

CONTACTOR RELAY FOR RAILWAY, 2NO+1NC, DC 24V,  
0.7...1.25\*US, W/ INTEGRATED SUPPRESSOR DIODE, 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
- acc. to DIN EN 81346-2

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#### Ambient conditions:

<b>Installation altitude at height above sea level maximum</b>	2 000 m
<b>Ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during operation Note</li> <li>• during storage</li> </ul>	-40 ... +70 °C Railway application: See catalog for rated conditions -55 ... +80 °C

#### Main circuit:

<b>No-load switching frequency</b>	
<ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>	10 000 1/h 10 000 1/h

#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>	DC
<b>Control supply voltage at DC</b>	
<ul style="list-style-type: none"> <li>• Rated value</li> </ul>	24 V
<b>Operating range factor control supply voltage rated value of the magnet coil at DC</b>	0.7 ... 1.25
<b>Design of the surge suppressor</b>	with suppressor diode
<b>Closing power of the magnet coil at DC</b>	13 W
<b>Holding power of the magnet coil at DC</b>	4 W
<b>Closing delay</b>	
<ul style="list-style-type: none"> <li>• at DC</li> </ul>	30 ... 100 ms
<b>Opening delay</b>	
<ul style="list-style-type: none"> <li>• at DC</li> </ul>	7 ... 13 ms
<b>Arcing time</b>	10 ... 15 s

#### Auxiliary circuit:

<b>Number of NC contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— instantaneous contact</li> </ul>	1 1
<b>Number of NO contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— instantaneous contact</li> </ul>	2 2
<b>Identification number and letter for switching elements</b>	21
<b>Operating current at AC-12 maximum</b>	10 A
<b>Operating current at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 230 V Rated value</li> <li>• at 400 V Rated value</li> <li>• at 500 V Rated value</li> </ul>	10 A 3 A 2 A

<ul style="list-style-type: none"> <li>• at 690 V Rated value</li> </ul>	1 A
<b>Operating current at 1 current path at DC-12</b>	
<ul style="list-style-type: none"> <li>• at 24 V Rated value</li> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 110 V Rated value</li> </ul>	3 A
<ul style="list-style-type: none"> <li>• at 220 V Rated value</li> </ul>	1 A
<ul style="list-style-type: none"> <li>• at 440 V Rated value</li> </ul>	0.3 A
<ul style="list-style-type: none"> <li>• at 600 V Rated value</li> </ul>	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> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 60 V Rated value</li> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 110 V Rated value</li> </ul>	4 A
<ul style="list-style-type: none"> <li>• at 220 V Rated value</li> </ul>	2 A
<ul style="list-style-type: none"> <li>• at 440 V Rated value</li> </ul>	1.3 A
<ul style="list-style-type: none"> <li>• at 600 V Rated value</li> </ul>	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> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 60 V Rated value</li> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 110 V Rated value</li> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 220 V Rated value</li> </ul>	3.6 A
<ul style="list-style-type: none"> <li>• at 440 V Rated value</li> </ul>	2.5 A
<ul style="list-style-type: none"> <li>• at 600 V Rated value</li> </ul>	1.8 A
<b>Operating frequency at DC-12 maximum</b>	1 000 1/h
<b>Operating current at 1 current path at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V Rated value</li> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 110 V Rated value</li> </ul>	1 A
<ul style="list-style-type: none"> <li>• at 220 V Rated value</li> </ul>	0.3 A
<ul style="list-style-type: none"> <li>• at 440 V Rated value</li> </ul>	0.14 A
<ul style="list-style-type: none"> <li>• at 600 V Rated value</li> </ul>	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> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 60 V Rated value</li> </ul>	3.5 A
<ul style="list-style-type: none"> <li>• at 110 V Rated value</li> </ul>	1.3 A
<ul style="list-style-type: none"> <li>• at 220 V Rated value</li> </ul>	0.9 A
<ul style="list-style-type: none"> <li>• at 440 V Rated value</li> </ul>	0.2 A
<ul style="list-style-type: none"> <li>• at 600 V Rated value</li> </ul>	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> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 60 V Rated value</li> </ul>	4.7 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 1.2 A 0.5 A 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)

#### UL/CSA ratings:

<b>Contact rating of the auxiliary contacts acc. to UL</b>	A600 / Q600
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#### Short-circuit:

<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

#### 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
<b>Height</b>	70 mm
<b>Width</b>	45 mm
<b>Depth</b>	116 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

#### Safety related data:

<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>	
<ul style="list-style-type: none"> <li>• positively driven operation acc. to IEC 60947-5-1</li> </ul>	Yes
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	20 y

#### Certificates/ approvals:

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
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[Baumusterbescheinigung](#)



Test Certificates	Shipping Approval
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[spezielle Prüfbescheinigung](#)



Shipping Approval	other	Railway
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[Umweltbestätigung](#)



[Bestätigungen](#)

#### 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**

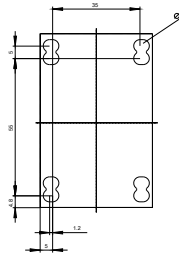
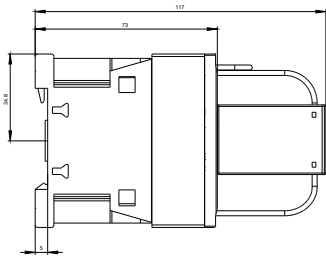
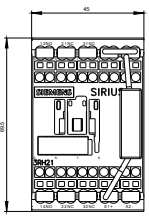
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH21222KB400LA0>

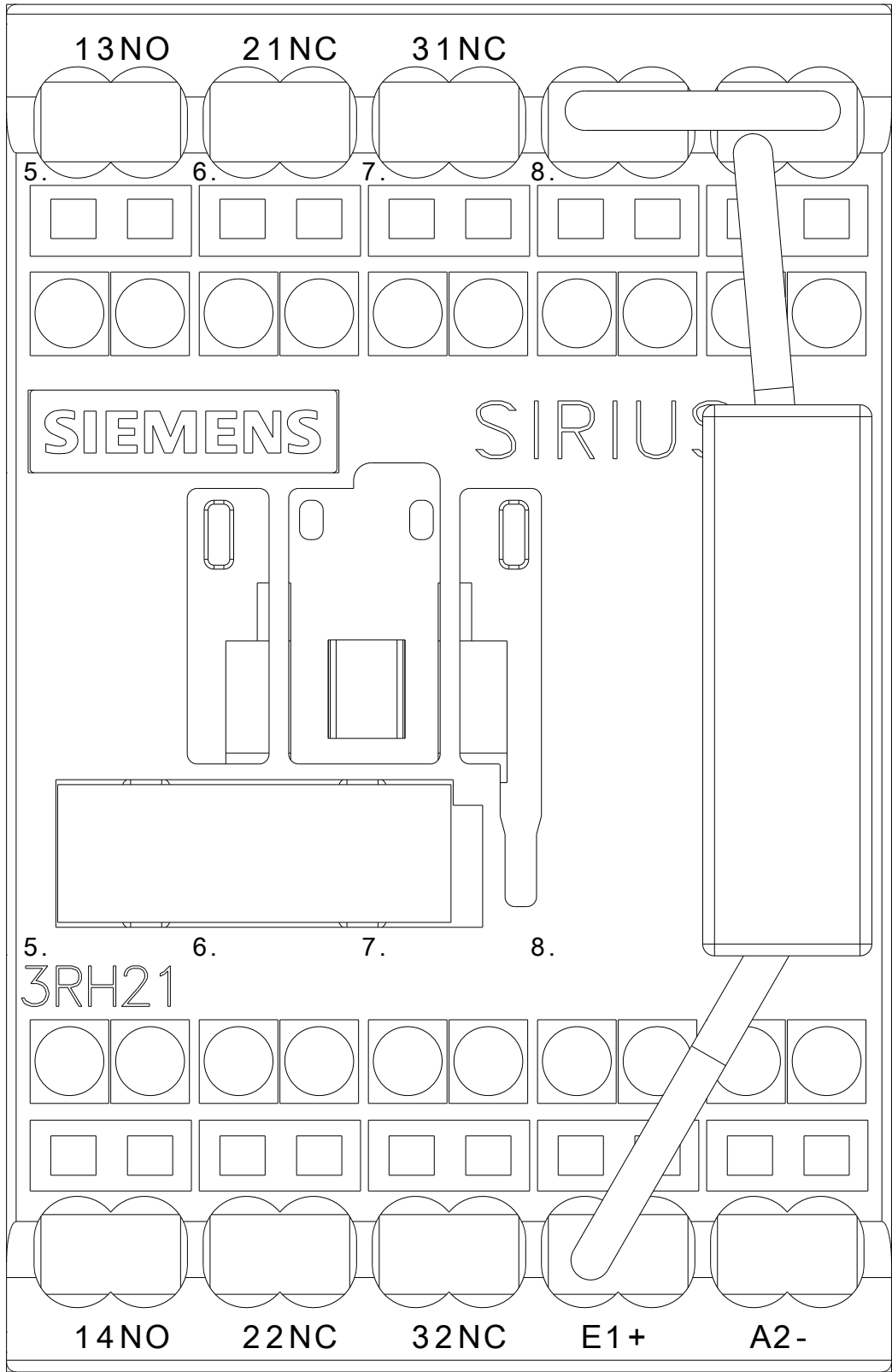
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RH21222KB400LA0>

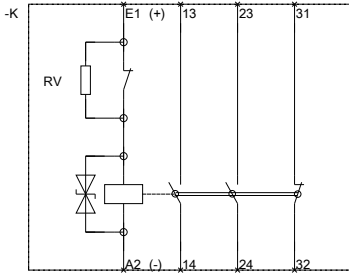
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RH21222KB400LA0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH21222KB400LA0&lang=en)





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