SIEMENS

Data sheet

3RA6120-1AB32



SIRIUS Compact load feeder DOL starter 690 V 24 V AC/DC 50...60 Hz 0.1...0.4 A IP20 Connection main circuit: screw terminal Connection auxiliary circuit: screw terminal

15 - 215				
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 	0.01 W			
 at AC in hot operating state per pole 	0.01 W			
 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 protective separation				
 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 (operating 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 (operating 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 according to IEC 81346-2	Q			
Substance Prohibitance (Date)	05/01/2012			
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2			
Weight	1.472 kg			
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			

relative humidity during operation	10 90 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	0.1 0.4 A
formula for making capacity limit current	120 x le
formula for limit current breaking capacity	100 x le
yielded mechanical performance for 4-pole AC motor	
• at 400 V rated value	0.09 kW
• at 500 V rated value	0.12 kW
• at 690 V rated value	0.18 kW
operating voltage at AC-3 rated value maximum	690 V
operational current	
 at AC at 400 V rated value 	0.4 A
at AC-3 at 400 V rated value	0.4 A
• at AC-43	
- at 400 V rated value	0.3 A
— at 500 V rated value	0.32 A
— at 690 V rated value	0.35 A
operating power	0.00 MM
at AC-3 at 400 V rated value	0.09 kW
• at AC-43	
— at 400 V rated value	90 W
— at 500 V rated value	120 W
— at 690 V rated value	180 W
no-load switching frequency	3 600 1/h
operating frequency	
 at AC-41 according to IEC 60947-6-2 maximum 	750 1/h
 at AC-43 according to IEC 60947-6-2 maximum 	250 1/h
Control circuit/ Control	
type of voltage	AC/DC
control supply voltage 1 at AC	
• at 50 Hz rated value	24 V
• at 50 Hz	24 24 V
• at 60 Hz rated value	24 V
• at 60 Hz	24 V
control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage 1 at DC rated value	24 V
control supply voltage 1 at DC	24 24 V
holding power	
at AC maximum	2.8 W
• at DC maximum	2.9 W
Auxiliary circuit	2.0 11
	1
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
number of NO contacts of instantaneous short-circuit trip unit for signaling contact	1
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
	0.27 A
operational current of auxiliary contacts at DC-13 at 250 V	
operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions	
· · ·	CLASS 10 and 20 adjustable
Protective and monitoring functions	CLASS 10 and 20 adjustable
Protective and monitoring functions trip class	CLASS 10 and 20 adjustable 53 kA
Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics)	
Protective and monitoring functions trip class operating short-circuit current breaking capacity (lcs) • at 400 V rated value	53 kA
Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics) • at 400 V rated value • at 500 V rated value	53 kA 3 kA
Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics) • at 400 V rated value • at 500 V rated value • at 690 V rated value	53 kA 3 kA

• • • • • • • • • • • • • • • • • • •		
contact rating of auxiliary contacts according to UL contact rating of auxiliary contacts according to UL State deviating postaction contact rating of auxiliary contacts according to UL product function both circuit protection design of the function postaction of the auxiliary aution in the auxiliary aution of the	• at 480 V rated value	0.4 A
Solval Accel protection Vein product function short accurate protection electronagnetic design of that-fuse link electronagnetic • for short-facing protection of the auguing which the quarter is the short facing the server protection of the auguing switch of the auguing switch of the vortical forester required Ag UgG/400V • for short-facing protection of the auguing switch of the vortical forester required Ag UgG/400V • for short-facing protection of the auguing switch of the vortical forester required errors hort-facing protection of the auguing switch of the vortical forester required • for short-facing protection of the auguing switch of the vortical forester required errors hort-facing protection of the auguing switch of the vortical forester required • for short-facing protection of the auguing switch of the vortical forester required errors hort-facing protection of the summation of the vortical forester required • fore hard carcing protection of protectic component removable forminal for auxiliary and control circuit Yes • for auxiliary and control circuit errors hort-facing protection for real control circuit • for auxiliary and control circuit errors hort-facing protection for real control circuit • for auxiliary and control circuit errors hort-facing protection for real control circuit • for auxiliary and control circuit for horors		
product function short circuit protection Yes design of the face link face gLigG: 10 A • for short-circuit protection of the signaling solution of the solutis solutis of the solution of the solution of the solution of the	contact rating of auxiliary contacts according to UL	
design of short-clecul protection electromagnetic design of the fuse link is or short-circul protection of the auxiliary switch required fuse gL/gC: 10 A ex or short-circul protection of the algoaling switch of the algoaling switch of the design of the fuse required fuse gL/gC: 10 A ex or short-circul protection of the algoaling switch of the algoaling sw	Short-circuit protection	
design of short-circuit protection electronagnetic design of the fuse link for short-circuit protection of the auxiliary switch required fuse gL/gC 10 A e. for short-circuit protection of the signaling switch of the event of the e		Yes
design of the fuse link. is of schort-focial protocols of the auxiliary settler of the signaling suitch		electromagnetic
	· · · · · · · · · · · · · · · · · · ·	
• for short-circuit protection of the signaling switch of the overlaad relases required 4A gL/gC/400V • for short-circuit protection of the signaling switch of the overlaad relases required 4A gL/gC/400V • for short-circuit protection of the signaling switch of the overlaad relases required any mounting position recommended vertical, on horizontal standard DIN rail mounting position recommended vertical, on horizontal standard DIN rail fastantiang method 45 mm height 10 mn world of report 65 mn Connections/ Torninals For auxiliary and control circuit product component removable terminal for auxiliary and control circuit Yes • for auxiliary and control circuit screw-type terminals • for auxiliary contacts 2 (1, 5 6 mm²), 1x 10 mm² • for auxiliary contacts 2 (2, 0 14) • ordid 0 5 % • for auxiliary contacts 2 (2, 0 14) • for auxiliary contacts 2 (2, 0 14) • for auxiliary con	-	fuse aL/aG: 10 A
short-circuit release required A gLigG4400V mounting position of the signaling switch of the overclad release required any mounting position recommended serve and snap-on mounting featening method serve and snap-on mounting featening method 170 mm width 45 mm depth 165 mm connections/ Torminals Yes product component removable terminal for main circuit Yes of any anin current draut screw-hype terminals of a axiliary and control circuit screw-hype terminals of a axiliary contacts 2x (1.5 6 mm ²) o for axiliary contacts 0.5 4 mm ² , 2x (0.5 1.5 mm ²) o for axiliary contacts 0.5 4 mm ² , 2x (0.5 1.5 mm ²) o for axiliary contacts 0.5 4 mm ² , 2x (0.5 1.5 mm ²) o for axiliary contacts 0.5 4 mm ² , 2x (0.5 1.5 mm ²) o for axiliary contacts 0.5 4 mm ² , 2x (0.5 1.5 mm ²) <		
overhad release required any mounting position any mounting position recommended vertical, on horizontal standard DIN rail fastening method screw and snap-on mounting height 170 mm width 45 mm depth 165 mm Connections/ Terminals Yes product component removable terminal for main circuit Yes orthor circuit Yes type of dectrical connection screw-type terminals - for main current circuit screw-type terminals - for aducturent circuit screw-type terminals		
mounting position any mounting position recommended vertical, on horizontal standard DIN rail fastening method screw and snap-on mounting height 170 mm width 45 mm depth 165 mm Connections/Terminals product component removable terminal for auxiliary and control circuit yres order discussion order discussion screw-type terminals screw-type terminals screw-type terminals order discussion screw-type terminals screw-type terminals screw-type terminals order discussion screw-type terminals screw-type terminals screw-type terminals screw-type terminals screw-type terminals order auxiliary contacts o.5 4 mm², 2x (0.5 2.5 mm²) o for Auxiliary contacts 0.5 4 mm², 2x (0.5 2.5 mm²) o for Auxiliary contacts o.5 4 mm², 2x (0.5 1.5 mm²) o for Auxiliary contacts o.5 4 mm², 2x (0.5 1.5 mm²) o for Auxiliary contacts o.5 4 mm², 2x (0.5 1.5 mm²) o for Auxiliary contacts o.5 5 mm²		4A gL/gG/400V
mounting position recommended vertical, on horizontal standard DIN rail fastering method screw and snap-on mounting height 170 nm width 45 mm depth 165 mm Connections/Terminals Yes product component removable terminal for auxiliary and control circuit Yes of or main current circuit screw-type terminals • for naviliary and control circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • for auxiliary contracts of auxiliary contracts • for auxiliary contracts a screw-type terminals • for auxiliary contracts 0.5 4 mm ² , 1x 10 mm ² • for auxiliary contracts 0.5 4 mm ² , 2x (0.5 2.5 mm ²) • for auxiliary contracts 0.5 4 mm ² , 2x (0.5 1.5 mm ²) • for auxiliary contracts 0.5 4 mm ² , 2x (0.5 1.5 mm ²) • for auxiliary contracts 0.5 4 mm ² , 2x (0.5 1.5 mm ²) • for auxiliary contracts 0.5 4 mm ² , 2x (0.5 2.5 mm ²) • for Auxiliary contracts 0.5 4 mm ² , 2x (0.5 2.5 mm ²) • for the demand rate according to SN 31920	Installation/ mounting/ dimensions	
festening method screw and snap-on mounting height 170 mm width 45 mm depth 165 mm Connections/Torninals Yes product component removable terminal for auxiliary and control circuit Yes of or main current circuit Screw-type terminals of or main current circuit screw-type terminals of or auxiliary and control circuit screw-type terminals of or auxiliary and control circuit screw-type terminals of auxiliary and control circuit screw-type terminals of auxiliary contracts 2x (1.5 6 mm ³), 1x 10 mm ⁴ of auxiliary contracts - solid 0.5 4 mm ⁴ , 2x (0.5 2.5 mm ⁴) of auxiliary contracts 2x (2.0 1.5 mm ²) of auxiliary contracts 2x (2.0 1.5 mm ²) of auxiliary contracts 3000 000 13 auxiliard data 50 % proportion of dangerous failures 40 % with high demand rate according to SN 31920 50 % 14 value for proof test interval or service life according to SN 31920 3000 000 15 usable on protocts 20 a 16 data Screw-type terminal product function bus communication No product function bus communication No	mounting position	any
height 170 mm width 45 mm depth 155 mm product component removable terminal for auxiliary and control circuit Yes product component removable terminal for auxiliary and control circuit Yes or main current from Screw-type terminals • for main surrent from screw-type terminals • for auxiliary and control circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • for auxiliary contacts - solid • for Auxiliary contacts - solid <	mounting position recommended	vertical, on horizontal standard DIN rail
witch 45 mm depth 165 mm product component removable terminal for auxiliary and control circuit connection Yes if or ain current circuit screw-type terminals screw-type terminals screw-type terminals if or auxiliary and control circuit screw-type terminals screw-type terminals i for auxiliary contacts 2x (1.5 6 mm ²), tx 10 mm ² 2x (1.5 6 mm ²) i for auxiliary contacts - sold 0.5 4 mm ² , 2x (0.5 1.5 mm ²) of ro Auxiliary contacts - sold 0.5 25 mm ² , 2x (0.5 1.5 mm ²) of ro Auxiliary contacts - sold 0.5 25 mm ² , 2x (0.5 1.5 mm ²) of ro Auxiliary contacts - sold 0.5 4 mm ² , 2x (0.5 1.5 mm ²) of ro Auxiliary contacts 2x (20 14) Safety related data proportion of dangerous failures 40 % 50 % • with high demand rate according to SN 31920 50 % 50 % B10 value with high demand rate according to IEC 60529 100 FIT 11 value for proof test interval or service life according to IEC 60529	fastening method	screw and snap-on mounting
depth 165 mm Connections/Terminals Yes product component removable terminal for auxiliary and control circuit Yes type of discritcal connection Serve-type terminals • for main current circuit screw-type terminals • for duxiliary and control circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • for auxiliary contacts 2x (1.5 6 mm ²), 1x 10 mm ² • for auxiliary contacts 0.5 4 mm ² , 2x (0.5 2.5 mm ²) - sold 0.5 4 mm ² , 2x (0.5 1.5 mm ³) • for AlWG cables for auxiliary contacts 2x (2 14) Safety related data To AlWG cables for auxiliary contacts proptotion of dangerous failures 40 % • with high demand rate according to SN 31920 50 % 1Bito rate [T] with low demand rate according to SN 31920 50 % 1Bito rate [T] with low demand rate according to SN 31920 50 % 1Bito rate [T] with low demand rate according to SN 31920 50 % 1Bito rate [T] with low demand rate according to IEC 60529 100 FIT 1Bi	height	170 mm
Connections/Terminals product component removable terminal for main circuit Yes product component removable terminal for auxiliary and control circuit Yes type of electrical connection screw-type terminals • for auxiliary and control circuit screw-type terminals > for auxiliary and control circuit screw-type terminals • for auxiliary contocts screw-type terminals • finely stranded with core and processing 2x (1.5 8 mm ²), tx 10 mm ² > finely stranded with core and processing 0.5 4 mm ² , 2x (0.5 1.5 mm ²) • for auxiliary contacts - sold - finely stranded with core and processing 0.5 2.5 mm ²) • for AVC cables for auxiliary contacts 2x (20 14) 3detry related data	width	45 mm
product component removable terminal for main circuit Yes product component removable terminal for auxiliary and control circuit Yes type of electrical connection screw-type terminals • for main current circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • for auxiliary contacts 2x (1.5 6 mm²). 1x 10 mm² • for auxiliary contacts - solid - solid 0.5 4 mm², 2x (0.5 2.5 mm²) - fiely standed with core end processing 0.5 4 mm², 2x (0.5 15 mm²) • for auxiliary contacts 2x (2.0 14) Safety related data 0.5 4 mm², 2x (0.5 2.5 mm²) propertion of dangerous failures 0.5 4 mm², 2x (0.5 15 mm²) • with how demand rate according to SN 31920 40 % • with how demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 3000 000 failur rate [FIT] with low demand rate according to IEC 60529 IP20 protoction on the front according to IEC 60529 IP20 fuck rate [FIT] with low demand rate according to IEC 60529 IP20 fuck rate protocol No product function on the	depth	165 mm
product component removable terminal for auxiliary and control circuit Yes product component removable terminals Strew-type terminals type of electrical connection screw-type terminals * for auxiliary and control circuit screw-type terminals by end connectable conductor cross-sections of main contacts screw-type terminals * for auxiliary contacts 2x (1.5 6 mm ²), 1x 10 mm ² - solid 0.5 4 mm ² , 2x (0.5 2.5 mm ²) - mely stranded with core end processing 0.5 4 mm ² , 2x (0.5 15 mm ²) * for auxiliary contacts 2x (20 14) Safety related data proportion of dangerous failures • with low demand rate according to SN 31920 40 % • with low demand rate according to SN 31920 3000 000 failure rate [FT] with low demand rate according to SN 31920 3000 000 failure rate [FT] with low demand rate according to SN 31920 100 FIT 1920	Connections/ Terminals	
Product component removable terminal for auxiliary and control circuit Yes for main current circuit for auxiliary and control circuit for auxiliary and control circuit screw-type terminals screw-type terminals	product component removable terminal for main circuit	Yes
intervention intervention informain current circuit screw-type terminals information screw-type terminals		Yes
for main current circuit sorew-type terminals sorew-type terminals sorew-type terminals sorew-type terminals sorew-type terminals sorew-type terminals type of connectable conductor cross-sections for main contacts solid innely stranded with core end processing Zx (1.5 6 mm ³), 1x 10 mm ³ Zx (1.5 6 mm ³) Zx (1.5 2.5 mm ³) Zx (1.5 6		
• for auxiliary and control circuit sorew-bpe terminals type of connectable conductor cross-sections for main contacts 2x (1.5 6 mm²), 1x 10 mm² • finely stranded with core end processing 2x (1.5 6 mm²), 1x 10 mm² • for auxiliary contacts 2x (1.5 6 mm²), 1x 10 mm² • or auxiliary contacts 2x (1.5 6 mm²), 1x 10 mm² - solid 0.5 4 mm², 2x (0.5 2.5 mm²) - mely stranded with core end processing 0.5 2.5 mm²) • for AWG cobles for auxiliary contacts 2x (2 14) Safety rolated data proportion of dangerous failures 40 % • with high demand rate according to SN 31920 40 % • with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 50 % S120 100 FIT S120 50 % Electrical Safety protection class IP on the front according to IEC 60529 IP20 formulcation/ Protocol No product function bus communication No • AS-Interface protocol No • IO-Link protocol No	type of electrical connection	
type of connectable conductor cross-sections for main contacts 2x (1.5 6 mm²), 1x 10 mm² • solid 2x (1.5 6 mm²), 1x 10 mm² • firely stranded with core end processing 2x (1.5 6 mm²) • for auxiliary contacts 0.5 4 mm², 2x (0.5 1.5 mm²) • of auxiliary contacts 0.5 4 mm², 2x (0.5 1.5 mm²) • of AWG cables for auxiliary contacts 2x (20 14) Safety related data 900 000 proportion of dangerous failures 40 % • with low demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 50 % Sidog 100 FIT 131200 100 FIT 9700 Colon fest interval or service life according to IEC 60529 Inger-safe 00mmunication No protection sub communication No product function bus communication No product function contol circuit interface with IO link	 for main current circuit 	screw-type terminals
solid 2x (1.5 6 mm ²), 1x 10 mm ² 2x (1.5 6 mm ²), 1x 10 mm ² 2x (1.5 6 mm ²) 2x (1.5 2.5 mm ²) 4 ma ² , 2x (0.5 2.5 mm ²) 4 ma ² , 2x (0.5 1.5 mm ² , 2x (0.5 1.5 mm ²) 4 ma ² , 2x (0.5 1.5 mm ² , 2x (0.	 for auxiliary and control circuit 	screw-type terminals
• [inely stranded with core end processing 2x (1.5 6 mm²) type of connectable conductor cross-sections - solid - solid 0.5 4 mm², 2x (0.5 2.5 mm²) - finely stranded with core end processing 0.5 2.5 mm², 2x (0.5 1.5 mm²) • for AVXIG cables for auxiliary contacts 2x (20 14) Safety related data - proportion of dangerous failures • with low demand rate according to SN 31920 40 % • with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 3000 000 failure rate [FIT] with low demand rate according to SN 31920 3000 000 failure rate [FIT] with low demand rate according to SN 31920 3000 000 failure rate [FIT] with low demand rate according to IEC 60529 100 FIT 31920 50 % Electrical Safety	type of connectable conductor cross-sections for main contacts	
type of connectable conductor cross-sections for auxiliary contacts - solid - fiely standed with core end processing - finely standed with core end processing - finely standed with core end processing - finely standed with core and processing - for AWG cables for auxiliary contacts Safety related data 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 B10 value with high demand rate according to SN 31920 - Solo B10 value with high demand rate according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Ti value for proof test interval or service life according to IEC 80529 - Unit protocol - No - Unit box communication - Vo - Unit protocol - No	• solid	2x (1.5 6 mm²), 1x 10 mm²
• for auxiliary contacts solid 0.5 4 mm², 2x (0.5 2.5 mm²) finely stranded with core end processing 0.5 2.5 mm², 2x (0.5 1.5 mm²) • for AVWG cables for auxiliary contacts 2x (20 14) Safety related data	 finely stranded with core end processing 	2x (1.5 6 mm²)
	type of connectable conductor cross-sections	
finely stranded with core end processing 0.52.5 mm², 2x (0.51.5 mm²) • for AWG cables for auxiliary contacts 2x (2014) Safety related data	 for auxiliary contacts 	
• for AWG cables for auxiliary contacts 2x (20 14) Safety related data proportion of dangerous failures • with low demand rate according to SN 31920 40 % • with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to IEC 61508 100 FIT T1 value for proof test interval or service life according to IEC 61529 100 FIT grad File C 61508 20 a Electrical Safety protection class IP on the front according to IEC 60529 Inger-safe Communication/ Protocol No product function bus communication product function control circuit interface with IO link No Product function control circuit interface with IO link Electronagnetic compatibility Conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 1 kV auxiliary contacts • due to in bigh-frequency radiation according to IEC 61000-4-6 0.15-80Mhz at 10V	— solid	0.5 4 mm², 2x (0.5 2.5 mm²)
Safety related data 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 50 % B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 IEC 61508 T1 value for proof test interval or service life according to IEC 60529 Flectrical Safety protection class IP on the front according to IEC 60529 finger-safe Communication/ Protocol product function bus communication product function control circuit interface with IO link Piroduct function control circuit interface with IO link Piroduct function control circuit interface with IO link Picotomagnetic compatibility conducted interference • due to burst according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to bigh-frequency radiation according	 finely stranded with core end processing 	0.5 2.5 mm², 2x (0.5 1.5 mm²)
proportion of dangerous failures 40 % • with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 3 000 000 liect foot State (FIT) with low demand rate according to IEC 60529 20 a Electrical Safety protection on the front according to IEC 60529 IP20 product function bus communication No protocol protocol protocol is supported No No electromagnetic compatibility No IEcetromagnetic compatibility conducted interference 4 kV main contacts, 2 kV auxiliary contacts 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-earth surge according to IEC 61000-4-5	 for AWG cables for auxiliary contacts 	2x (20 14)
with low demand rate according to SN 31920 with high demand rate according to SN 31920 S0 % B10 value with high demand rate according to SN 31920 S0 % B10 value with high demand rate according to SN 31920 S0 % B10 value with high demand rate according to SN 31920 S0 % B10 value with high demand rate according to SN 31920 S0 % B10 value with high demand rate according to SN 31920 S0 % B10 value with high demand rate according to SN 31920 S0 % B10 value with high demand rate according to SN 31920 S0 % B10 value with high demand rate according to SN 31920 S0 % B10 value with high demand rate according to IEC 6050 IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 finger-safe 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 Electromagnetic compatibility conducted interference due to burst according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 due to bigh-frequency radiation according to IEC 61000- 4-6	Safety related data	
• with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 100 FIT S1920 100 FIT EIC 61508 20 a T1 value for proof test interval or service life according to IEC 60529 IP20 protection class IP on the front according to IEC 60529 IP20 touch protection on the front according to IEC 60529 IP20 protection loss communication No protect function bus communication No product function control circuit interface with IO link No product function control circuit interface with IO link No Electromagnetic compatibility Conducted Interference • due to conductor-earth surge according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000-4-5 2 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000-4-5 0.15-80Mhz at 10V	proportion of dangerous failures	
• with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 100 FIT S1920 100 FIT IEC 61508 20 a T1 value for proof test interval or service life according to IEC 60529 IP20 touch protection on the front according to IEC 60529 IP20 touch protection on the front according to IEC 60529 Inger-safe Communication/ Protocol No protect function bus communication No product function control circuit interface with IO link No product function control circuit interface with IO link No Electromagnetic compatibility Conducted interference • due to conductor-earth surge according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000-4-5 0.15-80Mhz at 10V	with low demand rate according to SN 31920	40 %
B10 value with high demand rate according to SN 31920 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 100 FIT IEC 61508 100 FIT T1 value for proof test interval or service life according to IEC 61508 20 a Electrical Safety 20 a protection class IP on the front according to IEC 60529 IP20 touch protection on the front according to IEC 60529 Ifinger-safe Communication / Protocol No product function bus communication No e AS-Interface protocol No orduct function control circuit interface with IO link No Electromagnetic compatibility No conducted interference 4 kV main contacts, 2 kV auxiliary contacts • due to burst according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 2 kV main contacts, 2 kV auxiliary contacts • due to bigh-frequency radiation according to IEC 61000-4-5 4 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000-4-5 0.15-80Mhz at 10V	-	50 %
failure rate [FIT] with low demand rate according to SN 31920 100 FIT IEC 61508 20 a T1 value for proof test interval or service life according to IEC 61508 20 a Electrical Safety 20 a protection class IP on the front according to IEC 60529 IP20 touch protection on the front according to IEC 60529 Ip20 touch protection bus communication No product function bus communication No product function control circuit interface with IO link No product function control circuit interface with IO link No Electromagnetic compatibility Conducted Interference • due to burst according to IEC 61000-4-4 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 2 kV main contacts, 1 kV auxiliary contacts • due to bigh-frequency radiation according to IEC 61000-4-6 0.15-80Mhz at 10V		3 000 000
IEC 61508 20 a T1 value for proof test interval or service life according to IEC 61508 20 a Electrical Safety 20 a protection class IP on the front according to IEC 60529 IP20 touch protection on the front according to IEC 60529 Ip20 communication/ Protocol Image: safe product function bus communication No protocol is supported • AS-Interface protocol • AS-Interface protocol No product function control circuit interface with IO link No Electromagnetic compatibility Conducted interference • due to burst according to IEC 61000-4-4 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 2 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000- 4-6 0.15-80Mhz at 10V	failure rate [FIT] with low demand rate according to SN	
T1 value for proof test interval or service life according to IEC 20 a 61508 Electrical Safety protection class IP on the front according to IEC 60529 IP20 touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol No product function bus communication No protocol is supported No • AS-Interface protocol No product function control circuit interface with IO link No product durefrence No • due to burst according to IEC 61000-4-4 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000- 4-6 0.15-80Mhz at 10V		
Electrical Safety IP20 protection class IP on the front according to IEC 60529 IP20 function protection on the front according to IEC 60529 finger-safe Communication/Protocol No product function bus communication No protocol is supported No • AS-Interface protocol No • IO-Link protocol No product function control circuit interface with IO link No Product dinterference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 2 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000-4-5 0.15-80Mhz at 10V	T1 value for proof test interval or service life according to IEC	20 a
protection class IP on the front according to IEC 60529 IP20 touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol No product function bus communication No protocol is supported No • AS-Interface protocol No product function control circuit interface with IO link No product function control circuit interface with IO link No Electromagnetic compatibility Conducted interference • due to burst according to IEC 61000-4-4 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000- 4-6 0.15-80Mhz at 10V		
touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol No product function bus communication No protocol is supported No • AS-Interface protocol No • IO-Link protocol No product function control circuit interface with IO link No Product function control circuit interface with IO link No Electromagnetic compatibility Conducted interference • due to burst according to IEC 61000-4-4 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000-4-6 0.15-80Mhz at 10V		1020
Communication/ Protocol No product function bus communication No protocol is supported No • AS-Interface protocol No • IO-Link protocol No product function control circuit interface with IO link No Electromagnetic compatibility No conducted interference 4 kV main contacts, 2 kV auxiliary contacts • due to burst according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-cenductor surge according to IEC 61000-4-5 2 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000-4-6 0.15-80Mhz at 10V	C	
product function bus communication No protocol is supported		
protocol is supported No • AS-Interface protocol No • IO-Link protocol No product function control circuit interface with IO link No Electromagnetic compatibility Conducted interference • due to burst according to IEC 61000-4-4 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-earth surge according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000-4-6 0.15-80Mhz at 10V		
 AS-Interface protocol IO-Link protocol IO-Link protocol No product function control circuit interface with IO link No Electromagnetic compatibility conducted interference due to burst according to IEC 61000-4-4 4 kV main contacts, 2 kV auxiliary contacts due to conductor-earth surge according to IEC 61000-4-5 due to conductor surge according to IEC 61000-4-5 due to high-frequency radiation according to IEC 61000- 4.6 		NO
• IO-Link protocolNoproduct function control circuit interface with IO linkNoElectromagnetic compatibilityconducted interference• due to burst according to IEC 61000-4-44 kV main contacts, 2 kV auxiliary contacts• due to conductor-earth surge according to IEC 61000-4-54 kV main contacts, 2 kV auxiliary contacts• due to conductor-conductor surge according to IEC 61000-4-52 kV main contacts, 1 kV auxiliary contacts• due to high-frequency radiation according to IEC 61000-0.15-80Mhz at 10V		
product function control circuit interface with IO link No Electromagnetic compatibility conducted interference due to burst according to IEC 61000-4-4 due to conductor-earth surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 due to high-frequency radiation according to IEC 61000-4-6 0.15-80Mhz at 10V 		
Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-earth surge according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge according to IEC 61000-4-5 2 kV main contacts, 1 kV auxiliary contacts • due to high-frequency radiation according to IEC 61000-4-6 0.15-80Mhz at 10V	· · · · · · · · · · · · · · · · · · ·	
conducted interference due to burst according to IEC 61000-4-4 due to conductor-earth surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 due to high-frequency radiation according to IEC 61000-4-6 0.15-80Mhz at 10V	· ·	No
 due to burst according to IEC 61000-4-4 due to conductor-earth surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 due to high-frequency radiation according to IEC 61000-4-5 0.15-80Mhz at 10V 	Electromagnetic compatibility	
 due to conductor-earth surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 due to high-frequency radiation according to IEC 61000-4-6 4 kV main contacts, 2 kV auxiliary contacts 2 kV main contacts, 1 kV auxiliary contacts 0.15-80Mhz at 10V 	conducted interference	
 due to conductor-conductor surge according to IEC 61000-4-5 due to high-frequency radiation according to IEC 61000- 4-6 2 kV main contacts, 1 kV auxiliary contacts 0.15-80Mhz at 10V 	 due to burst according to IEC 61000-4-4 	4 kV main contacts, 2 kV auxiliary contacts
61000-4-5 • due to high-frequency radiation according to IEC 61000- 4-6 0.15-80Mhz at 10V	 due to conductor-earth surge according to IEC 61000-4-5 	4 kV main contacts, 2 kV auxiliary contacts
4-6		2 kV main contacts, 1 kV auxiliary contacts
field-based interference according to IEC 61000-4-3 10 V/m		0.15-80Mhz at 10V
	field-based interference according to IEC 61000-4-3	10 V/m

electrostatic discharg	e according to IEC 6100	00-4-2 8	kV			
conducted HF interference emissions according to CISPR11		ing to 1	150 kHz 30 MHz Class A			
field-bound HF interfe	erence emission accord	ing to CISPR11 3	0 1000 MHz Class A			
upply voltage						
Supply voltage requir	ed Auxiliary voltage	N	lo			
isplay						
number of LEDs		2				
pprovals Certificates						
General Product App	roval					
	UK CA	CE EG-Konf.	<u>Confirmation</u>	(U) U	EHC	
EMV	Functional Saftey	Test Certificates	Marine / Shipping	other	Dangerous goods	
RCM	DE	Type Test Certific ates/Test Report		<u>Confirmation</u>	Transport Information	
Environment						
Environmental Con- firmations						
urther information						
Information on the pa	ckaging					

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA6120-1AB32

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6120-1AB32

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-1AB32

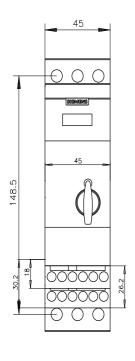
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

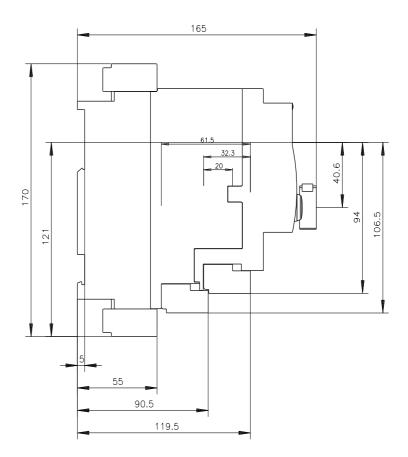
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6120-1AB32&lang=en

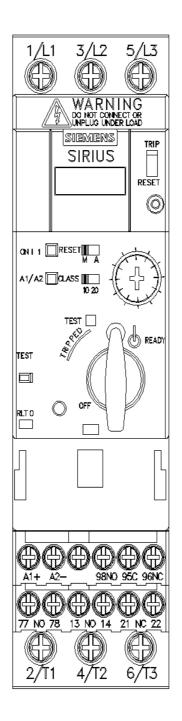
Characteristic: Tripping characteristics, I²t, Let-through current

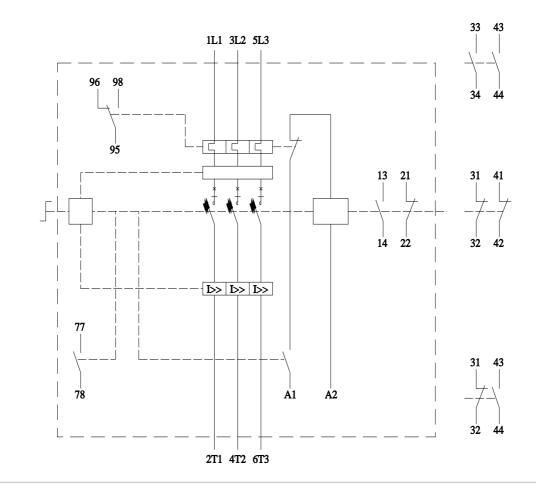
https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-1AB32/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6120-1AB32&objecttype=14&gridview=view1









last modified:

3/11/2024 🖸