SIEMENS

Data sheet 3RH2140-1HB40



Coupling contactor relay, 4 NO, 24 V DC, 0.7 \dots 1.25* US, Size S00, screw terminal suitable for PLC outputs

product brand name	SIRIUS
product designation	Coupling relay for switching auxiliary circuits
product type designation	3RH2
General technical data	
size of contactor	S00
product extension auxiliary switch	No
insulation voltage with degree of pollution 3 at AC rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 kV
shock resistance at rectangular impulse	
• at DC	10g / 5 ms, 5g / 10 ms
shock resistance with sine pulse	
• at DC	15g / 5 ms, 8g / 10 ms
mechanical service life (switching cycles)	
of contactor typical	30 000 000
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Main circuit	
no-load switching frequency	
• at AC	10 000 1/h
• at DC	10 000 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC	
rated value	24 V
operating range factor control supply voltage rated value of magnet coil at DC	
initial value	0.7
full-scale value	1.25
closing power of magnet coil at DC	2.8 W
holding power of magnet coil at DC	2.8 W

e at DC 90pening delay	closing delay	
		25 130 ms
# # IDC 720 ms 15 ms		20 100 1110
Inching Import		7 20 ms
Auxillary circuit number of NO contacts for auxiliary contacts instantaneous contact didentification number and letter for switching operational current at AC-12 maximum Operational current at AC-12 maximum 10 A Operational current at AC-12 maximum 10 A at 230 V rated value at 500 V rated value at 500 V rated value at 220 V rated value at 220 V rated value at 400 V rated value at 500 V rated value at 500 V rated value at 600		
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Instantaneous contect 4 40 6		4
Identification number and letter for switching elements		
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* at 230 V rated value	operational current at AC-12 maximum	10 A
a d 400 V rated value	operational current at AC-15	
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• at 690 V rated value 10 A 10		
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• at 800 V rated value 0.15 A operational current with 2 current paths in series at DC-12 • at 24 V rated value 10 A • at 80 V rated value 10 A • at 80 V rated value 2A • at 410 V rated value 2A • at 440 V rated value 1.3 A • at 80 V rated value 0.65 A operational current with 3 current paths in series at DC-12 • at 24 V rated value 10 A • at 80 V rated value 10 A • at 220 V rated value 10 A • at 24 V rated value 10 A • at 24 V rated value 10 A • at 24 V rated value 10 A • at 800 V rated value 10 A • at 10 V rated value 10 A • at 120 V rated value 11 A • at 120 V rated value 10 A • at 12		
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	 at 110 V rated value 	4 A
• at 600 V rated value 0.65 A	 at 220 V rated value 	2 A
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	• at 110 V rated value	10 A
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 at 110 V rated value at 220 V rated value at 440 V rated value 0.5 A 	at 24 V rated value	10 A
 at 220 V rated value at 440 V rated value 0.5 A 	• at 60 V rated value	4.7 A
• at 440 V rated value 0.5 A	• at 110 V rated value	3 A
	• at 220 V rated value	1.2 A
a at 600 V rated value	• at 440 V rated value	0.5 A
■ at 000 v rateu value 0.20 A	• at 600 V rated value	0.26 A

an austin a francisco et DC 42 maying un	4 000 4 %
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 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
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
height	57.5 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 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 circuit	screw-type terminals
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid or 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)
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 2x 12
Safety related data	
B10 value with high demand rate according to SN 31920	1 000 000; With 0.3 x le
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	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 y
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
0.00	
Certificates/ approvals	



Confirmation





<u>KC</u>



EMC Functional Declaration of Conformity Test Certificates



Type Examination Certificate



Type Test Certificates/Test Report

Special Test Certific-<u>ate</u>

Marine / Shipping













Marine / Shipping

other

Dangerous Good



Confirmation



Transport Informa-<u>tion</u>

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RH2140-1HB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2140-1HB40

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

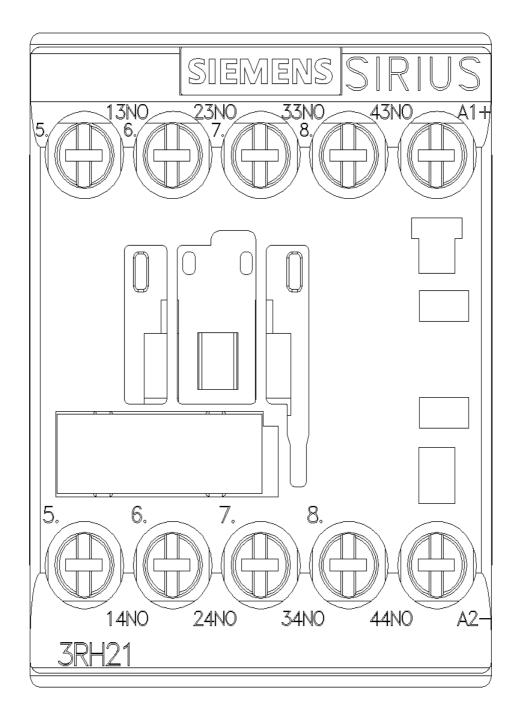
https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-1HB40

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RH2140-1HB40&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-1HB40/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2140-1HB40&objecttype=14&gridview=view1



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