



COUPLING CONTACTOR RELAY, 3NO+1NC,
DC 24V, 0.85..1.85*US,
W/ INTEGRATED SUPPRESSOR DIODE, SZ S00,
SPRING-LOADED TERMINAL

General technical data:		
product brand name		SIRIUS
Size of the contactor		S00
Identification number and letter for switching elements		31 E
Product extension / auxiliary switch		No
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

Control circuit/ Control:

Design of the surge suppressor

with suppressor diode

Voltage type / of control feed voltage

DC

Control supply voltage

• for DC / rated value

V

24

Operating range factor control supply voltage rated value / of the magnet coil

• for DC

0.85 ... 1.85

Holding power / of the solenoid / for DC

W

1.6

Pull-in power / of the solenoid / for DC

W

1.6

Closing delay

• at DC

ms

30 ... 100

Opening delay

• at DC

ms

25 ... 90

Arcing time

s

10 ... 15

Auxiliary circuit:

Contact reliability / of the auxiliary contacts

1 faulty switching per 100 million (17 V, 1 mA)

Number of NC contacts / for auxiliary contacts / instantaneous switching

1

Number of NO contacts / for auxiliary contacts / instantaneous switching

3

Operating current

• 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

Operating current

• 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	1/h	1,000
• at AC-15 / maximum	1/h	1,000
• at DC-12 / maximum	1/h	1,000

- at DC-13 / maximum

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

70

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 auxiliary contacts / finely stranded / without conductor final cutting
- for AWG conductors / for auxiliary contacts

spring-loaded terminals

2x (0.5 ... 2.5 mm²)

2x (0.5 ... 2.5 mm²)

2x (20 ... 12)

Certificates/ approvals:

General Product Approval

Functional Safety / Safety of Machinery

Declaration of Conformity

Test Certificates


[Type Examination](#)

[Special Test Certificate](#)

Shipping Approval



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
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Safety related data:

B10 value / with high demand rate • according to SN 31920 • note		1,000,000 With 0.3 x Ie
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

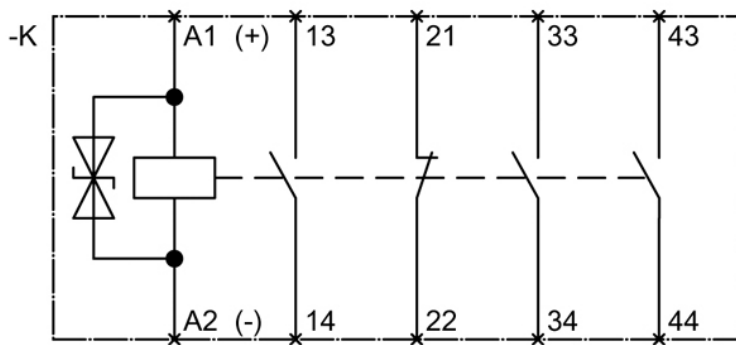
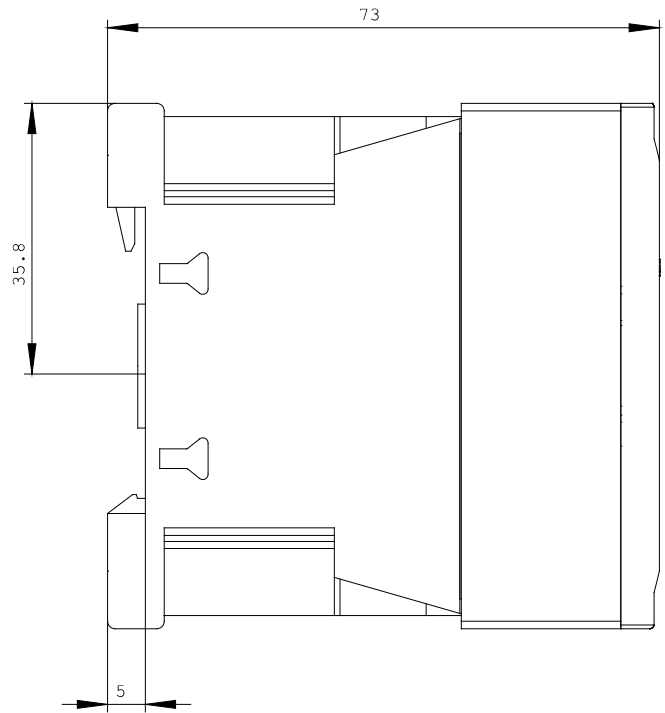
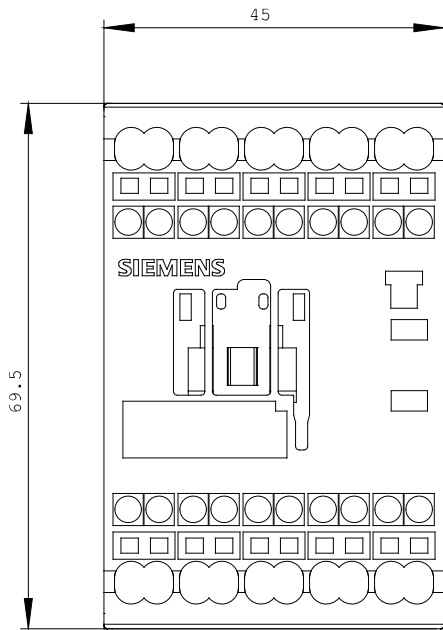
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RH2131-2SB40/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH2131-2SB40



last change:

Aug 4, 2014