SIEMENS

Product data sheet

CONTACTOR RELAY LATCHED, 3NO+1NC, DC 110V, 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
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 		5,000,000
 of the contactor with added auxiliary switch block / typical 		5,000,000
 of the contactor with added electronics-compatible auxiliary 		5,000,000
switch block / typical		
Control circuit/ Control:		
Voltage type / of control feed voltage		DC
Control supply voltage		
for DC / rated value	V	110
Operating range factor control supply voltage rated value / of the magnet coil		
• for DC		0.8 1.1
Holding power / of the solenoid / for DC	W	4
Pull-in power / of the solenoid / for DC	W	4
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		3
switching		
-		
switching	A	10
switching Operating current	A	10
switching Operating current • at AC-12 / maximum	A	10 10
switching Operating current • at AC-12 / maximum • at AC-15		
switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value	A	10
switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value	A A	10 3
switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value • at 500 V / rated value	A A A	10 3 2
switching 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	10 3 2
switching 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 Operating current	A A A	10 3 2
switching 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 • at 690 V / rated value • with 1 current path / at DC-12	A A A	10 3 2 1
switching 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 Operating current • with 1 current path / at DC-12 • at 24 V / rated value	A A A A	10 3 2 1
switching 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 • at 690 V / rated value • at 24 V / rated value • at 110 V / rated value	A A A A A	10 3 2 1 10 3
switching 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 • at 690 V / rated value • at 24 V / rated value • at 110 V / rated value • at 220 V / rated value	A A A A A A A	10 3 2 1 10 3 1
switching 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 • at 690 V / rated value • at 24 V / rated value • at 24 V / rated value • at 110 V / rated value • at 440 V / rated value	A A A A A A A A	10 3 2 1 10 3 1 0.3

• at 60 V / rated value	А	10
• at 110 V / rated value	А	4
• at 220 V / rated value	А	2
• at 440 V / rated value	А	1.3
• at 600 V / rated value	А	0.65
• with 3 current paths in series / at DC-12		
• at 24 V / rated value	А	10
• at 60 V / rated value	А	10
• at 110 V / rated value	А	10
• at 220 V / rated value	А	3.6
• at 440 V / rated value	А	2.5
• at 600 V / rated value	А	1.8
Operating current		
• with 1 current path / at DC-13		
• at 24 V / rated value	А	10
• at 110 V / rated value	А	1
• at 220 V / rated value	А	0.3
• at 440 V / rated value	А	0.14
• at 600 V / rated value	А	0.1
• with 2 current paths in series / at DC-13		
• at 24 V / rated value	А	10
• at 60 V / rated value	А	3.5
• at 110 V / rated value	А	1.3
• at 220 V / rated value	А	0.9
• at 440 V / rated value	А	0.2
• at 600 V / rated value	А	0.1
• with 3 current paths in series / at DC-13		
• at 24 V / rated value	А	10
• at 60 V / rated value	А	4.7
• at 110 V / rated value	А	3
• at 220 V / rated value	А	1.2
• at 440 V / rated value	А	0.5
• at 600 V / rated value	А	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 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	90
Height	mm	57.5
Depth	mm	73
Connections/ terminals:		
Design of the electrical connection		
 for auxiliary and control current circuit 		screw-type terminals
 for auxiliary contacts / 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:

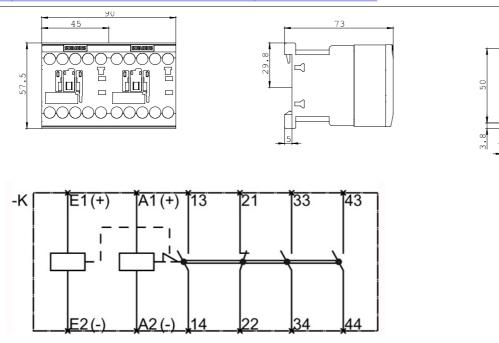
	pproval			Functional Safety / Safety of Machinery	Declaration of Conformity
	(SA)	EHC		Type Examination	EG-Konf.
Test Certificates					
Special Test Certificate	<u>Type Test</u> Certificates/Test <u>Report</u>				
Shipping Approval					
ABS	B U R E A U VE R ITAS	ĴŠ DNV DNV	GL GL	Lloyd's Register	PRS
Shipping Approval		other			
RINA	RMRS	UDE VDE	Environment Confirmatior		
UL/CSA ratings:					
Contact rating desig	nation / for auxiliar	ry contacts / according to		A600 / Q600	
Safety related data	a:				
Safety related data B10 value / with high			-		_
	n demand rate			1,000,000	-
B10 value / with high	n demand rate			1,000,000 With 0.3 x le	
B10 value / with high • according to SN 3	n demand rate 31920	ice life			
B10 value / with high • according to SN 3 • note	n demand rate 31920 est interval or serv	ice life	а		
B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6	n demand rate 31920 est interval or serv 61508	ice life	а	With 0.3 x le	
B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danged	n demand rate 31920 est interval or serv 61508		a %	With 0.3 x le	
B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand b	n demand rate 31920 est interval or serv 61508 rous failures	N 31920	-	With 0.3 x le 20	
B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand b	est interval or serv 61508 rous failures rate / according to S	N 31920 SN 31920	%	With 0.3 x le 20 40	
B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand 1 • with high demand	est interval or serv 61508 rous failures rate / according to S rate / according to S	N 31920 SN 31920	%	With 0.3 x le 20 40	
B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand 1 • with high demand Failure rate [FIT] / wi • according to SN 3	a demand rate 31920 est interval or serv 61508 rous failures rate / according to S I rate / according to S I rate / according to S I rate / according to S	N 31920 SN 31920	%	With 0.3 x le 20 40 73	
B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand 1 • with high demand Failure rate [FIT] / wi • according to SN 3 Product function / po	a demand rate 31920 est interval or serv 61508 rous failures rate / according to S rate / according to S rate / according to S rate low demand rate 31920 ositively driven ope	N 31920 SN 31920 9	%	With 0.3 x le 20 40 73 100	
B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand 1 • with high demand Failure rate [FIT] / wi • according to SN 3	a demand rate 31920 est interval or serv 61508 rous failures rate / according to S rate / according to S rate / according to S th low demand rate 31920 ositively driven ope in: wnloadcenter (Cata	N 31920 SN 31920 e eration to IEC 60947-5-1 alogs, Brochures,)	%	With 0.3 x le 20 40 73 100	

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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH2431-1BF40



last change:

Aug 4, 2014

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