



COUPLING CONTACTOR RELAY, 3NO+1NC,
DC 24V, 0.7...1.25*US,
W/ INTEGRATED SUPPRESSOR DIODE,
SIZE S00, SCREW 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 - during operating - note	°C °C	-55 ... +80 -25 ... +60 Railway application: -40 ... 70 °C with 10 mm clearance. See catalog for other rated conditions
Shock resistance - at rectangular impulse - at DC - at sine pulse - at DC		10g / 5 ms, 5g / 10 ms 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		0.7 ... 1.25
Holding power / of the solenoid / for DC	W	2.8
Pull-in power / of the solenoid / for DC	W	2.8
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 • at AC-15 • at 230 V / rated value • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value	A A A A A	10 10 3 2 1
Operating current • with 1 current path / at DC-12 • at 24 V / rated value • at 110 V / rated value • at 220 V / rated value • at 440 V / rated value • at 600 V / rated value • with 2 current paths in series / at DC-12	A A A A A	10 3 1 0.3 0.15

• 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
- at DC-12 / maximum
- at DC-13 / maximum

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 mm²), 2x (0.75 ... 2.5 mm²)

2x (20 ... 16), 2x (18 ... 14), 2x 12

Certificates/ approvals:

General Product Approval				Functional Safety / Safety of Machinery	Declaration of Conformity
				Type Examination	
CCC	CSA		UL		EG-Konf.

Test Certificates

[other](#)

[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_e

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)

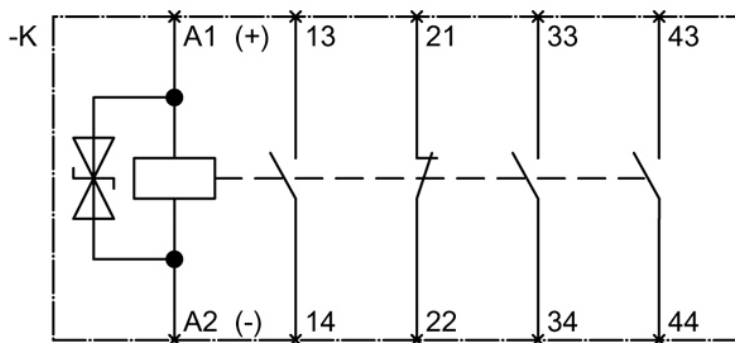
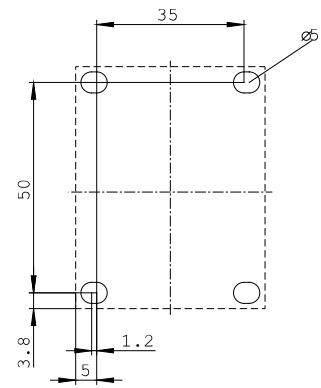
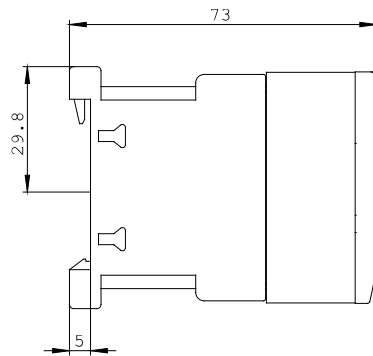
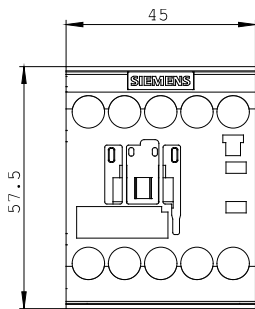
<http://mall.industry.siemens.com/>

Cax online generator

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

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

<http://support.automation.siemens.com/WW/view/en/3RH2131-1KB40/all>



last change:

Aug 4, 2014