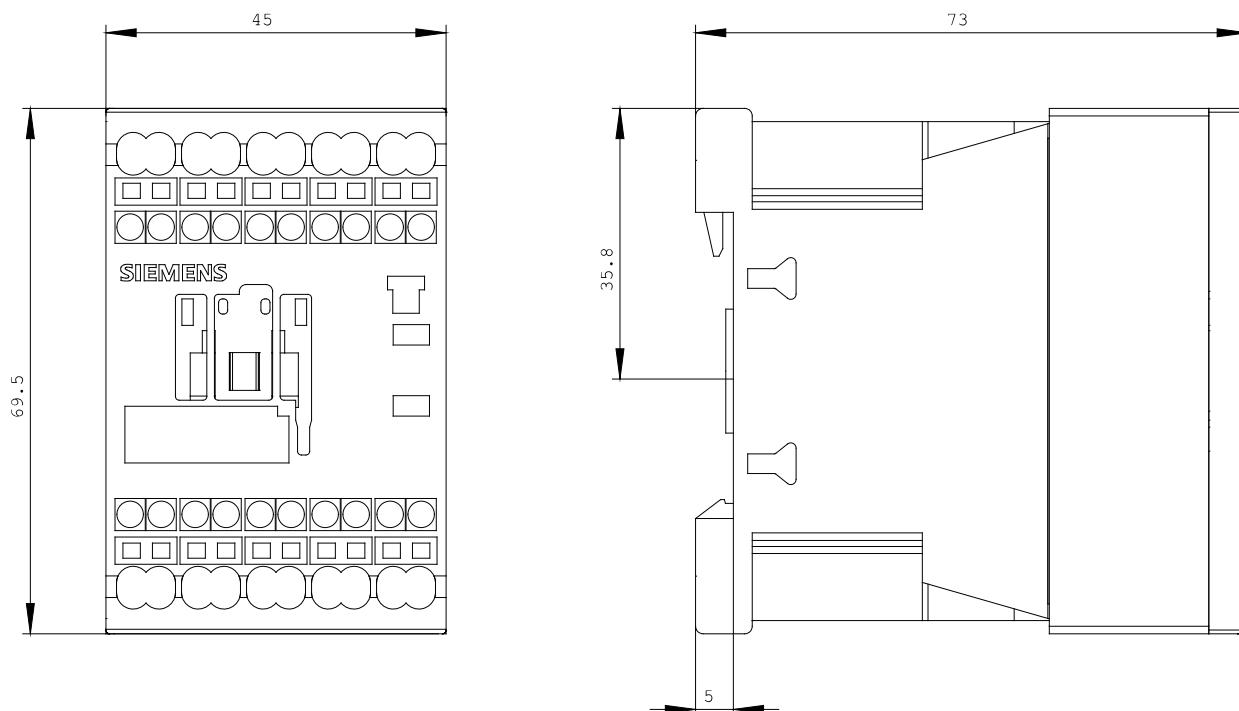
<http://www.siemens.com/industrial-controls/mall>

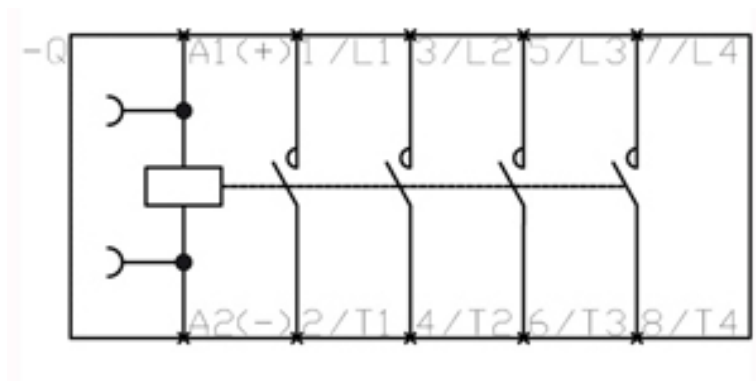
##### Cax online generator

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

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

<http://support.automation.siemens.com/WW/view/en/3RT2316-2BB40/all>





last change:

Oct 29, 2013