



CONTACTOR RELAY, 4NO, AC 110V 50HZ, 120V 60HZ, SZ S00, SPRING-LOADED TERMINAL

product brand name	SIRIUS
Product designation	contactor relay
<b>General technical data:</b>	
Size of contactor	S00
Product expansion	
• Auxiliary switch	Yes
Insulation voltage	
• with degree of pollution 3 Rated value	690 V
Surge voltage resistance Rated value	6 kV
Protection class IP	
• on the front	IP20
Degree of pollution	3
Mechanical service life (switching cycles)	
• of the contactor typical	30 000 000
• of the contactor with added electronics-compatible auxiliary switch block typical	5 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
Equipment marking	
• acc. to DIN EN 61346-2	K
• acc. to DIN EN 81346-2	K
<b>Ambient conditions:</b>	
Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	

- during operation
- during storage

-25 ... +60 °C

-55 ... +80 °C

#### Main circuit:

##### No-load switching frequency

- at AC
- at DC

10 000 1/h

10 000 1/h

#### Control circuit/ Control:

##### Type of voltage of the control supply voltage

AC

##### Control supply voltage at AC

- at 50 Hz Rated value
- at 60 Hz Rated value
- Rated value

110 V

120 V

50 Hz

##### Control supply voltage frequency 2 Rated value

60 Hz

##### Operating range factor control supply voltage rated value of the magnet coil at AC

- at 50 Hz
- at 60 Hz

0.8 ... 1.1

0.85 ... 1.1

##### Apparent pick-up power of the magnet coil at AC

37 V·A

##### Inductive power factor with closing power of the coil

0.8

##### Apparent holding power of the magnet coil at AC

5.7 V·A

##### Inductive power factor with the holding power of the coil

0.25

##### Closing delay

- at AC

8 ... 33 ms

##### Opening delay

- at AC

4 ... 15 ms

##### Arcing time

10 ... 15 s

#### Auxiliary circuit:

##### Number of NO contacts

- for auxiliary contacts
- instantaneous contact

4

4

##### Identification number and letter for switching elements

40 E

##### Operating current at AC-12 maximum

10 A

##### Operating current at AC-15

- at 230 V Rated value
- at 400 V Rated value
- at 500 V Rated value
- at 690 V Rated value

10 A

3 A

2 A

1 A

##### Operating current with 1 current path at DC-12

- at 24 V Rated value

10 A

<ul style="list-style-type: none"> <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>	3 A 1 A 0.3 A 0.15 A
<b>Operating current with 2 current paths in series at DC-12</b> <ul style="list-style-type: none"> <li>• at 24 V Rated value</li> <li>• at 60 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>	10 A 10 A 4 A 2 A 1.3 A 0.65 A
<b>Operating current with 3 current paths in series at DC-12</b> <ul style="list-style-type: none"> <li>• at 24 V Rated value</li> <li>• at 60 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>	10 A 10 A 10 A 3.6 A 2.5 A 1.8 A
<b>Operating frequency at DC-12 maximum</b>	1 000 1/h
<b>Operating current with 1 current path at DC-13</b> <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>	10 A 1 A 0.3 A 0.14 A 0.1 A
<b>Operating current with 2 current paths in series at DC-13</b> <ul style="list-style-type: none"> <li>• at 24 V Rated value</li> <li>• at 60 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>	10 A 3.5 A 1.3 A 0.9 A 0.2 A 0.1 A
<b>Operating current with 3 current paths in series at DC-13</b> <ul style="list-style-type: none"> <li>• at 24 V Rated value</li> <li>• at 60 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>	10 A 4.7 A 3 A 1.2 A 0.5 A

<ul style="list-style-type: none"> <li>• at 600 V Rated value</li> </ul>	0.26 A
<b>Operating frequency at DC-13 maximum</b>	1 000 1/h
<b>Design of the miniature circuit breaker</b> <ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary circuit up to 230 V</li> </ul>	C characteristic: 6 A; 0.4 kA
<b>Contact reliability of the auxiliary contacts</b>	1 faulty switching per 100 million (17 V, 1 mA)

<b>UL/CSA ratings:</b>	
<b>Contact rating of the auxiliary contacts acc. to UL</b>	A600 / Q600

<b>Short-circuit:</b>	
<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

<b>Installation/ mounting/ dimensions:</b>	
<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
<b>Height</b>	70 mm
<b>Width</b>	45 mm
<b>Depth</b>	73 mm
<b>Required spacing</b> <ul style="list-style-type: none"> <li>• for grounded parts <ul style="list-style-type: none"> <li>— at the side</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— at the side</li> </ul> </li> </ul>	6 mm  6 mm

<b>Connections/ Terminals:</b>	
<b>Type of electrical connection</b> <ul style="list-style-type: none"> <li>• for auxiliary and control current circuit</li> </ul>	spring-loaded terminals
<b>Type of connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> </ul> </li> <li>• for AWG conductors for auxiliary contacts</li> </ul>	2x (0,5 ... 4 mm <sup>2</sup> ) 2x (0.5 ... 2.5 mm <sup>2</sup> ) 2x (0.5 ... 2.5 mm <sup>2</sup> )  2x (20 ... 12)

<b>Safety related data:</b>	
<b>B10 value with high demand rate acc. to SN 31920</b>	1 000 000; With 0.3 x I <sub>e</sub>
<b>Proportion of dangerous failures</b> <ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> <li>• with high demand rate acc. to SN 31920</li> </ul>	40 % 73 %
<b>Product function</b>	





- positively driven operation acc. to IEC 60947-5-1






Yes





T1 value for proof test interval or service life acc. to IEC 61508

20 y

### Certificates/ approvals:

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
 CSA  UL  EAC	<a href="#">Baumusterbescheinigung</a>	 EG-Konf.	<a href="#">spezielle Prüfbescheinigungen</a>

Test Certificates	Shipping Approval
<a href="#">Typprüfbescheinigung/Werkszeugnis</a>	 ABS  BUREAU VERITAS  DNV  GL  LRS

Shipping Approval	other
 PRS  RINA  RMRS	<a href="#">Umweltbestätigung</a>  VDE

### Further information

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

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

**Industry Mall (Online ordering system)**

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

**Cax online generator**

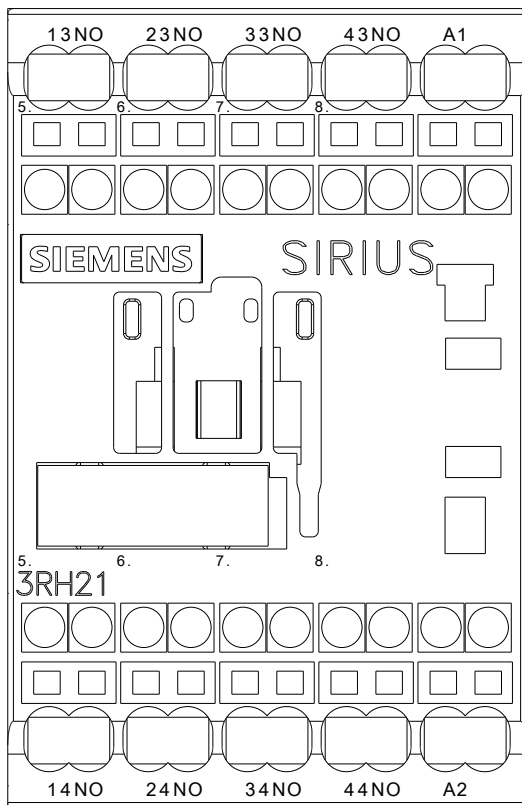
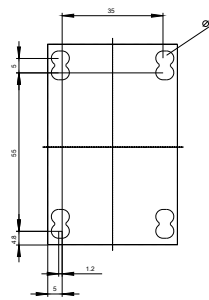
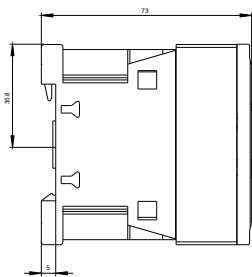
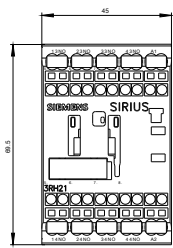
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH21402AK60>

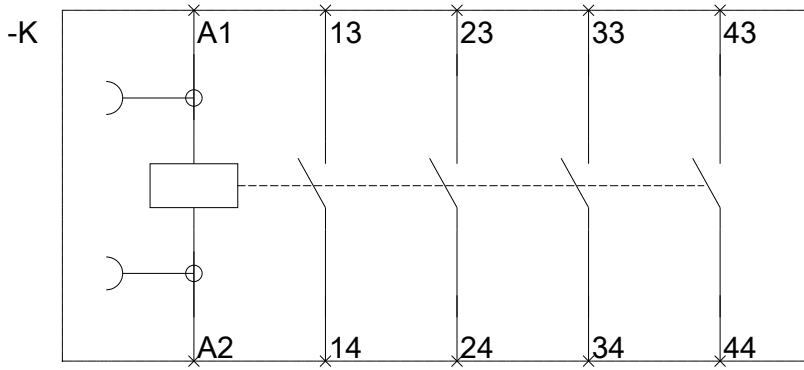
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RH21402AK60>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RH21402AK60&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH21402AK60&lang=en)





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