SIEMENS

Product data sheet 3RH2140-1AF00



CONTACTOR RELAY, 4NO, AC 110V, 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
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
• 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
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 NO contacts / for auxiliary contacts / instantaneous switching		4
[nicht versorgt: PMD_ABP551_001_000]		
•	Α	2
• at 690 V	Α	1
[nicht versorgt: PMD_ABP553_001_000]		
• [nicht versorgt: PMD_ABP553_001_000]		
•	Α	10
•	Α	3
•	Α	1
• with 2 current paths in series / at DC-12		
• at 24 V / rated value	Α	10
• at 60 V / rated value	Α	10
• at 110 V / rated value	Α	4
• at 220 V / rated value	Α	2
• at 440 V / rated value	Α	1.3
• at 600 V / rated value	Α	0.65

• with 3 current paths in series / at DC-12		
• at 24 V / rated value	Α	10
• at 60 V / rated value	Α	10
• at 110 V / rated value	Α	10
• at 220 V / rated value	Α	3.6
• at 440 V / rated value	Α	2.5
• at 600 V / rated value	Α	1.8
Operating current		
• [nicht versorgt: PMD_ABP558_001_000]		
•	Α	10
•	Α	1
•	Α	0.3
• with 2 current paths in series / at DC-13		
• at 24 V / rated value	Α	10
• at 60 V / rated value	Α	3.5
• at 110 V / rated value	Α	1.3
• at 220 V / rated value	Α	0.9
• at 440 V / rated value	Α	0.2
• at 600 V / rated value	А	0.1
• with 3 current paths in series / at DC-13		
• at 24 V / rated value	Α	10
• at 60 V / rated value	Α	4.7
• at 110 V / rated value	Α	3
• at 220 V / rated value	Α	1.2
• at 440 V / rated value	Α	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 lk < 400 A)

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
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail
Width	mm	45
Height	mm	57.5
Depth	mm	73

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

Functional Safety / Safety of Machinery Declaration of Conformity









Type Examination



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

Sicherheitsrelevante Kenngrößen:		
B10 value / with high demand rate		
according to SN 31920		1,000,000
• note		With 0.3 x le
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:

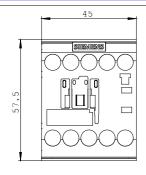
http://www.siemens.com/cax

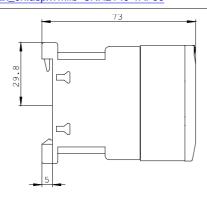
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

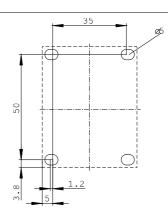
http://support.automation.siemens.com/WW/view/en/3RH2140-1AF00/all

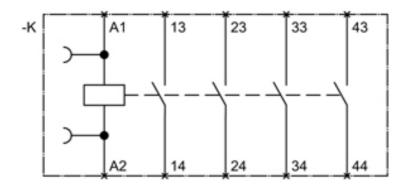
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH2140-1AF00









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