



CONTACTOR RELAY, 3NO+1NC, AC 110V,
50/60 HZ, W/ FULL-WAVE RECTIFIER,
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		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		
• during storage	°C	-55 ... +80
• during operating	°C	-25 ... +60
Shock resistance		
• at rectangular impulse		
• at AC		7,3g / 5 ms, 4,7g / 10 ms
• at sine pulse		
• at AC		11,4g / 5 ms, 7,3g / 10 ms
Impulse voltage resistance / rated value	kV	6
Mechanical operating cycles as operating time		

- of the contactor / typical
- of the contactor with added auxiliary switch block / typical
- of the contactor with added electronics-compatible auxiliary switch block / typical

30,000,000
10,000,000
5,000,000

Control circuit/ Control:

Design of the surge suppressor

with full-wave rectification

Voltage type / of control feed voltage

AC

Control supply voltage

- for DC / rated value
- at 50 Hz / at AC / rated value
- at 60 Hz / at AC / rated value

V 100
V 110
V 110

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

- at 50 Hz / for AC
- at 60 Hz / for AC

0.8 ... 1.1
0.85 ... 1.1

Apparent pull-in power / of the solenoid / for AC

V·A 37

Apparent holding power / of the solenoid / for AC

V·A 5.7

Holding power / of the solenoid / for DC

W 4

Pull-in power / of the solenoid / for DC

W 4

Inductive power factor

- with the pull-in power of the coil
- with the pull-in power of the coil

0.8
0.25

Closing delay

- at AC

ms 8 ... 33

Opening delay

- at AC

ms 6 ... 25

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 10
A 10
A 3
A 2
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
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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_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

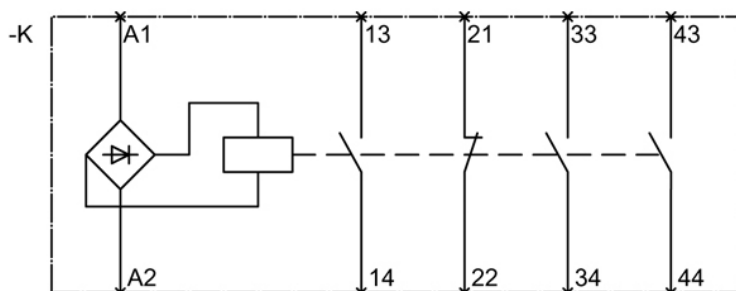
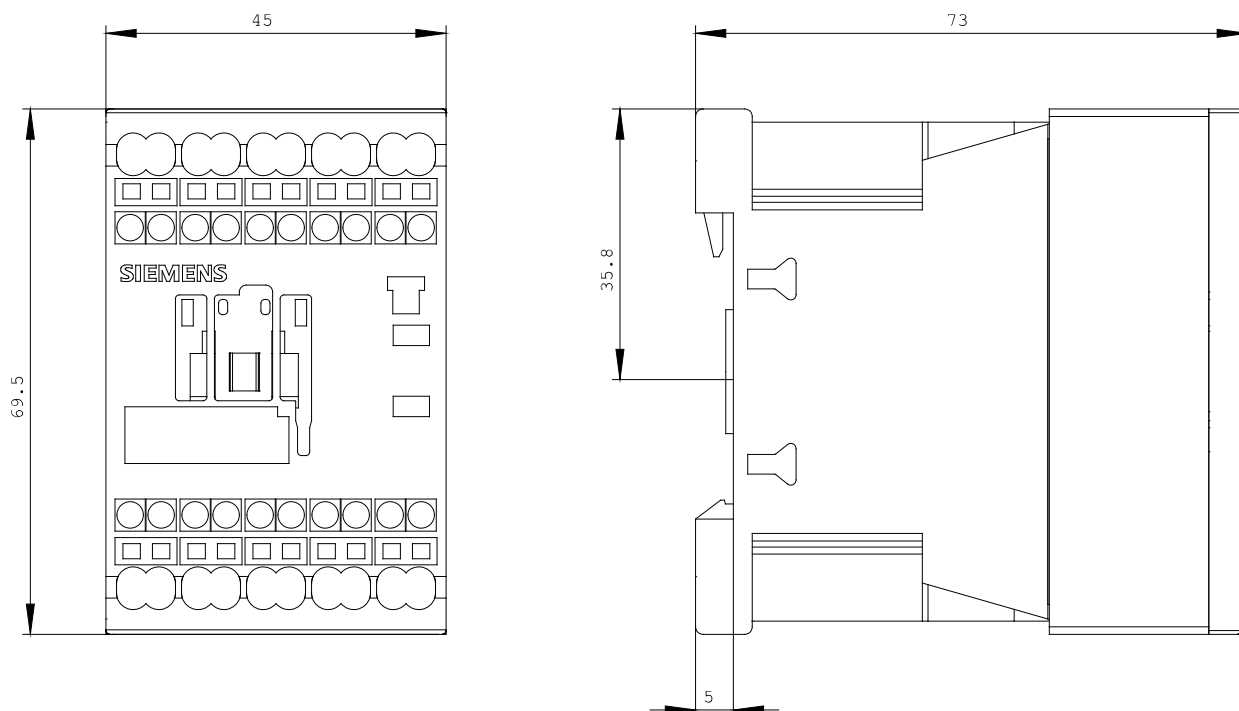
100

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>



last change:

Aug 4, 2014