SIEMENS

Data sheet 3RH2122-1BP40



Contactor relay, 2 NO + 2 NC, 230 V DC, 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 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	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	DC
control supply voltage at DC	
• rated value	230 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
• full-scale value	1.1

closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	7 11
• at DC	30 100 ms
opening delay	00 100 mo
• at DC	7 13 ms
arcing time	10 15 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
instantaneous contact	2
number of NO contacts for auxiliary contacts	2
instantaneous contact	2
identification number and letter for switching elements	22 E
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 valueat 600 V rated value	1.3 A 0.65 A
	0.05 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
at 220 V rated value	0.9 A
at 440 V rated value at 600 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	10 A
• at 24 V rated value	10 A
at 60 V rated value at 110 V rated value	4.7 A
at 110 V rated value at 220 V rated value	3 A
at 220 V rated value at 440 V rated value	1.2 A
at 440 V rated value at 600 V rated value	0.5 A
at 600 V rated value	0.26 A

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 rating of auxiliary	contacts	according to UL
Short-circuit protection		

design of the fuse link for short-circuit protection of the auxiliary switch required

fuse gL/gG: 10 A

A600 / Q600

Installation/ mounting/ dimensions

with side-by-side mounting

fastening method height width depth

+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail 57.5 mm

45 mm 73 mm

required spacing

mounting position

UL/CSA ratings

forwards 10 mm 10 mm - upwards - downwards 10 mm 0 mm - at the side

· for grounded parts - forwards 10 mm - upwards 10 mm 6 mm - at the side — downwards 10 mm

 for live parts 10 mm forwards upwards 10 mm downwards 10 mm - at the side 6 mm

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 • at AWG cables for auxiliary contacts

screw-type terminals

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm² 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 2x (20 ... 16), 2x (18 ... 14), 2x 12

Safety related data

product function positively driven operation according to IEC 60947-5-1

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 failure rate [FIT] with low demand rate according to SN

T1 value for proof test interval or service life according to

IEC 61508 protection class IP on the front according to IEC

touch protection on the front according to IEC 60529

Yes

1 000 000; With 0.3 x le

40 % 73 %

100 FIT

20 y IP20

finger-safe, for vertical contact from the front

Certificates/ approvals

General Product Approval



Confirmation





KC



Test Certificates EMC Functional Declaration of Conformity



Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certific-<u>ate</u>

Marine / Shipping





Confirmation









Marine / Shipping

other

Environmental Confirmations



Vibration and Shock

Railway

Transport Informa-<u>tion</u>

Dangerous Good

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=3RH2122-1BP40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-1BP40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-1BP40

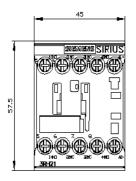
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RH2122-1BP40&lang=en

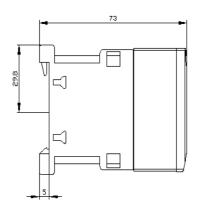
Characteristic: Tripping characteristics, I2t, Let-through current

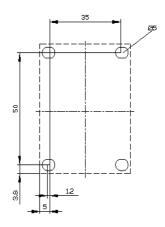
https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-1BP40/char

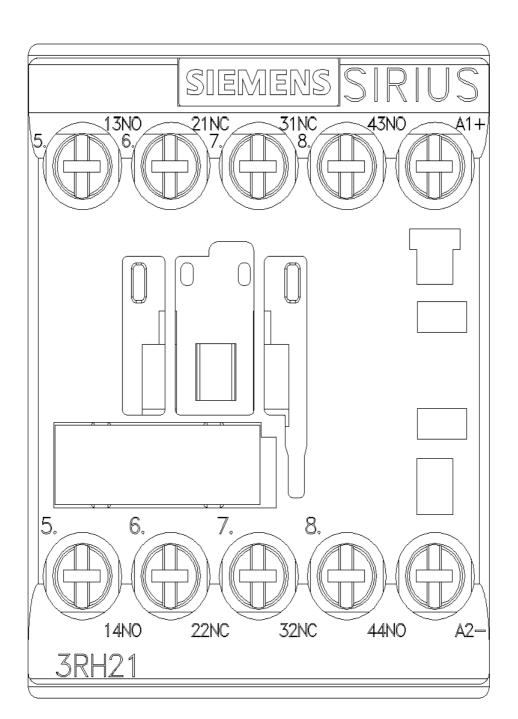
Further characteristics (e.g. electrical endurance, switching frequency)

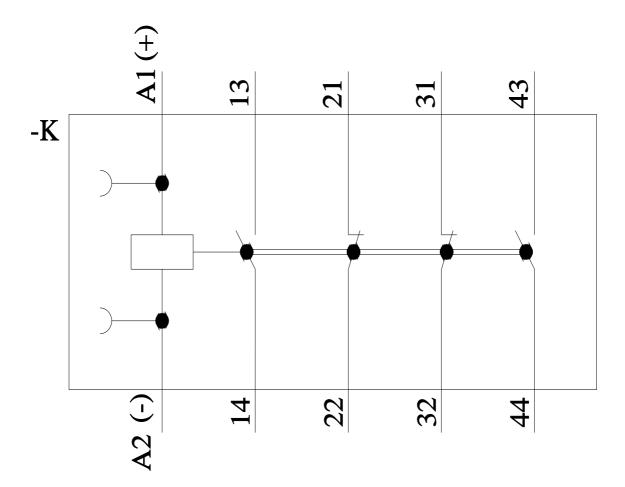
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