SIEMENS

Data sheet

3RH2122-1BE40



Contactor relay, 2 NO + 2 NC, 60 V DC, Size S00, screw terminal

product brand name SIRUS product designation Auxiliary contactor general technical data Step of contactor size of contactor S00 product type designation SRU2 General technical data Yes insulation voltage with degree of pollution 3 at AC rated value Gen V degree of pollution 3 surge voltage resistance rated value 6 kV shock resistance at rectangular impulse 6 kV e at DC 10g / 5 ms, 5g / 10 ms shock resistance with sine pulse 10g / 5 ms, 8g / 10 ms e at DC 15g / 5 ms, 8g / 10 ms mechanical service life (operating cycles) 30 000 000 e of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 e of the contactor with added auxiliary switch block typical 10 000 000 reference code according to IEC 81246-2 K Substance Prohibitance (Date) 10/01/2009 Ambient temperature 2000 m elation altitude at height above sea level maximum 2000 m installation altitude at height above sea level maximum 25 m. +60 °C		
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 680 V degree of pollution 3 surge voltage resistance rated value 680 V shock resistance at rectangular impulse 6 kV shock resistance at rectangular impulse 6 kV • at DC 10g / 5 ms, 5g / 10 ms shock resistance with sine pulse 15g / 5 ms, 8g / 10 ms • of the contactor typical 30 000 000 5 000 000 5 000 000 • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 10/01/2009 Ambient conditions 10/01/2009 10/01/2009 10/01/2009 Ambient temperature -25 +60 °C -26 +60 °C -25 +60 °C • during operation -25 +60 °C -55 +80 °C -55 +80 °C relative humidity at 55 °C according to IEC 60068-2-30 </th <th>•</th> <th>SIRIUS</th>	•	SIRIUS
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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 6 kV • 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 10 000 000 reference code according to IEC 81346-2 K Substance Prohibitance (Date) 100/1/2009 Amblent conditions - installation altitude at height above sea level maximum 2 000 m amblent temperature - • during operation -25 +60 °C • during operation -25 +60 °C • during storage -55 +80 °C relative humidity at 55 °C according to IEC 60068-2-30 95 % Main circuit no-load switching frequency	General technical data	
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degree of pollution 3 surge voltage resistance rated value 6 kV shock resistance at rectangular impulse 6 kV • at DC 10g / 5 ms, 5g / 10 ms shock resistance with sine pulse 15g / 5 ms, 8g / 10 ms • at DC 15g / 5 ms, 8g / 10 ms mechanical service life (operating cycles) 30 000 000 • of contactor typical 30 000 000 • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 • 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 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • during operation -25 +60 °C • during storage -55 +80 °C relative humidity at 55 °C according to IEC 60068-2-30 95 % Main circuit no-load switching frequency	product extension auxiliary switch	Yes
surge voltage resistance rated value 6 kV shock resistance at rectangular impulse 0g / 5 ms, 5g / 10 ms • at DC 10g / 5 ms, 5g / 10 ms shock resistance with sine pulse 15g / 5 ms, 8g / 10 ms • at DC 15g / 5 ms, 8g / 10 ms mechanical service life (operating cycles) 30 000 000 • of the contactor typical 30 000 000 • of the contactor with added electronically optimized 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 -25 +60 °C -25 +60 °C • during operation -25 +60 °C -25 +60 °C • during storage -55 +80 °C -25 +60 °C maximum 10 % 95 % 95 %	insulation voltage with degree of pollution 3 at AC rated value	690 V
shock resistance at rectangular impulse 10g / 5 ms, 5g / 10 ms • at DC 10g / 5 ms, 5g / 10 ms shock resistance with sine pulse 15g / 5 ms, 8g / 10 ms • at DC 15g / 5 ms, 8g / 10 ms mechanical service life (operating cycles) 30 000 000 • of contactor typical 30 000 000 • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 • 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 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • during operation -25 +60 °C • during storage -55 +80 °C relative humidity minimum 10 % Prelative humidity at 55 °C according to IEC 60068-2-30 95 % Main circuit mo-load switching frequency	degree of pollution	3
• at DC 10g / 5 ms, 5g / 10 ms shock resistance with sine pulse 15g / 5 ms, 8g / 10 ms • at DC 15g / 5 ms, 8g / 10 ms mechanical service life (operating cycles) 30 000 000 • of contactor typical 30 000 000 • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 • 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 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • during operation -25 +60 °C • during storage -55 +80 °C relative humidity minimum 10 % relative humidity minimum 10 % maximum 95 %	surge voltage resistance rated value	6 kV
shock resistance with sine pulse 15g / 5 ms, 8g / 10 ms • at DC 15g / 5 ms, 8g / 10 ms mechanical service life (operating cycles) 30 000 000 • of contactor typical 30 000 000 • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 • 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 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • during operation -55 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 95 % Main circuit no-load switching frequency	shock resistance at rectangular impulse	
• at DC15g / 5 ms, 8g / 10 msmechanical service life (operating cycles)30 000 000• of contactor typical30 000 000• of the contactor with added electronically optimized auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2KSubstance Prohibitance (Date)10/01/2009Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 m• during operation • during storage-25 +60 °C• during storage-55 +80 °Crelative humidity minimum10 %maximum95 %Main circuit	• at DC	10g / 5 ms, 5g / 10 ms
mechanical service life (operating cycles) 30 000 000 • 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 • of the contactor with added auxiliary switch block typical 10 000 000 • 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 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • during operation -25 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 95 % Main circuit mo-load switching frequency	shock resistance with sine pulse	
 of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical auxiliary switch block typical auxiliary switch block typical auxing at the provide auxiliary switch block typical au	• at DC	15g / 5 ms, 8g / 10 ms
 of the contactor with added electronically optimized 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 eluring 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 	mechanical service life (operating cycles)	
auxiliary switch block typical 10 000 000 reference code according to IEC 81346-2 K Substance Prohibitance (Date) 10/01/2009 Ambient conditions 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • 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	 of contactor typical 	30 000 000
reference code according to IEC 81346-2 K Substance Prohibitance (Date) 10/01/2009 Ambient conditions 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • 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		5 000 000
Substance Prohibitance (Date) 10/01/2009 Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • 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 Image: Storage no-load switching frequency Image: Storage	 of the contactor with added auxiliary switch block typical 	10 000 000
Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • 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	reference code according to IEC 81346-2	К
installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • 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	Substance Prohibitance (Date)	10/01/2009
ambient temperature -25 +60 °C • 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 Image: Compare the second seco	Ambient conditions	
• 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 Image: Comparison of the second seco	installation altitude at height above sea level maximum	2 000 m
• during storage -55 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 95 % Main circuit Image: State Stat	ambient temperature	
relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum 95 % Main circuit no-load switching frequency	during operation	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30 95 % Main circuit no-load switching frequency	during storage	-55 +80 °C
maximum Main circuit no-load switching frequency	relative humidity minimum	10 %
no-load switching frequency		95 %
	Main circuit	
• at AC 10 000 1/h	no-load switching frequency	
	• at AC	10 000 1/h
• at DC 10 000 1/h	• at DC	10 000 1/h
Control circuit/ Control	Control circuit/ Control	
type of voltage of the control supply voltage DC	type of voltage of the control supply voltage	DC
control supply voltage at DC	control supply voltage at DC	
• rated value 60 V	rated value	60 V
operating range factor control supply voltage rated value of magnet coil at DC		
• initial value 0.8	• initial value	0.8
• full-scale value 1.1	● full-scale value	1.1
closing power of magnet coil at DC 4 W	closing power of magnet coil at DC	4 W

holding newsr of magnet coll at DC	4 10/
holding power of magnet coil at DC	4 W
closing delay	20 400 mg
• at DC	30 100 ms
opening delay	7 40
• at DC	7 13 ms
arcing time	10 15 ms
Auxiliary circuit	2
number of NC contacts for auxiliary contacts	2 2
instantaneous contact	2
number of NO contacts for auxiliary contacts instantaneous contact 	2
identification number and letter for switching elements	2 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	3A
at 500 V rated value	2 A
at 690 V rated value	1A
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	1A
• 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 at 110 V rated value	10 A
at 110 V rated value at 220 V rated value	1 A 0.3 A
 at 220 V rated value at 440 V rated value 	0.3 A 0.14 A
at 440 V rated value at 600 V rated value	0.14 A 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	C characteristic: 6 A; 0.4 kA

	(000)(
of the auxiliary circuit u	-				
contact reliability of a	iuxiliary contacts		1 faulty switching per 100 mill	ion (17 V, 1 mA)	
UL/CSA ratings					
contact rating of auxi	liary contacts according	to UL	A600 / Q600		
Short-circuit protection	1				
design of the fuse link f switch required	for short-circuit protection of	of the auxiliary	fuse gL/gG: 10 A		
Installation/ mounting/	dimensions				
mounting position	amensions		+/-180° rotation possible on v	artical mounting ourface: con	he tilted ferward and
			backward by +/- 22.5° on vert	ical mounting surface	be lilled forward and
fastening method			screw and snap-on mounting	onto 35 mm DIN rail	
height			57.5 mm		
width			45 mm		
depth			73 mm		
required spacing					
 with side-by-side 	e mounting				
— forwards			10 mm		
- upwards			10 mm		
— downwards	3		10 mm		
— at the side			0 mm		
 for grounded par 	rts				
— forwards			10 mm		
— upwards			10 mm		
— at the side			6 mm		
— downwards			10 mm		
 for live parts 	2		10 mm		
•			10 mm		
— forwards			10 mm		
— upwards			10 mm		
— downwards	5		10 mm		
— at the side			6 mm		
Connections/ Terminals					
	ection for auxiliary and cont		screw-type terminals		
	onductor cross-sections				
 for auxiliary cont 					
— solid or stra	anded		2x (0.5 1.5 mm²), 2x (0.75 .		
— finely stran	ded with core end process	ing	2x (0.5 1.5 mm²), 2x (0.75 .	2.5 mm²)	
	for auxiliary contacts		2x (20 16), 2x (18 14), 2x	x 12	
Safety related data					
product function positiv 60947-5-1	ely driven operation accor	ding to IEC	Yes		
	mand rate according to SN	1 31920	1 000 000; With 0.3 x le		
proportion of dangero			,,		
• •	rate according to SN 319	20	40 %		
	d rate according to SN 319		73 %		
	w demand rate according		100 FIT		
T1 value for proof test i	interval or service life acco		20 a		
61508	n the front according to I	EC 60529	IP20		
-	he front according to IEC		finger-safe, for vertical contact from the front		
Certificates/ approvals					
General Product App	proval				
SP.	<u>Confirmation</u>		(h)	KC	EHC
	Functional				
EMC	Safety/Safety of Ma- chinery	Declaration of	Conformity	Test Certificates	

RCM	<u>Type Examination Cer-</u> <u>tificate</u>	CE EG-Konf.	UK CA	<u>Type Test Certific-</u> ates/Test Report	<u>Special Test Certific-</u> <u>ate</u>	
Marine / Shipping						
ABS	BUREAU VERITAS		Lloyd's Register	PRS	RINA	
Marine / Shipping	other		Railway	Dangerous Good	Environment	
KMRS	<u>Confirmation</u>	VDE	Vibration and Shock	Transport Information	Environmental Con- firmations	
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=3RH2122-1BE40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-1BE40

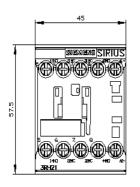
Service&Support industry siemens.com/cs/ww/en/ps/3RH2122-1BE40 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

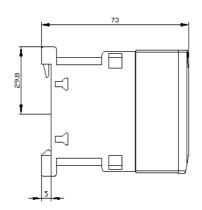
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2122-1BE40&lang=en

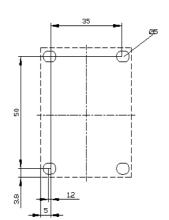
Characteristic: Tripping characteristics, I²t, Let-through current

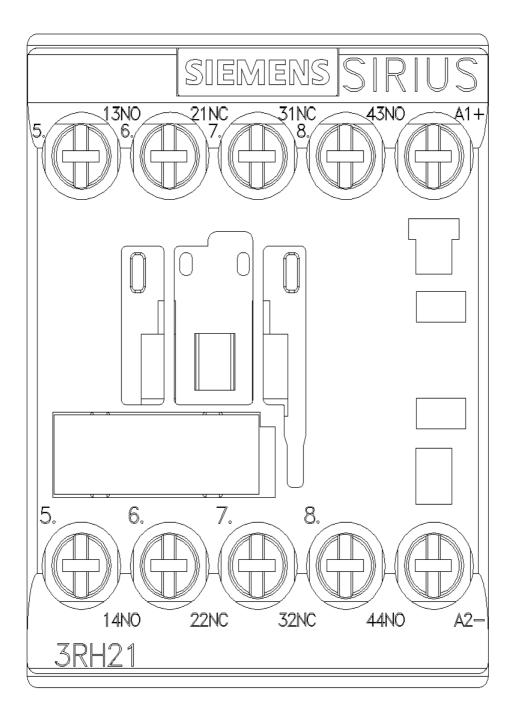
1<u>BE40/char</u> https://support.industry.siemens.com/cs/ww/en/ps/3RH21

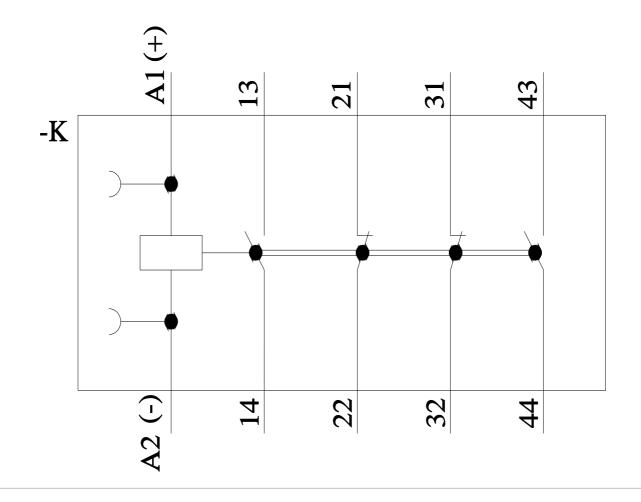
Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2122-1BE40&objecttype=14&gridview=view1











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