



CONTACTOR RELAY, 4NO, DC 220V,  
SIZE S00, SCREW TERMINAL

General technical data:		
product brand name		SIRIUS
Size of the contactor		S00
Identification number and letter for switching elements		40 E
Product extension / auxiliary switch		Yes
Protection class IP / on the front		IP20
Protection against electrical shock		finger-safe
Degree of pollution		3
Insulation voltage / with degree of pollution 3 / rated value	V	690
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		10g / 5 ms, 5g / 10 ms
• at sine pulse		
• at DC		15g / 5 ms, 8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Mechanical operating cycles as operating time		

• 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		10,000,000

#### Control circuit:

<b>Type of voltage / of the controlled supply voltage</b>		DC
<b>Control supply voltage / 1</b> • for DC / rated value	V	220
<b>Operating range factor control supply voltage rated value / of the magnet coil</b> • for DC		0.8 ... 1.1
<b>Holding power / of the solenoid / for DC</b>	W	4
<b>Pull-in 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	25 ... 90
<b>Arcing time</b>	s	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 NO contacts / for auxiliary contacts / instantaneous switching</b>		4
<b>Operating current / of the auxiliary contacts / at AC-12 / maximum</b>	A	10
<b>Operating current / of the auxiliary contacts / at AC-15</b> • at 230 V • at 400 V • at 500 V • at 690 V	A A A A	10 3 2 1
<b>Operating current</b> • of the auxiliary contacts / with 1 current path / at DC-12 • at 24 V • at 110 V • at 220 V • with 2 current paths in series / at DC-12 • at 24 V / rated value • at 60 V / rated value • at 110 V / rated value • at 220 V / rated value • at 440 V / rated value	A A A A A A A A A	10 3 1 10 10 4 2 1.3

<ul style="list-style-type: none"> <li>• at 600 V / rated value</li> </ul>	A	0.65
<ul style="list-style-type: none"> <li>• with 3 current paths in series / at DC-12</li> </ul>		
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 24 V / rated value</li> </ul> </li> </ul>	A	10
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 60 V / rated value</li> </ul> </li> </ul>	A	10
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 110 V / rated value</li> </ul> </li> </ul>	A	10
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 220 V / rated value</li> </ul> </li> </ul>	A	3.6
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 440 V / rated value</li> </ul> </li> </ul>	A	2.5
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 600 V / rated value</li> </ul> </li> </ul>	A	1.8
<b>Operating current</b>		
<ul style="list-style-type: none"> <li>• of the auxiliary contacts / with 1 current path / at DC-13</li> </ul>		
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 24 V</li> </ul> </li> </ul>	A	10
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 110 V</li> </ul> </li> </ul>	A	1
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 220 V</li> </ul> </li> </ul>	A	0.3
<ul style="list-style-type: none"> <li>• with 2 current paths in series / at DC-13</li> </ul>		
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 24 V / rated value</li> </ul> </li> </ul>	A	10
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 60 V / rated value</li> </ul> </li> </ul>	A	3.5
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 110 V / rated value</li> </ul> </li> </ul>	A	1.3
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 220 V / rated value</li> </ul> </li> </ul>	A	0.9
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 440 V / rated value</li> </ul> </li> </ul>	A	0.2
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 600 V / rated value</li> </ul> </li> </ul>	A	0.1
<ul style="list-style-type: none"> <li>• with 3 current paths in series / at DC-13</li> </ul>		
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 24 V / rated value</li> </ul> </li> </ul>	A	10
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 60 V / rated value</li> </ul> </li> </ul>	A	4.7
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 110 V / rated value</li> </ul> </li> </ul>	A	3
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 220 V / rated value</li> </ul> </li> </ul>	A	1.2
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 440 V / rated value</li> </ul> </li> </ul>	A	0.5
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>• at 600 V / rated value</li> </ul> </li> </ul>	A	0.26
<b>Off-load operating frequency</b>		
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	1/h	10,000
<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-12 / maximum</li> </ul>	1/h	1,000
<ul style="list-style-type: none"> <li>• at AC-14 / maximum</li> </ul>	1/h	1,000
<ul style="list-style-type: none"> <li>• at AC-15 / maximum</li> </ul>	1/h	1,000
<ul style="list-style-type: none"> <li>• at DC-12 / maximum</li> </ul>	1/h	1,000
<ul style="list-style-type: none"> <li>• at DC-13 / maximum</li> </ul>	1/h	1,000

#### Short-circuit:

**Design of the fuse link / for short-circuit protection of the auxiliary switch**

- required

Fuse gL/gG: 10 A, miniature circuit breaker C 6 A  
(short-circuit current I<sub>k</sub> < 400 A)

### 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
<b>Width</b>	mm	45
<b>Height</b>	mm	57.5
<b>Depth</b>	mm	73

### Connections:

<b>Design of the electrical connection</b>		screw-type terminals
<ul style="list-style-type: none"> <li>• for auxiliary and control current circuit</li> </ul>		
<b>Type of the connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>• for auxiliary contacts             <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded                 <ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul> </li> </ul> </li> <li>• for AWG conductors / for auxiliary contacts</li> </ul>		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 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), 2x 12

### Certificates/approvals:

#### General Product Approval

#### Functional Safety / Safety of Machinery

#### Declaration of Conformity



CCC



CSA



GOST



UL

[Type Examination](#)



EG-Konf.

#### Test Certificates

[Special Test  
Certificate](#)

[Type Test  
Certificates/Test  
Report](#)

#### Shipping Approval



ABS



BUREAU  
VERITAS



DNV



GL



LRS



PRS

#### Shipping Approval

#### other



RINA



RMRS



VDE

### UL/CSA ratings:

Contact rating designation / for auxiliary contacts / according to UL

A600 / Q600

### Sicherheitsrelevante Kenngrößen:

#### B10 value / with high demand rate

- according to SN 31920
- note

1,000,000

With 0.3 x I<sub>e</sub>

#### 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
- with high demand rate / according to SN 31920

%

40

%

73

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

- according to SN 31920

FIT

100

#### Product function / positively driven operation to IEC 60947-5-1

- comment

Yes

with 3RH29

### 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:

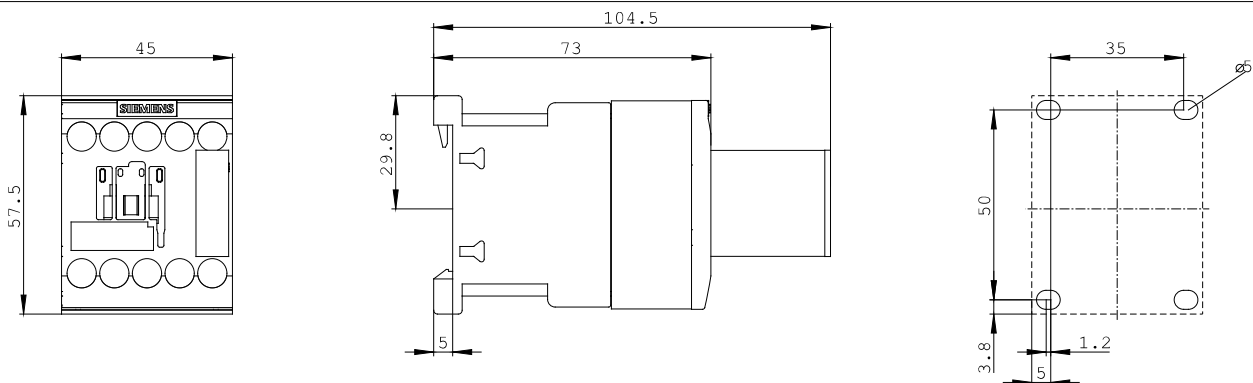
<http://www.siemens.com/cax>

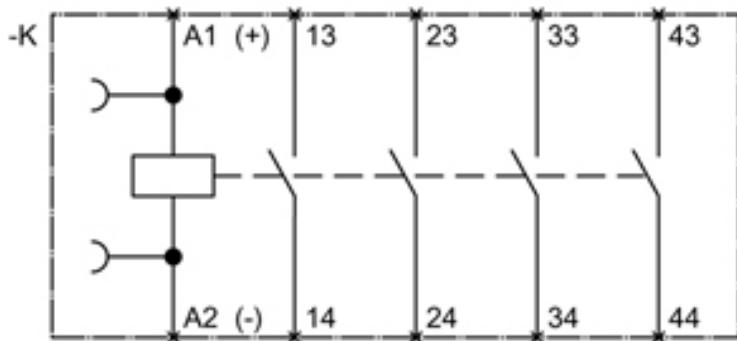
#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RH2140-1BM40/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RH2140-1BM40](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH2140-1BM40)





last change:

Dec 3, 2012