## **SIEMENS**

Data sheet 3RH2140-2BB40



Contactor relay, 4 NO, 24 V DC, Size S00, Spring-type terminal

product designation product type designation  General technical data  size of contactor product extension auxiliary switch 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  shock resistance with sine pulse • at DC  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  reference code acc. to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage  at AC  at AC  10 000 1/h  and 10 000 1	product brand name	SIRIUS	
Size of contactor   S00	product designation	Auxiliary contactor	
size of contactor product extension auxiliary switch product extension auxiliary switch yes 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 • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2 K Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage  Main circuit  no-load switching frequency • at AC  10 000 1/h	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  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  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage  Main circuit  no-load switching frequency • at AC  10 000 1/h	General technical data		
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 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 acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage  Main circuit  no-load switching frequency • at AC  10 000 1/h  6 kV  8 dkV  8 dkV  8 dkV  10 ms  10 ms  10 ms  10 000 000  10 000 1/h	size of contactor	S00	
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 (switching cycles) • of contactor typical 30 000 000 • 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 acc. to IEC 81346-2 K Substance Prohibitance (Date) 01.10.2009 00:00:00  Ambient conditions installation altitude at height above sea level maximum 2 000 m • ambient temperature during operation -25 +60 °C • ambient temperature during storage -55 +80 °C  Main circuit no-load switching frequency • at AC 10 000 1/h	product extension auxiliary switch	Yes	
surge voltage resistance rated value shock resistance at rectangular impulse • at DC  shock resistance with sine pulse • at DC  15g / 5 ms, 8g / 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  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature during operation • ambient temperature during storage  at AC  10 000 1/h		690 V	
shock resistance at rectangular impulse  • at DC  shock resistance with sine pulse  • at DC  15g / 5 ms, 8g / 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  reference code acc. to IEC 81346-2  K Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  • ambient temperature during operation  • ambient temperature during storage  Main circuit  no-load switching frequency  • at AC  10 000 1/h	degree of pollution	3	
at DC  shock resistance with sine pulse  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  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature during operation  ambient temperature during storage  Main circuit  no-load switching frequency  at AC  10 000 1/h	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  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature during operation  ambient temperature during storage  Ait AC  Main circuit  no-load switching frequency  at AC  15g / 5 ms, 8g / 10 ms  10 000 000  10 000  10 000 000  10 000 00	shock resistance at rectangular impulse		
<ul> <li>at DC</li> <li>mechanical service life (switching cycles)</li> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code acc. to IEC 81346-2</li> <li>Substance Prohibitance (Date)</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>ambient temperature during operation</li> <li>ambient temperature during storage</li> <li>-25 +60 °C</li> <li>ambient circuit</li> <li>no-load switching frequency</li> <li>at AC</li> <li>10 000 1/h</li> </ul>	• at DC	10g / 5 ms, 5g / 10 ms	
mechanical service life (switching cycles)	shock resistance with sine pulse		
<ul> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code acc. to IEC 81346-2</li> <li>Substance Prohibitance (Date)</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>ambient temperature during operation</li> <li>ambient temperature during storage</li> <li>-25 +60 °C</li> <li>ambient temperature during storage</li> <li>Main circuit</li> <li>no-load switching frequency</li> <li>at AC</li> <li>10 000 1/h</li> </ul>	• 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      reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum      o ambient temperature during operation     o ambient temperature during storage  Main circuit  no-load switching frequency     o at AC  o of the contactor with added electronically optimized  5 000 000  10 000 000  10 000 000  10 000 00	mechanical service life (switching cycles)		
auxiliary switch block typical  of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ombient temperature during operation ombient temperature during storage  Main circuit  no-load switching frequency ombient added auxiliary switch block 10 000 000  K  K  Substance Prohibitance (Date)  01.10.2009 00:00:00  Ambient conditions  -25 +60 °C  -55 +80 °C  Main circuit  no-load switching frequency ombient temperature during storage  10 000 1/h	<ul> <li>of contactor typical</li> </ul>	30 000 000	
reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature during operation ambient temperature during storage  -25 +60 °C ambient temperature during storage  Main circuit  no-load switching frequency at AC  10 000 1/h		5 000 000	
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage  -25 +60 °C  • ambient temperature during storage  -55 +80 °C  Main circuit  no-load switching frequency • at AC  10 000 1/h	· · · · · · · · · · · · · · · · · · ·	10 000 000	
Ambient conditions  installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage  -25 +60 °C  -55 +80 °C  Main circuit  no-load switching frequency • at AC  10 000 1/h	reference code acc. to IEC 81346-2	К	
installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage  -25 +60 °C  -55 +80 °C  Main circuit  no-load switching frequency • at AC  10 000 1/h	Substance Prohibitance (Date)	01.10.2009 00:00:00	
ambient temperature during operation     ambient temperature during storage  -25 +60 °C  -55 +80 °C   Main circuit  no-load switching frequency     at AC  10 000 1/h	Ambient conditions		
<ul> <li>ambient temperature during storage         -55 +80 °C     </li> <li>Main circuit         no-load switching frequency         ● at AC         10 000 1/h     </li> </ul>	installation altitude at height above sea level maximum	2 000 m	
Main circuit  no-load switching frequency  ● at AC 10 000 1/h	<ul> <li>ambient temperature during operation</li> </ul>	-25 +60 °C	
no-load switching frequency  • at AC  10 000 1/h	ambient temperature during storage	-55 +80 °C	
• at AC 10 000 1/h	Main circuit		
	no-load switching frequency		
a at DC 10,000 1/b	• at AC	10 000 1/h	
♥ at DC	• at DC	10 000 1/h	
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 24 V	rated value	24 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	
holding power of magnet coil at DC 4 W	
closing delay	
	100 ms
opening delay	
	13 ms
	15 ms
Auxiliary circuit	
number of NO contacts for auxiliary contacts 4	
• instantaneous contact 4	
identification number and letter for switching elements 40 E	
operational current at AC-12 maximum 10 A	A
operational current at AC-15	
• at 230 V rated value 10 A	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	A
• at 110 V rated value 3 A	
• at 220 V rated value 1 A	
• at 440 V rated value 0.3 A	A
• at 600 V rated value 0.15	5 A
operational current with 2 current paths in series at DC-12	
• at 24 V rated value 10 A	A
• at 60 V rated value 10 A	A
• at 110 V rated value 4 A	
• at 220 V rated value 2 A	
• at 440 V rated value 1.3 A	A
• at 600 V rated value 0.65	5 A
operational current with 3 current paths in series at DC-12	
• at 24 V rated value 10 A	P
• at 60 V rated value 10 A	P
• at 110 V rated value 10 A	P. C.
• at 220 V rated value 3.6 A	A
• at 440 V rated value 2.5	A
• at 600 V rated value 1.8 A	A
operating frequency at DC-12 maximum 1 00	00 1/h
operational current at 1 current path at DC-13	
• at 24 V rated value 10 A	P
• at 110 V rated value 1 A	
• at 220 V rated value 0.3 A	A
• at 440 V rated value 0.14	4 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	P
• at 60 V rated value 3.5 A	A
• at 110 V rated value 1.3 A	A
• at 220 V rated value 0.9 A	A
• at 440 V rated value 0.2 A	A
• at 600 V rated value 0.1 A	A
operational current with 3 current paths in series at DC-13	
• at 24 V rated value 10 A	A
• at 60 V rated value 4.7	A

fastening method height width depth required spacing • with side-by-side mounting — forwards — downwards — downwards — for grounded parts — forwards — upwards — the side — downwards — at the side — downwards — the side — for live parts — of or live parts — at the side — downwards — at the side — finely stranded with order end processing — finely stranded without core end processing — with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate ac		
a 1440 V rated value  operating frequency at DC-13 maximum  design of the miniature circuit breaker for short-circuit protection of the auxiliary contacts  ULGSA ratings  contact railability of auxiliary contacts occurrence of the auxiliary contacts occurrence of the auxiliary contacts  ULGSA ratings  contact rating of auxiliary contacts occording to UL  Short-circuit protection  design of the fuse link for short-circuit protection of the auxiliary switch required  Installation immuniting (dimensions)  mounting position  fastening method  serve and shap-on mounting onto 35 mm standard mount of the depth  required spacing  with side-by-side mounting  - with side-by-side mounting  - with side-by-side mounting  - occurrence occur	at 110 V rated value	3 A
e at 600 V rated value  operating frequency at DC-13 maximum  design of the ministure circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V contact reliability of auxiliary contacts  tucos a rating of auxiliary contacts  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link for short-circuit protection of the auxiliary switch required  installation/ mounting/ dimensions  mounting position  fastening method  height  70 mm  width  45 mm  depth  required spacing  • with side-by-side mounting  - forwards  - upwards  - downwards  - at the side  - downwards  - at the side  - downwards  - at the side  - downwards  - upwards  - at the side  - downwards  - at the side  - finely stranded without core and processing  - with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • wit	at 220 V rated value	1.2 A
operating frequency at DC-13 maximum  design of the miniature circuit breaker for short-circuit protection of the auxiliary contacts  ULCSA ratings  contact rating of auxiliary contacts  ULCSA ratings  contact rating of auxiliary contacts out of the fuse link for short-circuit protection of the auxiliary switch required linestaliator mounting of mounting position  fastering method  series and shape-on mounting onto 35 mm standard mount with the depth of the shape of th	at 440 V rated value	0.5 A
design of the miniature circuit breaker for short-circuit protection of the auxillary circuit pto 230 V contact reliability of auxiliary contacts  1 faulty switching per 100 million (17 V, 1 mA)  1 faulty switching per 100 million (1	at 600 V rated value	0.26 A
design of the miniature circuit breaker for short-circuit protection of the auxillary circuit pto 230 V contact reliability of auxiliary contacts  1 faulty switching per 100 million (17 V, 1 mA)  1 faulty switching per 100 million (1	operating frequency at DC-13 maximum	1 000 1/h
contact rating of auxiliary contacts according to UL A600 / Q600  A600	design of the miniature circuit breaker for short-circuit	C characteristic: 6 A; 0.4 kA
contact rating of auxillary contacts according to UL  Short-circuit protection design of the fuse link for short-circuit protection of the auxillary switch required Installation/ mounting/ dimensions mounting position  fastening method height  vidth depth 70 mm  vidth depth 73 mm  required spacing  • with side-by-side mounting — forwards — at the side — downwards — at the side — downwards — to rilwe parts — for live parts — to rilwe parts — to rownwards — at the side — downwards — at the side — downwards — to rilwe parts — for live parts — for rowards — at the side — downwards — at the side — downwards — to rilwe parts — for live parts — for live parts — to rilwe parts — to ril	contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
contact rating of auxillary contacts according to UL  Short-circuit protection design of the fuse link for short-circuit protection of the auxillary switch required Installation/ mounting/ dimensions mounting position  fastening method height  vidth depth 70 mm  vidth depth 73 mm  required spacing  • with side-by-side mounting — forwards — at the side — downwards — at the side — downwards — to rilwe parts — for live parts — to rilwe parts — to rownwards — at the side — downwards — at the side — downwards — to rilwe parts — for live parts — for rowards — at the side — downwards — at the side — downwards — to rilwe parts — for live parts — for live parts — to rilwe parts — to ril	L/CSA ratings	
Short-circuit protection   design of the fuse ink for short-circuit protection of the auxiliary switch required   Installation/mounting/dimensions		A600 / Q600
design of the fuse link for short-circuit protection of the auxiliary switch required Installation mounting dimensions  mounting position  fastening method height  with 45 mm  depth  required spacing  with side-by-side mounting  - forwards - upwards - downwards - at the side - for grounded parts - forwards - at the side - downwards - at the side - at the side - downwards - at the side - finely stranded with core end processing - finely stranded without core end processing - finely stranded without core end processing - at AWG cables for auxiliary contacts  Safety related data  B10 value with high demand rate acc. to SN 31920  with high demand rate acc. to SN 31920  with low demand rate acc. to SN 31920  for duct function positively driven operation acc. to IEC 60529  touch protection on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  touch protecti		
mounting position  #/-180° rotation possible on vertical mounting surface; car forward and backward by #/- 22.5° on vertical mounting wild the depth	design of the fuse link for short-circuit protection of the	fuse gL/gG: 10 A
forward and backward by +/- 22.5° on vertical mounting st fastening method height width depth 70 mm  width 45 mm 73 mm  required spacing  with side-by-side mounting — forwards — upwards — at the side of regrounded parts — forwards — upwards — at the side of for grounded parts — forwards — at the side — downwards — at the side — downwards — 10 mm  for live parts — downwards — 10 mm  width  depth  connections/Terminals  type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections  for auxiliary contacts — solid or stranded — finely stranded without core end processing — finely stranded without core end processing with high demand rate acc. to SN 31920  with high demand rate acc. to SN 31920  with ligh demand rate acc. to SN 31920  with ligh demand rate acc. to SN 31920  proportion class IP on the front acc. to IEC 60529  finger-safe, for vertical contact from the front acc. to IEC 60529  finger-safe, for vertical contact from the front	nstallation/ mounting/ dimensions	
fastening method height 70 mm width 45 mm depth 73 mm required spacing • with side-by-side mounting — forwards — upwards — at the side • for grounded parts — forwards — upwards — 10 mm • of rive parts — forwards — at the side — downwards — at the side — downwards — upwards — 10 mm • for live parts — forwards — upwards — 10 mm • for live parts — forwards — upwards — at the side — downwards • for live parts — forwards — upwards — at the side — downwards — at the side — downwards — at the side — solid or stranded — of reauxiliary contacts — solid or stranded without core end processing — finely stranded without core end processing • at AWG cables for auxiliary contacts  10 value with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with ligh demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to IEC 60529 touch protection on the front acc. to IEC 60529 touch protection acc. to IEC 60529 touch protection on the front acc. to IEC 60529 touch protection acc. to IEC 60529		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
height width depth 73 mm  required spacing with side-by-side mounting - forwards - upwards - downwards - downwards - the side - for grounded parts - forwards - at the side - for grounded parts - forwards - at the side - downwards - to five parts - forwards - for live parts - forwards - for live parts - forwards - upwards - downwards - downwards - the side - downwards - at the side - for gounded parts - forwards - in mm - for live parts - forwards - upwards - at the side - for live parts - forwards - at the side - side mm		screw and snap-on mounting onto 35 mm standard mounting rail
width depth 73 mm  required spacing  • with side-by-side mounting  — forwards 10 mm — downwards 10 mm — at the side 0 mm  • for grounded parts — forwards 10 mm — ownwards 10 mm — at the side 0 mm — forwards 10 mm — at the side 6 mm — downwards 10 mm — at the side 6 mm — downwards 10 mm — at the side 6 mm — downwards 10 mm — at the side 6 mm — downwards 10 mm — at the side 6 mm  Connections/ Formials  type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections  • for auxiliary contacts — solid or stranded — finely stranded with core end processing — innely stranded without core end processing — at AWG cables for auxiliary contacts  Safety related data  B10 value with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920  proportion of best interval or service life acc. to [EC 61508] protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	<u> </u>	
required spacing  • with side-by-side mounting  — forwards — upwards — downwards — at the side  • for grounded parts — forwards — upwards — upwards — 10 mm  • forwards — upwards — 10 mm  • forwards — upwards — upwards — downwards — 10 mm  • at the side — downwards — 10 mm  • for live parts — forwards — upwards — 10 mm  • for live parts — forwards — upwards — upwards — upwards — upwards — in mm  • for live parts — forwards — upwards — in mm  • for auxiliary contacts — solid or stranded — finely stranded without core end processing — finely stranded without core end processing • at AWG cables for auxiliary contacts  B10 value with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 proportion of dangerous failures • with low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 product function positively driven operation acc. to IEC 60529 forger-safe, for vertical contact from the front		45 mm
required spacing  with side-by-side mounting  — forwards — upwards — downwards — at the side — for grounded parts — forwards — upwards — the side — downwards — at the side — downwards — at the side — downwards — 10 mm — the side — downwards — 10 mm — of roll in mm — of the side — downwards — upwards — the side — downwards — the side — downwards — the side — forwards — upwards — the side — forwards — the side — formands — upwards — of mm  Connections/ Terminals  type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections — finely stranded with core end processing — finely stranded with core end processing — at AWG cables for auxiliary contacts  Safety related data  B10 value with high demand rate acc. to SN 31920 — with high demand rate acc. to SN 31920 — with high demand rate acc. to SN 31920  with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920  roduct function positively driven operation acc. to IEC 60947-51  T1 value for proof test interval or service life acc. to IEC 61508 protection class IP on the front acc. to IEC 60529 finger-safe, for vertical contact from the front		73 mm
with side-by-side mounting — forwards — upwards — downwards — at the side  for grounded parts — forwards — 10 mm  for grounded parts — forwards — 10 mm — at the side — downwards — 10 mm — at the side — downwards — 10 mm — at the side — downwards — for live parts — forwards — 10 mm  for live parts — forwards — 10 mm — at the side — downwards — 10 mm — at the side — forwards — upwards — 10 mm — at the side — formards — ownwards — 10 mm — at the side — formards — in mm — at the side — formards — the side — formards — solid or stranded — finely stranded with core end processing — finely stranded with core end processing — at AWG cables for auxiliary contacts  Safety related data  B10 value with high demand rate acc. to SN 31920 — with high demand rate acc. to SN 31920 — with high demand rate acc. to SN 31920 — with high demand rate acc. to SN 31920  with high demand rate acc. to SN 31920  with high demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  rounded function positively driven operation acc. to IEC 60529  finger-safe, for vertical contact from the front touch on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	•	
- forwards		
- downwards - at the side  • for grounded parts - forwards - upwards - at the side - downwards - at the side - downwards - at the side - downwards - for live parts - for live parts - forwards - upwards - upwards - for live parts - forwards - upwards - upwards - downwards - downwards - at the side - downwards - at the side - formations/ Terminals  Type of electrical connection for auxiliary and control circuit  Type of electrical connection for auxiliary and control circuit  Type of electrical connection for auxiliary and control circuit  Type of or auxiliary contacts - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - at AWG cables for auxiliary contacts  B10 value with high demand rate acc. to SN 31920  proportion of dangerous failures - with low demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - with low demand rate acc. to SN 31920 - with low demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - with low demand rate acc. to SN 31920 - with low demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with nigh demand rate acc. to SN 31920 - with night	— forwards	10 mm
- at the side  • for grounded parts  - forwards  - upwards  - at the side  - downwards  • for live parts  - forwards  - upwards  • for live parts  - forwards  - upwards  - downwards  - upwards  - downwards  - upwards  - the side  - downwards  - upwards  - upwards  - at the side  Connections/ Terminals  type of electrical connection for auxiliary and control circuit  type of connectable conductor cross-sections  • for auxiliary contacts  - solid or stranded  - finely stranded with core end processing  - finely stranded without core end processing  - at AWG cables for auxiliary contacts  2x (0,5 4 mm²)  2x (0,5 2,5 mm²)  2x (0,5 2,5 mm²)  2x (20 12)  Safety related data  B10 value with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low dem	— upwards	10 mm
• for grounded parts — forwards — upwards — at the side — downwards — for live parts — forwards — of live parts — forwards — upwards — forwards — upwards — downwards — downwards — at the side — formations/ Terminals  type of electrical connection for auxiliary and control circuit  type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — at AWG cables for auxiliary contacts  2x (0,5 4 mm²) — the side 2x (0,5 4 mm²) — the side 2x (0,5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12)  Safety related data  B10 value with high demand rate acc. to SN 31920  proportion of dangerous failures • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 100 FIT product function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	— downwards	10 mm
- forwards	— at the side	0 mm
- upwards - at the side - downwards 10 mm  • for live parts - forwards - upwards 10 mm  • for live parts - forwards 10 mm  - upwards 10 mm  - downwards 10 mm  - downwards - at the side 6 mm   Connections/ Terminals  type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - at AWG cables for auxiliary contacts  B10 value with high demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 100 FIT product function positively driven operation acc. to IEC 60529  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  touch protection class IP on the front acc. to IEC 60529  touch protection class IP on the front acc. to IEC 60529  touch protection class IP on the front acc. to IEC 60529  touch protection class IP on the front acc. to IEC 60529  touch protection class IP on the front acc. to IEC 60529  touch protection class IP on the front acc. to IEC 60529	for grounded parts	
- at the side - downwards - for live parts - forwards - upwards - upwards - downwards - downwards - at the side  Connections/ Terminals  type of electrical connection for auxiliary and control circuit  type of connectable conductor cross-sections - for auxiliary contacts - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - at AWG cables for auxiliary contacts  B10 value with high demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - vith high demand	— forwards	10 mm
<ul> <li>downwards</li> <li>for live parts</li> <li>forwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> <li>6 mm</li> </ul> Connections/ Terminals type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections <ul> <li>for auxiliary contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>at AWG cables for auxiliary contacts</li> <li>at AWG cables for auxiliary contacts</li> <li>at AWG cables for auxiliary contacts</li> <li>with low demand rate acc. to SN 31920</li> <li>proportion of dangerous failures</li> <li>with low demand rate acc. to SN 31920</li> <li>with high demand rate acc. to SN 31920</li> <li>failure rate [FIT] with low demand rate acc. to SN 31920</li> <li>failure rate [FIT] with low demand rate acc. to IEC 60947-5-1</li> <li>T1 value for proof test interval or service life acc. to IEC 61508</li> <li>protection class IP on the front acc. to IEC 60529</li> <li>finger-safe, for vertical contact from the front</li> </ul>	— upwards	10 mm
• for live parts  - forwards - upwards - upwards - downwards - at the side  Connections/ Terminals  type of electrical connection for auxiliary and control circuit  type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - at AWG cables for auxiliary contacts  8 at AWG cables for auxiliary contacts 2x (0,5 4 mm²) 2x (0,5 2,5 mm²) 2x (20 12)  Safety related data  B10 value with high demand rate acc. to SN 31920  proportion of dangerous failures • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920  product function positively driven operation acc. to IEC 60529  protection class IP on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	— at the side	6 mm
	— downwards	10 mm
- upwards - downwards - at the side  Connections/ Terminals  type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections  • for auxiliary contacts - solid or stranded - finely stranded with core end processing - finely stranded without core end processing • at AWG cables for auxiliary contacts  2x (0,5 4 mm²) - finely stranded without core end processing • at AWG cables for auxiliary contacts  2x (0,5 2,5 mm²) - x (20 2,5 mm²)  2x (20 12)  Safety related data  B10 value with high demand rate acc. to SN 31920  proportion of dangerous failures • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to IEC 60549  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	for live parts	
- downwards - at the side  Connections/ Terminals  type of electrical connection for auxiliary and control circuit  type of connectable conductor cross-sections  • for auxiliary contacts  - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - finely stranded without core end processing • at AWG cables for auxiliary contacts  B10 value with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  100 FIT  product function positively driven operation acc. to IEC 60549  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	— forwards	10 mm
- at the side  Connections/ Terminals  type of electrical connection for auxiliary and control circuit  type of connectable conductor cross-sections  • for auxiliary contacts  - solid or stranded  - finely stranded with core end processing  - finely stranded without core end processing  - finely stranded without core end processing  • at AWG cables for auxiliary contacts   B10 value with high demand rate acc. to SN 31920  proportion of dangerous failures  • with low demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to IEC 60529  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	— upwards	10 mm
type of electrical connection for auxiliary and control circuit  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing • at AWG cables for auxiliary contacts   Safety related data  B10 value with high demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  product function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	— downwards	10 mm
type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — at AWG cables for auxiliary contacts  B10 value with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with high demond rate acc. to SN 31920  • with low demond rate acc. to SN 31920  • with low demond rate acc. to SN 31920  • with low demond rate acc. to SN 31920  • with low form of the form acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  product function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	— at the side	6 mm
type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing — at AWG cables for auxiliary contacts  B10 value with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low form operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front		
type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing • at AWG cables for auxiliary contacts  2x (0.5 2.5 mm²)  2x (0.5 2.5 mm²)  2x (0.5 2.5 mm²)  2x (20 12)  Safety related data  B10 value with high demand rate acc. to SN 31920  1 000 000; With 0.3 x le  proportion of dangerous failures • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  product function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front		spring-loaded terminals
for auxiliary contacts         — solid or stranded         — finely stranded with core end processing         — finely stranded without core end processing         — finely stranded without core end processing         • at AWG cables for auxiliary contacts          2x (0.5 2.5 mm²)         • at AWG cables for auxiliary contacts          2x (20 12)  Safety related data  B10 value with high demand rate acc. to SN 31920         • with low demand rate acc. to SN 31920         • with low demand rate acc. to SN 31920         • with high demand rate acc. to SN 31920         • with high demand rate acc. to SN 31920         100 FIT  product function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front		op.m.g.ioaaoa to.m.ia.io
- solid or stranded - finely stranded with core end processing - finely stranded without core end processing - finely stranded without core end processing - finely stranded without core end processing - at AWG cables for auxiliary contacts  2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12)  Safety related data  B10 value with high demand rate acc. to SN 31920 - with low demand rate acc. to SN 31920 - with low demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - with high demand rate acc. to SN 31920 - failure rate [FIT] with low demand rate acc. to SN 31920 - froduct function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508 - protection class IP on the front acc. to IEC 60529 - finger-safe, for vertical contact from the front		
— finely stranded with core end processing — finely stranded without core end processing		2x (0.5 4 mm²)
<ul> <li>finely stranded without core end processing</li> <li>at AWG cables for auxiliary contacts</li> <li>2x (0.5 2.5 mm²)</li> <li>2x (20 12)</li> </ul> Safety related data B10 value with high demand rate acc. to SN 31920 <ul> <li>with low demand rate acc. to SN 31920</li> <li>with high demand rate acc. to SN 31920</li> <li>with high demand rate acc. to SN 31920</li> <li>failure rate [FIT] with low demand rate acc. to SN 31920</li> <li>product function positively driven operation acc. to IEC 60947-5-1</li> </ul> T1 value for proof test interval or service life acc. to IEC 61508 <ul> <li>protection class IP on the front acc. to IEC 60529</li> <li>finger-safe, for vertical contact from the front</li> </ul>		
• at AWG cables for auxiliary contacts  Safety related data  B10 value with high demand rate acc. to SN 31920  proportion of dangerous failures  • with low demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  product function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to [EC 61508]  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front		
B10 value with high demand rate acc. to SN 31920  proportion of dangerous failures  with low demand rate acc. to SN 31920  with high demand rate acc. to SN 31920  with high demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to IEC  foog47-5-1  T1 value for proof test interval or service life acc. to  IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front		
B10 value with high demand rate acc. to SN 31920  proportion of dangerous failures  with low demand rate acc. to SN 31920  with high demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  frailure rate [FIT] with low demand rate acc. to SN 31920  product function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	·	
proportion of dangerous failures  ■ with low demand rate acc. to SN 31920  ■ with high demand rate acc. to SN 31920  failure rate [FIT] with low demand rate acc. to SN 31920  product function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front		1 000 000: With 0 3 x le
<ul> <li>with low demand rate acc. to SN 31920         <ul> <li>with high demand rate acc. to SN 31920</li> <li>failure rate [FIT] with low demand rate acc. to SN 31920</li> <li>product function positively driven operation acc. to IEC 60947-5-1</li> <li>value for proof test interval or service life acc. to IEC 61508</li> <li>protection class IP on the front acc. to IEC 60529</li> <li>touch protection on the front acc. to IEC 60529</li> <li>finger-safe, for vertical contact from the front</li> </ul> </li> </ul>		
<ul> <li>with high demand rate acc. to SN 31920</li> <li>failure rate [FIT] with low demand rate acc. to SN 31920</li> <li>product function positively driven operation acc. to IEC 60947-5-1</li> <li>T1 value for proof test interval or service life acc. to IEC 61508</li> <li>protection class IP on the front acc. to IEC 60529</li> <li>touch protection on the front acc. to IEC 60529</li> <li>finger-safe, for vertical contact from the front</li> </ul>		40 %
failure rate [FIT] with low demand rate acc. to SN 31920  product function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front		
product function positively driven operation acc. to IEC 60947-5-1  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front		
T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  finger-safe, for vertical contact from the front	product function positively driven operation acc. to IEC	
touch protection on the front acc. to IEC 60529 finger-safe, for vertical contact from the front		20 y
	protection class IP on the front acc. to IEC 60529	IP20
	touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front
Certificates/ approvals	ertificates/ approvals	
General Product Approval EMC	General Product Approval	EMC











**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping



**Miscellaneous** 

Special Test Certificate Type Test
Certificates/Test
Report

<u>KC</u>





Marine / Shipping

other











Confirmation

other



## **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=3RH2140-2BB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2140-2BB40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-2BB40

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

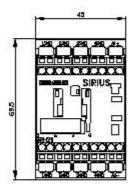
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RH2140-2BB40&lang=en

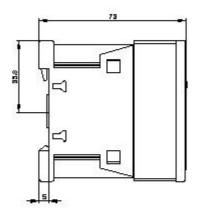
Characteristic: Tripping characteristics, I2t, Let-through current

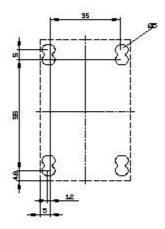
https://support.industry.siemens.com/cs/ww/en/ps/3RH2140-2BB40/char

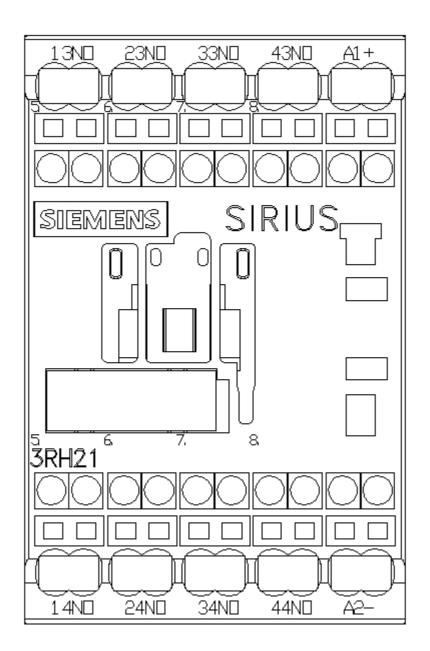
Further characteristics (e.g. electrical endurance, switching frequency)

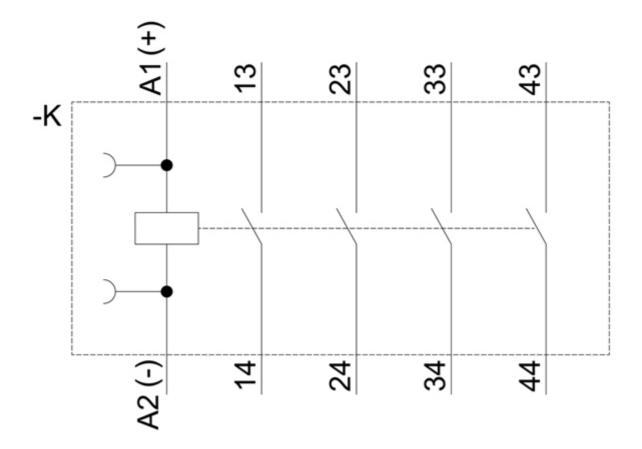
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2140-2BB40&objecttype=14&gridview=view1











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