SIEMENS

Product data sheet

3RH2140-1AP00



CONTACTOR RELAY, 4NO, 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		40 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		
• at rectangular impulse		
• at AC		7,3g / 5 ms, 4,7g / 10 ms
• at sine pulse		
• at AC		11,4g / 5 ms, 7,3g / 10 ms
Impulse voltage resistance / rated value	kV	6
Mechanical operating cycles as operating time		
of the contactor / typical		30,000,000

		40,000,000
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	-	0
Number of NO contacts / for auxiliary contacts / instantaneous switching	_	4
Operating current / of the auxiliary contacts / at AC-12 / maximum	A	10
Operating current / of the auxiliary contacts / at AC-15		
• at 230 V	А	6
• at 400 V	А	3
• at 500 V	А	2
• at 690 V	А	1
Operating current		
• of the auxiliary contacts / with 1 current path / at DC-12		
• at 24 V	А	6
• at 110 V	А	3
• at 220 V	А	1

 with 2 current paths in series / at DC-12 at 24 V / rated value 		
• at 24 V / rated value		
	А	10
• 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		
• of the auxiliary contacts / with 1 current path / at DC-13		
• at 24 V	А	6
• at 110 V	А	1
• at 220 V	А	0.3
• 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 AC-15 / 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, miniature circuit breaker C 6 A (short-circuit current Ik < 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 / sidewards	mm	0	
Connections:			

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 Ap	proval			Declaration of Co	onformity
	(SA)	GOST		EG-Konf.	
Test Certificates					
Special Test Certificate	<u>Type Test</u> Certificates/Test <u>Report</u>				
Shipping Approval					
ABS		GL	Lloyd's Kegister Lrs	PRS	RINA
Shipping Approval	other				
RMRS					
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	а	20
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
• comment		with 3RH29

Further information:

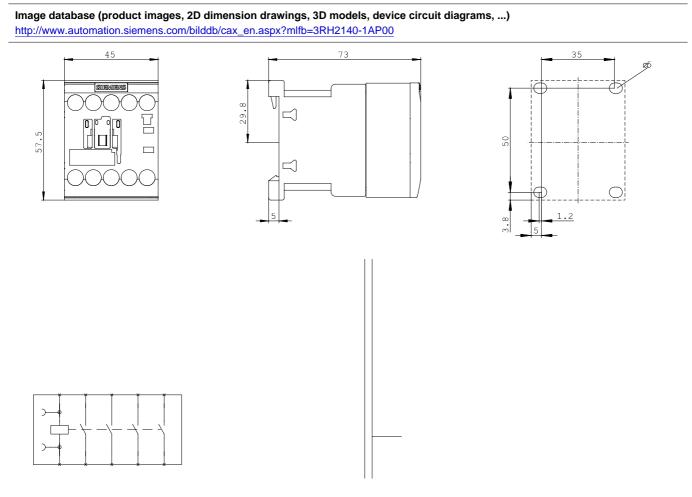
Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

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/3RH2140-1AP00/all



last change:

Mar 27, 2012