



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 <p>7,3g / 5 ms, 4,7g / 10 ms</p> <p>11,4g / 5 ms, 7,3g / 10 ms</p>	
Impulse voltage resistance / rated value	kV	6
Mechanical operating cycles as operating time	<ul style="list-style-type: none">• of the contactor / typical <p>30,000,000</p>	

• of the contactor with added auxiliary switch block / typical		10,000,000
• of the contactor with added electronics-compatible auxiliary switch block / typical		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 magnet coil		
• 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

<ul style="list-style-type: none"> • with 2 current paths in series / at DC-12 <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	10
	A	10
	A	4
	A	2
	A	1.3
	A	0.65
<ul style="list-style-type: none"> • with 3 current paths in series / at DC-12 <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	10
	A	10
	A	10
	A	3.6
	A	2.5
	A	1.8
Operating current		
<ul style="list-style-type: none"> • of the auxiliary contacts / with 1 current path / at DC-13 <ul style="list-style-type: none"> • at 24 V • at 110 V • at 220 V 	A	6
	A	1
	A	0.3
<ul style="list-style-type: none"> • with 2 current paths in series / at DC-13 <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	10
	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 <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	10
	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 	1/h	1,000
	1/h	1,000
	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, 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

- for auxiliary and control current circuit

screw-type terminals

Type of the connectable conductor cross-section

- for auxiliary contacts

• solid

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²

• finely stranded

• with conductor end processing

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

- for AWG conductors / for auxiliary contacts

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

Certificates/approvals:

General Product Approval

Declaration of Conformity



Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Shipping Approval



Shipping Approval



UL/CSA ratings:

Contact rating designation / for auxiliary contacts / according to UL

A600 / Q600

Safety:related Parameter:

B10 value / with high demand rate			1,000,000
• according to SN 31920			
T1 value / for proof test interval or service life	a	20	
• according to IEC 61508			
Proportion of dangerous failures	%	40	
• with low demand rate / according to SN 31920	%	73	
• with high demand rate / according to SN 31920			
Failure rate (FIT value) / with low demand rate	FIT	100	
• according to SN 31920			
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:

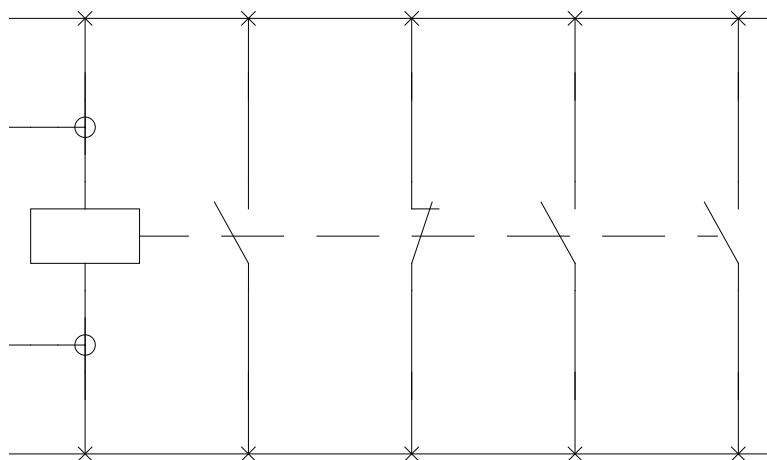
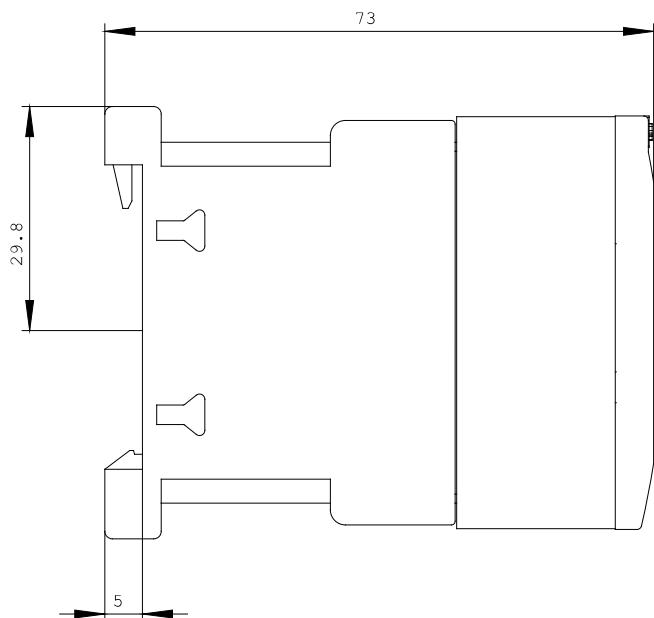
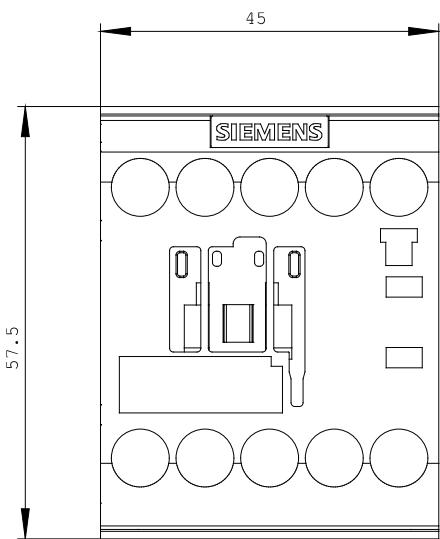
<http://www.siemens.com/cax>

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:

Mar 27, 2012