SIEMENS

Data sheet 3RA6120-2CB32



SIRIUS Compact load feeder DOL starter 690 V 24 V AC/DC 50...60 Hz 1...4 A IP20 Connection main circuit: Spring-type terminal Connection auxiliary circuit: Spring-type terminal

product brand name	SIRIUS
product designation	compact starter
design of the product	direct starter
product type designation	3RA61
General technical data	
product function control circuit interface to parallel wiring	Yes
product extension auxiliary switch	Yes
power loss [W] for rated value of the current at AC in hot operating state	1 W
• per pole	0.33 W
power loss [W] for rated value of the current without load current share typical	2.9 W
insulation voltage rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 000 V
maximum permissible voltage for safe isolation	
 between main and auxiliary circuit 	400 V
 between auxiliary and auxiliary circuit 	250 V
between control and auxiliary circuit	300 V
degree of protection NEMA rating	other
shock resistance	a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes
vibration resistance	f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles
mechanical service life (switching cycles)	
 of the main contacts typical 	10 000 000
 of auxiliary contacts typical 	10 000 000
of the signaling contacts typical	10 000 000
electrical endurance (switching cycles) of auxiliary contacts	
 at DC-13 at 6 A at 24 V typical 	30 000
at AC-15 at 6 A at 230 V typical	200 000
type of assignment	continous operation according to IEC 60947-6-2
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.05.2012
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-20 +60 °C
during storage	-55 +80 °C
during transport	-55 +80 °C

Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the	1 4 A
current-dependent overload release formula for making capacity limit current	12 x le
formula for breaking capacity limit current	10 x le
yielded mechanical performance for 4-pole AC motor	1.5 kW
at 400 V rated value at 500 V rated value	1.5 kW
at 500 V rated value at 600 V rated value	2.2 kW
at 690 V rated value operating voltage at AC-3 rated value maximum	3 kW 690 V
operating voltage at AC-3 rated value maximum operational current	
at AC at 400 V rated value	4 A
 at AC at 400 V rated value at AC-3 at 400 V rated value 	4 A 4 A
at AC-3 at 400 V rated valueat AC-43	
at AC-43 — at 400 V rated value	3.6 A
at 400 V rated value at 500 V rated value	3.6 A 3.9 A
— at 690 V rated value — at 690 V rated value	3.9 A 3.8 A
operating power	0.071
at AC-3 at 400 V rated value	1.5 kW
• at AC-3 at 400 V rated value • at AC-43	IVI
at AC-43 — at 400 V rated value	1 500 W
at 400 V rated value at 500 V rated value	1 500 W 2 200 W
at 500 V rated value at 690 V rated value	2 200 W 3 000 W
	3 000 W 3 600 1/h
no-load switching frequency operating frequency	5 000 mi
at AC-41 acc. to IEC 60947-6-2 maximum	750 1/h
• at AC-41 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum	250 1/h
• at AC-43 acc. to IEC 60947-6-2 maximum Control circuit/ Control	-50 1111
	AC/DC
type of voltage	NOIDO
control supply voltage 1 at AC • at 50 Hz rated value	24 V
 at 50 Hz rated value at 50 Hz 	24 V 24 24 V
at 50 Hz at 60 Hz rated value	24 24 V 24 V
at 60 Hz rated valueat 60 Hz	24 V 24 V
• at 60 Hz control supply voltage frequency	
1 rated value	50 Hz
1 rated value 2 rated value	50 HZ 60 Hz
control supply voltage 1	
at DC rated value	24 V
at DC rated value at DC	24 V 24 24 V
holding power	
at AC maximum	2.8 W
at DC maximum	2.0 W
Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip	1
unit for signaling contact	
number of CO contacts of the current-dependent overload release for signaling contact	1
operational current of auxiliary contacts at AC-12 maximum	10 A
operational current of auxiliary contacts at DC-13 at 250 V	0.27 A
Protective and monitoring functions	
trip class	CLASS 10 and 20 adjustable
breaking capacity operating short-circuit current (lcs)	
● at 400 V	53 kA
• at 500 V rated value	3 kA
• at 690 V rated value	3 kA

full-load current (FLA) for 3-phase AC motor	UL/CSA ratings			
# at 480 V rated value # at 600 V rated value # at 200708 V rated value # at 575600 V rated value # at 68560 V rated value				
# at 1600 V rated value 4 A 9 9 1600 W rated value 2 17 17 18 19 19 19 19 19 19 19		4 A		
yelded mechanical performance (hg) for 3-phase AC motor at 2002/280 V rated value at 2002/280 V rated value be at 450-8080 V rated value at 4575-800 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection product function short circuit protection design of short-circuit protection of the surround of the sort-circuit protection of the signaling switch of the short-circuit protection of the signaling switch of the sort-circuit protection of the signaling switch of the coveroad release required * for short-circuit protection * for protection protection of the signaling switch of the sort-circuit protection of the signaling switch of the overload release required * for short-circuit protection * for protection protection of the signaling switch of t				
a 2020239 V rated value at 4575600 V rated value at 4575600 V rated value be at 4575600 V rated value at 4575600 V rated value contact rating of auxiliary contacts according to UL short-circuit protection Product function short circuit protection design of short-circuit protection design of short-circuit protection design of short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit protection • for main commended • for short-circuit protection of the signaling switch of the overload release required • for switch with the depth of the signaling switch of the signaling switch of the overload release required • for main commended • for main commended • for main commonates • for main controad circuit type of connectable conductor cross-sections • for main contacts • for auxiliary and control circuit type of connectable conductor cross-sections • for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts • for auxiliary and control circuit type of connectable conductor cross-sections • for auxiliary contacts • for auxiliary con	yielded mechanical performance [hp] for 3-phase AC			
a 220230 V rated value a 460480 V rated value b 460480 V rated value contact rating of auxiliary contacts according to U. contact rating of auxiliary contacts according to U. Short-circuit protection design of the fuse link for short-circuit protection of the signaling switch of the vereitad release required installation mounting dimensions mounting position vector of connectable conductor cross-sections for nauxiliary and control circuit vippe of electrical connection for main contacts - solid - finely stranded with core end processing - finely stranded with core e		0.75 hp		
at 450-480 V rated value at 575-800 V rated value contact rating of auxiliary contacts according to UL contact rating of auxiliary contacts according to UL contacts 95-96-98 R300 / 10300 Short-circuit protection product function short circuit protection design of short-circuit protection of the signal of the fuse link for short-circuit protection of the signal of the short-circuit short-circuit protection of the signal of the short-circuit short-		·		
a the training of auxiliary contacts according to U. contact rating of auxiliary contacts according to U. broduct function short circuit protection design of short-circuit protection (as given the short-circuit protection of the swinking of the short-circuit protection of the swinking of the short-circuit protection of the swinking of the short-circuit protection of the signaling switch of the overload release required a for short-circuit protection of the signaling switch of the overload release required a for short-circuit protection of the signaling switch of the overload release required b for short-circuit protection of the signaling switch of the overload release required a for short-circuit protection of the signaling switch of the overload release required b for short-circuit protection of the signaling switch of the overload release required a for short-circuit protection of the swinking switch of the switch required b for short-circuit protection of the swinking switch of the switch required a for short-circuit protection of the swinking switch of the switch required b for short-circuit protection of the swinking switch of the switch required a for short-circuit protection of the swinking switch of the switch required b for short-circuit protection of the swinking switch of the switch required a for short-circuit protection of the swinking switch of the switch required b full protection of the swinking switch of the switch required b for short-circuit protection of the signaling switch of the switch required any cercumation of the switch and switch or switch required b full protection of the switch and switch or switch required b full protection of the switch and switch or switch required b full protection of the switch and switch or switch required any cercumation of switch and switch or switch required b full protecti		·		
contact rating of auxiliary contacts according to U. Short-circuit protection product function short circuit protection design of short-circuit protection design of short-circuit protection electromagnetic design of the fuse link • for short-circuit protection of the signaling switch of the short-circuit protection of the signaling switch of the short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required Installation mounting dimensions mounting position • recommended fastening method serve and snap-on mounting dimensions mounting position • recommended stemphy that the standard mounting rail serve and snap-on mounting dimensions ### Connections/ Terminals product component removable terminal for main circuit * for navillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and control circuit * product component removable terminal for auxillary and cont		·		
Short-circuit protection product function short circuit protection design of short-circuit protection (design of short-circuit protection of the auxiliary switch required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for commended • for short-circuit protection of the signaling switch of the overload release required • for exommended • for exommended • for short-circuit protection of the signaling switch of the short-circuit steeping and control circuit of the short-circuit steps of the short-circuit or short or circuit • for main current circuit • for auxiliary and control circuit • for for main contacts • solid — finely stranded with ourse end processing • at AWG cables for main contacts • for subliary contacts • for auxiliary contacts • for subliary contacts • for subliary contacts • a control circuit stranded without core end processing • at AWG cables for auxiliary contacts • 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 dem	contact rating of auxiliary contacts according to UL	contacts 21-22, 13-14, 43-44 Q600 / A600, contacts 77-78 R300 / B300,		
product function short circuit protection design of the fuse link		contacts 95-96-98 R300 / D300		
design of short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the signaling switch of the short-circuit release required • for short-circuit protection of the signaling switch of the short-circuit release required • for short-circuit protection of the signaling switch of the overload release required Installation/ mounting/ dimensions mounting position • recommended • recommend	Short-circuit protection			
design of the fuse link • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the signaling switch of the short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required • for short-circuit flow signaling switch of the overload release required • for short-circuit flow signaling switch of the overload release required • for short-circuit flow signaling switch of the overload release required • for short-circuit flow signaling switch of the overload standard mounting rall • fastening method • for switch flow flow flow flow flow flow flow flow	· · · · · · · · · · · · · · · · · · ·			
* for short-circuit protection of the auxiliary switch required * for short-circuit protection of the signaling switch of the of the signali		electromagnetic		
required • for short-circuit protection of the signaling switch of the short-circuit protection of the signaling switch of the overload release required • for short-circuit protection of the signaling switch of the overload release required Installation mounting dimensions mounting position • recommended • recommendeded • recommendeded • recommendeded • recommendeded •	•			
the short-circuit release required * for short-circuit protection of the signaling switch of the overload release required Installation/mounting/dimensions mounting position * recommended * recommended * stating method height width * depth Connections/Terminals product component removable terminal for main circuit product component removable terminal for main circuit * type of connectable conductor cross-sections * for main contacts - solid - finely stranded with core end processing * at AWG cables for main contacts - solid - finely stranded with core end processing * at AWG cables for main contacts - solid - finely stranded with core end processing * at AWG cables for main contacts * for auxiliary contacts - solid - finely stranded with core end processing * at AWG cables for main contacts - solid - finely stranded with core end processing * at AWG cables for main contacts - solid - finely stranded with core end processing * at AWG cables for main contacts - solid - finely stranded with core end processing * at AWG cables for auxiliary contacts - solid - finely stranded with core end processing * at AWG cables for auxiliary contacts - solid - finely stranded with core end processing * at AWG cables for auxiliary contacts - solid - finely stranded with core end processing * at AWG cables for auxiliary contacts - solid - finely stranded with core end processing * at AWG cables for main contacts - solid - finely stranded with core end processing * at AWG cables for successing * at AWG cables for main contacts - solid - finely stranded with core end processing * at AWG cables for main contacts - solid - finely stranded with core end processing * at AWG cables for successing * at AWG cables	required			
mounting position • recommended • recommende	the short-circuit release required			
mounting position erecommended evicial, on horizontal standard mounting rail fastening method height width depth 191 mm Connections/ Terminals product component removable terminal for main circuit product component removable terminal for auxiliary and control circuit ef or anain cornection efor main cornection efor main contacts - solid - finely stranded without core end processing - finely stranded with 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 proportion of dangerous failures - with low demand rate acc. to SN 31920 e with high demand rate acc. to SN 31920 e with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 e with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 For proof test interval or service life acc. to IEC 60529 protection class IP on the front acc. to IEC 60529 finger-safe Communication/ Protocol	the overload release required	4A gL/gG/400V		
recommended vertical, on horizontal standard mounting rail fastening method screw and snap-on mounting rail width 45 mm depth 165 mm Connections/ Terminals product component removable terminal for main circuit vpe of electrical connection of or main current circuit efor auxiliary and control circuit vproe of connectable conductor cross-sections	Installation/ mounting/ dimensions			
fastening method height width depth 191 mm 165 mm Connections/ Terminals product component removable terminal for main circuit product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit Type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing — inely stranded without core end processing • at AWG cables for main contacts	mounting position	any		
height width	recommended	vertical, on horizontal standard mounting rail		
width depth 165 mm Connections/ Terminals product component removable terminal for main circuit product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • for main contacts — solid — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts — solid — finely stranded without core end processing • for auxiliary contacts — solid — finely stranded without core end processing • for auxiliary contacts — solid — finely stranded without core end processing • for auxiliary contacts — solid — 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 (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (24 16) 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 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 for typic forminals Fig. 2 m. 4 m. 4 m. 7 m. 7 m. 7 m. 7 m. 7 m. 7	fastening method	screw and snap-on mounting		
Connections/ Terminals product component removable terminal for main circuit product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts — solid — finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts • for finely stranded with core end processing • for auxiliary contacts — solid — finely stranded with core end processing • for auxiliary contacts — solid — 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 (0.25 1.5 mm²) 2x (0.25 1.5	height	191 mm		
product component removable terminal for main circuit product component removable terminal for auxiliary and control circuit type of electrical connection	width	45 mm		
product component removable terminal for main circuit ye of component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts — solid — finely stranded with core end processing • for auxiliary contacts 1	depth	165 mm		
circuit product component removable terminal for auxiliary and control circuit type of electrical connection	Connections/ Terminals			
and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit * spring-loaded terminals * type of connectable conductor cross-sections • for main contacts - solid - finely stranded with core end processing - finely stranded without core end processing • at AWG cables for main contacts - solid - finely stranded with core end processing • for auxiliary contacts - solid - finely stranded with core end processing - at AWG cables for auxiliary contacts 2x (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 3x (0.25 1.5 mm²) 4x (0.25 1.5 mm²) 4	·	Yes		
• for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts • solid — finely stranded without core end processing • of auxiliary contacts • solid — finely stranded with core end processing • for auxiliary contacts — solid — finely stranded with core end processing — finely stranded with 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 low demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 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 formmunication/ Protocol	and control circuit	Yes		
• for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts — solid — finely stranded without core end processing • at AWG cables for main contacts • for auxiliary contacts — solid — finely stranded with core end processing • for auxiliary contacts — solid — 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 (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (24 16) 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 100 FIT 11 value for proof test interval or service life acc. to IEC 60529 protection class IP on the front acc. to IEC 60529 touch protection on the front acc. to IEC 60529 formmunication/ Protocol				
type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing • at AWG cables for main contacts type of connectable conductor cross-sections • for auxiliary contacts — solid — finely stranded with core end processing — 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 (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (24 16) 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 • with high demand rate acc. to SN 31920 100 FIT 11 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 Communication/ Protocol		1 0		
• for main contacts — solid — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing • at AWG cables for main contacts • for auxiliary contacts — solid — finely stranded with core end processing • for auxiliary contacts — solid — finely stranded with core end processing — 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 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 protection class IP on the front acc. to IEC 60529 touch protection on the front acc. to IEC 60529 finger-safe Communication/ Protocol	·	spring-loaded terminals		
- solid - finely stranded with core end processing - finely stranded without core end processing - finely stranded without core end processing - at AWG cables for main contacts type of connectable conductor cross-sections • for auxiliary contacts - solid - finely stranded with core end processing - 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 (0.25 1.5 mm²) 4x (0.25				
- finely stranded with core end processing - finely stranded without core end processing - finely stranded without core end processing • at AWG cables for main contacts type of connectable conductor cross-sections • for auxiliary contacts - solid - finely stranded with core end processing - 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 100 FIT T1 value for proof test interval or service life acc. to IEC 60529 protection class IP on the front acc. to IEC 60529 touch protection on the front acc. to IEC 60529 Communication/ Protocol				
- finely stranded without core end processing ■ at AWG cables for main contacts type of connectable conductor cross-sections ■ for auxiliary contacts - solid - finely stranded with core end processing - 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 (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (24 16) 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 100 FIT 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 Communication/ Protocol		,		
at AWG cables for main contacts type of connectable conductor cross-sections of rauxiliary contacts		· · · · · · · · · · · · · · · · · · ·		
type of connectable conductor cross-sections • for auxiliary contacts — solid — 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 failure rate [FIT] with low demand rate acc. to SN 31920 T1 value for proof test interval or service life acc. to IEC 60529 protection class IP on the front acc. to IEC 60529 touch protection on the front acc. to IEC 60529 Communication/ Protocol				
• for auxiliary contacts — solid — 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 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 • with low demand rate acc. to SN 31920 100 FIT T1 value for proof test interval or service life acc. to IEC 60529 protection class IP on the front acc. to IEC 60529 touch protection on the front acc. to IEC 60529 Communication/ Protocol		2x (16 10), 1x 8		
- solid - 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 (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (24 16) 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 SN 31920 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 Communication/ Protocol				
- 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 (0.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (24 16) 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 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 Communication/ Protocol	•	0 (0.05 4.5 0)		
— finely stranded without core end processing				
 at AWG cables for auxiliary contacts 2x (24 16) 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 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 Communication/ Protocol				
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 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 Communication/ Protocol				
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 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 Communication/ Protocol		2x (24 16)		
proportion of dangerous failures • with low demand rate acc. to SN 31920 40 % • with high demand rate acc. to SN 31920 50 % failure rate [FIT] with low demand rate acc. to SN 31920 100 FIT T1 value for proof test interval or service life acc. to IEC 61508 protection class IP on the front acc. to IEC 60529 IP20 touch protection on the front acc. to IEC 60529 finger-safe Communication/ Protocol				
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 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 Communication/ Protocol		3 000 000		
with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 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 Communication/ Protocol				
failure rate [FIT] with low demand rate acc. to SN 31920 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 Communication/ Protocol				
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 Communication/ Protocol				
protection class IP on the front acc. to IEC 60529 IP20 touch protection on the front acc. to IEC 60529 finger-safe Communication/ Protocol				
touch protection on the front acc. to IEC 60529 finger-safe Communication/ Protocol	IEC 61508			
Communication/ Protocol	protection class IP on the front acc. to IEC 60529	IP20		
	touch protection on the front acc. to IEC 60529	finger-safe		
product function bus communication	Communication/ Protocol			
	product function bus communication	No		

protocol is supported					
AS-Interface protocol	No				
IO-Link protocol	No				
product function control circuit interface with IO link	No				
Electromagnetic compatibility					
conducted interference					
due to burst acc. to IEC 61000-4-4	4 kV main contacts, 2 kV auxiliary contacts				
 due to conductor-earth surge acc. to IEC 61000-4-5 	4 kV main contacts, 2 kV auxiliary contacts				
 due to conductor-conductor surge acc. to IEC 61000-4-5 	2 kV main contacts, 1 kV auxiliary contacts				
 due to high-frequency radiation acc. to IEC 61000- 4-6 	0.15-80Mhz at 10V				
field-based interference acc. to IEC 61000-4-3	10 V/m				
electrostatic discharge acc. to IEC 61000-4-2	8 kV				
conducted HF interference emissions acc. to CISPR11	150 kHz 30 MHz Class A				
field-bound HF interference emission acc. to CISPR11	30 1000 MHz Class A				
Supply voltage					
Supply voltage required Auxiliary voltage	No				
Display					
number of LEDs	2				
Certificates/ approvals					
General Product Approval		EMC	Functional Safety/Safety of		













Machinery

Declaration of Conformity

Test Certificates

Marine / Shipping



UK Declaration of Conformity Type Test Certificates/Test Report







Marine / Shipping

Ca

LRS







Confirmation

other

<u>Transport Information</u>

Dangerous Good

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=3RA6120-2CB32

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6120-2CB32

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-2CB32

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

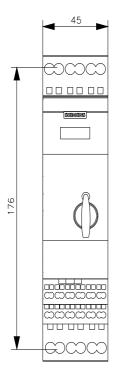
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6120-2CB32&lang=en

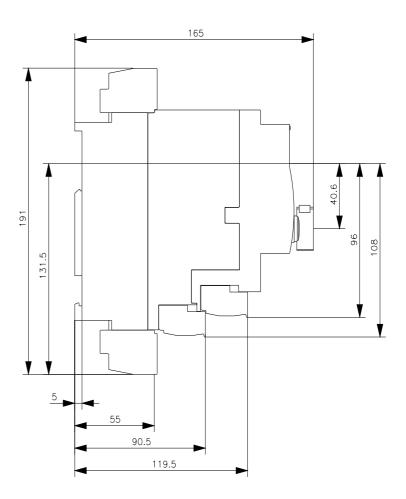
Characteristic: Tripping characteristics, I2t, Let-through current

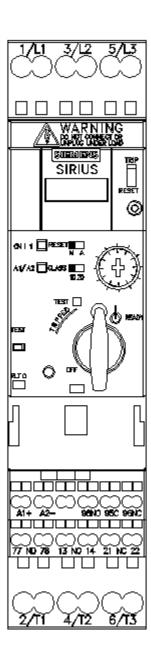
https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-2CB32/char

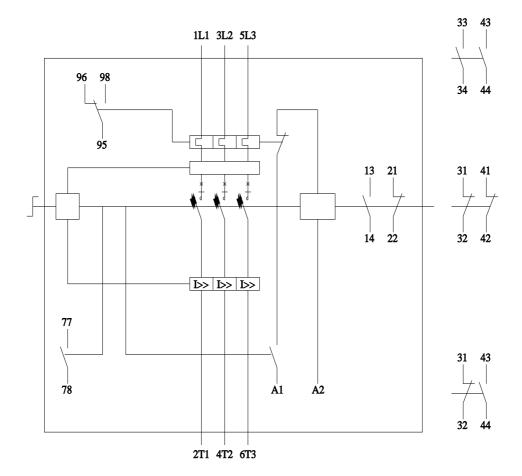
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6120-2CB32&objecttype=14&gridview=view1









last modified: 10/12/2021 🖸