SIEMENS

Data sheet 3RH2140-1BW40



Contactor relay, 4 NO, 48 V DC, Size S00, screw terminal

product brand name	SIRIUS
product designation	Auxiliary contactor
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	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 auxiliary switch block typical 	5 000 000
 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	
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	48 V
operating range factor control supply voltage rated value of magnet coil at DC	
initial value	0.8
• full-scale value	1.1

aloning newer of married and at DC	AM
closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	20 400
• at DC	30 100 ms
opening delay	7 40
at DC arcing time	7 13 ms 10 15 ms
Auxiliary circuit	10 13 1118
	4
number of NO contacts for auxiliary contacts • instantaneous contact	4
identification number and letter for switching	40 E
elements	40 L
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	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 10 V rated value 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	0.0071
● 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 	10 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 approximal current with 2 current paths in carios at	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	C characteristic: 6 A; 0.4 kA

protection of the quality aircuit up to 220 V			
protection of the auxiliary circuit up to 230 V contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)		
UL/CSA ratings	r laulty switching per 100 million (17 V, 1 mA)		
contact rating of auxiliary contacts according to UL	A600 / Q600		
Short-circuit protection	7,000 / 2,000		
design of the fuse link for short-circuit protection of the	fuce at /aC: 10 A		
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	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	40		
— forwards	10 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side Connections/ Terminals	6 mm		
type of electrical connection for auxiliary and control circuit	corow type terminals		
type of connectable conductor cross-sections	screw-type terminals		
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)		
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 2x 12		
Safety related data	2x (20 10), 2x (10 14), 2x 12		
	Ves		
product function positively driven operation according to IEC 60947-5-1	Yes		
B10 value with high demand rate according to SN 31920 proportion of dangerous failures	1 000 000; With 0.3 x le		
 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	Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
-----	---	---------------------------	-------------------



Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other

Railway

Dangerous Good

Environment



Confirmation



Vibration and Shock

<u>Transport Information</u>

Environmental Confirmations

Further information

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=3RH2140-1BW40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2140-1BW40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-1BW40

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

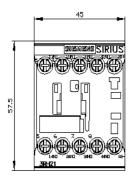
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2140-1BW40&lang=en

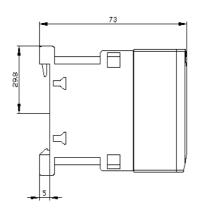
Characteristic: Tripping characteristics, I2t, Let-through current

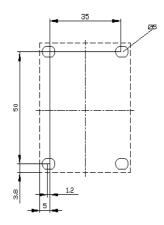
https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-1BW40/char

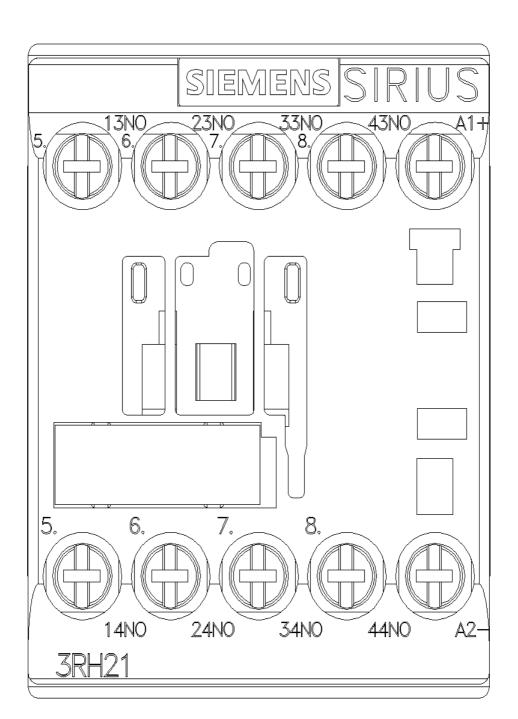
Further characteristics (e.g. electrical endurance, switching frequency)

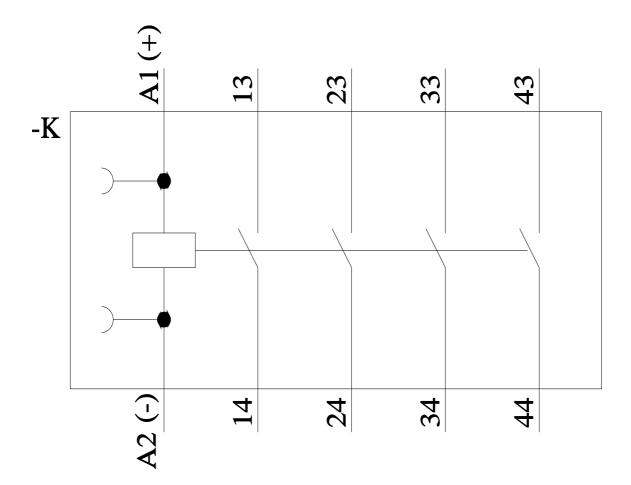
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2140-1BW40&objecttype=14&gridview=view1











last modified: 11/21/2022 🖸