SIEMENS

Data sheet 3RH2140-1AP00



Contactor relay, 4 NO, 230 V AC, 50 / 60 Hz, Size S00, screw terminal

product brand name	SIRIUS
product designation	Auxiliary contactor
product type designation	3RH2
General technical data	
size of contactor	S00
product extension auxiliary switch	Yes
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 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
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
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	AC
control supply voltage at AC	
at 50 Hz rated value	230 V
at 60 Hz rated value	230 V
control supply voltage frequency	

• 1 rated value	50 Hz
2 rated value	60 Hz
operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	37 VA
inductive power factor with closing power of the coil	0.8
apparent holding power of magnet coil at AC	5.7 VA
inductive power factor with the holding power of the coil	0.25
closing delay	
• at AC	8 33 ms
opening delay	
• at AC	4 15 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	0.1 A
operational 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

el 220 V rated value el et 800 V rated value el rated value value value value value value el rated value		
e at 600 V rated value	• at 220 V rated value	0.9 A
poperational current with 3 current paths in series at DC-13 • at 24 V stated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 110 V rated value • at 220 V rated value • at 400 V rated value • at 600 V rated value • at 60	 at 440 V rated value 	0.2 A
a at 24 V rated value at 80 V rated value 4.7 A 3.8 A 4.7 220 V rated value 3.9 A 4.7 220 V rated value 4.7 A 4.7	at 600 V rated value	0.1 A
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### required spacing Fastening method		
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height width 45 mm 45 mm 73 mm 74 mm² 75 mm		forward and backward by +/- 22.5° on vertical mounting surface
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B10 value with high demand rate according to SN 31920 proportion of dangerous failures with low demand rate according to SN 31920 with high demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC IP20	-	2x (20 16), 2x (18 14), 2x 12
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 T1 value for proof test interval or service life according to IEC IP20	Safety related data	
 with low demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC IP20 IP20 	B10 value with high demand rate according to SN 31920	1 000 000; With 0.3 x le
 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC IP20 	proportion of dangerous failures	
failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC IP20 protection class IP on the front according to IEC IP20	 with low demand rate according to SN 31920 	40 %
31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC IP20	with high demand rate according to SN 31920	73 %
Protection class IP on the front according to IEC IP20		100 FIT
		20 y
		IP20

Certificates/ approvals

General Product Approval





Confirmation



<u>KC</u>



EMC

Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination
Certificate



Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other



Confirmation



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=3RH2140-1AP00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2140-1AP00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-1AP00

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

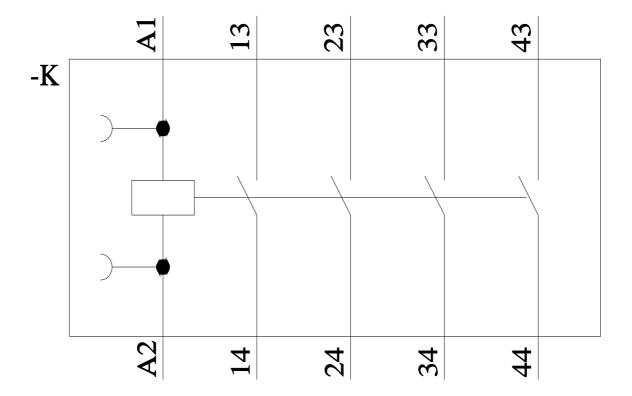
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2140-1AP00&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-1AP00/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2140-1AP00&objecttype=14&gridview=view1



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