SIEMENS

Data sheet

3RH2131-1AP00

CONTACTOR RELAY, 3NO+1NC, AC 230V, 50/60 HZ, SIZE S00, SCREW TERMINAL



Product brand name	SIRIUS
Product designation	contactor relay
Product type designation	3RH2
General technical data	
Size of contactor	S00
Product extension	
 Auxiliary switch 	Yes
Insulation voltage	
 with degree of pollution 3 rated value 	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	
• on the front	IP20
Shock resistance at rectangular impulse	
• at AC	7,3g / 5 ms, 4,7g / 10 ms
Shock resistance with sine pulse	
• at AC	11,4g / 5 ms, 7,3g / 10 ms
Mechanical service life (switching cycles)	
 of contactor typical 	30 000 000

No-load switching frequency 10 000 1/h • at AC 10 000 1/h • at DC 10 000 1/h Control circuit/ Control Type of voltage of the control supply voltage AC AC Control supply voltage at AC	• of the contactor with added electronics-	
• of the contactor with added auxiliary switch block typical10 000 000Equipment markingK• acc. to DIN EN 61346-2K• acc. to DIN EN 81346-2KAmbient temperature • during operation-25 +60 °C• during storage-55 +80 °CMain circuit		5 000 000
Equipment marking K • acc. to DIN EN 61346-2 K • acc. to DIN EN 81346-2 K Ambient conditions - Ambient temperature - • during operation -25 +60 °C • during storage -55 +80 °C Main circuit - No-load switching frequency - • at AC 10 000 1/h • at DC 10 000 1/h Control circuit/ Control - Type of voltage of the control supply voltage AC Control supply voltage at AC - • at 50 Hz rated value 230 V Operating range factor control supply voltage rated - • at 50 Hz 0.8 1.1 • at 50 Hz 0.8 1.1 • at 60 Hz 0.8 • at 60 Hz 0.25 · at 60 Hz - · at AC 0.25 · otaci - · at AC - · at AC 0.25 · otaci - · at 60 Hz - · at 60 Hz - · ota AC	 of the contactor with added auxiliary switch 	10 000 000
• acc. to DIN EN 61346-2 K • acc. to DIN EN 81346-2 K Ambient conditions		
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coilImage: Closing delay• at AC8 33 msOpening delay4 15 ms• at AC4 15 msArcing time10 15 msAuxiliary circuit10 15 ms	Apparent holding power of magnet coil at AC	5.7 V·A
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Opening delay 4 15 ms • at AC 4 15 ms Arcing time 10 15 ms	Closing delay	
• at AC 4 15 ms Arcing time 10 15 ms Auxiliary circuit Number of NC contacts • for auxiliary contacts 1	• at AC	8 33 ms
Arcing time 10 15 ms Auxiliary circuit 10 15 ms Number of NC contacts 1 • for auxiliary contacts 1	Opening delay	
Auxiliary circuit Number of NC contacts • for auxiliary contacts 1	• at AC	4 15 ms
Number of NC contacts 1 • for auxiliary contacts 1	Arcing time	10 15 ms
• for auxiliary contacts 1		
— instantaneous contact 1	 for auxiliary contacts 	1
	— instantaneous contact	1
Number of NO contacts	Number of NO contacts	
• for auxiliary contacts 3	 for auxiliary contacts 	3
— instantaneous contact 3	instantaneous contact	3

Identification number and letter for switching elements	31 E
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V rated value	10 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
• at 690 V rated value	1 A
Operating current at 1 current path at DC-12	
• at 24 V rated value	10 A
• at 110 V rated value	3 A
• at 220 V rated value	1 A
• at 440 V rated value	0.3 A
• at 600 V rated value	0.15 A
Operating current with 2 current paths in series at DC-12	
• at 24 V rated value	10 A
• at 60 V rated value	10 A
• at 110 V rated value	4 A
• at 220 V rated value	2 A
• at 440 V rated value	1.3 A
• at 600 V rated value	0.65 A
Operating current with 3 current paths in series at DC-12	
• at 24 V rated value	10 A
• at 60 V rated value	10 A
• at 110 V rated value	10 A
• at 220 V rated value	3.6 A
• at 440 V rated value	2.5 A
• at 600 V rated value	1.8 A
Operating frequency at DC-12 maximum	1 000 1/h
Operating current at 1 current path at DC-13	
• at 24 V rated value	10 A
• at 110 V rated value	1 A
• at 220 V rated value	0.3 A
● at 440 V rated value	0.14 A
● at 600 V rated value	0.1 A
Operating current with 2 current paths in series at DC-13	
• at 24 V rated value	10 A
• at 60 V rated value	3.5 A
• at 110 V rated value	1.3 A

• at 220 V rated value	0.9 A			
• at 440 V rated value	0.2 A			
• at 600 V rated value	0.1 A			
Operating current with 3 current paths in series at				
DC-13				
• at 24 V rated value	10 A			
• at 60 V rated value	4.7 A			
• at 110 V rated value	3 A			
• at 220 V rated value	1.2 A			
• at 440 V rated value	0.5 A			
• at 600 V rated value	0.26 A			
Operating frequency at DC-13 maximum	1 000 1/h			
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			
Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)			
UL/CSA ratings				
Contact rating of auxiliary contacts according to UL	A600 / Q600			
Short-circuit protection				
Design of the fuse link				
 for short-circuit protection of the auxiliary switch 	fuse gL/gG: 10 A			
required				
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			
Height	57.5 mm			
Width	45 mm			
Depth	73 mm			
Required spacing				
 for grounded parts 				
— at the side	6 mm			
 for live parts 				
— at the side	6 mm			
	6 mm			
— at the side	6 mm			
— at the side Connections/Terminals	6 mm screw-type terminals			
— at the side Connections/Terminals Type of electrical connection				
 at the side Connections/Terminals Type of electrical connection for auxiliary and control current circuit 				
 at the side Connections/Terminals Type of electrical connection for auxiliary and control current circuit Type of connectable conductor cross-sections 				

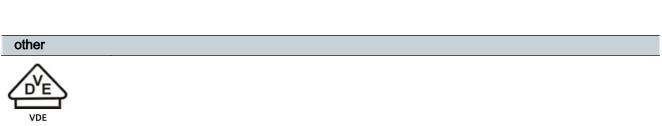
- finely stranded with core end processing

• at AWG conductors for auxiliary contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 2x (20 ... 16), 2x (18 ... 14), 2x 12

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920	40 %		
1920	73 %		
920	100 FIT		
C 60947-5-	Yes		
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		Functional Safety/Safety of Machinery	Declaration of Conformity
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UL	EAC	Safety/Safety of Machinery	
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	920 920 920 C 60947-5-	40 % 920 73 % 920 100 FIT C 60947-5- Yes	40 % 920 73 % 920 100 FIT C 60947-5- Yes





Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

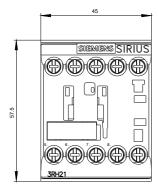
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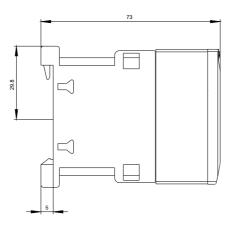
Cax online generator

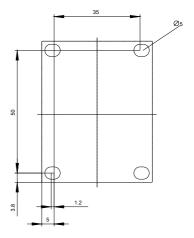
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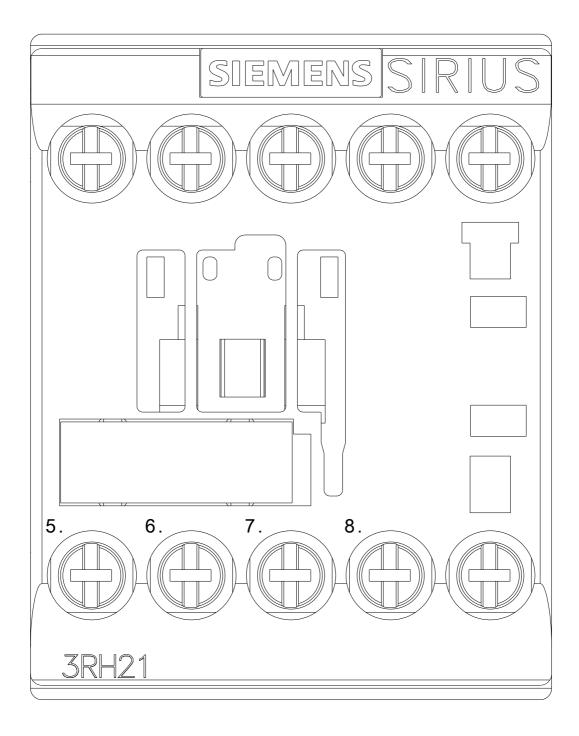
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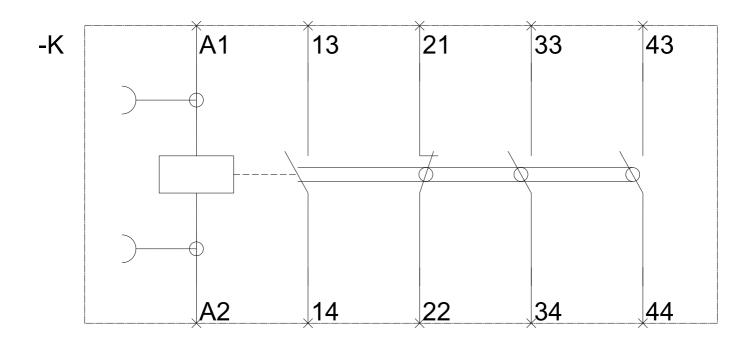
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2131-1AP00&lang=en











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