SIEMENS

Data sheet 3RH2140-1KF40



Coupling contactor relay, 4 NO, 110 V DC, 0.7 \dots 1.25* US, with integrated suppressor diode, 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 acc. to IEC 81346-2	K
Substance Prohibitance (Date)	01.10.2009 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
 ambient temperature during operation 	-25 +60 °C
 ambient temperature during storage 	-55 +80 °C
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	110 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.7
full-scale value	1.25
design of the surge suppressor	with suppressor diode
closing power of magnet coil at DC	2.8 W
holding power of magnet coil at DC	2.8 W
closing delay	

• at DC	30 100 ms
opening delay	
• at DC	7 20 ms
arcing time	10 15 ms
Auxiliary circuit	
number of NO contacts for auxiliary contacts	4
• instantaneous contact	4
identification number and letter for switching	40 E
elements	
operational current at AC-12 maximum	10 A
operational 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
operational 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
operational 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
operational 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
operational 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 operational current with 2 current paths in series at	0.1 A
DC-13	40 A
at 24 V rated value at 60 V rated value	10 A
at 60 V rated value at 110 V rated value	3.5 A
 at 110 V rated value at 220 V rated value 	1.3 A 0.9 A
	0.9 A 0.2 A
at 440 V rated valueat 600 V rated value	0.2 A 0.1 A
operational current with 3 current paths in series at	V.I A
DC-13	40.4
• 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

contact reliability of auxiliary contacts UL/CSA ratings contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position +/-180° rota forward and fastening method screw and sheight vidth depth required spacing • with side-by-side mounting — forwards — upwards — at the side — downwards — at the side — downwards — at the side — downwards — of rive parts — forwards — upwards — at the side — downwards — at the side — forwards — upwards — at the side — forwards — at the side Connections/ Terminals type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing 2x (0,5 1, 2, 2, 3, 5, 5, 1, 1, 2, 3, 1, 1, 2, 3, 1, 1, 1, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	ic: 6 A; 0.4 kA ing per 100 million (17 V, 1 mA) O A on possible on vertical mounting surface; can be tilted ackward by +/- 22.5° on vertical mounting surface ap-on mounting onto 35 mm standard mounting rail
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B10 value with high demand rate acc. to SN 31920 1 000 000; proportion of dangerous failures • with low demand rate acc. to SN 31920 40 %	mm²), 2x (0.75 2.5 mm²)
B10 value with high demand rate acc. to SN 31920 1 000 000; proportion of dangerous failures • with low demand rate acc. to SN 31920 40 %	2x (18 14), 2x 12
proportion of dangerous failures ● with low demand rate acc. to SN 31920 40 %	
• with low demand rate acc. to SN 31920 40 %	
	th 0.3 x le
• with high demand rate acc. to SN 31920 73 %	th 0.3 x le
	th 0.3 x le
failure rate [FIT] with low demand rate acc. to SN 31920 100 FIT	th 0.3 x le
product function positively driven operation acc. to IEC Yes 60947-5-1	th 0.3 x le
T1 value for proof test interval or service life acc. to IEC 61508	th 0.3 x le
protection class IP on the front acc. to IEC 60529 IP20	th 0.3 x le
touch protection on the front acc. to IEC 60529 finger-safe,	th 0.3 x le
Certificates/ approvals	th 0.3 x le
General Product Approval	











Declaration of Conformity

Test Certificates

Marine / Shipping



Miscellaneous

Type Test Certificates/Test Report Special Test Certificate





Marine / Shipping

other











Confirmation

other



Further information

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=3RH2140-1KF40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2140-1KF40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-1KF40

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

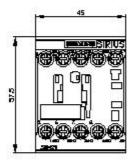
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2140-1KF40&lang=en

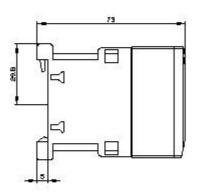
Characteristic: Tripping characteristics, I2t, Let-through current

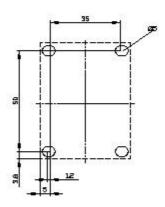
https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-1KF40/char

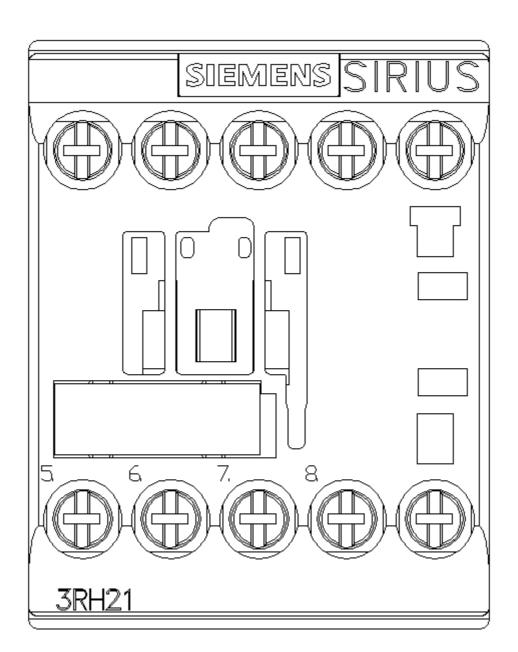
Further characteristics (e.g. electrical endurance, switching frequency)

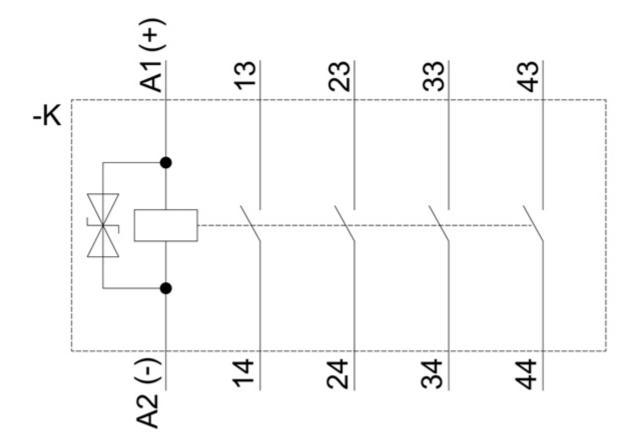
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2140-1KF40&objecttype=14&gridview=view1











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