SIEMENS

Data sheet 3RH2122-4BG40



Contactor relay, 2 NO + 2 NC, 125 V DC, Size S00, ring cable lug connection

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 (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	95 %
maximum	
Main circuit	
no-load switching frequency	40,000,411
• 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	125 V
operating range factor control supply voltage rated value of magnet coil at DC	
initial value	0.8
full-scale value	1.1

Adding power of magnet coil at DC closing delay at DC 30 100 ms		AW
Closing delay	closing power of magnet coil at DC	4 W
		4 W
ear to DC arrivable arri		
* at DC archig time		30 100 ms
Auxiliary circuit		
Auxiliary circuit number of NC contacts for auxiliary contacts c instantaneous contact 2 c instantaneous contact 2 c instantaneous contact 2 c instantaneous contact 2 c identification number and letter for switching cloments coperational current at AC-15 c 10 A c at 400 V rated value 10 A c at 400 V rated value 2 A at 400 V rated value 2 A at 600 V rated value 2 A at 600 V rated value 2 A at 600 V rated value 3 A at 600 V rated value 4 A at 440 V rated value 3 A at 440 V rated value 4 A at 440 V rated value 4 A at 440 V rated value 5 A at 500 V rated value 5 A		
number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts • instantaneous contact lidentification number and letter for switching elements operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 400 V rated value • at 500 V rated value • at 110 V rated value • at 600 V		10 15 ms
inistantaneous contact 2	Auxiliary circuit	
number of NO contacts for auxiliary contacts 2		
Instantaneous contact Identification number and letter for switching elements 22 E		
Identification number and letter for switching elements operational current at AC-12 maximum 10 A operational current at AC-15 at 230 V rated value 3 A at 500 V rated value 2 A at 500 V rated value 10 A at 500 V rated value 2 A at 500 V rated value 3 A at 500 V rated value 3 A at 220 V rated value 3 A at 220 V rated value 3 A at 220 V rated value 4 A at 440 V rated value 0.3 A at 320 V rated value 0.15 A at 440 V rated value 0.15 A at 440 V rated value 10 A at 440 V rated value 4 A at 220 V rated value 2 A at 42 V rated value 4 A at 42 V rated value 2 A at 42 V rated value 4 A at 22 V rated value 2 A at 42 V rated value 4 A at 22 V rated value 2 A at 42 V rated value 2 A at 42 V rated value 10 A at 60 V rated value 2 A at 42 V rated value 10 A at 60 V rated value 10 A at 10 V rated value 10 A at 110 V rated value 10 A at 110 V rated value 10 A at 120 V rated value 10 A at 44 V rated value 2.5 A at 440 V rated value 10 A at 40 V rated value 0.3 A at 44 V rated value 0.14 A at 40 V	-	
elements		
10 A 1230 V rated value 10 A 13 A 14 A 15 A	•	22 E
* at 230 V rated value * at 400 V rated value * at 690 V rated value * at 110 V rated value * at 120 V rated value * at 24 V rated value * at 440 V rated value * at 600 V rated value * at 110 V rated value * at 120 V rated value * at 120 V rated value * at 600 V rated value	operational current at AC-12 maximum	10 A
at 400 V rated value at 500 V rated value at 690 V rated value at 690 V rated value at 690 V rated value at 110 V rated value at 110 V rated value at 110 V rated value at 220 V rated value at 40 V rated value at 400 V rated value at 400 V rated value at 600 V rated value at 40 V rated value at 40 V rated value at 600 V rated value at 600 V rated value at 110 V rated value at 110 V rated value at 600 V rated value at 110 V rated value at 440 V rated value at 600 V rated valu	operational current at AC-15	
	 at 230 V rated value 	10 A
• at 690 V rated value operational current at 1 current path at DC-12 • at 124 V rated value • at 110 V rated value • at 440 V rated value • at 600 V rated value • at 110 V rated value • at 1220 V rated value • at 1220 V rated value • at 1220 V rated value • at 600 V rated value • at 100 V rated value • at 110 V rated value • at 110 V rated value • at 440 V rated value • at 600 V rated value • at 110 V rated value • at 600 V rated value • at 400 V rated v	at 400 V rated value	3 A
at 24 V rated value	 at 500 V rated value 	2 A
	 at 690 V rated value 	1 A
**at 110 V rated value 1 A 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 600 V rated value operational current with 2 current paths in series at DC-12 • 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 • at 600 V rated value • at 110 V rated value • at 110 V rated value • at 110 V rated value • at 600 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value • at 110 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 24 V rated value • at 220 V rated value • at 24 V rated value • at 220 V rated value • at 24 V rated value • at 220 V rated value • at 600 V rated value • at 440 V rated value • at 600 V rated value • at 40 V rated value • at 600 V rated value • at 40 V rated value • at 40 V rated value • at 600 V rated value • at 40 V rated value • at 600 V rated value	 at 220 V rated value 	1 A
operational current with 2 current paths in series at DC-12 • at 24 V rated value • at 60 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value • at 440 V rated value • at 440 V rated value • at 600 V rated value • at 110 V rated value • at 10 A • at 220 V rated value • at 440 V rated value • at 440 V rated value • at 600 V rated value • at 110 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 40 V rated value • at 600 V rated value • at 40 V rated value • at 600 V rated value • at 40 V rated value • at 40 V rated value • at 600 V rated value • at 40 V rated value • at 600 V rated value • 0.1 A	• at 440 V rated value	0.3 A
DC-12	• at 600 V rated value	0.15 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 440 V rated value oberational current with 3 current paths in series at DC-12 at 24 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 120 V rated value at 24 V rated value at 440 V rated value at 600 V rated value at 220 V rated value at 24 V rated value at 24 V rated value at 220 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 440 V rated value at 240 V rated value at 400 V rated value at 240 V rated value at 440 V rated value		
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 at 220 V rated value at 440 V rated value at 600 V rated value at 24 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 24 V rated value at 220 V rated value at 220 V rated value at 24 V rated value at 440 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 25 V rated value at 24 V rated value at 25 V rated value at 26 V rated value at 27 V rated value at 28 V rated value at 28 V rated value at 29 V rated va	at 60 V rated value	10 A
 at 440 V rated value at 600 V rated value operational current with 3 current paths in series at DC-12 at 24 V rated value at 10 V rated value at 110 V rated value at 440 V rated value at 440 V rated value at 600 V rated value at 700 V rated value at 600 V rated value at 24 V rated value at 20 V rated value at 600 V rated value at 24 V rated value at 220 V rated value at 220 V rated value at 220 V rated value at 3 A at 220 V rated value at 3 A at 440 V rated value at 600 V rated value <	at 110 V rated value	4 A
• at 600 V rated value operational current with 3 current paths in series at DC-12 • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value • at 600 V rated value • at 1000 1/h operational current at 1 current path at DC-13 • at 24 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 440 V rated value • at 600 V rated value • 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 220 V rated value • at 440 V rated value • at 60 V rated value • at 440 V rated value • at 600 V rated value • at 440 V rated value • at 600 V rated value	 at 220 V rated value 	2 A
operational current with 3 current paths in series at DC-12 • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value • at 600 V rated value • at 24 V rated value • at 25 A • at 600 V rated value operational current at 1 current path at DC-13 • at 24 V rated value • at 110 V rated value • at 110 V rated value • at 440 V rated value • at 440 V rated value • at 600 V rated value • at 24 V rated value • at 25 V rated value • at 26 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 29 V rated value • at 20 V rated value • at 440 V rated value	 at 440 V rated value 	1.3 A
DC-12	 at 600 V rated value 	0.65 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 600 V rated value operating frequency at DC-12 maximum operational current at 1 current path at DC-13 at 24 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 25 V rated value at 600 V rated value at 24 V rated value at 25 V rated value at 110 V rated value at 110 V rated value at 210 V rated value at 220 V rated value at 240 V rated value at 440 V rated value at 600 V rated value<!--</th--><th></th><th></th>		
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 at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 220 V rated value at 220 V rated value at 24 V rated value at 220 V rated value at 24 V rated value at 200 V rated value at 200 V rated value at 24 V rated value at 24 V rated value at 600 V rated value at 600 V rated value at 60 V rated value at 24 V rated value at 25 V rated value at 20 V rated value at 24 V rated value at 25 A at 26 V rated value at 27 V rated value at 28 V rated value at 29 V rated value at 20 V rated value at 20 V rated value at 440 V rated value at 440 V rated value at 440 V rated value at 600 V rated value at 6	● at 60 V rated value	10 A
 at 440 V rated value at 600 V rated value 1.8 A operating frequency at DC-12 maximum operational current at 1 current path at DC-13 at 24 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 24 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 24 V rated value at 60 V rated value at 20 V rated value at 20 V rated value at 10 A at 20 V rated value at 110 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 240 V rated value at 250 V rated value at 260 V rated value at 270 V rated value at 440 V rated value at 600 V rated value at 70 V rated value at 70 V rated value at 70 V rated value		
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operating frequency at DC-12 maximum operational current at 1 current path at DC-13 • at 24 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value • at 24 V rated value • at 60 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 20 V rated value • at 60 V rated value • at 440 V rated value • at 600 V rated value	at 440 V rated value	2.5 A
operational current at 1 current path at DC-13 • at 24 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • 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 20 V rated value • at 40 V rated value • at 40 V rated value • at 40 V rated value • at 440 V rated value • at 600 V rated value		
operational current at 1 current path at DC-13 • at 24 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value • at 24 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 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value		
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 at 220 V rated value at 440 V rated value 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 110 V rated value at 220 V rated value at 440 V rated value at 440 V rated value at 600 V rated value 		10 A
 at 440 V rated value 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 110 V rated value at 220 V rated value at 440 V rated value at 440 V rated value at 600 V rated value 	• at 110 V rated value	1 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 110 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 600 V rated value 	• at 220 V rated value	0.3 A
operational current with 2 current paths in series at DC-13 • 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 • at 600 V rated value	• at 440 V rated value	0.14 A
 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 600 V rated value 	• at 600 V rated value	0.1 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 600 V rated value 		
 at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value 0.2 A 0.1 A 	at 24 V rated value	10 A
 at 220 V rated value at 440 V rated value at 600 V rated value 0.2 A 0.1 A 	at 60 V rated value	3.5 A
 at 440 V rated value at 600 V rated value 0.2 A 0.1 A 	• at 110 V rated value	1.3 A
• at 600 V rated value 0.1 A	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		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	at 600 V rated value	

operating frequency at DC-13 maximum

design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V

contact reliability of auxiliary contacts

1 000 1/h

C characteristic: 6 A; 0.4 kA

1 faulty switching per 100 million (17 V, 1 mA)

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	ring terminal lug connection				
Safety related data					
product function positively driven operation according to IEC 60947-5-1	Yes				
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	IP00				

Certificates/ approvals

General Product Approval



Confirmation





<u>KC</u>



EMC	Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
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Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other

Railway

Dangerous Good



Environmental Confirmations

Confirmation



Vibration and Shock

Transport Information

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=3RH2122-4BG40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-4BG40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-4BG40

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

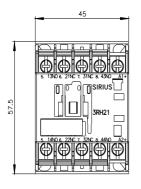
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2122-4BG40&lang=en

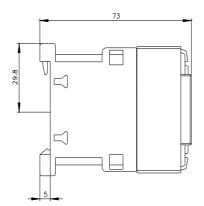
Characteristic: Tripping characteristics, I2t, Let-through current

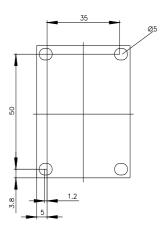
https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-4BG40/char

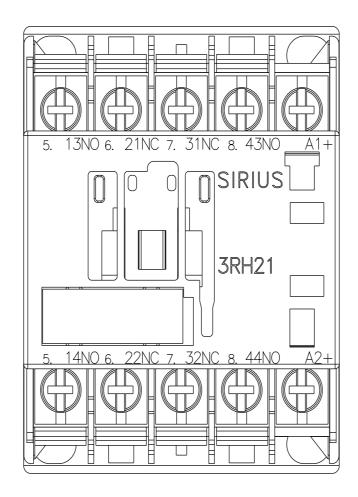
Further characteristics (e.g. electrical endurance, switching frequency)

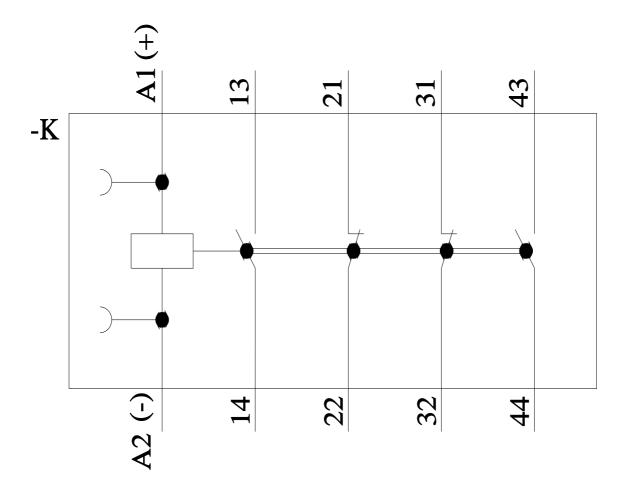
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2122-4BG40&objecttype=14&gridview=view1











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