SIEMENS

Data sheet 3RH2344-2BB40

	Contactor relay, 4 NO + 4 NC, 24 V DC, Size S00, spring-type terminal, Removable auxiliary switch
product brand name	SIRIUS
product designation	Auxiliary contactor
product type designation	3RH2
General technical data	ON 12
size of contactor	S00
product extension auxiliary switch	No
insulation voltage with degree of pollution 3 at AC rated value	690 V
degree of pollution	3
	6 kV
surge voltage resistance rated value	O KV
shock resistance at rectangular impulse	40a / 5 ma 5a / 40 ma
• at DC	10g / 5 ms, 5g / 10 ms
shock resistance with sine pulse	45 45 0 440
• at DC	15g / 5 ms, 8g / 10 ms
mechanical service life (operating cycles)	40,000,000
• of contactor 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 ACat DC	10 000 1/h 10 000 1/h
• at DC	
at DC Control circuit/ Control	10 000 1/h
at DC Control circuit/ Control type of voltage of the control supply voltage	10 000 1/h
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC	10 000 1/h DC
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of	10 000 1/h DC
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC	10 000 1/h DC 24 V
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC initial value	10 000 1/h DC 24 V 0.8
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value	10 000 1/h DC 24 V 0.8 1.1
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value closing power of magnet coil at DC	10 000 1/h DC 24 V 0.8 1.1 4 W
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value closing power of magnet coil at DC holding power of magnet coil at DC	10 000 1/h DC 24 V 0.8 1.1 4 W
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value closing power of magnet coil at DC holding power of magnet coil at DC closing delay	10 000 1/h DC 24 V 0.8 1.1 4 W 4 W
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC • rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value closing power of magnet coil at DC holding power of magnet coil at DC closing delay • at DC	10 000 1/h DC 24 V 0.8 1.1 4 W 4 W
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay	10 000 1/h DC 24 V 0.8 1.1 4 W 4 W 30 100 ms
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC arated value operating range factor control supply voltage rated value of magnet coil at DC a initial value a full-scale value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC	10 000 1/h DC 24 V 0.8 1.1 4 W 4 W 30 100 ms 7 13 ms
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time	10 000 1/h DC 24 V 0.8 1.1 4 W 4 W 30 100 ms 7 13 ms
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC • rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value closing power of magnet coil at DC holding power of magnet coil at DC closing delay • at DC opening delay • at DC arcing time Auxiliary circuit	10 000 1/h DC 24 V 0.8 1.1 4 W 4 W 30 100 ms 7 13 ms 10 15 ms
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC • rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value closing power of magnet coil at DC holding power of magnet coil at DC closing delay • at DC opening delay • at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts	10 000 1/h DC 24 V 0.8 1.1 4 W 4 W 30 100 ms 7 13 ms 10 15 ms
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact	10 000 1/h DC 24 V 0.8 1.1 4 W 4 W 30 100 ms 7 13 ms 10 15 ms
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC • rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value closing power of magnet coil at DC holding power of magnet coil at DC closing delay • at DC opening delay • at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts • instantaneous contact number of NO contacts for auxiliary contacts • instantaneous contact	10 000 1/h DC 24 V 0.8 1.1 4 W 4 W 30 100 ms 7 13 ms 10 15 ms
at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC rated value operating range factor control supply voltage rated value of magnet coil at DC initial value full-scale value closing power of magnet coil at DC holding power of magnet coil at DC closing delay at DC opening delay at DC arcing time Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts	10 000 1/h DC 24 V 0.8 1.1 4 W 4 W 30 100 ms 7 13 ms 10 15 ms

operational current at AC-15	
at 230 V rated value	6 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	6 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 	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	. was, onto my por 100 million (11 v, 1 mr)
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	70 mm
width	45 mm

depth	121 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	spring-loaded terminals
type of connectable conductor cross-sections	
for auxiliary contacts	
 solid or stranded 	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 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>



EMC Declaration of Conformity Test Certificates Marine / Shipping







Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping













other Railway Dangerous Good



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=3RH2344-2BB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2344-2BB40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2344-2BB40

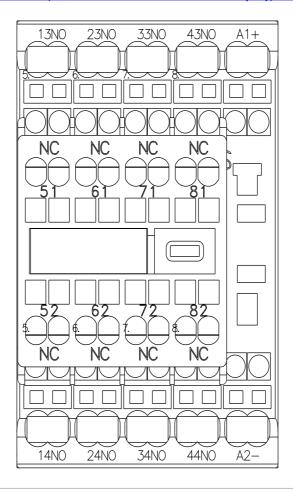
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2344-2BB40&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RH2344-2BB40/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2344-2BB40&objecttype=14&gridview=view1



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