## **SIEMENS**

Data sheet 3RH2422-1AK60

SIRIUS

Contactor relay, latched, 2 NO + 2 NC, 110 V AC, 50 Hz, 120 V, 60 Hz, Size S00, screw terminal



product brand name

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 AC	7,3g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (switching cycles)	
<ul> <li>of contactor typical</li> </ul>	5 000 000
<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>	5 000 000
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
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Main circuit	
no-load switching frequency	
• at AC	10 000 1/h
• at DC	10 000 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	110 V
• at 60 Hz rated value	120 V
control supply voltage frequency	

• 1 rated value	50 Hz
• 2 rated value	60 Hz
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	37 VA
inductive power factor with closing power of the coil	0.8
apparent holding power of magnet coil at AC	5.7 VA
inductive power factor with the holding power of the coil	0.25
closing delay	
• at AC	8 33 ms
opening delay	
• at AC	4 15 ms
arcing time	10 15 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
instantaneous contact	2
number of NO contacts for auxiliary contacts	2
instantaneous contact	2
identification number and letter for switching elements	22 E
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	10 A
• at 400 V rated value	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	40.0
at 24 V rated value     at 110 V rated value	10 A
at 110 V rated value     at 220 V rated value	3 A 1 A
<ul> <li>at 220 V rated value</li> <li>at 440 V rated value</li> </ul>	0.3 A
at 600 V rated value	0.15 A
operational current with 2 current paths in series at DC-12	0.1071
• at 24 V rated value	10 A
• at 60 V rated value	10 A
• at 110 V rated value	4 A
• at 220 V rated value	2 A
• at 440 V rated value	1.3 A
at 600 V rated value	0.65 A
operational current with 3 current paths in series at DC-12	
• at 24 V rated value	10 A
• at 60 V rated value	10 A
at 110 V rated value	10 A
at 220 V rated value	3.6 A
at 440 V rated value	2.5 A
at 600 V rated value	1.8 A
operating frequency at DC-12 maximum	1 000 1/h
operational current at 1 current path at DC-13	40.0
at 24 V rated value     at 110 V rated value	10 A 1 A
at 110 V rated value     at 220 V rated value	1 A 0.3 A
at 220 V rated value     at 440 V rated value	0.14 A
at 600 V rated value	0.14 A 0.1 A
operational current with 2 current paths in series at DC-13	V. I A
at 24 V rated value	10 A
- at 2-1 v rated value	

If all OV Traited value In a 14 OV Traited value In a 16 OV Traited value In a 17 OV Traited value In a 17 OV Traited value In a 18 OV Traited va		
extra 40 V rated value     extra 600 V rated value	• at 60 V rated value	3.5 A
all 440 V rated value     all 600 V rated value     operational current with 3 current paths in series at     Oct.     operational current with 3 current paths in series at     Oct.     all 24 V rated value     all 60 V rated value     all 40 V rated value     oct 80 V rated value     all 40 V rated value     oct 80 V rated value     oct 8		
of a 20 V rated value     operational current with 3 current paths in series at     Och 13     of a 24 V rated value     of a 20 V rated value		
poperational current with 3 current paths in series at DC-13  • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 1220 V rated value • at 220 V rated value • at 40 200 V rated value • at 40 200 V rated value • at 40 V rated value • at 600 V rated value •		
a 2424 rated value b 10 A c 10 O V rated value c 11 O A c 11 O D V rated value c 12 O S A c 14 O V rated value c 10 S A c 10		0.1 A
at 10 V rated value at 110 V rated value at 110 V rated value at 440 V rated value at 440 V rated value be at 600 V rated value at 600 V rated value be at 600 V rated value cesign of the ministure circuit up 10 230 V contact reliability of auxiliary cortacts  1 000 1h Characteristic: 6 A; 0.4 kA  I faulty switching per 100 million (17 V, 1 mA)  I faulty switching per 100 million (17 V, 1 mA)  I faulty switching per 100 million (17 V, 1 mA)  I faulty switching per 100 million (17 V, 1 mA)  I faulty switching per 100 million (17 V, 1 mA)  I faulty switching per 100 million (17 V, 1 mA)  I faulty switching per 100 million (17 V, 1 mA)  I faulty switching per 100 million (17 V, 1 mA)  I faulty switching per 100 million (17 V, 1 mA)  I faulty switching per 100 million (17 V, 1 mA)  I faulty s		
at 110 V rated value at 220 V rated value being of the miniature circuit breaker for short-circuit protection of the auxiliary contacts  UCSA ratings contact rating of auxiliary contacts  UCSA ratings  contact rating of auxiliary contacts  UCSA ratings  contact rating of auxiliary contacts  UCSA ratings  contact rating of auxiliary contacts  UCSA ratings  contact rating of auxiliary contacts  UCSA ratings  contact rating of auxiliary contacts  UCSA ratings  contact rating of auxiliary contacts  UCSA rating of auxiliary contacts  UCSA rating of auxiliary contacts  Tastening method  Asserting meth	<ul> <li>at 24 V rated value</li> </ul>	10 A
at 220 V rated value at 440 V rated value be at 500 V rated value 0.26 A 1 000 th 1 1 000 th		
• at 440 V rated value • parting frequency at DC-13 maximum  design of the ministure circuit breaker for short-circuit protection of the auxiliary contacts  ULCIGSA ratings  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the sile link for short-circuit protection of the auxiliary switch required  Installation fundanting dimensions  mounting position  4/180* rotation possible on vertical mounting surface; can be titled forward and backward by 4/- 22.5* on vertical mounting surface  fastening method  screw and snap-on mounting onto 35 mm standard mounting rail  depth  57.5 mm  width  90 mm  depth  - forwards  - with side-by-side mounting  - forwards  - downwards  - at the side  - for ive parts  - for wards  - for ive parts  - for wards  - for ive parts  - for auxiliary contacts  - solid or stranded  - downwards  - meet side  - for auxiliary contacts  - solid or stranded  - meety stranded with core end processing  • at AWG cables for auxiliary and control circuit  type of connectable conductor cross-sections  • for auxiliary contacts  - solid or stranded  - seld or stranded  - finely stranded with core end processing  • at AWG cables for auxiliary on tacks  - solid or stranded  - with ligh demand rate according to SN 31920  • with ligh demand rate according to SN 31920  • with ligh demand rate according to SN 31920  • with ligh demand rate according to SN 31920  • with ligh demand rate according to SN 31920  • with ligh derived rate according to SN 31920  • with ligh demand rate according to SN 31920  • with light derived rate according to SN 31920  • with light derived rate according to SN 31920  • with light derived rate according to SN 31920  • with light derived rate a		
• at 800 V rated value     oparating frequency at DC-13 maximum     design of the ministure circuit up to 230 V     Characteristic: 6 A; 0.4 kA     protection of the auxiliary contacts     1 faulty switching per 100 million (17 V, 1 mA)  ULCSA ratings     ULCSA ratings     contact ratioality of auxillary contacts     contact rating of auxillary contacts according to UL  Short-circuit protection     design of the fuse link for short-circuit protection of the auxiliary witch required     mounting fidnessions     mounting position  fastening method     fastening method     screw and snap-on mounting onto 35 mm standard mounting surface: can be titled forward and backward by +/- 22.5° on vertical mounting surface can be titled forward and backward by +/- 22.5° on vertical mounting rail      #/- 180° rotation possible on vertical mounting surface: can be titled forward and backward by +/- 22.5° on vertical mounting surface. can be titled forward and backward by +/- 22.5° on vertical mounting rail      #/- 180° rotation possible on vertical mounting surface: can be titled forward and backward by +/- 22.5° on vertical mounting surface. can be titled forward and backward by +/- 22.5° on vertical mounting rail      #/- 180° rotation possible on vertical mounting surface: can be titled forward and backward by +/- 22.5° on vertical mounting surface. can be titled forward and packward by +/- 22.5° on vertical mounting surface. can be titled forward and packward by +/- 22.5° on vertical mounting surface. can be titled forward and packward by +/- 22.5° on vertical mounting surface. can be titled forward and backward by +/- 22.5° on vertical mounting surface. can be titled forward and backward by +/- 22.5° on vertical mounting surface. can be titled forward and backward by +/- 22.5° on vertical mounting surface. can be titled forward and backward by +/- 22.5° on vertical mounting surface. can be titled forward and backward by +/- 22.5° on vertical mounting surface. can be titled forward and backward by +/- 22.5° on verti		11-11
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 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  forward and backward by +/- 22.5° on vertical mounting surface; can be titled forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail  ### Application of the size of the		
design of the miniature circuit breaker for short-circuit protection of the auxiliary contact up to 230 V contact reliability of auxiliary contacts    UL/CSA ratings    To design of the fuse link for short-circuit protection of the auxiliary contacts according to UL contact rating of auxiliary contacts according to ST.5 mm for auxiliary according to UL contact rating of auxiliary contacts according to ST.5 mm for auxiliary and control circuit type of connectable conductor cross-sections and according to SN 31920 with high demand rate according to SN 31920 with high demand rate according to SN 31920 contacts ac		
protection of the auxiliary contacts  UL/CSA ratings  contact rating of auxiliary contacts  UL/CSA ratings  contact rating of auxiliary contacts  design of the fuse link for short-circuit protection of the auxiliary short-circuit protection  design of the fuse link for short-circuit protection of the auxiliary switch negurized  Installation/ mounting/ dimensions  mounting position  forward and backward by ++-22.5° on vertical mounting surface; can be tilted forward and backward by ++-22.5° on vertical mounting surface serve wand snap-on mounting onto 35 mm standard mounting rail bright  forward and backward by ++-22.5° on vertical mounting surface; can be tilted forward and backward by ++-22.5° on vertical mounting surface serve wand snap-on mounting onto 35 mm standard mounting rail power with side-by-side mounting  evith side-by-side mounting  evith side-by-side mounting  evith side  for grounded parts  for grounded parts  for grounded parts  for grounded parts  for for grounded parts  for live parts  for minuments  for auxiliary and control circuit  type of connectable conductor cross-sections  for auxiliary contacts  serve-lype terminals  type of connectable conductor for auxiliary and control circuit  type of connectable conductor for auxiliary and control circuit  type of connectable conductor for auxiliary and control circuit  street-lype terminals  10 mm  for auxiliary contacts  for		
Taulty switching per 100 million (17 V, 1 mA)		C characteristic: 6 A; 0.4 KA
contact rating of auxiliary contacts according to UL  A600 / O600  A60		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 switch required   Installation/ mounting/ dimensions		
design of the fuse link for short-circuit protection of the auxiliary switch required Installation mounting/dimensions  mounting position  fastening method height width 90 mm  equired spacing  • with side-by-side mounting  • with side-by-side mounting  • with side-by-side mounting  • or grounded parts  — forwards — at the side — downwards — at the side — downwards — of live parts — for live parts — for live parts — of morards — at the side — at the side — ownwards — ownwards — ownwards — of live parts — for live parts — for live parts — of live parts — ownwards — at the side — at the side — at the side — ownwards — of live parts — for live parts — ownwards — ownw	· · · · · · · · · · · · · · · · · · ·	A600 / Q600
Installation/ mounting/ dimensions  mounting position  fastening method height width depth required spacing  • with side-by-side mounting — at he side — of morards — upwards — upwards — at the side — downwards — the side — downwards — to five parts — forwards — upwards — to five parts — forwards — to mm — downwards — to mm — the side — downwards — to mm — the side — downwards — to mm — the side — for grounded parts — forwards — upwards — to mm — the side — for mm — the side — for grounded parts — forwards — to mm — the side — for mm — the side — for mm — the side — for grounded parts — forwards — to mm — the side — for mm — the side — formards — to mm — the side — for mm — the side — forwards — upwards — to mm — the side — forwards — to mm — the side — formards — to mm — the side — formards — at the side — forwards — at the side — forwards — at the side — at the side — formards — the side — formards — at the side — formards — at the side — formards — at the side — the side — formards — the side — the side — formards — the side — the side — the side — formards	Short-circuit protection	
mounting position  #/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm width 90 mm  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 — upwards 10 mm — upwards 10 mm — at the side 0 mm  • for ive parts — often wards 10 mm — at the side 0 mm — ownwards 10 mm — ownwards 20 mm — ownwards 10 mm — ow	design of the fuse link for short-circuit protection of the	fuse gL/gG: 10 A
mounting position  #/-180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm width 90 mm depth 73 mm  required spacing  with side-by-side mounting —forwards 10 mm —upwards 10 mm —downwards 10 mm —at the side 0 mm —upwards 10 mm —at the side 6 mm —upwards 10 mm —at the side 6 mm —downwards 10 mm —at the side 6 mm —upwards 10 mm —at the side 6 mm —upwards 10 mm —at the side 6 mm —connections/ Torminals type of electrical connection for auxilliary and control circuit type of connectable conductor cross-sections —finely stranded with core end processing —at AWG cables for auxillary contacts —solid or stranded —finely stranded with core end processing —at AWG cables for auxillary contacts —with high demand rate according to SN 31920 proportion of dangerous failures —with low demand rate according to SN 31920 at with high demand rate according to SN 31920 Ti value for proof test interval or service life according to SN 31920 Ti value for proof test interval or service life according to SN 31920 Ti value for proof test interval or service life according to SN 31920 Ti value for proof test interval or service life according to SN 31920 Ti value for proof test interval or service life according to SN 31920 Ti value for proof test interval or service life according to SN 31920 Ti value for proof test interval or service life according to SN 31920 Ti value for proof test interval or service life according to SN 31920 Ti value for proof test interval or service life according to SN 31920 Ti value for proof test interval or service life according to SN 31920 Ti value for proof test interval or service life according to SN 31920		
forward and backward by +- 22.5° on vertical mounting surface fastening method  height  forward  depth  73 mm  required spacing  • with side-by-side mounting  - forwards  - upwards  - downwards  - at the side  • for grounded parts  - forwards  - upwards  - to mm  - upwards  - to mm  - to rive parts  - forwards  • for live parts  - forwards  - upwards  - to mm  - downwards  - to live parts  - forwards  - to rive parts  - forwards  - to mm  - to rive parts  - forwards  - to mm  - to rive parts  - forwards  - to mm  - to rive parts  - forwards  - to mm  - to rive parts  - forwards  - to mm  - to rive parts  - forwards  - to mm  - to mm  - to mm  - to rive parts  - forwards  - to mm  - to mm - to mm  - to mm	Installation/ mounting/ dimensions	
height width 90 mm depth 73 mm  required spacing  • with side-by-side mounting  — forwards 10 mm — downwards 10 mm — downwards 10 mm — for grounded parts — forwards 10 mm  • for grounded parts 10 mm — at the side 0 mm — at the side 6 mm — downwards 10 mm  • for grounded parts 10 mm  • for grounded parts 10 mm  • for ilive parts 10 mm • for live parts 10 mm  • for live parts 10 mm  • for live parts 10 mm  — at the side 6 mm — downwards 10 mm  • for live parts 10 mm  • for nonactions/ ferminals 10 mm  — at the side 6 mm — downwards 10 mm  — at the side 7 mm — at the side 8 mm  Serew-type terminals 10 mm  • for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²  = x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²  = x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  = x (0.5	mounting position	
width 90 mm  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  — 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  • for live parts  — forwards 10 mm  • for live parts  — forwards 10 mm  — downwards 10 mm  — downwards 10 mm  — 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 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14), 2x 12  Safety related data  B10 value with high demand rate according to SN 31920 73 %  failure rate [FIT] with low demand rate according to SN 31920 73 %  failure rate [FIT] with low demand rate according to SN 31920 73 %  failure rate [FIT] with low demand rate according to SN 31920 73 %  failure rate [FIT] with low demand rate according to SN 31920 73 %  failure rate [FIT] with low demand rate according to SN 31920 73 %  failure rate [FIT] with low demand rate according to SN 31920 73 %	fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
required spacing  • with side-by-side mounting  — forwards — upwards — downwards — at the side — of for grounded parts — of the side — of ownwards — of the side  Connections/ Terminals  type of electrical connection for auxiliary and control circuit  type of connectable conductor cross-sections — of or auxiliary contacts — solid or stranded — finely stranded with core end processing — at AWG cables for auxiliary contacts  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14), 2x 12  Safety related data  B10 value with high demand rate according to SN 31920 — with high demand rate according to SN 31920  • 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 SN 31920  T1 value for proof test interval or service life according to SN 31920  T1 value for proof test interval or service life according to SN 31920  T1 value for proof test interval or service life according to SN 31920  T1 value for proof test interval or service life according to SN 31920  T1 value for proof test interval or service life according to SN 31920  T1 value for proof test interval or service life according to SN 31920	height	57.5 mm
required spacing  • with side-by-side mounting  — forwards — upwards — downwards — at the side — for grounded parts — forwards — upwards — upwards — upwards — upwards — at the side — downwards — of rive parts — for live parts — forwards — for live parts — forwards — upwards — downwards — 10 mm — downwards — 10 mm — of mm — downwards — 10 mm — of maxiliary contacts — solid or stranded — finely stranded with core end processing — at AWG cables for auxiliary contacts — solid or stranded — finely stranded with core end processing — at AWG cables for auxiliary contacts — of auxiliary contacts — of auxiliary contacts — solid or stranded — finely stranded with core end processing — at AWG cables for auxiliary contacts — of 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 — with high demand rate according to SN 31920 — with high demand rate according to SN 31920 — with high demand rate according to SN 31920 — of the first interval or service life according to SN 31920 — of the first interval or service life according to SN 31920 — of the first interval or service life according to SN 31920 — of the first interval or service life according to SN 31920 — of the first interval or service life according to SN 31920 — of the first interval or service life according to SN 31920 — of the first interval or service life according to SN 31920 — of the first interval or service life according to SN 31920 — of the first interval or service life ac	width	90 mm
<ul> <li>with side-by-side mounting — forwards — upwards — downwards — at the side <ol> <li>for grounded parts — forwards — upwards — upwards — the side — downwards — to mm — of or live parts — for live parts — for wards — upwards — upwards — to mm — the side — formards — solid or stranded — finely stranded with core end processing — at AWG cables for auxiliary contacts — solid or stranded — finely stranded with core end processing — at AWG cables for auxiliary contacts — the side — finely stranded with core end processing — at AWG cables for auxiliary contacts — the side — finely stranded with core end processing — at AWG cables for auxiliary contacts — the side — finely stranded with core end processing — with low demand rate according to SN 31920 — 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 low demand rate according to SN 31920 — with low demand rate according to SN 31920 — the side — formards — the side — formards</li></ol></li></ul>	depth	73 mm
- forwards	required spacing	
- upwards - downwards - at the side of or grounded parts - forwards - upwards - at the side - downwards - for live parts - for live parts - for rowards - upwards - upwards - upwards - upwards - downwards - at the side - downwards - at the side - for live parts - for live parts - for live parts - upwards - upwards - downwards - at the side - downwards - at the side - formections/ 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 - at AWG cables for auxiliary contacts  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14), 2x 12  Safety rolated data  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 low demand rate according to SN 31920 - with low 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 - 20 y	, c	
- downwards - at the side • for grounded parts - forwards - upwards - at the side - downwards - at the side - downwards - at the side - downwards • for live parts - forwards - upwards - for live parts - forwards - upwards - downwards - downwards - at the side - downwards - at the side - 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 • at AWG cables for auxiliary contacts  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  • at AWG cables for auxiliary contacts  2x (20 15, mm²), 2x (0.75 2.5 mm²)  • at AWG cables for auxiliary contacts  2x (20 15, mm²), 2x (0.75 2.5 mm²)  4x (20 15, mm²), 2x (0.75 2.5 mm²)  5x (20 15, mm²), 2x (0.75 2.5 mm²)  4x (20 15, mm²), 2x (0.75 2.5 mm²)  4x (20 15, mm²), 2x (0.75 2.5 mm²)  5x (20 15, mm²), 2x (0.75 2.5 mm²)  4x (20 15, mm²), 2x (0.75 2.5 mm²)  4x (20 15, mm²), 2x (0.75 2.5 mm²)  4x (20 15, mm²), 2x (0.75 2.5 mm²)  5x (20 15, mm²), 2x (0.75 2.5 mm²)  4x (20 15, mm²), 2x (0.75 2.5 mm²)  5x (20 15, mm²), 2x (0.75 2.5 mm²)  4x (20 15, mm²), 2x (0.75 2.5 mm²)  4x (20 15, mm²), 2x (0.75 2.5 mm²)  4x (20 15, mm²), 2x (0.75 2.5 mm²)  5x (20 15, mm²), 2x (0.75 2.5 mm	— 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  - at the side  - downwards  - upwards  - 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  • at AWG cables for auxiliary contacts  B10 value with high demand rate according to SN 31920  rproportion 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  20 y	·	
• for grounded parts  — forwards — upwards — at the side — downwards — 10 mm  • for live parts — forwards — 10 mm  • for live parts — forwards — upwards — upwards — the side — forwards — upwards — upwards — 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 • at AWG cables for auxiliary contacts  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²  2x (0.5 1.5 mm²), 2x (1.5 1.5 mm²), 2x 12  Safety related data  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  20 y		
- forwards 10 mm - upwards 6 mm - at the side 6 mm - downwards 10 mm  • for live parts - forwards 10 mm  • for live parts - forwards 10 mm  - upwards 10 mm  - upwards 10 mm  - downwards 10 mm  - 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 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) • at AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  safety related data  B10 value with high demand rate according to SN 31920 40 % • with ligh demand rate according to SN 31920 73 %  failure rate [FIT] with low demand rate according to SN 31920 100 FIT 31920  T1 value for proof test interval or service life according to SN 31920  T1 value for proof test interval or service life according to SN 31920  T1 value for proof test interval or service life according to SN 31920  T1 value for proof test interval or service life according to SN 31920  T1 value for proof test interval or service life according to SN 31920		0 mm
- upwards - at the side - downwards 10 mm  • for live parts - forwards 10 mm  - upwards 10 mm  - downwards 10 mm  - downwards 10 mm  - downwards 10 mm  - 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 • at AWG cables for auxiliary contacts  B10 value with high demand rate according to SN 31920  • with low 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  10 mm  6 mm  20 mm  20 mm  20 mm  20 mm  20 crew-type terminals  20 (0.75 2.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²  20 (0.75 1.5 mm²), 2x (0.75 2.5 mm²)  20 (20 16), 2x (18 14), 2x 12  20 mm  20 mm²  20		40
- at the side - downwards • for live parts - forwards - upwards - upwards - downwards - at the side - at the side - 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 • at AWG cables for auxiliary contacts  Safety related data  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  10 mm  10 mm  2 x (0 mm  2 x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²  2x (20 16), 2x (18 14), 2x 12  1 000 000; With 0.3 x le  1 000 FIT  1 value for proof test interval or service life according to  20 y		
- downwards • 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 • at AWG cables for auxiliary contacts  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  20 y	•	
• 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 • at AWG cables for auxiliary contacts  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  • at AWG cables for auxiliary contacts  2x (20 16), 2x (18 14), 2x 12  Safety related data  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  • with low 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 low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920		
forwards 10 mm upwards 10 mm downwards 10 mm at the side 6 mm  Connections/ Terminals  type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections  • for auxiliary contacts solid or stranded 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm² finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  • at AWG cables for auxiliary contacts 2x (20 16), 2x (18 14), 2x 12  Safety related data  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 20 y		10 111111
- 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 • at AWG cables for auxiliary contacts  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 low demand rate according to SN 31920	·	10 mm
- 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 • at AWG cables for auxiliary contacts  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  10 mm 6 mm 6 mm  Screw-type terminals  screw-type terminals  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14), 2x 12  1000 000; With 0.3 x le  1000 000; With 0.3 x le  100 FIT  1000 FIT		
— 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 • at AWG cables for auxiliary contacts  B10 value with high demand rate according to SN 31920  proportion of dangerous failures • with low 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 20 y  screw-type terminals  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14), 2x 12  1 000 000; With 0.3 x le  40 %  1 000 FIT  31920  T1 value for proof test interval or service life according to 20 y		
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 • at AWG cables for auxiliary contacts  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 20 y		
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<ul> <li>for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  • at AWG cables for auxiliary contacts  Safety related data  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  • 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  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14), 2x 12  1 000 000; With 0.3 x le  40 %  1 000 FIT  1 value for proof test interval or service life according to  20 y  20</li></ul>		"
<ul> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>— at AWG cables for auxiliary contacts</li> <li>Eafety related data</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>— with high demand rate according to SN 31920</li> <li>— with high demand rate according to SN 31920</li> <li>— T1 value for proof test interval or service life according to SN 20 y</li> </ul>		
<ul> <li>— finely stranded with core end processing <ul> <li>at AWG cables for auxiliary contacts</li> <li>2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)</li> <li>2x (20 16), 2x (18 14), 2x 12</li> </ul> </li> <li>Safety related data <ul> <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> </ul> </li> <li>T1 value for proof test interval or service life according to 20 y</li> </ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
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 20 y	<ul> <li>finely stranded with core end processing</li> </ul>	
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  failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to 20 y	<ul> <li>at AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14), 2x 12
proportion of dangerous failures  ■ with low demand rate according to SN 31920 40 %  ■ with high demand rate according to SN 31920 73 %  failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to 20 y	Safety related data	
<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</li> <li>20 y</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</li> <li>20 y</li> </ul>	proportion of dangerous failures	
failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to 20 y	<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 20 y	with high demand rate according to SN 31920	73 %
		100 FIT
		20 y

protection class IP on the front according to IEC 60529

IP20

touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front

Certificates/ approvals

**General Product Approval** 



Confirmation





**KC** 



**EMC** 

**Functional** Safety/Safety of Machinery

**Declaration of Conformity** 

**Test Certificates** 



**Type Examination** Certificate





**Special Test Certific**ate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

Railway



Confirmation



Vibration and Shock

**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=3RH2422-1AK60

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2422-1AK60

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2422-1AK60

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RH2422-1AK60&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RH2422-1AK60/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2422-1AK60&objecttype=14&gridview=view1

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