SIEMENS

Data sheet

3RH2140-1AP00



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

product brand name SIRIUS product digination Auxiliary contactor product type designation SRH2 General tochnical dats S00 product extension auxiliary switch Yes power loss [W] for rated value of the current without load current ahare typical 143 W degree of pollution 3 surge voltage resistance rated value 660 V degree of pollution 3 et AC 7,3g / 5m, 4,7g / 10 ms shock resistance at rectangular impulse et AC 11,4g / 5 ms, 7,3g / 10 ms et AC 11,4g / 5 ms, 7,3g / 10 ms mechanical service life (operating cycles) 5000 000 of ontactor typical 5000 000 of ontactor with added electonically optimized auxilary switch block typical 100 000 000 of the contactor with added auxilary switch block typical 100 000 000 of during operation 25 m. 40 °C etablet conditions 900 m auxilary switch block typical 100 000 000 of the contactor with added auxilary switch block typical 100 000 000 etablet conditionset (bipt abore sea level maximu 2 000 m				
product type designation 3RH2 Genoral technical data	product brand name	SIRIUS		
General technical data S00 size of contactor S00 product extension auxiliary switch Yes power loss [W] for rated value of the current without load current 1.43 W insulation voltage with degree of pollution 3 at AC rated value 680 V degree of pollution 3 surge voltage resistance rated value 68V shock resistance at rectangular impulse 68V et AC 7.3g / 5 ms, 4,7g / 10 ms mechanical service life (operating cycles) 600 V of contactor typical 30 000 000 of the contactor with added electronically optimized auxiliary switch block typical 0000 000 of the contactor with added auxiliary switch block typical 1000 0000 of the contactor with added auxiliary switch block typical 1000 12009 Ambient conditions 25 +60 °C instalation altitude at height above sea level maximum 2000 m ambient temperature 95 % eluring operation -25 +60 °C iduing storage -56 +80 °C relative humidity at 55 °C according to IEC 60068-2-30 95 % maximum 92 &kg	product designation	Auxiliary contactor		
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Global Warming Potential [CO2 eq] after end of life -0.139 kg Main circuit -0.139 kg no-load switching frequency 10 000 1/h	Global Warming Potential [CO2 eq] during manufacturing	1.15 kg		
Main circuit no-load switching frequency • at AC 10 000 1/h	Global Warming Potential [CO2 eq] during operation	48.2 kg		
no-load switching frequency 10 000 1/h	Global Warming Potential [CO2 eq] after end of life	-0.139 kg		
• at AC 10 000 1/h	Main circuit			
• at AC 10 000 1/h	no-load switching frequency			
• at DC 10 000 1/h		10 000 1/h		
	• at DC	10 000 1/h		
Control circuit/ Control	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
e 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 contacts	4
	4 40 E
identification number and letter for switching elements	
operational current at AC-12 maximum	10 A
operational current at AC-15	10.1
• 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

	0.0.4		
at 220 V rated value	0.9 A		
• at 440 V rated value	0.2 A		
at 600 V rated value	0.1 A		
operational current with 3 current paths in series at DC-13			
• 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		
• at 600 V rated value	0.26 A		
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 DIN 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	40		
— 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)		
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14), 2x 12		
Safety related data			
product function			
 positively driven operation according to IEC 60947-5-1 	Yes		
suitable for safety function	Yes		
suitability for use safety-related switching OFF	Yes		
service life maximum	20 a		
proportion of dangerous failures			
with low demand rate according to SN 31920	40 %		
 with high demand rate according to SN 31920 	73 %		
B10 value with high demand rate according to SN 31920	1 000 000; With 0.3 x le		
failure rate [FIT] with low demand rate according to SN 31920	100 FIT		
ISO 13849			

device type according	to ISO 13849-1		3			
overdimensioning according to ISO 13849-2 necessary		Yes				
IEC 61508						
safety device type acc	ording to IEC 61508-2		Туре	A		
Electrical Safety						
protection class IP on	the front according to I	EC 60529	IP20			
touch protection on th	e front according to IEC	C 60529	finger	-safe, for vertical contact f	rom the front	
Approvals Certificates						
General Product Appr	oval					
UK CA	CE EG-Konf.			<u>Confirmation</u>	(UL)	KC
General Product Approval	EMV	Functional Safe	tey	Test Certificates		Marine / Shipping
EHC	RCM	<u>Type Examination</u> tificate	<u>n Cer-</u>	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific-</u> ates/Test Report	ABS
Marine / Shipping						other
BUREAU VERITAS		PRS		RINA	KMRS	<u>Miscellaneous</u>
other	Railway	Environment				
<u>Confirmation</u>	<u>Special Test Certific-</u> <u>ate</u>	EPD		<u>Environmental Con-</u> firmations		

Further	

Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875

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

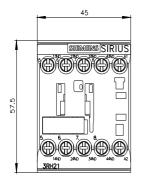
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2140-1AP00&lang=en

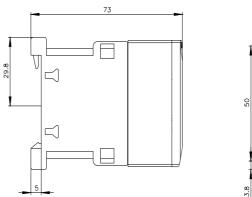
Characteristic: Tripping characteristics, I²t, Let-through current

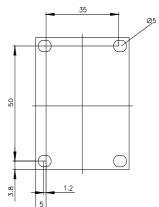
https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-1AP00/char

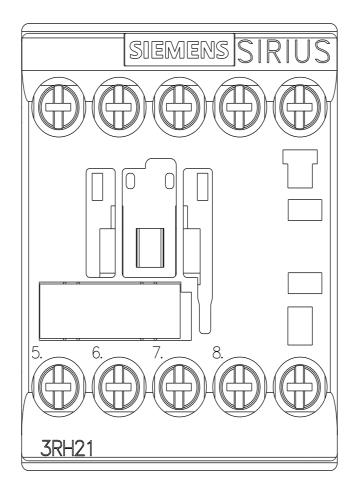
Further characteristics (e.g. electrical endurance, switching frequency)

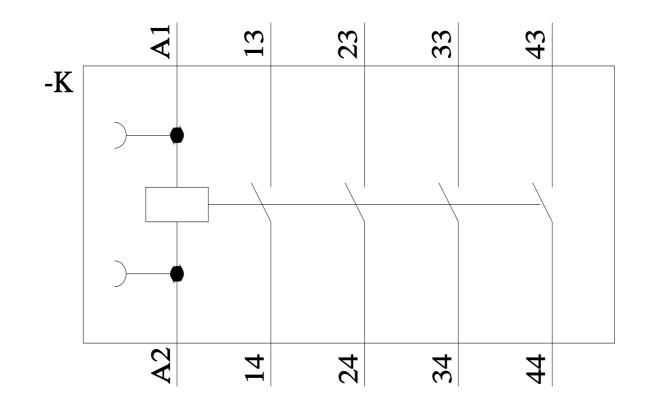
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2140-1AP00&objecttype=14&gridview=view1











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