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

| 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/s ² ; 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- | 0.1 0.4 A |
| dependent overload release | |
| 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 | |
| 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 | 0 000 1111 |
| 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 | 250 1/11 |
| | ACIDO |
| type of voltage | AC/DC |
| control supply voltage 1 at AC | 04)/ |
| 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 | |
| number of NC contacts for auxiliary contacts | 1 |
| number of NO contacts for auxiliary contacts | 1 |
| | 1 |
| number of NO contacts of instantaneous short-circuit trip unit for signaling contact | <u>'</u> |
| | 1 |
| signaling contact number of CO contacts of the current-dependent overload | |
| signaling contact number of CO contacts of the current-dependent overload release for signaling contact | 1 |
| signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum | 1 10 A |
| signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V | 1 10 A |
| signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions | 1 10 A 0.27 A |
| signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions trip class | 1 10 A 0.27 A |
| signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics) | 1 10 A 0.27 A CLASS 10 and 20 adjustable |
| signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics) • at 400 V rated value | 1 10 A 0.27 A CLASS 10 and 20 adjustable 53 kA |
| signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V 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 | 1 10 A 0.27 A CLASS 10 and 20 adjustable 53 kA 3 kA |
| signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum operational current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions trip class operating short-circuit current breaking capacity (Ics) • at 400 V rated value • at 500 V rated value | 1 10 A 0.27 A CLASS 10 and 20 adjustable 53 kA 3 kA |

| a di 80 V rated value b (400 V rated value contact rating of auxiliary contacts according to UL contact rating of auxiliary contacts according to UL contacts 85-85-98 8-300 / 0300 Short-directly protection design of abort-circuit protection b (400 V rate lank b (400 v protection) b (400 v product functional protection of the auxiliary switch required b (400 v protection) b (400 v pr | | |
|--|--|---|
| contact rating of auxiliary contacts according to UL Short-Cervill protection product function abort circuit protection design of short-circuit protection of the auxiliary switch of the occurrence of the special protection of the signaling switch of the occurrence protection occurrence occurrence protection occurrence o | at 480 V rated value | 0.4 A |
| Short-circuit profection product function short circuit protection design of the fuse link * or non-circuit protection design of the fuse link * or non-circuit protection of the auxiliary switch required * or short-circuit protection of the signaling switch of the short-circuit refrestence of the signaling switch of the short-circuit refrestence of the signaling switch of the coverfood refease required * or short-circuit protection of the signaling switch of the coverfood refease required * or short-circuit protection of the signaling switch of the coverfood refease required * or short-circuit protection of the signaling switch of the coverfood refease required * or short-circuit protection of the signaling switch of the coverfood refease required * or short-circuit protection of the signaling switch of the coverfood refease required * or short-circuit protection of the signaling switch of the coverfood refease required * or short-circuit protection of the signaling switch of the coverfood refease required * or short-circuit protection of the signaling switch of the coverfood refease required * or non-circuit removable terminal for main circuit vice of consultary and control circuit vice of consultary contexts * or or auxiliary and control circuit vice of consultary contexts * or or auxiliary contexts * or or auxiliary contexts * or or or auxiliary contexts * or or auxiliary contexts * or or or auxiliary contexts * or | | |
| Short-Circuit protection Yes | contact rating of auxiliary contacts according to UL | |
| product functions short circuit protection design of short-circuit protection elsoring of the fuse link • for short-circuit protection of the auxiliary switch required 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 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 short-circuit release required 1 | Short-circuit protection | Contacts 55-50-50 (Coto) D500 |
| 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 mounting obstition mounting position mounting position recommended screw and snap-or mounting screw-year and snap-or mounting year or successive screw and snap-or mounting screw-year and snap-or mounting year or successive screw-year and snap-or mounting year or successive screw-year and snap-or mounting year or successive screw-year screw-y | | Voe |
| design of the fuse link of on the fording protection of the suxillary switch required of on the fording protection of the signaling switch of the short received of the short r | | - 17 |
| in or short-circular protection of the auraliary switch required short-circular release required release required short-circular release release required short-circular release rele | | electionagnetic |
| • for short-circult protection of the signaling switch of the short-circult protection of the signaling switch of the overlad of release required • for short-circuit protection of the signaling switch of the overlad of release required immuniting deminations mounting position any mounting position recommended vertical, on horizontal standard DIN rall fastering method screw and snap-on mounting health of the signaling series and snap-on mounting health of the series and snap-on mounting heap-on mounti | | fund at /aCt 10 A |
| short-circuit release required Installation mounting delease required Installation mounting position mounting position recommended fasting method fasting method serviced, on horizontal standard DIN rail fasting method service and snap-on mounting fine mounting position mounting position recommended service and snap-on mounting fine mounting position width depth 170 mm width 45 mm depth Formalis product component removable terminal for main circuit yes product component removable terminal for auxiliary and view of commendation of or main current circuit of auxiliary and control circuit serve-type terminals yes of concelable conductor cross-sections for main contacts oild inely stranded with core end processing type of connectable conductor cross-sections of rawling vanidation of vanidatio | | * * |
| revietad release required Installation muniting dimensions mounting position mounting position recommended screw and snap-on mounting statening method state in method screw and snap-on mounting statening method screw and snap-on mounting statening method statening method statening method statening method statening method screw-type terminals screw-type te | | oA gL/gG/400V |
| mounting position recommended vertical, on horizontal standard DIN rail statening method screw and snap-on mounting width 45 mm depth 165 mm Connections/Terminals product component removable terminal for main circuit yee's product component removable terminal for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary and control circuit • for on auxiliary and control circuit Vipe of connectable conductor cross-sections • for auxiliary contacts - solid 2x (1.5 6 mm²), 1x 10 mm² 2x (1.5 6 mm²) 1x | | 4A gL/gG/400V |
| mounting position recommended fasting method screw and snap-on mounting height 170 mm width 45 mm depth 165 mm Connections/ Torminus product component removable terminal for main circuit yes product component removable terminal for auxiliary and control circuit for main current circuit for main current circuit for main current circuit for main current circuit for auxiliary and control circuit for auxiliary conductor cross-sections for auxiliary contacts for auxiliary | Installation/ mounting/ dimensions | |
| fastening method height from the connections i Terminals product component removable terminal for main circuit product component removable terminal for auxiliary and control circuit product component removable terminal for auxiliary and control circuit sorew-bye terminals product component removable terminal for auxiliary and control circuit sorew-bye terminals for auxiliary and control circuit sorew-bye terminals sorew-b | mounting position | any |
| height width 45 mm depth 155 mm Connections/ Terminals 165 mm product component removable terminal for main circuit yes product component removable terminal for auxiliary and control circuit yes of electrical connection • for main current circuit screw-type terminals screw-type terminals screw-type terminals screw-type terminals screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary and control circuit screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary and control circuit screw-type terminals (1,5 6 mm²), 1x 10 mm² • for low stranded with core end processing 2x (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • for auxiliary contacts screw-type terminals (1,5 6 mm²), 1x 10 mm² • with high demand rate according to SN 31920 screw-type terminals (1,5 6 mm²), 1x 10 mm² • with high demand rate according to SN 31920 screw-type terminals (1,5 6 mm²), 1x 10 mm² • with high demand rate according to SN 31920 screw-type terminals (1,5 6 mm²), 1x 10 mm² • with high demand rate according to SN 31920 screw-type terminals (1,5 6 mm²), 1x 10 mm² • with high demand rate according to SN 31920 screw-type terminals (1,5 | mounting position recommended | vertical, on horizontal standard DIN rail |
| width depth 45 mm 105 mm | fastening method | screw and snap-on mounting |
| depth Connections / Terminals Yes | height | 170 mm |
| Connections/ Terminals product component removable terminal for main circuit yes product component removable terminal for auxiliary and control circuit if yop of electrical connection • for main current circuit • for auxiliary and control circuit • solid • finely stranded with core end processing • for auxiliary contacts • solid — finely stranded with core end processing • for fauxiliary contacts — solid — finely stranded with core end processing • for favic cables for auxiliary contacts • solid — finely stranded with core end processing • for favic cables for auxiliary contacts • with ingly demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 100 FIT 11 value for proof test interval or service life according to IEC 61000 11 Value for proof test interval or service life according to IEC 61000 protocol is supported • AS-Interface protocol • (AS-Interface protocol • (AS-Interface) control circuit interface with IO link Electromagnetic compatibility conducted interference • due to bust according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-6 • due to bust according to IEC 61000-4-7 • due to high-frequency radiation according to IEC 61000-4-6 | | 45 mm |
| Connections/ Terminals product component removable terminal for main circuit yes product component removable terminal for auxiliary and control circuit if yop of electrical connection • for main current circuit • for auxiliary and control circuit • solid • finely stranded with core end processing • for auxiliary contacts • solid — finely stranded with core end processing • for fauxiliary contacts — solid — finely stranded with core end processing • for favic cables for auxiliary contacts • solid — finely stranded with core end processing • for favic cables for auxiliary contacts • with ingly demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 100 FIT 11 value for proof test interval or service life according to IEC 61000 11 Value for proof test interval or service life according to IEC 61000 protocol is supported • AS-Interface protocol • (AS-Interface protocol • (AS-Interface) control circuit interface with IO link Electromagnetic compatibility conducted interference • due to bust according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-6 • due to bust according to IEC 61000-4-7 • due to high-frequency radiation according to IEC 61000-4-6 | depth | 165 mm |
| 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 contacts • solid • finely stranded with core end processing • for AVG cables for auxiliary contacts • solid • finely stranded with core end processing • for AVG cables for auxiliary contacts • solid • finely stranded with core end processing • for AVG cables for auxiliary contacts • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high 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 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 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 demand rate according to IEC 60529 Figure 1 | <u> </u> | |
| product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit screw-type terminals screw-type terminals screw-type terminals 2x (1,5 6 mm²), 1x 10 mm² 2x (1,5 6 mm²) 1xpe of connectable conductor cross-sections • for auxiliary contacts — solid — finely stranded with core end processing • for AWG cables for auxiliary contacts 2x (20 14) 2x (20 15 mm²) 3x (20 15 mm²) 4x (20 15 mm²) 5x (20 15 mm²) 4x (20 14) 2x (20 15 mm²) 4x (20 15 mm²) 4x (20 15 mm²) 5x (20 15 mm²) 6x (20 15 mm²) 7x (20 15 mm²) 1x (20 14) 2x (20 15 mm²) 4x (20 15 mm²) 5x (20 15 mm²) 7x (20 15 mm²) | | Yes |
| control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit • solid • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts • solid • finely stranded with core end processing • for cauxiliary contacts • solid • finely stranded with core end processing • for AWG cables for auxiliary contacts • solid • finely stranded with core end 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 • 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 • failure rate [FIT] with low demand rate according to SN 31920 • failure rate [FIT] with low demand rate according to IEC 61508 Tri value for proof test interval or service life according to IEC 61508 Tri value for proof test interval or service life according to 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 • IO-Link protocol product function control circuit interface with IO link No Value to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-6 • due to conductor-conductor surge according to IEC 61000-4-6 • due to conductor-conductor surge according to IEC 61000-4-6 • due to conductor-conductor surge according to IEC 61000-4-6 • due to conductor-conductor surge according to IEC 61000-4-6 • due to conductor-conductor surge according to IEC 61000-4-6 • due to conductor-conductor surge accor | | |
| • for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary and control circuit • finely stranded with core end processing • 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 • for AWG cables for auxiliary contacts Safety rolated 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 100 FIT 11 value for proof test interval or service life according to IEC 61508 T1 value for proof test interval or service life according to IEC 61508 T1 value for proof test interval or service life according to IEC 61509 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 • IO-Link protocol product function control circuit interface with IO link No IO-Link protocol No IO-Link protocol No IO-Link protocol One the forman according to IEC 61000-4-5 Out to conductor-conductor surge according to IEC 61000-4-5 Out to to injury frequency radiation according to IEC 61000-4-5 Out to to onductor-conductor surge according to IEC 61000-4-5 Out to to onductor-conductor surge according to IEC 61000-4-5 Out to conductor-conductor surge according to IEC 61000-4-5 Out to to onductor-conductor surge according to IEC 61000-4-5 Out to to onductor-conductor surge according to IEC 61000-4-5 Out to to onductor-conductor surge according to IEC 61000-4-5 Out to | | |
| For auxiliary and control circuit Screw-type terminals Screw-type terminals | type of electrical connection | |
| type of connectable conductor cross-sections for main contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid — finely stranded with core end processing • for AWG cables for auxiliary contacts • for auxiliary contacts — solid — finely stranded with core end processing • for AWG cables for auxiliary contacts • for AWG cables for auxiliary contacts • for AWG cables for auxiliary contacts • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with 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 IEC 61508 T if value for proof test interval or service life according to IEC 61508 T if value for proof test interval or service life according to IEC 60529 protection class IP on the front according to IEC 60529 finger-safe communication/ Protecol product function bus communication No protector low supported • AS-Interface protocol • (IO-Link protocol) No O-Link protocol Protocol No O-Link protocol No O-Link protocol No O-Link protocol No O-Link protocol No O-Link protocol With main contacts, 2 kV auxiliary contacts With main contacts | for main current circuit | screw-type terminals |
| • solid • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid — finely stranded with core end processing • for auxiliary contacts — solid — finely stranded with core end processing • for AWG cables for auxiliary contacts 2x (20 14) Safoty related data proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 100 FIT 31920 IEC 61508 T1 value for proof test interval or service life according to IEC 61508 T1 value for proof test interval or service life according to IEC 61508 Communication/ Protocol product function bus communication protocol is supported • AS-interface protocol • (O-Link protocol 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 high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC | for auxiliary and control circuit | screw-type terminals |
| • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid - finely stranded with core end processing • for AWG cables for auxiliary contacts 2x (20 4 mm², 2x (0.5 2.5 mm²) • for AWG cables for auxiliary contacts 2x (20 14) Safety related data proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 IEC 61508 T1 value for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 IP20 touch protection on the front according to IEC 60529 product function bus communication protocol is supported • A-S-Interface protocol product function control circuit interface with IO link No IO-Link protocol Di-Link protocol Di-Link protocol Di-Link protocol No No No One | type of connectable conductor cross-sections for main contacts | |
| • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid — finely stranded with core end processing • for AWG cables for auxiliary contacts 2x (20 14) Safety related data proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 IEC 61508 T1 value for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 Ip 20 Industry related data Proportion of dangerous failures • with low demand rate according to SN 31920 3 000 000 1aliure rate [FIT] with low demand rate according to IEC 61508 Electrical Safety Protection class IP on the front according to IEC 60529 Ip 20 In a supported on the front according to IEC 60529 Ip 20 In a supported on the front according to IEC 60529 Ip 20 In a supported on the front according to IEC 60529 Ip 20 In a supported on the front according to IEC 60529 Ip 20 In a supported on the front according to IEC 60529 Ip 20 In a supported on the front according to IEC 60529 In a supported on the front according to IEC 60529 In a supported on the front according to IEC 60529 In a supported on the front according to IEC 60529 In a supported on the front according to IEC 60529 In a supported on the front according to IEC 6000-4-5 In a supported on the front according to IEC 6000-4-5 In a supported on the front according to IEC 6000-4-5 In a supported on the front according to IEC 6000-4-5 In a supported on the front according to IEC 6000-4-5 In a supported on the front according to IEC 6000-4-5 In a supported on the front according to IEC 6000-4-5 In a supported on the front according to IEC 6000-4-5 In a supported on the front according to IEC 6000-4-5 In a supported on the front according to IEC 6000-4-5 In a supported on the front accordin | • solid | 2x (1.5 6 mm²), 1x 10 mm² |
| • for auxiliary contacts • for auxiliary contacts — solid — finely stranded with core end processing • for AWG cables for auxiliary contacts 2x (20 14) Safety related data proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 B10 value with high of mand rate according to SN 31920 B10 value for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol product function bus communication protocol is supported • AS-Interface protocol • IO-Link protocol product function control circuit interface with IO link Producted interference • due to burst according to IEC 61000-4-5 • 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 • due to high-frequency radiation according to IEC 61000-4-5 • due to high-frequency radiation according to IEC 61000-4-5 • due to high-frequency radiation according to IEC 61000-4-5 • due to high-frequency radiation according to IEC 61000-4-6 • O.15-80Mhz at 10V | finely stranded with core end processing | |
| • for auxiliary contacts — solid — finely stranded with core end processing — for AWG cables for auxiliary contacts 2x (20 14) Safety rotated data proportion of dangerous failures • with low 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 61508 T1 value for proof test interval or service life according to IEC 60529 protection class IP on the front according to IEC 60529 formunication/ Protocol Protocol is supported • AS-Interface protocol • IO-Link protocol product function bus communication | | |
| - solid - finely stranded with core end processing 0.5 2.5 mm², 2x (0.5 2.5 mm²) • 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 100 FIT saliure rate [FIT] with low demand rate according to SN 31920 100 FIT 11 value for proof test interval or service life according to IEC 61508 T1 value for proof test interval or service life according to IEC 61508 T1 value for proof test interval or service life according to IEC 60529 100 FIT selectrical Safety protection class IP on the front according to IEC 60529 100 FIP20 touch protection on the front according to IEC 60529 100 FIP20 touch protection on the front according to IEC 60529 100 FIP20 100 FIP | | |
| - finely stranded with core end processing • for AWG cables for auxiliary contacts 2x (20 14) Safety related data proportion of dangerous failures • with low 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 100 FIT 31920 IEC 61508 T1 value for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol product function bus communication No protocol is supported • AS-Interface 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-centructor surge according to IEC 61000-4-5 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-7 • due to high-frequency radiation according | • | 0.5 4 mm ² 2v (0.5 2.5 mm ²) |
| • 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 B10 value 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 IEC 61508 T1 value for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol product function bus communication No protocol is supported • AS-Interface protocol • IO-Link protocol product function control circuit interface with IO link Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to bigh-frequency radiation according to IEC 61000-4-6 • due to bigh-frequency radiation according to IEC 61000-4-6 • due to bigh-frequency radiation according to IEC 61000-4-6 • due to bigh-frequency radiation according to IEC 61000-4-6 • due to bigh-frequency radiation according to IEC 61000-4-6 • due to bigh-frequency radiation according to IEC 61000-4-6 • due to bigh-frequency radiation according to IEC 61000-4-6 • due to bigh-frequency radiation according to IEC 61000-4-6 • due to bigh-frequency radiation according to IEC 61000-4-6 • due to bigh-frequency radiation according to IEC 61000-4-6 | | |
| 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 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 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol product function bus communication No protocol is supported • AS-Interface protocol No product function control circuit interface with IO link No Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-5 • 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 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 | | |
| proportion of dangerous failures • with low 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 3 000 000 failure rate [FIT] with low demand rate according to SN 31920 100 FIT 31920 IEC 61508 T1 value for proof test interval or service life according to 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 • IO-Link protocol product function control circuit interface with IO link No Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-5 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 | | 24 (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 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 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 formunication/ Protocol product function bus communication No protocol is supported AS-Interface protocol No iO-Link protocol product function control circuit interface with IO link 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 high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-6 due to high-frequency radiation according to IEC 61000-4-5 due to high-frequency radia | | |
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| B10 value with high demand rate according to SN 31920 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 IEC 61508 T1 value for proof test interval or service life according to IEC 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 product function bus communication No protocol is supported AS-Interface protocol No i 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 due to conductor-conductor surge according to IEC 61000-4-5 due to high-frequency radiation according to IEC 61000-4-6 due to | _ | |
| 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 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol product function bus communication No protocol is supported • 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 • due to high-frequency radiation according to IEC 61000-4-6 • O.15-80Mhz at 10V | | |
| IEC 61508 T1 value for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection 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 No Electromagnetic compatibility conducted interference • due to burst according to IEC 61000-4-5 • due to conductor-centuctor surge according to IEC 61000-4-5 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • 0.15-80Mhz at 10V | | |
| T1 value for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol product function bus communication protocol is supported • AS-Interface protocol • IO-Link protocol 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-carth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 | 31920 | 100 FIT |
| Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol product function bus communication protocol is supported • AS-Interface protocol • IO-Link protocol 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 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 | | 20.0 |
| protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe Communication/ Protocol product function bus communication No protocol is supported • AS-Interface protocol • IO-Link protocol 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 high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • O.15-80Mhz at 10V | 61508 | 2U d |
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| product function bus communication protocol is supported • AS-Interface protocol • IO-Link protocol 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 high-frequency radiation according to IEC 61000-4-6 • due to high-frequency radiation according to IEC 61000-4-6 • O.15-80Mhz at 10V | <u> </u> | |
| product function bus communication protocol is supported • AS-Interface protocol • IO-Link protocol 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 high-frequency radiation according to IEC 61000- 4-6 | | iiiiger-sare |
| protocol is supported • AS-Interface protocol • IO-Link protocol product function control circuit interface with IO link 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 high-frequency radiation according to IEC 61000- 4-6 | | |
| AS-Interface protocol No IO-Link protocol 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 high-frequency radiation according to IEC 61000- 4-6 No No No AkV main contacts, 2 kV auxiliary contacts 4 kV main contacts, 2 kV auxiliary contacts 2 kV main contacts, 1 kV auxiliary contacts 0.15-80Mhz at 10V 0.15-80Mhz at 10V | • | No |
| ● IO-Link protocol product function control circuit interface with IO link 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 ● due to high-frequency radiation according to IEC 61000-4-6 | | |
| product function control circuit interface with IO link 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 high-frequency radiation according to IEC 61000- 4-6 | AS-Interface protocol | |
| 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 • due to high-frequency radiation according to IEC 61000-4-6 | · | |
| 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 61000-4-6 | 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 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 | 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 |
| • due to high-frequency radiation according to IEC 61000- 4-6 | | 2 kV main contacts, 1 kV auxiliary contacts |
| 4-6 | | |
| tield-based interference according to IEC 61000-4-3 | 4-6 | |
| | field-based interference according to IEC 61000-4-3 | 10 V/m |

| electrostatic discharge according to IEC 61000-4-2 | 8 kV | |
|---|------------------------|--|
| conducted HF interference emissions according to CISPR11 | 150 kHz 30 MHz Class A | |
| field-bound HF interference emission according to CISPR11 | 30 1000 MHz Class A | |
| Supply voltage | | |
| Supply voltage required Auxiliary voltage | No | |
| Display | | |
| number of LEDs | 2 | |
| Approvals Certificates | | |
| | | |

General Product Approval







Confirmation





EMV Functional Saftey

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report







other Dangerous goods Environment

Confirmation Transport Information

Environmental Confirmations

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=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, ...)

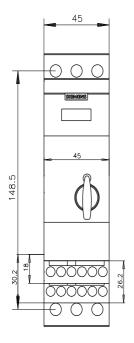
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6120-1AB32&lang=en

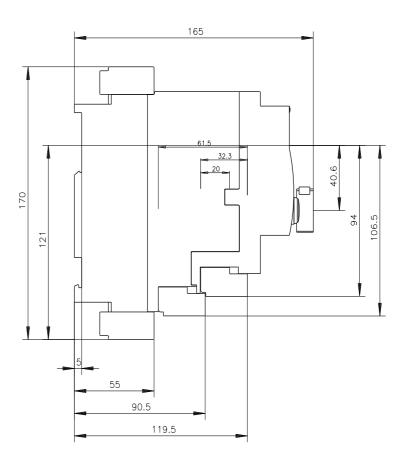
Characteristic: Tripping characteristics, I²t, Let-through current

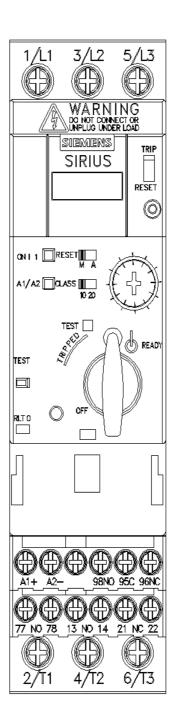
https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-1AB32/char

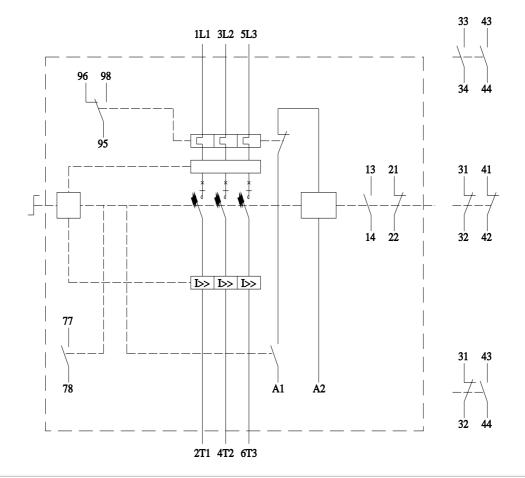
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6120-1AB32&objecttype=14&gridview=view1









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