SIEMENS

Data sheet 3RH2140-1BF40



CONTACTOR RELAY, 4NO, DC 110V, SIZE S00, SCREW TERMINAL

product brand name		SIRIUS
Product designation		contactor relay
General technical data:		
Insulation voltage		
• with degree of pollution 3 Rated value	V	690
Degree of pollution		3
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
• of the contactor typical		30 000 000
• of the contactor with added electronics-compatible auxiliary switch block typical		5 000 000
• of the contactor with added auxiliary switch block typical		10 000 000
Protection class IP		
• on the front		IP20
Equipment marking		
• acc. to DIN EN 61346-2		K
• acc. to DIN EN 81346-2		K
Main circuit:		
No-load switching frequency		
• with AC	1/h	10 000
• for DC	1/h	10 000
Control circuit/ Control:		
Type of voltage of the control supply voltage		DC

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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
Closing power of the magnet coil for DC	W	4
Holding power of the magnet coil for DC	W	4

Auxiliary circuit:		
Number of NO contacts		
• for auxiliary contacts		4
— instantaneous contact		4
Product expansion Auxiliary switch		Yes
Identification number and letter for switching elements		40 E
Operating current at AC-15		
• at 230 V Rated value	A	10
• at 400 V Rated value	A	3
• at 690 V Rated value	A	1
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 the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)

UL/CSA ratings:		
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600

Short-circuit:		
Design of the fuse link		
• for short-circuit protection of the auxiliary switch required		fuse gL/gG: 10 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
Mounting type		screw and snap-on mounting onto 35 mm standard mounting rail
Height	mm	57.5
Width	mm	45
Depth	mm	73
Required spacing		
• for grounded parts		
— at the side	mm	6
• for live parts		
— at the side	mm	6

Connections/ Terminals:

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Type of electrical connection		
• for auxiliary and control current circuit		screw-type terminals
Type of connectable conductor cross-section		
• for auxiliary contacts		
— single or multi-stranded		2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x 4 mm²
— finely stranded with core 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
Safety related data:		
B10 value with high demand rate acc. to SN 31920		1 000 000; With 0.3 x Ie
Proportion of dangerous failures		
• with low demand rate acc. to SN 31920	%	40
• with high demand rate acc. to SN 31920	%	73
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	y	20
Protection against electrical shock		finger-safe
Mechanical data:		
Size of contactor		S00
Ambient conditions:		
Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
• during operation	°C	-25 ... +60
• during storage	°C	-55 ... +80
Certificates/ approvals:		

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General Product Approval				Functional Safety/Safety of Machinery	Declaration of Conformity
CCC	CSA	UL	EAC	Type Examination	EG-Konf.

Test Certificates		Shipping Approval			
Type Test Certificates/Test Report	Special Test Certificate	ABS	BUREAU VERITAS	DNV	GL

Shipping Approval				other	
LRS	PRS	RINA	RMRS	Environmental Confirmations	VDE

Further information

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

Industry Mall (Online ordering system)
http://www.siemens.com/industrymall

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH21401BF40

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RH21401BF40

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH21401BF40&lang=en

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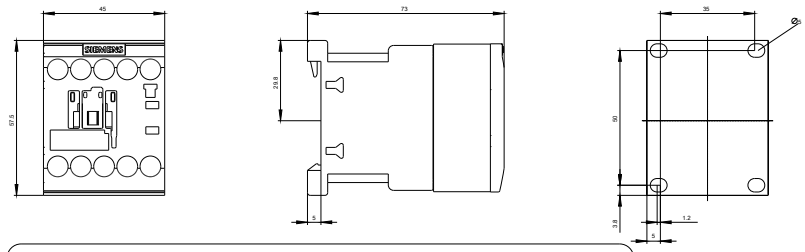

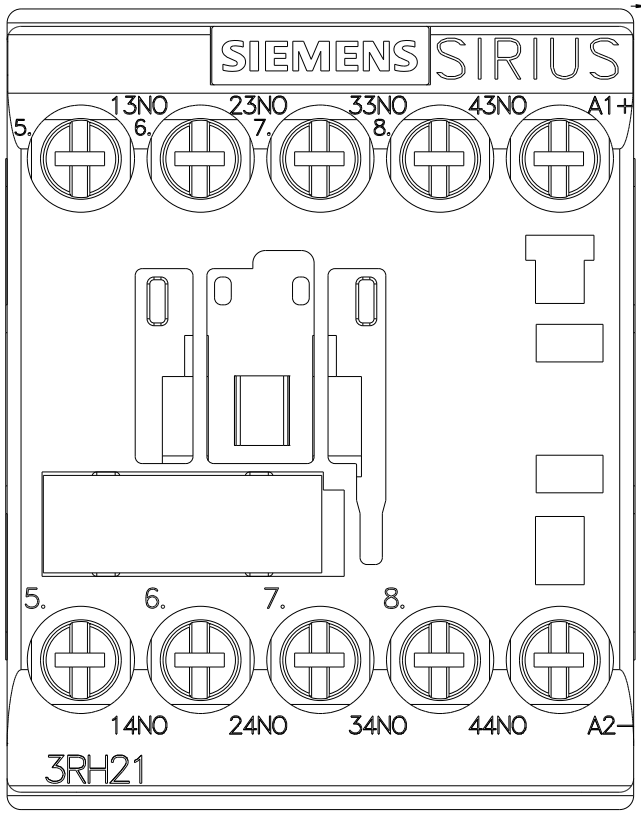

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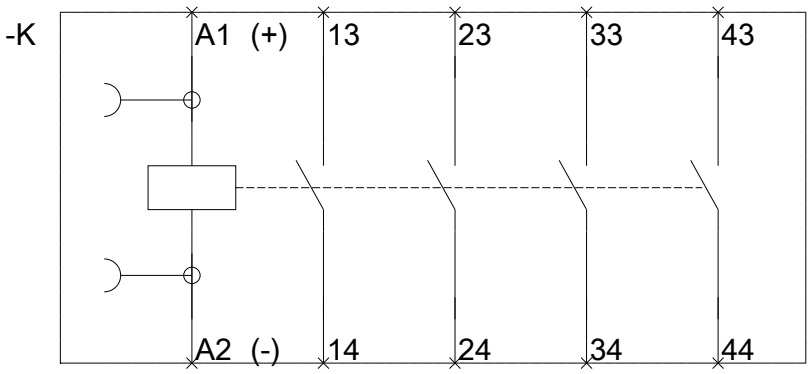

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