SIEMENS

Data sheet 3RH2244-2BD80



contactor relay, 4 NO + 4 NC, 115 V DC, size S00, spring-loaded terminal, captive auxiliary switch

product designation Auxiliary contactor product type designation 3RH2 Size of contactor product extension auxiliary switch insulation voltage with degree of pollution 3 at AC rated value degree of pollution surge voltage resistance rated value 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 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 - 55 +80 °C 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 0 to 000 1/h • at DC 0 tontol circuit' Control type of voltage at DC • rated value 0 engene foot at DC • full-scale value 1.1 closing power of magnet coil at DC • holding power of magnet coil at DC • AU • holding power of magnet coil at DC	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 at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance with sine pulse e at DC shock resistance at rectangular impulse shock resistance at rectangular impulse shock resistance with sine pulse e at DC shock resistance at rectangular impulse shock resistance at rectangular impulse shock resistance at rectangular impulse shock resistance with sine pulse should show shows should show should show should show shows should show sho	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 • 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 at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • at DC operating requency • at AC • at DC control circuit/ Control type of voltage of the control supply voltage corating range factor control supply voltage rated value • full-scale value • full-scale value 0 .8 • full-scale value 0 .8 • full-scale value 1.1 • Closing power of magnet coil at DC	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 shock resistance with sine pulse • at DC to tactor 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 aninimum relative humidity aninimum relative humidity arisis "C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • at DC or total circuit/ Control type of voltage of the control supply voltage rated value of ungent control supply voltage rated value • full-scale value	General technical data	General technical data		
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value degree of pollution 3 surge voltage resistance rated value 6 kV shock resistance at rectangular impulse 10g / 5 ms, 5g / 10 ms e at DC 15g / 5 ms, 8g / 10 ms mechanical service life (switching cycles) 10 000 000 e 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 40uring operation e 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 e at DC 10 000 1/h Control circuit/ Control 10 000 1/h type of voltage of the control supply voltage DC control supply voltage at DC 115 V e rated value 115 V operating range factor control supply voltage rated value of magnet coil at DC 1.1 e fullscale 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 star DC shock resistance with sine pulse • at DC star DC		690 V		
shock resistance at rectangular impulse	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 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 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 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 • full-scale value 1.1 closing power of magnet coil 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) In/001/2009 Ambient conditions installation altitude at height above sea level maximum ambient temperature of 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 ot 10 000 1/h at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC related value operating range factor control supply voltage rated value of magnet coil at DC oill-scale value oll-scale value	• at DC	10g / 5 ms, 5g / 10 ms		
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 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 full-scale value 1.1 closing power of magnet coil at DC 4 W	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 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 • full-scale value 1.1 closing power of magnet coil at DC 4 W	mechanical service life (switching cycles)			
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 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 closing power of magnet coil at DC 10 001/2009 10 000 m 2 000 m 3 000 m 4 000 m	of contactor typical	10 000 000		
Installation altitude at height above sea level maximum ambient temperature • during operation • during storage • 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 • rated value • rated value • initial value • 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			
 during operation during storage -55 +80 °C 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 1.1 closing power of magnet coil at DC 	installation altitude at height above sea level maximum	2 000 m		
 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 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 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 	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 1.1 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 • 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 115 V 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 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 DC 0 0.8 1.1 Closing power of magnet coil at DC 4 W	no-load switching frequency			
type of voltage of the control supply voltage DC control supply voltage at DC • rated value 115 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 115 V 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 0.8 1.1 4 W	• at DC	10 000 1/h		
control supply voltage at DC • rated value 115 V 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 115 ∨ 0.8 4 ∨ 4 ∨ 	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	115 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		

ala dia sa dalah	
closing delay	00 400
• at DC	30 100 ms
opening delay	7 40
• at DC	7 13 ms
arcing time	10 15 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	4
instantaneous contact instantaneous co	4
number of NO contacts for auxiliary contacts • instantaneous contact	4
identification number and letter for switching	44 E
elements	77 -
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	
• 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 at 600 V rated value	0.2 A
at 600 V rated value Operational current with 3 current paths in series at	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	
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	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)
at AWG cables for auxiliary contacts	2x (20 12)
Safety related data	
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	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Certificates/ approvals	
General Product Approval	
Ochera i Toddet Approvai	





Confirmation







EMC

Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination
Certificate





Type Test Certificates/Test Report

Special Test Certificate

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=3RH2244-2BD80

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2244-2BD80

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2244-2BD80

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

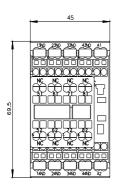
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2244-2BD80&lang=en

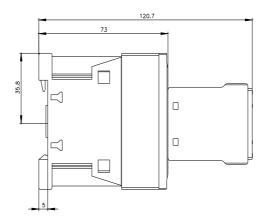
Characteristic: Tripping characteristics, I2t, Let-through current

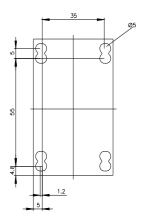
https://support.industry.siemens.com/cs/ww/en/ps/3RH2244-2BD80/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2244-2BD80&objecttype=14&gridview=view1







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11/10/2021