SIEMENS

Data sheet

3RH2140-2AP00

Contactor relay, 4 NO, 230 V AC, 50 / 60 Hz, Size S00, Spring-type 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

Installation attitude at height above sea level 2 000 m Ambient temperature -25 +60 °C • 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 • at DC 10 000 1/h Control circuit/ Control Type of voltage of the control supply voltage Control supply voltage at AC 230 V • at 50 Hz rated value 230 V • at 60 Hz rated value 50 Hz • 2 rated value 60 Hz • 2 rated value 60 Hz • Deperating range factor control supply voltage rated 0.8 1.1 • at 60 Hz 0.8 1.1 • Deparating range factor control supply voltage rated 0.8 1.1 • at 60 Hz 0.8 1.1 • Deparating prover of magnet coil at AC 37 V A Inductive power of magnet coil at AC 5.7 V.A Inductive power of magnet coil at AC 5.7 V.A Inductive power of magnet coil at AC 5.7 V.A Inductive power of magnet coil at AC 5.7 V.A Inductive power f		
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Auxiliary circuit Number of NO contacts for auxiliary contacts 4	● at AC	4 15 ms
Number of NO contacts for auxiliary contacts 4	Arcing time	10 15 ms
	Auxiliary circuit	
instantaneous contact 4	Number of NO contacts for auxiliary contacts	4
	 instantaneous contact 	4

Identification number and letter for switching elements	40 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	of the auxiliary switch fuse gL/gG: 10 A		
required	I use gogo. To A		
Installation/ mounting/ dimensions	1/ 100° relation receible on warting providing outforce can be		
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 rai		
Height	70 mm		
Width	45 mm		
Depth	73 mm		
Required spacing			
 with side-by-side mounting 			
— forwards	10 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	0 mm		
 for grounded parts 			
— forwards	10 mm		
— upwards	10 mm		
— at the side	6 mm		
— downwards	10 mm		
• for live porto			
 for live parts 			

— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/Terminals	
Type of electrical connection	
 for auxiliary and control current circuit 	spring-loaded terminals
Type of connectable conductor cross-sections	
 for auxiliary contacts 	
— single or multi-stranded	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
— finely stranded without core end	2x (0.5 2.5 mm²)
processing	
 at AWG conductors for auxiliary contacts 	2x (20 12)
Safety related data	
B10 value	
 with high demand rate acc. to SN 31920 	1 000 000; With 0.3 x le
Proportion of dangerous failures	
 with low demand rate acc. to SN 31920 	40 %
 with high demand rate acc. to SN 31920 	73 %
Failure rate [FIT]	
 with low demand rate acc. to SN 31920 	100 FIT
Product function	
 positively driven operation acc. to IEC 60947-5- 1 	Yes
T1 value for proof test interval or service life acc. to IEC 61508	20 у

Certificates/approvals

General Product	Approval			Functional Safety/Safety of Machinery	Declaration of Conformity
CCC	(SA)		EHC	Type Examination Certificate	EG-Konf.
Test Certific- ates	Marine / Ship	ping			
Type Test Certific- ates/Test Report	ABS	BUREAU VERITAS	Lloyd's Register LRS	PRS	RINA
Marine / Shippin	g	other			
RMRS	DNVGL.COM/AF	Confirmation			

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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RH2140-2AP00

Cax online generator

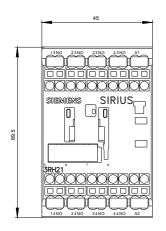
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2140-2AP00

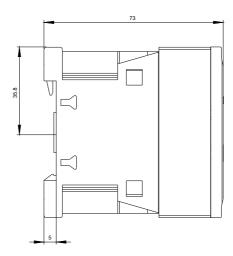
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-2AP00

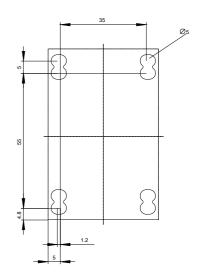
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2140-2AP00&lang=en

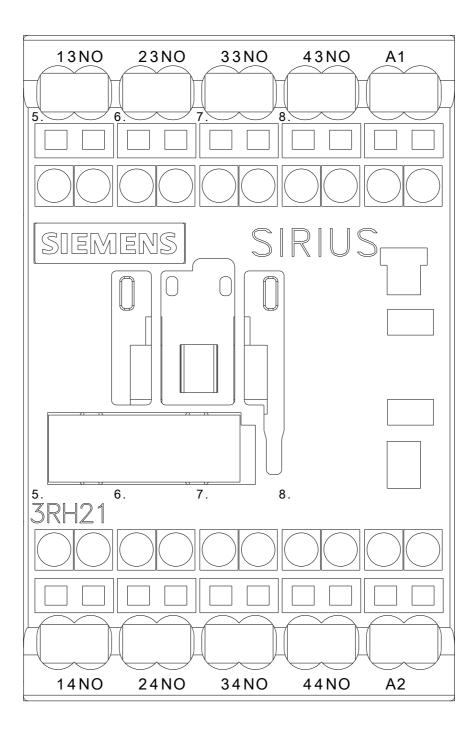
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-2AP00/char

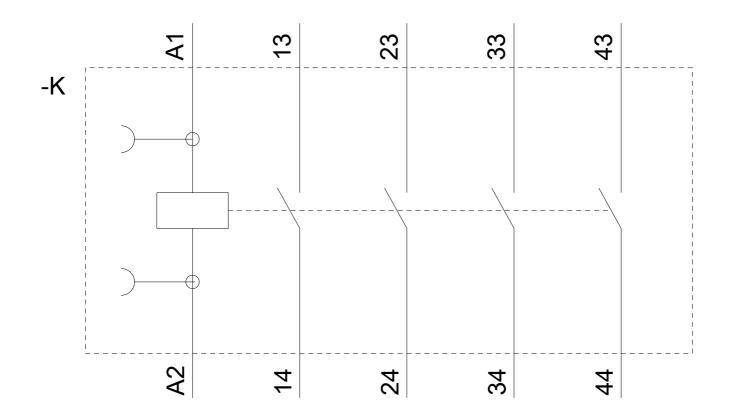
Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2140-2AP00&objecttype=14&gridview=view1











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