SIEMENS

Data sheet 3RH2140-4BG40



Contactor relay, 4 NO, 125 V DC, Size S00, ring cable lug connection

product designation product type designation SRH2 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 a to DC shock resistance with sine pulse a to DC mechanical service life (switching cycles) of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block 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 at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency at AC at DC to Total Critical Control Supply voltage control supply voltage at DC rated value perating range factor control supply voltage rated value of magnet coil at DC intial value intial value	product brand name	SIRIUS
Sonoral technical data Size of contactor S00	product designation	Auxiliary contactor
size of contactor product extension auxiliary switch product extension auxiliary switch value degree of pollution surge voltage existance rated value extension auxiliary switch shock resistance at rectangular impulse ext DC shock resistance with sine pulse ext DC shock resistance with	product type designation	
product extension auxillary switch insulation voltage with degree of pollution 3 at AC rated value degree of pollution 3 asurge voltage resistance rated value 5 6kV 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 shock resistance with sine pulse at DC 15g / 5 ms, 8g / 10 ms shock resistance with sine pulse of the contactor typical 5 000 000 000 000 000 000 000 000 000	General technical data	
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 shock resistance with sine pulse • 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 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 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 Ontrol 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 0.8	size of contactor	S00
value degree of pollution surge voltage resistance rated value shock resistance at rectangular impulse • at DC • at DC mechanical service life (switching cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block 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 at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency • at AC • at DC • at DC • at DC • at DC • rated value operating range factor control supply voltage control supply voltage rated value of magnet coil at DC • initial value • (initial value) 0.8	product extension auxiliary switch	Yes
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shock resistance at rectangular impulse at DC shock resistance with sine pulse at DC mechanical service life (switching cycles) 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 b	degree of pollution	3
• at DC shock resistance with sine pulse • at DC mechanical service life (switching cycles) • 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 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 or at AC 10 000 1/h • at DC or rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value or at AC 0.8 OR or rated value operating range factor control supply voltage rated value of magnet coil at DC • initial value or at AC 0.8	surge voltage resistance rated value	6 kV
shock resistance with sine pulse at DC mechanical service life (switching cycles) 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 reference code according to IEC 81346-2 K Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oluring operation oluring storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency olat AC ol 10 000 1/h ol 200 m 10 %	shock resistance at rectangular impulse	
at DC mechanical service life (switching cycles) 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 reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring 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 ontrol circuit/ Control type of voltage of the control supply voltage control supply voltage at DC orated value operating range factor control supply voltage rated value of magnet coil at DC initial value of the contactor typical auxiliary switch block 150 000 000 10 000 000 10 000 000 10 000 00	• at DC	10g / 5 ms, 5g / 10 ms
mechanical service life (switching cycles) 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 reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation of during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency of at AC of at DC Control circuit/ Control type of voltage of the control supply voltage control supply voltage at DC of rated value operating range factor control supply voltage rated value of magnet coil at DC of initial value of the control supply voltage to DC of initial value of the control supply voltage rated value of magnet coil at DC of initial value of the control supply voltage and DC of initial value of the control supply voltage rated value of magnet coil at DC of initial value of the control supply voltage and DC of initial value of the control supply voltage and DC of initial value of the control supply voltage and DC of initial value of the control supply voltage and DC of initial value of the control supply voltage and DC of initial value of the control supply voltage and DC of the control supply voltage rated value of magnet coil at DC of initial value	shock resistance with sine pulse	
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of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring 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 of the control supply voltage rated value of magnet coil at DC ointial value of the control supply voltage rated value of magnet coil at DC ointial value of the control supply voltage rated value of magnet coil at DC ointial value of the control supply voltage rated value of magnet coil at DC ointial value of the control supply voltage rated value of magnet coil at DC ointial value of the control supply voltage rated value of magnet coil at DC ointial value of the control supply voltage rated value of magnet coil at DC ointial value of the control supply voltage rated value of magnet coil at DC ointial value of the control supply voltage rated value of magnet coil at DC ointial value of the control supply voltage rated value of magnet coil at DC ointial value	mechanical service life (switching cycles)	
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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 0.8	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 • 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 • initial value 2 000 m	Substance Prohibitance (Date)	10/01/2009
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 o during operation -25 +60 °C -55 +80 °C 10 % 95 % 95 % 10 000 1/h 10 000 1/h Control circuit/ Control 125 V 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Ambient conditions	
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 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 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 0.8 	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 operating range factor control supply voltage rated value of magnet coil at DC • initial value 10 000 1/h DC Control circuit/ Control 125 V 0.8	 during operation 	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit no-load switching frequency	 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 0.8	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 • rated value • initial value • initial value 10 000 1/h DC 10 000 1/h 125 V 000 125 V 0.8		95 %
 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	Main circuit	
 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	no-load switching frequency	
type of voltage of the control supply voltage	• 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 onumber of the control supply voltage rated value of magnet coil at DC • initial value O.8	• at DC	10 000 1/h
control supply voltage at DC	Control circuit/ Control	
 rated value operating range factor control supply voltage rated value of magnet coil at DC initial value 125 V 0.8 	type of voltage of the control supply voltage	DC
operating range factor control supply voltage rated value of magnet coil at DC ● initial value 0.8	control supply voltage at DC	
value of magnet coil at DC ● initial value	rated value	125 V
	operating range factor control supply voltage rated value of magnet coil at DC	
a full people value	• initial value	0.8
• ruii-scale value	• full-scale value	1.1

closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	30 100 ms
opening delay	7. 40
• at DC	7 13 ms 10 15 ms
arcing time	10 15 IIIS
Auxiliary circuit	
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 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	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	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 auxiliary circuit up to 230 V contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	Tradity Switching per 100 million (17 V, 1 mA)
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	A0007 Q000
	fund at /mC+40.A
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	57.5 mm
width	45 mm
depth	73 mm
required spacing	
with side-by-side mounting	40
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side• for grounded parts	0 mm
— 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	ring terminal lug connection
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 y
protection class IP on the front according to IEC 60529	IP00
Certificates/ approvals	

Certificates/ approvais

General Product Approval



Confirmation





<u>KC</u>





Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping













Marine / Shipping

other

Railway

Dangerous Good



Environmental Confirmations

Confirmation



Vibration and Shock

Transport Information

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=3RH2140-4BG40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2140-4BG40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-4BG40

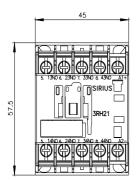
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

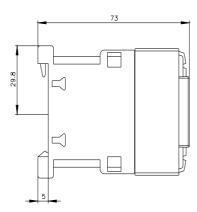
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2140-4BG40&lang=en

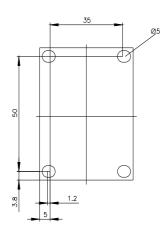
Characteristic: Tripping characteristics, I2t, Let-through current

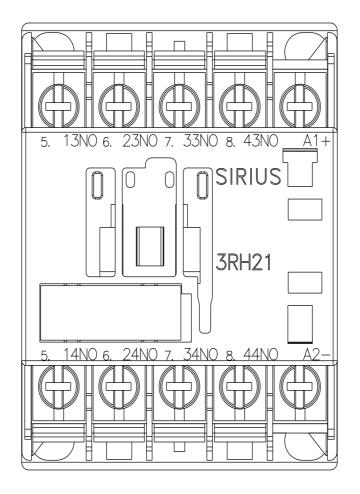
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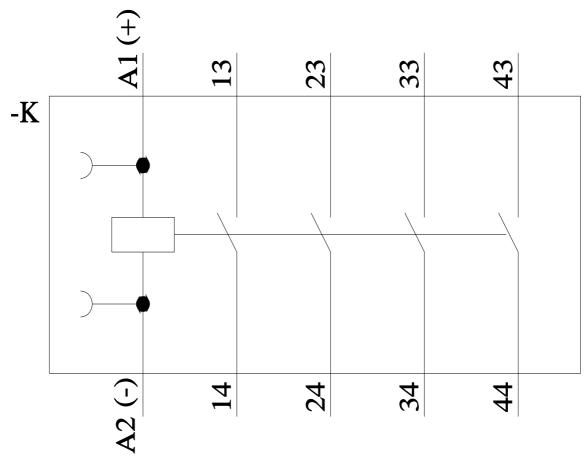
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2140-4BG40&objecttype=14&gridview=view1











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