SIEMENS

Data sheet 3RH2122-1BB40

	Contactor relay, 2 NO + 2 NC, 24 V DC, Size S00, screw terminal
product brand name	SIRIUS
product designation	Auxiliary contactor
product type designation	3RH2
General technical data	
size of contactor	\$00
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	5 000 000
auxiliary switch block typical	
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	24 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	
• at DC	30 100 ms
opening delay	
• 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

Operational current at AC-15	identification number and letter for ewitching elements	22 E
Separational current at AC-15	identification number and letter for switching elements	
* all 230 V rated value		1071
a it 500 V rated value	•	10 A
a t 500 V rated value		
• al 690 V rated value		
a class A common		
* at 124 V rated value * at 110 V rated value * at 120 V rated value * at 220 V rated value * at 440 V rated value * at 600 V rated value * at 60 V rated value * at 1220 V rated value * at 220 V rated value * at 220 V rated value * at 600 V rated value * at 440 V rated value * at 600 V rated value * at 440 V rated value * at 600 V rated value		
• at 110 V rated value	•	10 A
• at 220 V rated value		
• at 600 V rated value 0.15 A		
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* at 440 V rated value	at 110 V rated value	4 A
* at 440 V rated value		
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10 A		
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• 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 1 0 A • at 24 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 • at 24 V rated value 10 A • at 24 V rated value 3.5 A • at 25 V rated value 3.5 A • at 110 V rated value 0.9 A • at 220 V rated value 0.1 A • at 440 V rated value 0.1 A • at 24 V rated value 0.9 A • at 45 OV rated value 0.1 A • at 24 V rated value 0.5 A • at 220 V rated value 0.5 A • at 440 V rated value 0.5 A • at 440 V rated value 0.5 A • at 600 V rated value <td>at 220 V rated value</td> <td>3.6 A</td>	at 220 V rated value	3.6 A
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eat 24 V rated value eat 110 V rated value eat 220 V rated value eat 220 V rated value eat 600 V rated value eat 110 V rated value eat 220 V rated value eat 440 V rated value eat 440 V rated value eat 440 V rated value eat 600 V rated value eat 110 V rated value eat 110 V rated value eat 110 V rated value eat 600 V rated value eat 600 V rated value eat 110 V rated value eat 600 V rated value e	at 600 V rated value	1.8 A
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• 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 600 V rated value • at 224 V rated value • at 24 V rated value • at 24 V rated value • at 25 V rated value • at 60 V rated value • at 600 V rated	• at 220 V rated value	0.3 A
e at 24 V rated value at 60 V rated value at 220 V rated value at 400 V rated value at 220 V rated value at 400 V rated value at 400 V rated value at 400 V rated value at 600 V rated value at 24 V rated value at 60 V rated value at 600 V rated value at 60	• at 440 V rated value	0.14 A
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design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V contact reliability of auxiliary contacts 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)	design of the miniature circuit breaker for short-circuit protection	
· · · · · · · · · · · · · · · · · · ·	·	1 faulty switching per 100 million (17 V 1 mA)
	JL/CSA ratings	
contact rating of auxiliary contacts according to UL A600 / Q600		A600 / Q600
short-circuit protection		
design of the fuse link for short-circuit protection of the auxiliary switch required fuse gL/gG: 10 A	design of the fuse link for short-circuit protection of the auxiliary	fuse gL/gG: 10 A
nstallation/ mounting/ dimensions	nstallation/ 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	fastening method	

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	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
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 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



Confirmation





<u>KC</u>



Functional

EMC Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination Certificate



C E

Type Test Certificates/Test Report

Special Test Certificate

Test Certificates Marine / Shipping

Miscellaneous











Marine / Shipping other Railway Dangerous Good





Confirmation



Vibration and Shock Transport Information

Environment

Environmental Confirmations

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RH2122-1BB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-1BB40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-1BB40

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

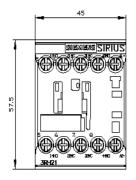
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2122-1BB40&lang=en

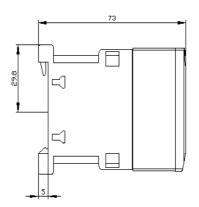
Characteristic: Tripping characteristics, I2t, Let-through current

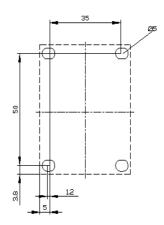
https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-1BB40/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2122-1BB40&objecttype=14&gridview=view1







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