

As of 2011-11-14

CONTACTOR RELAY, 3NO+1NC, AC 230V, 50/60 HZ, 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		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
Ambient temperature / during operating	°C	-25...60
Shock resistance		
<ul style="list-style-type: none"> at rectangular impulse at AC at sine pulse at AC 		7,3g / 5 ms, 4,7g / 10 ms
Impulse voltage resistance / rated value	kV	11,4g / 5 ms, 7,3g / 10 ms
Mechanical operating cycles as operating time		6
<ul style="list-style-type: none"> 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 10,000,000

Control circuit:		
Type of voltage / of the controlled supply voltage	AC	
Control supply voltage / 1		
• at 50 Hz / for AC / rated value	V	230
• at 60 Hz / for AC / rated value	V	230
Operating range factor control supply voltage rated value / of the solenoid		
• at 50 Hz / for AC	0.8...1.1	
• at 60 Hz / for AC	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
Inductive power factor		
• with the pull-in power of the coil	0.8	
• with the pull-in power of the coil	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 / of the auxiliary contacts / at AC-12 / maximum	A	10
Operating current / of the auxiliary contacts / at AC-15		
• at 230 V	A	6
• at 400 V	A	3
• at 500 V	A	2
• at 690 V	A	1
Operating current		
• of the auxiliary contacts / with 1 current path / at DC-12		
• at 24 V	A	6
• at 110 V	A	3
• at 220 V	A	1
• 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		
• of the auxiliary contacts / with 1 current path / at DC-13	A	6

<ul style="list-style-type: none"> • at 24 V • at 110 V • at 220 V 	A	1
	A	0.3
<ul style="list-style-type: none"> • with 2 current paths in series / at DC-13 	A	10
<ul style="list-style-type: none"> • at 24 V / rated value • at 60 V / rated value • at 110 V / rated value • at 220 V / rated value • at 440 V / rated value • at 600 V / rated value 	A	3.5
	A	1.3
	A	0.9
	A	0.2
	A	0.1
<ul style="list-style-type: none"> • with 3 current paths in series / at DC-13 	A	10
<ul style="list-style-type: none"> • at 24 V / rated value • at 60 V / rated value • at 110 V / rated value • at 220 V / rated value • at 440 V / rated value • at 600 V / rated value 	A	4.7
	A	3
	A	1.2
	A	0.5
	A	0.26
Off-load operating frequency		
<ul style="list-style-type: none"> • at AC • at DC 	1/h	10,000
	1/h	10,000
Frequency of operation		
<ul style="list-style-type: none"> • at AC-12 / maximum • 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
	1/h	1,000
	1/h	1,000
Short-circuit:		
Design of the fuse link / for short-circuit protection of the auxiliary switch		
<ul style="list-style-type: none"> • required 		Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current I _k < 400 A)
Installation/mounting/dimensions:		
Built in orientation		vertical
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail
Width	mm	45
Height	mm	57.5
Depth	mm	73
Distance, to be maintained, to the ranks assembly / sideways	mm	0
Connections:		
Design of the electrical connection		
<ul style="list-style-type: none"> • for auxiliary and control current circuit 		screw-type terminals
Type of the connectable conductor cross-section		
<ul style="list-style-type: none"> • for auxiliary contacts 		2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ²
<ul style="list-style-type: none"> • solid 		
<ul style="list-style-type: none"> • finely stranded 		2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
<ul style="list-style-type: none"> • with conductor end processing 		
<ul style="list-style-type: none"> • for AWG conductors / for auxiliary contacts 		2x (20 ... 16), 2x (18 ... 14), 2x 12
Certificates/approvals:		
General Product Approval		

CQC CSA UL**Shipping Approval** ABS (American Bureau of Shipping) DNV (Det Norske Veritas) GL (Germanischer Lloyd) LRS**Shipping Approval****other** RMRS (Russian Maritime Register) VDE**UL/CSA ratings:****Contact rating designation / for auxiliary contacts / according to UL**

A600 / Q600

Safety-related Parameter:**B10 value / with high demand rate**

- according to SN 31920

1,000,000

T1 value / for proof test interval or service life

- according to IEC 61508

a 10

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 value) / with low demand rate

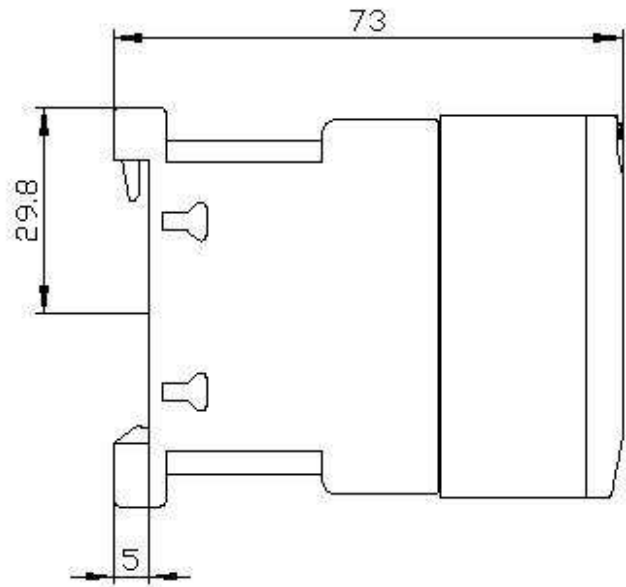
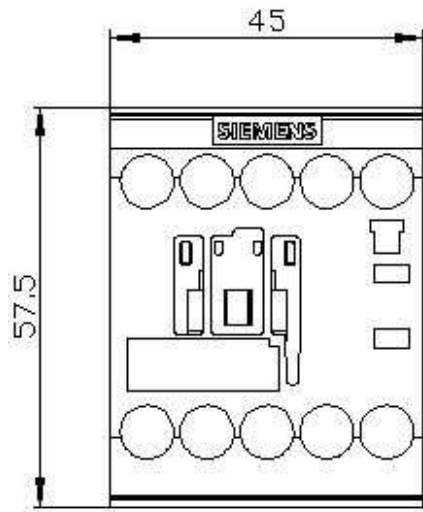
- according to SN 31920

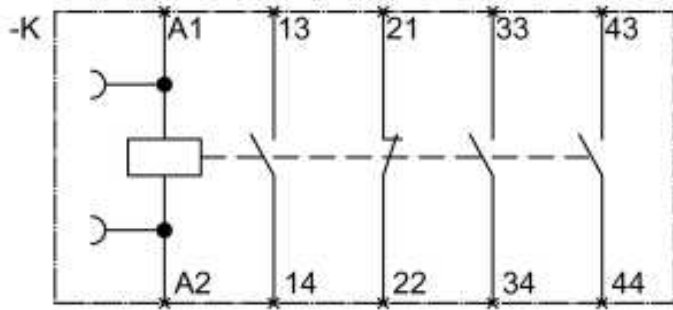
FIT 100

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://www.siemens.com/industrial-controls/mall>**Cax online generator:**<http://www.siemens.com/cax>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<http://support.automation.siemens.com/WW/view/en/3RH2131-1AP00/all>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH2131-1AP00





last change:

Sep 21, 2011