SIEMENS

Product data sheet 3RH2140-2VB40



COUPLING CONTACTOR RELAY, 4NO, DC 24V, 0.85...1.85*US, W/ INTEGRATED DIODE, SZ S00, SPRING-LOADED 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		No
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 DC		10g / 5 ms, 5g / 10 ms
at sine pulse		
• at DC		15g / 5 ms, 8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Mechanical operating cycles as operating time		

30,000,000

Control circuit/ Control:		
Design of the surge suppressor		with diode
Voltage type / of control feed voltage		DC
Control supply voltage		
• for DC / rated value	V	24
Operating range factor control supply voltage rated value / of the magnet coil		
• for DC		0.85 1.85
Holding power / of the solenoid / for DC	W	1.6
Pull-in power / of the solenoid / for DC	W	1.6
Closing delay		
• at DC	ms	30 100
Opening delay		
• at DC	ms	25 90
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
Operating current		
• at AC-12 / maximum	Α	10
• at AC-15		
• at 230 V / rated value	Α	10
• at 400 V / rated value	Α	3
• at 500 V / rated value	Α	2
• at 690 V / rated value	Α	1
Operating current		
• with 1 current path / at DC-12		
• at 24 V / rated value	Α	10
• at 110 V / rated value	Α	3
• at 220 V / rated value	Α	1
• at 440 V / rated value	Α	0.3
• at 600 V / rated value	Α	0.15
• 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	А	4
• at 220 V / rated value	Α	2

• at 440 V / rated value	Α	1.3
• at 600 V / rated value	А	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	А	1.8
Operating current		
• with 1 current path / at DC-13		
• at 24 V / rated value	Α	10
• at 110 V / rated value	Α	1
• at 220 V / rated value	Α	0.3
• at 440 V / rated value	Α	0.14
• at 600 V / rated value	Α	0.1
• 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	Α	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	A	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
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

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
Width	mm	45
Height	mm	70
Depth	mm	73

Connections/ terminals: Design of the electrical connection • for auxiliary and control current circuit • for auxiliary contacts / finely stranded / with conductor end processing • for auxiliary contacts / finely stranded / without conductor final 2x (0.5 ... 2.5 mm²)

• for AWG conductors / for auxiliary contacts 2x (20 ... 12)

Certificates/ approvals:

General Product Approval Functional Safety / Declaration of Safety of Conformity Machinery









Type Examination



Test Certificates

Special Test Certificate

Shipping Approval









GL





Shipping Approval







other

Environmental Confirmations

UL/CSA ratings:		
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600
Safety related data:		
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] / 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://mall.industry.siemens.com/

Cax online generator

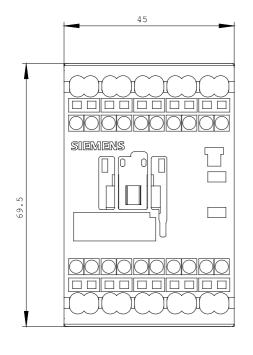
http://www.siemens.com/cax

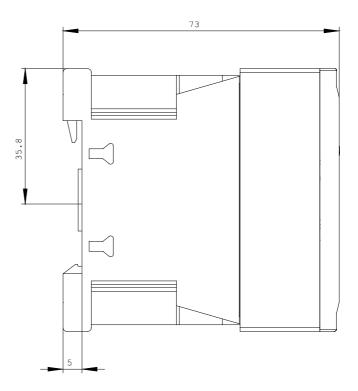
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

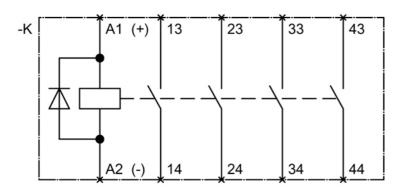
 $\underline{\text{http://support.automation.siemens.com/WW/view/en/3RH2140-2VB40/all}}$

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH2140-2VB40







last change: Aug 4, 2014