



COUPLING CONTACTOR RELAY, 3NO+1NC,
DC 110V, 0.7..1.25*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
Ambient temperature / 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:		
Design of the surge suppressor		with suppressor diode
Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1 • for DC / rated value	V	110
Operating range factor control supply voltage rated value / of the solenoid • 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 / of the auxiliary contacts / at AC-12 / maximum	A	10
Operating current / of the auxiliary contacts / at AC-15 • at 230 V • at 400 V • at 500 V • at 690 V	A A A A	6 3 2 1
Operating current • of the auxiliary contacts / with 1 current path / at DC-12 • at 24 V • at 110 V • at 220 V • with 2 current paths in series / at DC-12 • 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 A A A A A A A A A A	6 3 1 10 10 4 2 1.3 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 • 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 • 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	6
	A	1
	A	0.3
	A	10
	A	3.5
	A	1.3
	A	0.9
	A	0.2
	A	0.1
	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 • 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	70
Depth	mm	73
Distance, to be maintained, to the ranks assembly / sideways	mm	0

Connections:

Design of the electrical connection		spring-loaded terminals
<ul style="list-style-type: none"> • for auxiliary and control current circuit 		
Type of the connectable conductor cross-section		
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting • for AWG conductors / for auxiliary contacts 		2x (0.5 ... 4 mm²) 2x (0.5 ... 2.5 mm²) 2x (0.5 ... 2.5 mm²) 2x (20 ... 12)

Certificates/approvals:**General Product Approval**

[ROSTEST](#)

**Test Certificates**

[Manufacturer](#)

Shipping Approval**Shipping Approval**

other

**UL/CSA ratings:**

Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600
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Safety-related Parameter:

B10 value / with high demand rate		
<ul style="list-style-type: none"> • 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	%	40
• with high demand rate / according to SN 31920	%	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:

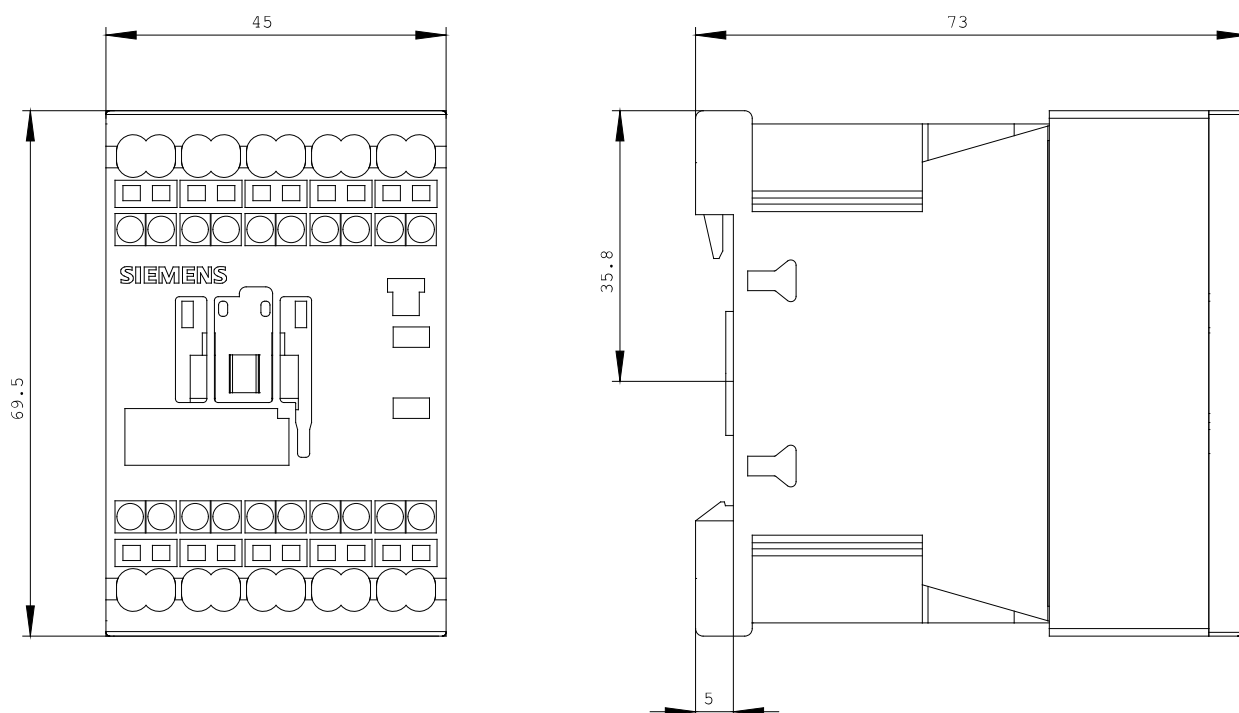
<http://www.siemens.com/cax>

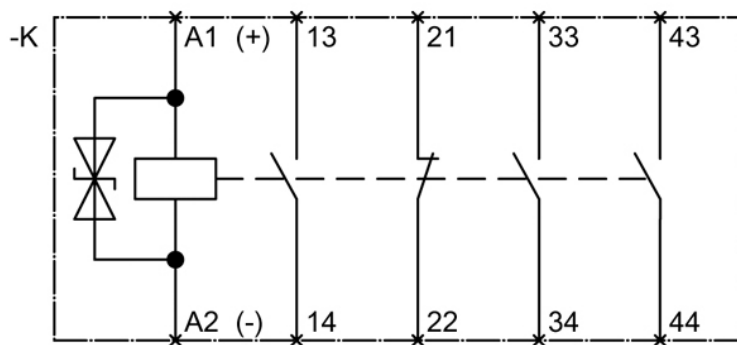
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RH2131-2KF40/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH2131-2KF40





last change:

Oct 24, 2011