SIEMENS

Data sheet 3RH2244-2BB40



contactor relay, 4 NO + 4 NC, 24 V DC, size S00, spring-loaded terminal, captive auxiliary switch

product designation 3RH2 Size of contactor S00 product extension auxiliary switch No Insulation voltage with degree of pollution 3 at AC rated value 689 V surge voltage resistance rated value 6 kV shock resistance at rectangular impulse at DC 10g / 5 ms, 5g / 10 ms surge voltage resistance with sine pulse at DC 15g / 5 ms, 8g / 10 ms mechanical service life (switching cycles) 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 2000 m ambient temperature 4 during operation 255 +60 °C -55 +80 °C -55 +90 °C -55	product brand name	SIRIUS		
size of contactor S00 product extension auxiliary switch insulation voltage with degree of pollution 3 at AC rated value degree of pollution surge voltage resistance rated value e at DC shock resistance at rectangular impulse e at DC shock resistance with sine pulse e store shock resistance with sine pulse e should resistance wi	product designation	Auxiliary contactor		
size of contactor product extension auxiliary switch insulation voltage with degree of pollution 3 at AC rated value degree of pollution 3 surge voltage resistance rated value • at DC shock resistance at rectangular impulse • at DC mechanical service life (switching cycles) • of contactor typical reference code according to IEC 81346-2 K Substance Prohibitance (Date) Ambient conditions 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 • at DC • at DC • control supply voltage at DC • rated value operating range factor control supply voltage rated value of linitial value • fulls: scale value •	product type designation	3RH2		
product extension auxiliary switch insulation voltage with degree of pollution 3 at AC rated value degree of pollution surge voltage resistance rated value • at DC • at DC • of contactor typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity an influency • at AC • at DC Ambient coroult **To Control Circuit/ Control **To Control Circuit/ Control **To Voltage at DC **To Voltage of the control supply voltage rated value of magnet coil at DC **Initial value **July Scale value - Unitial value	General technical data	General technical data		
insulation voltage with degree of pollution 3 at AC rated value degree of pollution surge voltage resistance rated value e at DC shock resistance at rectangular impulse • at DC at DC shock resistance with sine pulse • at DC mechanical service life (switching cycles) • of contactor typical reference code according to IEC 81346-2 K Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • at DC • or ated value operating range factor control supply voltage rated value of magnet coil at DC • initial value • fulls casel value 0.8 • fulls casel value 1.1 closing power of magnet coil at DC • full cools at AC • full casel value 0.8 • fulls casel value 1.1 closing power of magnet coil at DC • full cools at AC • full casel value 1.1	size of contactor	S00		
value degree of pollution 3 surge voltage resistance rated value 6 kV shock resistance at rectangular impulse 10g / 5 ms, 5g / 10 ms • at DC 15g / 5 ms, 8g / 10 ms mechanical service life (switching cycles) 10 000 000 • of contactor typical K substance Prohibitance (Date) 10/01/2009 Ambient conditions 10/01/2009 installation altitude at height above sea level maximum 2 000 m ambient temperature 4 during operation • during storage -55 +60 °C • during storage -55 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 95 % maximum 95 % Main circuit 10 000 1/h no-load switching frequency 10 000 1/h • at DC 10 000 1/h Control circuit/ Control 24 V type of voltage of the control supply voltage DC control supply voltage at DC 24 V • rated value 0.8 • full-scale value 0.8 • full-scale value 1.1 closing power of magnet coil at DC 4 W	product extension auxiliary switch	No		
surge voltage resistance rated value shock resistance at rectangular impulse at DC shock resistance with sine pulse at DC stock resistance with sine pulse stock resistance with sine stock resistance with sine pulse stock resistance with sine stock resistance with sine pulse stock resistance with sine pulse stock resistance resistance with sin		690 V		
shock resistance at rectangular impulse at DC shock resistance with sine pulse at DC start DC shock resistance with sine pulse at DC start	degree of pollution	3		
shock resistance with sine pulse at DC shock resistance with sine pulse at DC mechanical service life (switching cycles) of contactor typical reference code according to IEC 81346-2 K Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage relative humidity minimum relative humidity minimum relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency at AC at DC to 10 000 1/h 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 1.1 closing power of magnet coil at DC	surge voltage resistance rated value	6 kV		
shock resistance with sine pulse • at DC mechanical service life (switching cycles) • of contactor typical reference code according to IEC 81346-2 K Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • 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 1.1 closing power of magnet coil at DC 4 W	shock resistance at rectangular impulse			
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mechanical service life (switching cycles) • of contactor typical reference code according to IEC 81346-2 K Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humildity minimum relative humildity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • 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 • full-scale value of tull-scale value 10 000 000 10 000 000 10 000 000 10 000 00	shock resistance with sine pulse			
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reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • 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 1.1 closing power of magnet coil at DC 4 W	mechanical service life (switching cycles)			
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installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during storage -55 +80 °C relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • 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 full-scale value 1.1 closing power of magnet coil at DC 4 W	reference code according to IEC 81346-2	K		
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 • 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 1.1 closing power of magnet coil at DC 4 W	Substance Prohibitance (Date)	10/01/2009		
ambient temperature • during operation • during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • 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 1.1 closing power of magnet coil at DC 4 W	Ambient conditions			
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 during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum 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 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 4 W	ambient temperature			
relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC • rated value • 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 4 W	during operation	-25 +60 °C		
relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC • rated value • rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value 1.1 closing power of magnet coil at DC	during storage	-55 +80 °C		
maximum Main circuit no-load switching frequency • at AC • 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 4 W	relative humidity minimum	10 %		
no-load switching frequency • at AC • at DC 10 000 1/h Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC • rated value • rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value • full-scale value 1.1 closing power of magnet coil at DC 4 W		95 %		
 at AC at DC 10 000 1/h 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 1.1 closing power of magnet coil at DC 4 W 	Main circuit			
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 24 V 08 1.1 1.1	no-load switching frequency			
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	• at AC	10 000 1/h		
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 DC 24 V 0.8 1.1 4 W	• at DC	10 000 1/h		
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 4 W	Control circuit/ Control			
 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 24 ∨ 0.8 1.1 d W 	type of voltage of the control supply voltage	DC		
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 4 W	control supply voltage at DC			
value of magnet coil at DC	rated value	24 V		
● full-scale value 1.1 closing power of magnet coil at DC 4 W				
closing power of magnet coil at DC 4 W	initial value	0.8		
	full-scale value	1.1		
holding power of magnet coil at DC 4 W	closing power of magnet coil at DC	4 W		
	holding power of magnet coil at DC	4 W		

ologing dalay	
closing delay	20 100 mg
• at DC	30 100 ms
opening delay • at DC	7 13 ms
arcing time	7 13 ms
Auxiliary circuit	10 10 1110
	4
number of NC contacts for auxiliary contacts • instantaneous contact	4
number of NO contacts for auxiliary contacts	4
instantaneous contact	4
identification number and letter for switching	44 E
elements	
operational current at AC-12 maximum	10 A
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	40.4
at 24 V rated value at 110 V rated value	10 A 3 A
at 110 V rated value	
at 220 V rated value at 440 V rated value	1 A 0.3 A
at 440 V rated valueat 600 V rated value	0.15 A
operational current with 2 current paths in series at	0.1071
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	40.4
at 24 V rated value	10 A
at 60 V rated value at 140 V rated value	4.7 A
at 110 V rated value at 220 V rated value	3 A
• at 220 V rated value	1.2 A

at 440 M anta division	0.5.4
• at 440 V rated value	0.5 A
at 600 V rated value are rating fraguency at DC 42 maximum.	0.26 A 1 000 1/h
operating frequency at DC-13 maximum design of the miniature circuit breaker for short-circuit	C characteristic: 6 A; 0.4 kA
protection of the auxiliary circuit up to 230 V	O Gridiacteristic. O A, U.7 NA
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	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 	2v (0.5 4 mm²)
	2x (0,5 4 mm²) 2x (0.5 2.5 mm²)
— finely stranded without core and processing	,
 finely stranded without core end processing at AWG cables for auxiliary contacts 	2x (0.5 2.5 mm²) 2x (20 12)
Safety related data	ZA (20 12)
B10 value with high demand rate according to SN 31920	1 000 000; With 0.3 x le
proportion of dangerous failures	1 000 000, Willi 0.5 X IE
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	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Certificates/ approvals	
General Product Approval	
Ochoral i Toddot Approval	





Confirmation





Functional
EMC Safety/Safety of Declaration of Conformity Test Certificates
Machinery



Type Examination Certificate



Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other

Confirmation



Transport Information

Dangerous Good

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=3RH2244-2BB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2244-2BB40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2244-2BB40

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2244-2BB40&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RH2244-2BB40/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2244-2BB40&objecttype=14&gridview=view1

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