SIEMENS

Data sheet 3RA6120-1EB32



SIRIUS Compact load feeder DOL starter 690 V 24 V AC/DC 50...60 Hz 8...32 A IP20 Connection main circuit: screw terminal Connection auxiliary circuit: screw terminal

| product designation compact starter design of the product product type designation 3RA61 General technical data 7ees product function control circuit interface to parallel wiring product extension auxiliary switch Yes power loss [W] for rated value of the current at AC in hot operating state 5.4 W e per pole 1.8 W power loss [W] for rated value of the current without load current share typical insulation voltage rated value 690 V degree of pollution 3 surge voltage resistance rated value 690 V degree of pollution 3 surge voltage resistance rated value 600 V edgree of pollution 3 surge voltage resistance rated value 600 V ebetween amin and auxiliary circuit 250 V between control and auxiliary circuit 300 V degree of protection NEMA rating 300 V shock resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes vibration resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes wibration resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes of the signaling contacts typical <td< th=""><th>product brand name</th><th>SIRIUS</th></td<> | product brand name | SIRIUS |
|--|---|---|
| product type designation General technical data product function control circuit interface to parallel wiring product extension auxiliary switch Yes power loss [W] for rated value of the current at AC in hot operating state • per pole 1.8 W power loss [W] for rated value of the current without operating state • per pole 2.8 W power loss [W] for rated value of the current without load current share typical 3.5 W insulation voltage rated value 699 V degree of pollution 3 surge voltage resistance rated value 6000 V maximum permissible voltage for safe isolation • between main and auxiliary circuit 400 V • between control and auxiliary circuit 250 V • between control and auxiliary circuit 300 V degree of protection NEMA rating other shorter of the main contacts typical a fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s², 10 cycles fet 4 5.8 Hz, d= 15 mm; f= 5.8 . | product designation | compact starter |
| product function control circuit interface to parallel wiring product extension auxiliary switch Yes operating state o per pole power loss [W] for rated value of the current at AC in hot operating state o per pole power loss [W] for rated value of the current without load current share typical insulation voltage rated value degree of pollution o between main and auxiliary circuit between auxiliary and auxiliary circuit between control and auxiliary circuit between control and auxiliary circuit between resistance vibration resistance mechanical service life (switching cycles) of the main contacts typical of auxiliary contacts typical of the signaling contacts typical of auxiliary contacts of the alt 24 V typical of auxiliary contacts of the A at 230 V typical of auxiliary contacts of at AC-15 at 6 A at 230 V typical of auxiliary contacts of at SC-15 at 6 A at 230 V typical of auxiliary contacts of at AC-15 at 6 A at 230 V typical of auxiliary contacts of at AC-15 at 6 A at 230 V typical of at AC-15 at 6 A at 230 V typical of auxiliary contacts of at AC-15 at 6 A at 230 V typical of auxiliary contacts ordinous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) Amblent conditions installation altitude at height above sea level maximum amblent temperature oduring operation -20 +60 °C | design of the product | direct starter |
| product function control circuit interface to parallel wiring product extension auxiliary switch yes 5.4 W | product type designation | 3RA61 |
| product extension auxillary switch power loss [W] for rated value of the current at AC in hot operating state | General technical data | |
| power loss [W] for rated value of the current at AC in hot operating state • per pole power loss [W] for rated value of the current without load current share typical insulation voltage rated value degree of pollution surge voltage resistance rated value • between main and auxiliary circuit • between main and auxiliary circuit • between control and auxiliary circuit • a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles mechanical service life (switching cycles) • of the main contacts typical • of the signaling contacts typical • of auxiliary contacts typical • of the signaling contacts typical • of auxiliary contacts • at DC-13 at 6 A at 24 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 | product function control circuit interface to parallel wiring | Yes |
| operating state • per pole power loss [W] for rated value of the current without load current share typical insulation voltage rated value degree of pollution surge voltage resistance rated value maximum permissible voltage for safe isolation • between main and auxiliary circuit • between main and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • between omit of auxiliary circuit • between ontrol and auxiliary circuit • between ontrol and auxiliary circuit • between control and auxiliary circuit • bother shock resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical • of the signaling contacts typical • of the signaling contacts typical • of the signaling contacts typical • at DC-13 at 6 A at 24 V typical • at AC-15 at 6 A at 230 V typical | product extension auxiliary switch | Yes |
| power loss [W] for rated value of the current without load current share typical insulation voltage rated value degree of pollution surge voltage resistance rated value • between main and auxiliary circuit • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between control and auxiliary circuit • of protection NEMA rating • aloo 00 00 • for a sistance • fe 4 5.8 Hz, d= 15 mm; fe 5.8 500 Hz, a= 20 m/s²; 10 cycles mechanical service life (switching cycles) • of the main contacts typical • of the signaling contacts typical • at DC-13 at 6 A at 24 V typical • at DC-13 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 240 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at | | 5.4 W |
| insulation voltage rated value degree of pollution surge voltage resistance rated value maximum permissible voltage for safe isolation | • per pole | 1.8 W |
| degree of pollution surge voltage resistance rated value 6 000 V maximum permissible voltage for safe isolation • between main and auxiliary circuit • between auxiliary and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit 300 V degree of protection NEMA rating shock resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes vibration resistance f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical • of the signalling contacts typical • of the signalling contacts typical electrical endurance (switching cycles) of auxiliary contacts • at DC-13 at 6 A at 24 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • of assignment continous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Substance Prohibitance (Date) installation altitude at height above sea level maximum ambient temperature • during operation -20 +60 °C | | 3.5 W |
| surge voltage resistance rated value maximum permissible voltage for safe isolation • between main and auxiliary circuit • between control and auxiliary circuit • between control NEMA rating shock resistance vibration resistance mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical • of the signaling contacts typical • at DC-13 at 6 A at 24 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at AC-15 at 6 A at 230 V typical • at C-15 at 6 A at 24 V typical • at AC-15 at 6 A at 24 V typical • at AC-15 at 6 A at 250 V typical • at AC-15 at 6 A at 250 V typical verification altitude at height above sea level maximum ambient temperature • during operation • during operation 6 000 V 400 V 4 | insulation voltage rated value | 690 V |
| maximum permissible voltage for safe isolation • between main and auxiliary circuit • between auxiliary and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • between control and auxiliary circuit • other shock resistance = 60 m/s2 (6g) with 10 ms per 3 shocks in all axes = 60 m/s2 (6g) | degree of pollution | 3 |
| between main and auxiliary circuit between auxiliary and auxiliary circuit between control and auxiliary circuit between control and auxiliary circuit shock resistance shock resistance indicate typical of the main contacts typical of auxiliary contacts typical of the signaling contacts typical of the signaling contacts typical of at DC-13 at 6 A at 24 V typical at AC-15 at 6 A at 230 V typical at AC-15 at 6 A at 230 V typical of auxiliary condacts reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation 400 V 250 V 300 V 250 V 300 V 269 with 10 ms per 3 shocks in all axes 64 - 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles 10 000 000 10 000 000 10 000 000 10 000 00 | surge voltage resistance rated value | 6 000 V |
| between auxiliary and auxiliary circuit between control and auxiliary circuit other shock resistance shock resistance indicate the product of the main contacts typical of the signaling contacts typical of at DC-13 at 6 A at 24 V typical at AC-15 at 6 A at 230 V typical of assignment continous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation other 300 V other 300 V other 300 With 10 ms per 3 shocks in all axes shock resistance 10 000 000 10 000 000 10 000 00 | maximum permissible voltage for safe isolation | |
| between control and auxiliary circuit degree of protection NEMA rating shock resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes vibration resistance f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles mechanical service life (switching cycles) of the main contacts typical of auxiliary contacts typical of auxiliary contacts typical of the signaling cycles) of auxiliary contacts or at DC-13 at 6 A at 24 V typical or at AC-15 at 6 A at 230 V typical or at AC-15 at 6 A at 230 V typical or at AC-15 at 6 A at 230 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V typical or at AC-15 at 6 B at 24 V | between main and auxiliary circuit | 400 V |
| degree of protection NEMA rating shock resistance a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes vibration resistance f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles mechanical service life (switching cycles) of the main contacts typical of the signaling | between auxiliary and auxiliary circuit | 250 V |
| shock resistance vibration resistance f = 4 5.8 Hz, d = 15 mm; f = 5.8 500 Hz, a = 20 m/s²; 10 cycles mechanical service life (switching cycles) of the main contacts typical of the signaling contacts typical of the main contacts typ | between control and auxiliary circuit | 300 V |
| vibration resistance mechanical service life (switching cycles) ● of the main contacts typical ● of auxiliary contacts typical ● of the signaling contacts typical electrical endurance (switching cycles) of auxiliary contacts ● at DC-13 at 6 A at 24 V typical ● at AC-15 at 6 A at 230 V typical e at AC-15 at 6 A at 230 V typical Type of assignment reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation f = 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles 10 000 000 10 000 000 10 000 000 10 000 00 | degree of protection NEMA rating | other |
| mechanical service life (switching cycles) ● of the main contacts typical ● of auxiliary contacts typical ● of the signaling contacts typical ● of the signaling contacts typical ● of the signaling contacts typical ● at DC-13 at 6 A at 24 V typical ● at AC-15 at 6 A at 230 V typical ● of assignment reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature ● during operation -20 +60 °C | shock resistance | a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes |
| of the main contacts typical of auxiliary contacts typical of the signaling contacts typical of the signaling contacts typical of the signaling contacts typical one contacts one at DC-13 at 6 A at 24 V typical one at AC-15 at 6 A at 230 V typical one at AC-15 at 6 A at 230 V typical one continuous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation during operation 10 000 000 10 000 000 20 000 | vibration resistance | f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles |
| of auxiliary contacts typical of the signaling contacts typical of the signaling contacts typical of the signaling contacts typical electrical endurance (switching cycles) of auxiliary contacts o at DC-13 at 6 A at 24 V typical o at AC-15 at 6 A at 230 V typical o at AC-15 at 6 A at 230 V typical continous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature o during operation during operation 10 000 000 00 | mechanical service life (switching cycles) | |
| of the signaling contacts typical electrical endurance (switching cycles) of auxiliary contacts at DC-13 at 6 A at 24 V typical at AC-15 at 6 A at 230 V typical type of assignment continous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation continous operation 2 000 m 2 000 m | of the main contacts typical | 10 000 000 |
| electrical endurance (switching cycles) of auxiliary contacts • at DC-13 at 6 A at 24 V typical • at AC-15 at 6 A at 230 V typical type of assignment continous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation -20 +60 °C | of auxiliary contacts typical | 10 000 000 |
| e at DC-13 at 6 A at 24 V typical 30 000 ■ at AC-15 at 6 A at 230 V typical 200 000 type of assignment continous operation according to IEC 60947-6-2 reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 01.05.2012 00:00:00 Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature ■ during operation -20 +60 °C | of the signaling contacts typical | 10 000 000 |
| ● at AC-15 at 6 A at 230 V typical type of assignment reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature ● during operation 200 000 continous operation according to IEC 60947-6-2 Q 01.05.2012 00:00:00 2 000 m ambient temperature -20 +60 °C | ` , | |
| type of assignment reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation continous operation according to IEC 60947-6-2 Q 01.05.2012 00:00:00 2 000 m -20 +60 °C | • at DC-13 at 6 A at 24 V typical | 30 000 |
| reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation Q 01.05.2012 00:00:00 2 000 m -20 +60 °C | at AC-15 at 6 A at 230 V typical | 200 000 |
| Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation 01.05.2012 00:00:00 2 000 m -20 +60 °C | type of assignment | continous operation according to IEC 60947-6-2 |
| Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation -20 +60 °C | reference code acc. to IEC 81346-2 | Q |
| installation altitude at height above sea level maximum ambient temperature ● during operation -20 +60 °C | Substance Prohibitance (Date) | 01.05.2012 00:00:00 |
| ambient temperature ● during operation -20 +60 °C | Ambient conditions | |
| • during operation -20 +60 °C | installation altitude at height above sea level maximum | 2 000 m |
| | ambient temperature | |
| | during operation | -20 +60 °C |
| | | -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 | 8 32 A |
| formula for making capacity limit current | 12 x le |
| formula for breaking capacity limit current | 10 x le |
| yielded mechanical performance for 4-pole AC motor | |
| at 400 V rated value | 15 kW |
| at 500 V rated value | 11 kW |
| at 690 V rated value | 11 kW |
| operating voltage at AC-3 rated value maximum | 690 V |
| operational current | |
| at AC at 400 V rated value | 32 A |
| • at AC-43 | |
| — at 400 V rated value | 29 A |
| — at 500 V rated value | 17.6 A |
| — at 690 V rated value | 12.8 A |
| operating power | |
| at AC-3 at 400 V rated value | 15 kW |
| • at AC-43 | |
| — at 400 V rated value | 15 000 W |
| — at 500 V rated value | 11 000 W |
| — at 690 V rated value | 11 000 W |
| no-load switching frequency | 3 600 1/h |
| operating frequency | |
| at AC-41 acc. to IEC 60947-6-2 maximum | 750 1/h |
| at AC-43 acc. to IEC 60947-6-2 maximum | 250 1/h |
| Control circuit/ Control | |
| | |
| type of voltage | AC/DC |
| | AC/DC |
| type of voltage control supply voltage 1 at AC • at 50 Hz rated value | AC/DC 24 V |
| control supply voltage 1 at AC | |
| control supply voltage 1 at AC • at 50 Hz rated value | 24 V |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value | 24 V |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency | 24 V 24 V |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value | 24 V 24 V 50 Hz |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value | 24 V 24 V 50 Hz |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 | 24 V 24 V 50 Hz 60 Hz |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value | 24 V 24 V 50 Hz 60 Hz |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power | 24 V 24 V 50 Hz 60 Hz 24 V |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact number of CO contacts of the current-dependent overload | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for signaling contact number of CO contacts of the current-dependent overload release for signaling contact operational current of auxiliary contacts at AC-12 maximum | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for 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 | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for 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 | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 0 A 0.27 A |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for 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 | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 1 |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for 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 breaking capacity operating short-circuit current (Ics) | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 CLASS 10 and 20 adjustable |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for 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 breaking capacity operating short-circuit current (Ics) • at 400 V | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 CLASS 10 and 20 adjustable 53 kA |
| control supply voltage 1 at AC at 50 Hz rated value at 60 Hz rated value control supply voltage frequency 1 rated value 2 rated value 2 rated value control supply voltage 1 at DC rated value holding power at AC maximum at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for 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 breaking capacity operating short-circuit current (Ics) at 400 V at 500 V rated value | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 1 CLASS 10 and 20 adjustable 53 kA 1 kA |
| control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value control supply voltage frequency • 1 rated value • 2 rated value control supply voltage 1 • at DC rated value holding power • at AC maximum • at DC maximum Auxiliary circuit number of NC contacts for auxiliary contacts number of NO contacts of instantaneous short-circuit trip unit for 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 breaking capacity operating short-circuit current (Ics) • at 400 V | 24 V 24 V 50 Hz 60 Hz 24 V 3.5 W 3.1 W 1 1 1 1 CLASS 10 and 20 adjustable 53 kA |

| full-load current (FLA) for 3-phase AC motor | |
|--|---|
| at 480 V rated value | 32 A |
| yielded mechanical performance [hp] for 3-phase AC motor | |
| • at 200/208 V rated value | 7.5 hp |
| • at 220/230 V rated value | 10 hp |
| at 460/480 V rated value | 20 hp |
| contact rating of auxiliary contacts according to UL | contacts 21-22, 13-14, 43-44 Q600 / A600, contacts 77-78 R300 / B300, |
| | contacts 95-96-98 R300 / D300 |
| Short-circuit protection | |
| product function short circuit protection | Yes |
| design of short-circuit protection | electromagnetic |
| design of the fuse link | |
| for short-circuit protection of the auxiliary switch required | fuse gL/gG: 10 A |
| for short-circuit protection of the signaling switch of the short-circuit release required | 6A gL/gG/400V |
| for short-circuit protection of the signaling switch of the overload release required | 4A gL/gG/400V |
| Installation/ mounting/ dimensions | |
| mounting position | any |
| recommended | vertical, on horizontal standard mounting rail |
| fastening method | screw and snap-on mounting |
| height | 170 mm |
| width | 45 mm |
| depth | 165 mm |
| Connections/ Terminals | 100 111111 |
| | |
| product component | V |
| removable terminal for main circuit | Yes |
| removable terminal for auxiliary and control circuit | Yes |
| type of electrical connection | |
| for main current circuit | screw-type terminals |
| for auxiliary and control circuit | screw-type terminals |
| type of connectable conductor cross-sections | |
| for main contacts | |
| — solid | 2x (2.5 6 mm²), 1x 10 mm² |
| finely stranded with core end processing | 2x (2.5 6 mm²) |
| at AWG cables for main contacts | 2x (14 10), 1x 8 |
| type of connectable conductor cross-sections | |
| 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) |
| at AWG cables for auxiliary contacts | 2x (20 14) |
| Safety related data | |
| B10 value with high demand rate acc. to SN 31920 | 2 000 000 |
| proportion of dangerous failures | |
| with low demand rate acc. to SN 31920 | 40 % |
| with high demand rate acc. to SN 31920 | 50 % |
| failure rate [FIT] with low demand rate acc. to SN 31920 | 100 FIT |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |
| protection class IP on the front acc. to IEC 60529 | IP20 |
| touch protection on the front acc. 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 | |
| product function control circuit interface with IO link | No |

Electromagnetic compatibility conducted interference • due to burst acc. to IEC 61000-4-4 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-earth surge acc. to IEC 61000-4-5 4 kV main contacts, 2 kV auxiliary contacts • due to conductor-conductor surge acc. to IEC 2 kV main contacts, 1 kV auxiliary contacts 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-0.15-80Mhz at 10V 4-6 field-based interference acc. to IEC 61000-4-3 10 V/m electrostatic discharge acc. to IEC 61000-4-2 8 kV conducted HF interference emissions acc. to CISPR11 150 kHz ... 30 MHz Class A field-bound HF interference emission acc. to CISPR11 30 ... 1000 MHz Class A Supply voltage required Auxiliary voltage No Display number of LEDs 2 Certificates/ approvals

General Product Approval









EMC



Safety/Safety of Machinery

Functional

Declaration of Conformity

Test Certificates

Marine / Shipping



Type Test Certificates/Test Report









Marine / Shipping

other







Confirmation

Further information

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA6120-1EB32

Cax online generator

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-1EB32

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

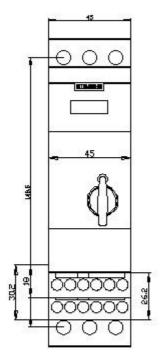
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6120-1EB32&lang=en

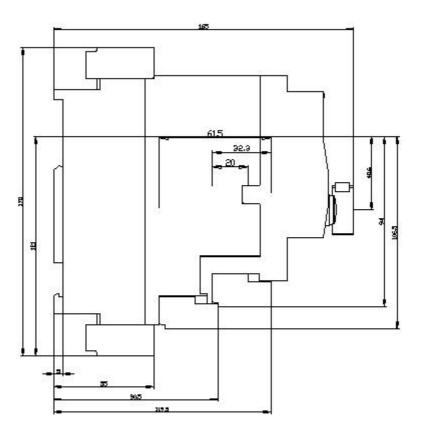
Characteristic: Tripping characteristics, I2t, Let-through current

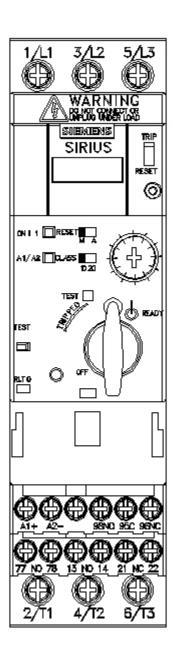
https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-1EB32/char

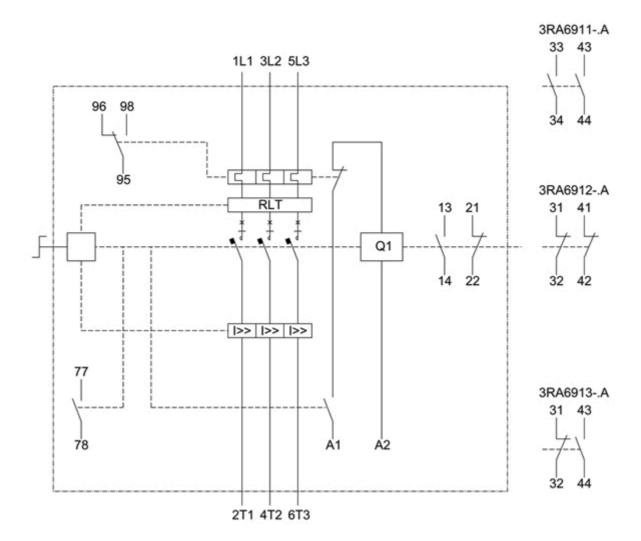
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6120-1EB32&objecttype=14&gridview=view1









last modified: 1/20/2021 **C**