# **SIEMENS**

Data sheet 3RH2131-2BA40



Contactor relay, 3 NO + 1 NC, 12 V DC, Size S00, Spring-type 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	
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000	
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	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		
<ul> <li>during operation</li> </ul>	-25 +60 °C	
<ul> <li>during storage</li> </ul>	-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	12 V	
operating range factor control supply voltage rated value of magnet coil at DC		
• initial value	0.8	
• full-scale value	1.1	

alonium manuar of manuar anii at DC	AW
closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	00 400
• at DC	30 100 ms
opening delay	7 40
• at DC	7 13 ms
arcing time	10 15 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
<ul> <li>instantaneous contact</li> <li>number of NO contacts for auxiliary contacts</li> </ul>	3
instantaneous contact	3
	3 31 E
identification number and letter for switching elements	SIE
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	
<ul> <li>at 24 V rated value</li> </ul>	10 A
<ul><li>at 60 V rated value</li></ul>	10 A
<ul> <li>at 110 V rated value</li> </ul>	4 A
<ul> <li>at 220 V rated value</li> </ul>	2 A
<ul> <li>at 440 V rated value</li> </ul>	1.3 A
<ul> <li>at 600 V rated value</li> </ul>	0.65 A
operational current with 3 current paths in series at DC-12	
<ul><li>at 24 V rated value</li></ul>	10 A
<ul> <li>at 60 V rated value</li> </ul>	10 A
<ul><li>at 110 V rated value</li></ul>	10 A
<ul> <li>at 220 V rated value</li> </ul>	3.6 A
<ul> <li>at 440 V rated value</li> </ul>	2.5 A
<ul> <li>at 600 V rated value</li> </ul>	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  approximately surrent paths in corios at	0.1 A
operational current with 2 current paths in series at DC-13	40 A
at 24 V rated value     at 60 V rated value	10 A
at 60 V rated value     at 110 V rated value	3.5 A
at 110 V rated value     at 220 V rated value	1.3 A 0.9 A
<ul><li>at 220 V rated value</li><li>at 440 V rated value</li></ul>	0.9 A 0.2 A
at 600 V rated value	0.1 A
operational current with 3 current paths in series at	0.170
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

design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V

contact reliability of auxiliary contacts

1 000 1/h

C characteristic: 6 A; 0.4 kA

1 faulty switching per 100 million (17 V, 1 mA)

ULCSA ratings  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	contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)	
Short-circuit protection   design of the fuse link for short-circuit protection of the auxiliary which required   fuse gL/gS: 10 A   auxiliary which required   fuse gL/gS: 10 A   auxiliary mounting position   forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vert	UL/CSA ratings		
Short-circuit protection   design of the fuse link for short-circuit protection of the auxiliary which required   fuse gL/gS: 10 A   auxiliary which required   fuse gL/gS: 10 A   auxiliary mounting position   forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vertical mounting surface; can be titled forward and backward by 4f- 22.5° on vert	contact rating of auxiliary contacts according to UL	A600 / Q600	
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 required spacing  • with side-by-side mounting  — forwards 10 mm — at the side 0 mm — onwards 10 mm — onwards 10 mm — other side 6 mm — of orwards 10 mm — other side 6 mm — of orwards 10 mm — at the side 6 mm — other side 6 mm — of a the side 7 mm — of orwards 10 mm — other side 6 mm — other side 6 mm — other side 7 mm — other side 7 mm — other side 8 mm — other side 9			
mounting position fastening method height width depth required spacing  • with side-by-side mounting — for grounded parts — at the side — downwards — to limb parts — for live parts —	design of the fuse link for short-circuit protection of the	fuse gL/gG: 10 A	
mounting position  fastening method height width depth 70 mm required spacing • with side-by-side mounting — forwards — upwards — at the side — downwards — 10 mm — upwards — or mands — if or ilwe parts — for live parts — of rilwe parts — of remards — upwards — 10 mm — ownwards — ownwards — 10 mm — ownwards — ownwards — ownwards — 10 mm — ownwards — of rilwe parts — for live parts — for wards — ownwards — ownwards — ownwards — other parts — for live parts — of rilwe parts — of rilwe parts — ownwards — ownward			
fastening method height width depth required spacing  • with side-by-side mounting — forwards — downwards — at the side — of ownwards — at the side — downwards — at the side — downwards — at the side — downwards — to five parts — forwards — at the side — downwards — to five parts — forwards — to five parts — forwards — to mm — to a will helps stranded with core end processing — finely stranded without core end processing — finely stranded with out ore end processing — finely stranded with out ore end processing — finely stranded with out ore end processing — finely stranded with out core end processing — finely stranded with out c		+/-180° rotation possible on vertical mounting surface: can be tilted	
helght width 45 mm 45 mm 46 mm 46 mm 73 mm 73 mm 73 mm 74 mm 75 mm	mounting position		
with depth 73 mm required spacing  • with side-by-side mounting — forwards 10 mm — upwards 10 mm — downwards 10 mm — at the side 0 mm — 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 — downwards 10 mm — of ownwards 10 mm — the side 6 mm — downwards 10 mm — of ownwards 10 mm — downwards 10 mm — downwards 10 mm — downwards 10 mm — the side 6 mm — downwards 10 mm — the side 7 mm — the side 7 mm — the side 8 mm  Connections/ Terminals  type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • for auxiliary contacts  • for auxiliary contacts  • for auxiliary contacts  Safety related data  product function positively driven operation according to IEC 60547-5-1 Bit 0 value with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 T I value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529  finger-safe, for vertical contact from the front	fastening method	screw and snap-on mounting onto 35 mm DIN rail	
required spacing  • with side-by-side mounting  — forwards — upwards — downwards — at the side • for grounded parts — forwards — at the side • for grounded parts — forwards — at the side — downwards — at the side — downwards — 10 mm  • for live parts — forwards — forwards — upwards — for live parts — forwards — upwards — downwards — 10 mm  • for live parts — forwards — upwards — upwards — downwards — 10 mm  • for live parts — forwards — at the side — downwards — 10 mm  • for live parts — forwards — at the side  Connections/ Terminals  Itype 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 — at AWG cables for auxiliary contacts  2x (0,5 2,5 mm²) 3x (20 12)  Safety related data  product function positively driven operation according to IEC 60947-5-1 B10 value with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 1 value for proof test interval or service life according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529	height	70 mm	
required spacing  with side-by-side mounting  - forwards - upwards - downwards - at the side - for grounded parls - forwards - upwards - upwards - the side - for grounded parls - at the side - downwards - at the side - downwards - at the side - downwards - for live parls - forwards - for live parls - forwards - upwards - for live parls - forwards - upwards - downwards - downwards - downwards - downwards - at the side - downwards - downwards - for live parls - forwards - for auxiliary contacts - solid or stranded - finely stranded with core end processing - finely stranded with our core end processing - at AWG cables for auxiliary contacts  Safety related data  product function positively driven operation according to IEC 609475-1 B10 value with high demand rate according to SN 31920 - with low demand rate according to SN 31920 - with ligh demand rate according to SN 31920 - with li	width	45 mm	
with side-by-side mounting - forwards 10 mm - downwards 10 mm - downwards 10 mm - at the side 0 mm - for grounded parts - forwards 10 mm - upwards 10 mm - upwards 10 mm - at the side 6 mm - downwards 10 mm - at the side 6 mm - downwards 10 mm - for live parts - forwards 10 mm - for live parts - forwards 10 mm - forwards 10 mm - downwards 10 mm - upwards 10 mm - upwards 10 mm - upwards 10 mm - at the side 6 mm  Connections/ Terminals  Upe of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections - for auxiliary contacts - solid or stranded 2x (0.5 4 mm²) - finely stranded with our end processing 2x (0.5 2.5 mm²) - at AWG cables for auxiliary contacts  Safety rolated data  product function positively driven operation according to IEC 60947-5-1 B10 value with high demand rate according to SN 31920 - with high demand rate according to SN 31920 - with high demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529	depth	73 mm	
- forwards - upwards - downwards - at the side • for grounded parts - forwards - upwards - at the side • for grounded parts - forwards - upwards - at the side - downwards - at the side - downwards - to mm - upwards - for live parts - forwards - upwards - upwards - downwards - upwards - upwards - to mm - to mm - downwards - at the side - downwards - at the side - to mm - t	required spacing		
- upwards - downwards 10 mm 10	<ul> <li>with side-by-side mounting</li> </ul>		
- downwards - at the side of orgounded parts - forwards - upwards - at the side - downwards - to fill live parts - forwards - forwards - forwards - downwards - forwards - forwards - forwards - forwards - downwards - downwards - downwards - downwards - at the side - downwards - at the side - for auxiliary contacts  **Of auxiliary contacts - solid or stranded - finely stranded without core end processing - at AWG cables for auxiliary contacts  **Safety related data**  product function positively driven operation according to EC 60529  **with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with ligh demand rate according to SN 31920 T1 value for proof test interval or service life according to EC 60529  **To value for proof test interval or service life according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529  **To value for protection on the front according to IEC 60529	— forwards	10 mm	
of ror grounded parts	— upwards	10 mm	
• for grounded parts — forwards — upwards — at the side — downwards • for live parts — forwards — 10 mm • for live parts — forwards — 10 mm  • for live parts — forwards — 10 mm — upwards — 10 mm — upwards — 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 with core end processing — at AWG cables for auxiliary contacts  Safety related data  product function positively driven operation according to IEC 60529  • with low demand rate according to SN 31920 • with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to IEC 61508 protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  finger-safe, for vertical contact from the front			
- forwards		0 mm	
- upwards - at the side - downwards 10 mm • for live parts - forwards - upwards - downwards - downwards - at the side - downwards - at the side - 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) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12)  Safety related data  product function positively driven operation according to IEC 60947-5-1 B10 value with high demand rate according to SN 31920 • with low demand rate according to SN 31920 • with liyd demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920  1 000 000; With 0.3 x le  73 % failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 319			
- at the side			
<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>2x (0.5 2.5 mm²)</li> <li>2x (20 12)</li> </ul> Safety related data <ul> <li>product function positively driven operation according to IEC 60947-5-1</li> <li>B10 value with high demand rate according to SN 31920</li> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>failure rate [FIT] with low demand rate according to SN 31920</li> <li>failure rate [FIT] with low demand rate according to IEC 61508</li> <li>protection class IP on the front according to IEC 60529</li> <li>finger-safe, for vertical contact from the front</li> </ul>	•		
• for live parts — forwards — 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 — finely stranded without core end processing			
forwards 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  2x (0,5 4 mm²) 2x (0,5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²)  2x (0.5 2.5 mm²)  2x (0.5 2.5 mm²)  10 on 0000; With 0.3 x le  Product function positively driven operation according to IEC 60509  • with ligh demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920  11 value for proof test interval or service life according to IEC 61508  Protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529		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  product function positively driven operation according to IEC 60529  • with low demand rate according to SN 31920 - with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection on the front according to IEC 60529  touch protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529	·	40	
- 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) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12)  Safety related data  product function positively driven operation according to IEC 60947-5-1 B10 value with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front			
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  Safety related data  product function positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920 • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to IEC 60529  touch protection on the front according to IEC 60529  finger-safe, for vertical contact from the front	•		
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  product function positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 100 FIT 31920  T1 value for proof test interval or service life according to IEC 60529  touch protection on the front according 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  Safety related data  product function positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920             • with low demand rate according to SN 31920             • with low demand rate according to SN 31920             • with high demand rate according to SN 31920             • with high demand rate according to SN 31920             • with high demand rate according to SN 31920             • with proportion of test interval or service life according to SN 31920  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC 60529  touch protection on the front according 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  Safety related data  product function positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920             • with low demand rate according to SN 31920             • with low demand rate according to SN 31920             • with high demand rate according to SN 31920             • with high demand rate according to SN 31920             • with high demand rate according to SN 31920             • with proportion of test interval or service life according to SN 31920  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  finger-safe, for vertical contact from the front	type of electrical connection for auxiliary and control circuit	spring-loaded terminals	
- 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 (20 12)  Safety related data  product function positively driven operation according to IEC 60947-5-1 B10 value with high demand rate according to SN 31920 proportion of dangerous failures - with low demand rate according to SN 31920 with high demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front		, 0	
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 (20 12)  Safety related data  product function positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	for auxiliary contacts		
<ul> <li>— finely stranded without core end processing</li> <li>● at AWG cables for auxiliary contacts</li> <li>2x (20 12)</li> <li>Safety related data</li> <li>Product function positively driven operation according to IEC 60947-5-1</li> <li>B 10 value with high demand rate according to SN 31920</li> <li>Proportion of dangerous failures</li> <li>● with low demand rate according to SN 31920</li> <li>● with high demand rate according to SN 31920</li> <li>Failure rate [FIT] with low demand rate according to SN 31920</li> <li>T1 value for proof test interval or service life according to IEC 61508</li> <li>Protection class IP on the front according to IEC 60529</li> <li>finger-safe, for vertical contact from the front</li> </ul>	— solid or stranded	2x (0,5 4 mm²)	
<ul> <li>at AWG cables for auxiliary contacts</li> <li>Safety related data</li> <li>product function positively driven operation according to IEC 60947-5-1</li> <li>B10 value with high demand rate according to SN 31920</li> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>failure rate [FIT] with low demand rate according to SN 31920</li> <li>failure for proof test interval or service life according to IEC 60529</li> <li>touch protection on the front according to IEC 60529</li> <li>finger-safe, for vertical contact from the front</li> </ul>	<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 2.5 mm²)	
product function positively driven operation according to IEC 60947-5-1 B10 value with high demand rate according to SN 31920 • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)	
product function positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  finger-safe, for vertical contact from the front	<ul> <li>at AWG cables for auxiliary contacts</li> </ul>	2x (20 12)	
IEC 60947-5-1 B10 value with high demand rate according to SN 31920 proportion of dangerous failures  • with low demand rate according to SN 31920 • with high demand rate according to SN 31920  • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	Safety related data		
proportion of dangerous failures  • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front		Yes	
<ul> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>failure rate [FIT] with low demand rate according to SN 31920</li> <li>T1 value for proof test interval or service life according to IEC 61508</li> <li>protection class IP on the front according to IEC 60529</li> <li>touch protection on the front according to IEC 60529</li> <li>finger-safe, for vertical contact from the front</li> </ul>	B10 value with high demand rate according to SN 31920	1 000 000; With 0.3 x le	
<ul> <li>with high demand rate according to SN 31920</li> <li>failure rate [FIT] with low demand rate according to SN 31920</li> <li>T1 value for proof test interval or service life according to IEC 61508</li> <li>protection class IP on the front according to IEC 60529</li> <li>touch protection on the front according to IEC 60529</li> <li>finger-safe, for vertical contact from the front</li> </ul>			
failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  finger-safe, for vertical contact from the front	<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %	
31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	· · · · · · · · · · · · · · · · · · ·	73 %	
protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front		100 FIT	
60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front		20 a	
		IP20	
Certificates/ approvals	touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front	

## **General Product Approval**



Confirmation





<u>KC</u>



**EMC** 

Functional Safety/Safety of Machinery

**Declaration of Conformity** 

**Test Certificates** 



Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate

#### Marine / Shipping













Marine / Shipping

other

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=3RH2131-2BA40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2131-2BA40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2131-2BA40

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

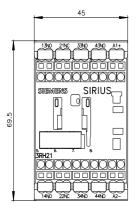
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RH2131-2BA40&lang=en

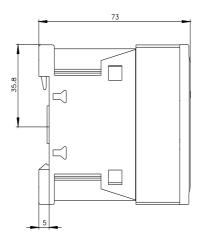
Characteristic: Tripping characteristics, I2t, Let-through current

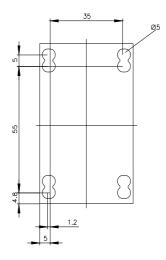
https://support.industry.siemens.com/cs/ww/en/ps/3RH2131-2BA40/char

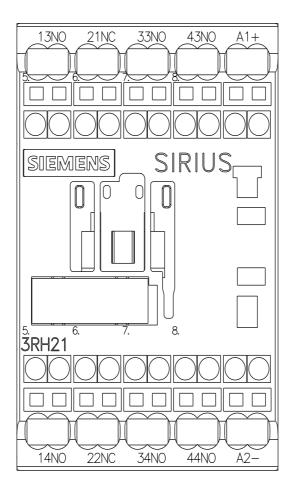
Further characteristics (e.g. electrical endurance, switching frequency)

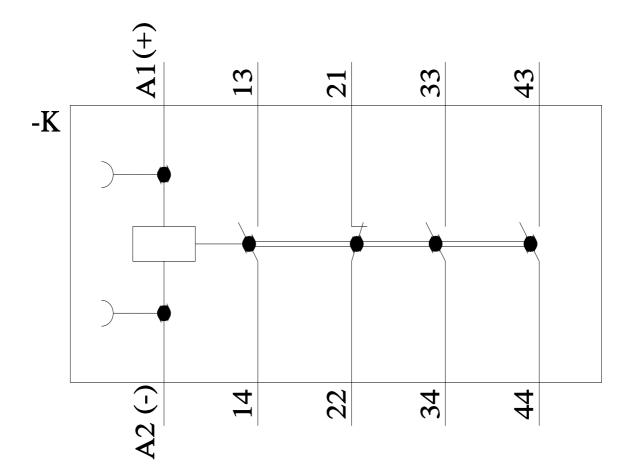
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2131-2BA40&objecttype=14&gridview=view1











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