SIEMENS

Data sheet

3RH2122-2FB40



Contactor relay, 2 NO + 2 NC, 24 V DC, with integrated diode, Size S00, Spring-type 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 DC	10g / 5 ms, 5g / 10 ms			
shock resistance with sine pulse				
• at DC	15g / 5 ms, 8g / 10 ms			
mechanical service life (operating 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	К			
Substance Prohibitance (Date)	10/01/2009			
Ambient conditions				
Ambient conditions				
Ambient conditions installation altitude at height above sea level maximum	2 000 m			
installation altitude at height above sea level maximum	-25 +60 °C			
installation altitude at height above sea level maximum ambient temperature • during operation • during storage	-25 +60 °C -55 +80 °C			
installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum	-25 +60 °C -55 +80 °C 10 %			
installation altitude at height above sea level maximum ambient temperature • during operation • during storage	-25 +60 °C -55 +80 °C			
installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30	-25 +60 °C -55 +80 °C 10 %			
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installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit	-25 +60 °C -55 +80 °C 10 %			
installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency	-25 +60 °C -55 +80 °C 10 % 95 %			
installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC	-25 +60 °C -55 +80 °C 10 % 95 %			
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• at 24 V rated value10 A• at 110 V rated value1 A• at 220 V rated value0.3 A• at 440 V rated value0.14 A• at 600 V rated value0.1 Aoperational current with 2 current paths in series at DC-130• at 24 V rated value10 A• at 20 V rated value3.5 A• at 20 V rated value1.3 A• at 220 V rated value0.9 A• at 440 V rated value0.9 A	operating frequency at DC-12 maximum	1 000 1/h
• at 110 V rated value1 A• at 220 V rated value0.3 A• at 440 V rated value0.14 A• at 600 V rated value0.1 Aoperational current with 2 current paths in series at DC-1310 A• at 24 V rated value10 A• at 24 V rated value3.5 A• at 110 V rated value1.3 A• at 220 V rated value0.9 A• at 440 V rated value0.2 A	operational current at 1 current path at DC-13	
 at 220 V rated value at 440 V rated value at 600 V rated value 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 3.5 A at 220 V rated value 0.9 A at 440 V rated value 0.2 A 		
 at 440 V rated value at 600 V rated value 0.14 A 0.1 A 0perational 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 at 220 V rated value 0.9 A at 440 V rated value 0.2 A 		
 at 600 V rated value operational current with 2 current paths in series at DC-13 at 24 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 220 V rated value at 440 V rated value 0.2 A 		
operational current with 2 current paths in series at DC-13IOA• at 24 V rated value10 A• at 24 V rated value3.5 A• at 10 V rated value1.3 A• at 220 V rated value0.9 A• at 440 V rated value0.2 A		
 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value 0.2 A 	operational current with 2 current paths in series at	0.1 A
• at 60 V rated value3.5 A• at 110 V rated value1.3 A• at 220 V rated value0.9 A• at 440 V rated value0.2 A		10 A
• at 110 V rated value1.3 A• at 220 V rated value0.9 A• at 440 V rated value0.2 A		
 at 220 V rated value at 440 V rated value 0.2 A 		
• at 440 V rated value 0.2 A		
at buu v rated value () 1 A	at 600 V rated value	0.1 A
operational current with 3 current paths in series at DC-13	operational current with 3 current paths in series at	
at 24 V rated value 10 A		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	fuse gL/gG: 10 A			
auxiliary switch required				
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	70 mm			
width	45 mm			
depth	73 mm			
required spacing				
with side-by-side mounting	10			
— forwards	10 mm 10 mm			
— upwards — 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	spring-loaded terminals			
type of connectable conductor cross-sections				
 for auxiliary contacts 				
— solid or stranded	2x (0,5 4 mm ²)			
 finely stranded with core end processing 	2x (0.5 2.5 mm ²)			
 finely stranded without core end processing at ANC applies for availant contacts 	2x (0.5 2.5 mm ²)			
at AWG cables for auxiliary contacts	2x (20 12)			
Safety related data product function positively driven operation according to	Yes			
IEC 60947-5-1				
B10 value with high demand rate according to SN 31920 proportion of dangerous failures	1 000 000; With 0.3 x le			
with low demand rate according to SN 31920	40 %			
 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 	73 % 100 FIT			
T1 value for proof test interval or service life according to IEC 61508	20 a			
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			
Certificates/ approvals				
General Product Approval				
CSA CCC	UL E E E E			

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EMC	Functional Safety/Safety of Machinery	Declaration of Conformity		Test Certificates	
RCM	<u>Type Examination</u> Certificate	CE EG-Konf.	UK CA	Special Test Certific- ate	<u>Type Test Certific-</u> ates/Test Report
Marine / Shipping					
ABS	BUREAU VERITAS		Llovd's Register urs	PRS	RINA
Marine / Shipping	other		Railway	Dangerous Good	
RMRS R	<u>Confirmation</u>	UDE VDE	Vibration and Shock	Transport Informa- tion	

Further information

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=3RH2122-2FB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-2FB40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-2FB40

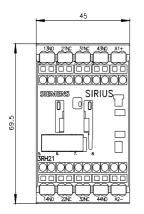
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2122-2FB40&lang=en

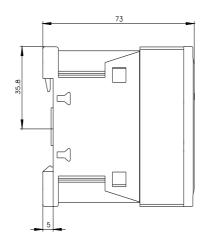
Characteristic: Tripping characteristics, I²t, Let-through current

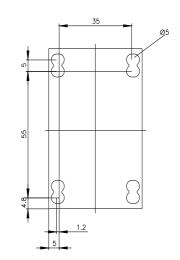
https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-2FB40/char

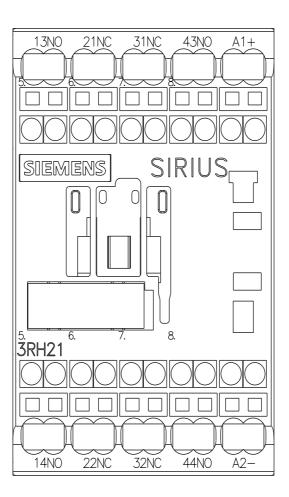
Further characteristics (e.g. electrical endurance, switching frequency)

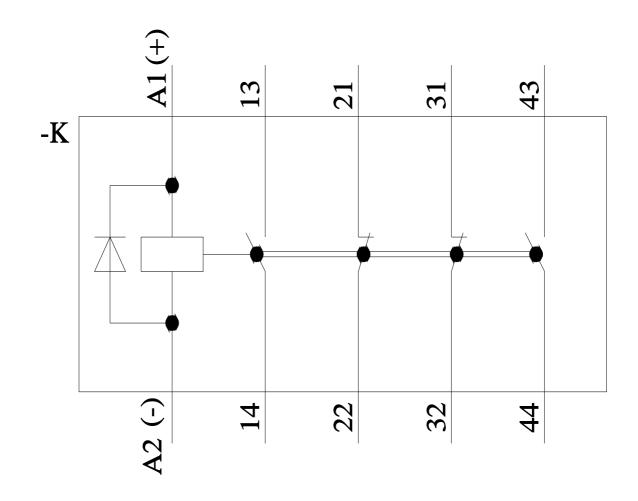
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