

CONTACTOR RELAY FOR RAILWAY, 2NO+1NC,  
DC 125V, 0.7..1.25\*US,  
W/ INTEGRATED SUPPRESSOR DIODE,  
SIZE S00, SCREW TERMINAL,  
OPTIMIZED MOUNTING (20G)

### General technical data:

product brand name		SIRIUS
Size of the contactor		S00
Identification number and letter for switching elements		22 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 <ul style="list-style-type: none"> <li>during storage</li> <li>during operating</li> <li>note</li> </ul>	°C °C	-55 ... +80 -40 ... +70 Railway application: See catalog for rated conditions
Shock resistance <ul style="list-style-type: none"> <li>at rectangular impulse</li> <li>at DC</li> <li>at sine pulse</li> <li>at DC</li> </ul>		10g / 5 ms, 5g / 10 ms  15g / 5 ms, 8g / 10 ms
Impulse voltage resistance / rated value	kV	6

<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

Control circuit/ Control:		
<b>Design of the surge suppressor</b>		with suppressor diode
<b>Voltage type / of control feed voltage</b>		DC
<b>Control supply voltage</b>		
• for DC / rated value	V	125
<b>Operating range factor control supply voltage rated value / of the magnet coil</b>		
• for DC		0.7 ... 1.25
<b>Holding power / of the solenoid / for DC</b>	W	4
<b>Pull-in power / of the solenoid / for DC</b>	W	13
<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 NC contacts / for auxiliary contacts / instantaneous switching</b>		1
<b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b>		2
<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</b>		
• with 1 current path / at DC-12		
• at 24 V / rated value	A	10
• at 110 V / rated value	A	3
• at 220 V / rated value	A	1
• at 440 V / rated value	A	0.3
• at 600 V / rated value	A	0.15

• with 2 current paths in series / at DC-12		
• at 24 V / rated value	A	10
• at 60 V / rated value	A	10
• at 110 V / rated value	A	4
• at 220 V / rated value	A	2
• at 440 V / rated value	A	1.3
• at 600 V / rated value	A	0.65
• with 3 current paths in series / at DC-12		
• at 24 V / rated value	A	10
• at 60 V / rated value	A	10
• at 110 V / rated value	A	10
• at 220 V / rated value	A	3.6
• at 440 V / rated value	A	2.5
• at 600 V / rated value	A	1.8
Operating current		
• with 1 current path / at DC-13		
• at 24 V / rated value	A	10
• at 110 V / rated value	A	1
• at 220 V / rated value	A	0.3
• at 440 V / rated value	A	0.14
• at 600 V / rated value	A	0.1
• with 2 current paths in series / at DC-13		
• at 24 V / rated value	A	10
• at 60 V / rated value	A	3.5
• at 110 V / rated value	A	1.3
• at 220 V / rated value	A	0.9
• at 440 V / rated value	A	0.2
• at 600 V / rated value	A	0.1
• with 3 current paths in series / at DC-13		
• at 24 V / rated value	A	10
• at 60 V / rated value	A	4.7
• at 110 V / rated value	A	3
• at 220 V / rated value	A	1.2
• at 440 V / rated value	A	0.5
• at 600 V / rated value	A	0.26
Off-load operating frequency		
• at AC	1/h	10,000
• at DC	1/h	10,000
Frequency of operation		
• at AC-12 / maximum	1/h	1,000

- at AC-14 / maximum
- at AC-15 / maximum
- at DC-12 / maximum
- at DC-13 / maximum

1/h	1,000
1/h	1,000
1/h	1,000
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

##### Design of the miniature circuit breaker / for short-circuit protection of the auxiliary circuit / up to 230 V

C characteristic: 6 A; 0.4 kA

#### Installation/ mounting/ dimensions:

##### mounting position

+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface

##### Mounting type

screw and snap-on mounting onto 35 mm standard mounting rail

##### Width

mm 45

##### Height

mm 57.5

##### Depth

mm 73

#### Connections/ terminals:

##### Design of the electrical connection

- for auxiliary and control current circuit
- for auxiliary contacts / finely stranded / with conductor end processing
- for AWG conductors / for auxiliary contacts

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

#### Certificates/ approvals:

General Product Approval	Functional Safety / Safety of Machinery	Declaration of Conformity
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CCC



CSA



UL

[Type Examination](#)


EG-Konf.

#### Test Certificates

[Special Test  
Certificate](#)

#### Shipping Approval



ABS

BUREAU  
VERITAS

DNV



GL



LRS



PRS

#### Shipping Approval

other



RINA



RMRS



VDE

[Environmental  
Confirmations](#)

#### UL/CSA ratings:

Contact rating designation / for auxiliary contacts / according to  
UL

A600 / Q600

#### Safety related data:

##### 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] / with low demand rate

- according to SN 31920

FIT

100

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

Yes

#### Further information:

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

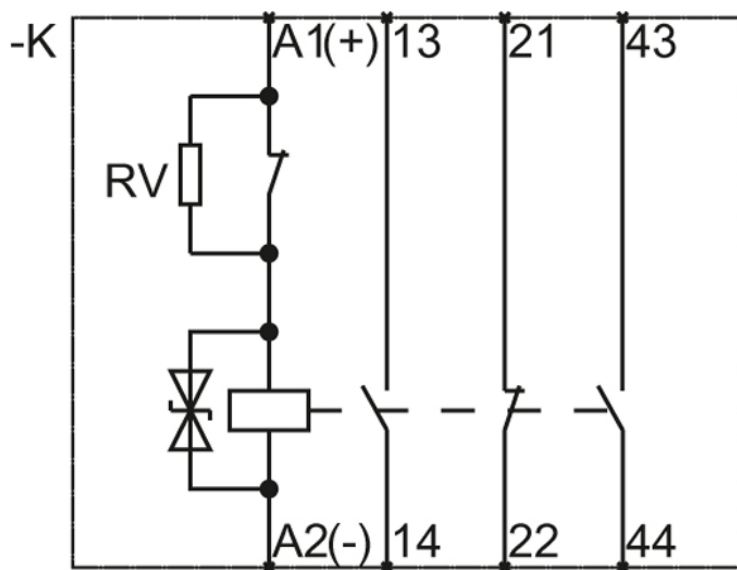
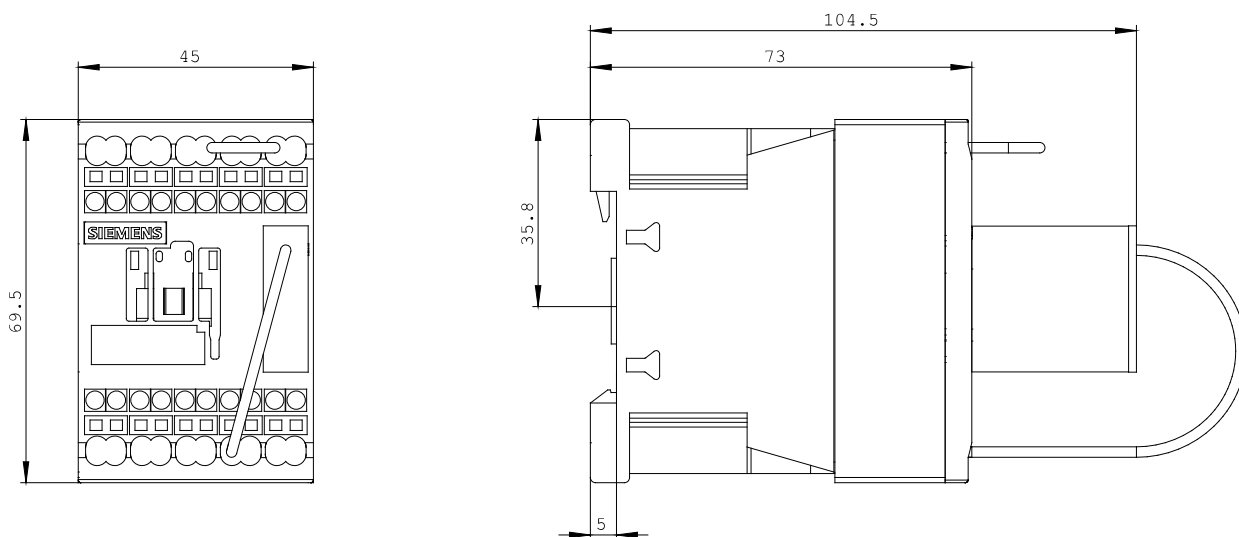
<http://www.siemens.com/industrial-controls/catalogs>

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

<http://mall.industry.siemens.com/>

##### Cax online generator

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



last change:

Jul 21, 2014