SIEMENS

Data sheet 3RA6120-0DB30

SIRIUS Compact load feeder DOL starter 690 V 24 V AC/DC 50...60 Hz 3...12 A IP20 Connection main circuit: plug-in, without terminals Connection auxiliary circuit: plug-in, without terminals



| Product brand name | SIRIUS |
|--------------------------|-----------------|
| Product designation | compact starter |
| Design of the product | direct starter |
| Product type designation | 3RA61 |

| General technical data | |
|--|---------|
| Product function | |
| Control circuit interface to parallel wiring | Yes |
| Product extension | |
| Auxiliary switch | Yes |
| Power loss [W] for rated value of the current | |
| at AC in hot operating state | 1.8 W |
| at AC in hot operating state per pole | 0.6 W |
| Power loss [W] for rated value of the current without | 2.9 W |
| load current share typical | |
| Insulation voltage | |
| • rated value | 690 V |
| Degree of pollution | 3 |
| Surge voltage resistance rated value | 6 000 V |
| maximum permissible voltage for safe isolation | |

| between main and auxiliary circuit | 400 V | |
|---|---|--|
| between auxiliary and auxiliary circuit | 250 V | |
| between control and auxiliary circuit | 300 V | |
| Protection class IP | IP20 | |
| Shock resistance | a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes | |
| Vibration resistance | f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles | |
| Mechanical service life (switching cycles) | | |
| of the main contacts typical | 10 000 000 | |
| of auxiliary contacts typical | 10 000 000 | |
| of the signaling contacts typical | 10 000 000 | |
| Electrical endurance (switching cycles) of auxiliary contacts | | |
| • at DC-13 at 6 A at 24 V typical | 30 000 | |
| • at AC-15 at 6 A at 230 V typical | 200 000 | |
| Type of assignment | continous operation according to IEC 60947-6-2 | |
| Reference code acc. to DIN EN 81346-2 | Q | |
| Reference code acc. to DIN EN 61346-2 | Q | |
| 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 pick-up value current of the current- | 3 12 A | |
| dependent overload release | | |
| Formula for making capacity limit current | 12 x le | |
| Formula for interruption capacity limit current | 10 x le | |
| Mechanical power output for 4-pole AC motor | E E 14M | |
| • at 400 V rated value | 5.5 kW | |
| • at 500 V rated value | 5.5 kW | |
| at 690 V rated value | 7.5 kW | |
| Operating voltage | 600.17 | |
| at AC-3 rated value maximum Operating current | 690 V | |
| Operating current | 12 A | |
| • at AC 43 | 12.7 | |
| • at AC-43 | 11.5.0 | |
| — at 400 V rated value | 11.5 A | |
| — at 500 V rated value | 12.4 A | |

| Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts of instantaneous short-circuit trip unit for signaling contact Number of CO contacts of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 of at 250 V In the current of auxiliary contacts at DC-13 Output Ou | | |
|--|--|----------------------------|
| • at AC-3 — at 400 V rated value • at AC-43 — at 400 V rated value — at 500 V rated value 7 500 W No-load witching frequency • at AC-41 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum • at OHZ rated value • at 60 Hz rated value • at 10 C rated | — at 690 V rated value | 8.9 A |
| - at 400 V rated value 5.56 kW • at AC-43 — at 400 V rated value 5500 W — at 500 V rated value 7500 W No-load switching frequency 3600 t/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 Control supply voltage 1 at AC • at 50 Hz rated value 24 V • at 60 Hz rated value 24 V Control supply voltage frequency • 1 rated value 50 Hz • 2 rated value 60 Hz • 2 rated value 60 Hz • 2 rated value 24 V Control supply voltage frequency • 1 rated value 50 Hz • at DC rated value 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 Number of NO contacts for auxiliary contacts • of instantaneous short-circuit trip unit for signaling contact • of instantaneous short-circuit trip unit for signaling contact • of the current-dependent overload release for signaling contact • of the current-dependent overload release for signaling contact • of the current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Operational short-circuit current breaking capacity CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | Operating power | |
| * at AC-43 — at 400 V rated value | • at AC-3 | |
| | — at 400 V rated value | 5.5 kW |
| — at 500 V rated value 7500 W No-load switching frequency 3600 1/h Operating frequency 5000 W • at AC-41 acc. to IEC 60947-6-2 maximum 250 1/h • at AC-43 acc. 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 60 Hz rated value 50 Hz • 2 rated value 60 Hz • 2 rated value 50 Hz • 2 rated value 24 V Holding power at AC maximum 2.8 W • at DC rated value 24 V Auxiliary circuit Number of NC contacts for auxiliary contacts 1 Number of NC contacts for auxiliary contacts 1 Number of NC contacts • of instantaneous short-circuit trip unit for signaling contact • of the current-dependent overload release for signaling current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at AC-12 maximum • at 250 V Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at AC-12 maximum • at 250 V Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at AC-13 • at 250 V CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | • at AC-43 | |
| - at 690 V rated value 7 500 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 Ontrol circuit/ Control Type of voltage AC/DC Control supply voltage 1 at AC • at 50 Hz rated value 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 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 • of the current-dependent overload release for signaling contact • of the current-dependent overload release for signaling current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Operational short-circuit current breaking capacity Includes AC III and 20 adjustable Operational short-circuit current breaking capacity I cLASS 10 and 20 adjustable | — at 400 V rated value | 5 500 W |
| No-load switching frequency • at AC-41 acc, to IEC 60947-6-2 maximum • at AC-43 acc, to IEC 60947-6-2 maximum • at AC-43 acc, to IEC 60947-6-2 maximum 250 1/h Control circuit/ Control Type of voltage Control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value • at 60 Hz rated value • 24 V Control supply voltage frequency • 1 rated value • 2 rated value Control supply voltage frequency • 1 rated value • 2 rated value Control supply voltage frequency • 1 rated value • 2 rated value Control supply voltage 1 • at DC rated value 24 V Holding power • at AC maximum • at DC maximum • at DC maximum • at DC maximum • at DC montacts for auxiliary contacts 1 Number of NO contacts for auxiliary contacts • of instantaneous short-circuit trip unit for signaling contact • of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Protective and monitoring functions Trip class CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | — at 500 V rated value | 5 500 W |
| Operating frequency • at AC-41 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum 250 1/h Control circuit/ Control Type of voltage Control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value • 24 V Control supply voltage frequency • 1 rated value • 2 to Control supply voltage frequency • 1 rated value • 2 rated value • 2 rated value • 2 rated value • 2 rated value • 24 V Holding power • at AC maximum • at DC maximum • at DC maximum • at DC maximum • at DC contacts for auxiliary contacts 1 Number of NO contacts for auxiliary contacts • of instantaneous short-circuit trip unit for signaling contact • of the current-dependent overload release for signaling contact • of the current-dependent overload release for signaling current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Operational short-circuit current breaking capacity CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | — at 690 V rated value | 7 500 W |
| • at AC-41 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum 250 1/h Type of voltage | No-load switching frequency | 3 600 1/h |
| * at AC-43 acc. to IEC 60947-6-2 maximum 250 1/h Control circuit/ Control Type of voltage Cortrol supply voltage 1 at AC * at 50 Hz rated value 24 V Control supply voltage frequency * 1 rated value 50 Hz 2 rated value 60 Hz Control supply voltage frequency 1 rated value 24 V Control supply voltage frequency 1 rated value 24 V Control supply voltage frequency 24 V Control supply voltage 1 24 V Control supply voltage 1 25 O Hz 26 O Hz Control supply voltage 1 26 O Hz Control supply voltage 1 27 V 28 W 29 W Auxiliary circuit Number of Coretacts for auxiliary contacts 1 Number of NC contacts for auxiliary contacts 1 Number of NC contacts 20 of instantaneous short-circuit trip unit for signaling contact Number of CO contacts 20 of the current-dependent overload release for signaling contact Number of CO contacts 20 of the current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at AC-12 auxiliary contacts at AC-12 auxiliary contacts at AC-12 auxiliary contacts at AC-12 auxiliary contacts at AC-13 at 250 V Control supply voltage 1 at AC Control supply voltage frequency 24 V 25 V 26 Control supply voltage frequency 24 V 26 V 27 Control supply voltage frequency 24 V 26 V 27 Control supply voltage frequency 24 V 26 V 27 Control supply voltage frequency 24 V 26 V 27 Control supply voltage frequency 24 V 26 V 27 Control supply voltage frequency 24 V 26 V 27 Control supply voltage frequency 24 V 26 V 27 Control supply voltage frequency 24 V 26 V 27 Control supply voltage frequency 26 V 27 Co | Operating frequency | |
| Control circuit/ Control Type of voltage Control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value 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 Holding power • at AC maximum • at DC maximum 2.8 W • at DC maximum 2.9 W Auxiliary circuit Number of NC contacts for auxiliary contacts 1 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 current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | • at AC-41 acc. to IEC 60947-6-2 maximum | 750 1/h |
| Type of voltage Control supply voltage 1 at AC at 50 Hz rated value at 60 Hz rated value 24 V Control supply voltage frequency 1 rated value 50 Hz 60 Hz Control supply voltage frequency 1 rated value 60 Hz Control supply voltage 1 at DC rated value 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 Number of NO contacts for auxiliary contacts 1 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 Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 at 250 V Octoas CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | • at AC-43 acc. to IEC 60947-6-2 maximum | 250 1/h |
| Type of voltage Control supply voltage 1 at AC at 50 Hz rated value at 60 Hz rated value 24 V Control supply voltage frequency 1 rated value 50 Hz 60 Hz Control supply voltage frequency 1 rated value 60 Hz Control supply voltage 1 at DC rated value 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 Number of NO contacts for auxiliary contacts 1 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 Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 at 250 V Octoas CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | | |
| Control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value 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 Holding power • at AC maximum • at DC maximum 2.8 W • at DC maximum 2.9 W Auxiliary circuit Number of NC contacts for auxiliary contacts • of instantaneous short-circuit trip unit for signaling contact • of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Protective and monitoring functions Trip class CLASS 10 and 20 adjustable | | ACIDO |
| at 50 Hz rated value at 60 Hz rated value 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 Holding power 1 at AC maximum 2.8 W 1 at DC maximum 2.9 W Auxiliary circuit Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts 1 Number of NO contacts of instantaneous short-circuit trip unit for signaling contact of the current-dependent overload release for signaling current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions Trip class CLASS 10 and 20 adjustable | | AC/DC |
| • at 60 Hz rated value Control supply voltage frequency • 1 rated value 50 Hz • 2 rated value 60 Hz Control supply voltage 1 • at DC rated value 24 V Holding power • at AC maximum • at DC 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 • of instantaneous short-circuit trip unit for signaling contact • of the current-dependent overload release for signaling current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Protective and monitoring functions Trip class CLASS 10 and 20 adjustable | | 24 V |
| Control supply voltage frequency 1 rated value 50 Hz 60 Hz Control supply voltage 1 1 at DC rated value 24 V Holding power 1 at AC maximum 2.8 W 2.9 W Auxiliary circuit Number of NC contacts for auxiliary contacts 1 Number of NO contacts for auxiliary contacts 1 of instantaneous short-circuit trip unit for signaling contact Number of CO contacts 1 of the current-dependent overload release for signaling current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 1 at 250 V Operational short-circuit current breaking capacity CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | | |
| 1 rated value 2 rated value 60 Hz Control supply voltage 1 at DC rated value 24 V Holding power at AC maximum at DC maximum 2.8 W at DC maximum 2.9 W Auxiliary circuit Number of NO contacts for auxiliary contacts 1 Number of NO contacts for auxiliary contacts of instantaneous short-circuit trip unit for signaling contact Number of CO contacts of the current-dependent overload release for signaling cornact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 at 250 V Protective and monitoring functions Trip class Operational short-circuit current breaking capacity | | Z4 V |
| 2 rated value 60 Hz Control supply voltage 1 at DC rated value 24 V Holding power at AC maximum at DC 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 of instantaneous short-circuit trip unit for signaling contact Number of CO contacts of the current-dependent overload release for signaling current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 at 250 V Operational short-circuit current breaking capacity CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | | 50 H - |
| Control supply voltage 1 • at DC rated value Holding power • at AC maximum • at DC maximum 2.8 W Auxiliary circuit Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts • of instantaneous short-circuit trip unit for signaling contact Number of CO contacts • of the current-dependent overload release for signaling current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Protective and monitoring functions Trip class CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | | |
| at DC rated value Holding power at AC maximum at DC maximum 2.8 W 2.9 W Auxiliary circuit Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts of instantaneous short-circuit trip unit for signaling contact Number of CO contacts of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 at 250 V October to auxiliary contacts at DC-13 at 250 V CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | | 60 Hz |
| Holding power • at AC maximum • at DC maximum 2.8 W 2.9 W Auxiliary circuit Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts • of instantaneous short-circuit trip unit for signaling contact Number of CO contacts • of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V October to the current breaking capacity CLASS 10 and 20 adjustable | | 041/ |
| at AC maximum at DC maximum 2.8 W 2.9 W 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 Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 of at 250 V Operational short-circuit current breaking capacity CLASS 10 and 20 adjustable | | 24 V |
| at DC maximum 2.9 W Auxiliary circuit 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 Number of CO contacts • of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V October and monitoring functions Trip class CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | | 0.014 |
| 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 Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 of at 250 V Operations Trip class CLASS 10 and 20 adjustable Operations CLASS 10 and 20 adjustable | | |
| 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 Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 of at 250 V Operations CLASS 10 and 20 adjustable CLASS 10 and 20 adjustable | ● at DC maximum | 2.9 W |
| Number of NO contacts for auxiliary contacts • of instantaneous short-circuit trip unit for signaling contact Number of CO contacts • of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Orotective and monitoring functions Trip class CLASS 10 and 20 adjustable CLASS 10 and 20 adjustable | Auxiliary circuit | |
| 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 Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 of at 250 V Occupant of auxiliary contacts at DC-13 Occupant of auxiliary contacts a | Number of NC contacts for auxiliary contacts | 1 |
| of instantaneous short-circuit trip unit for signaling contact Number of CO contacts of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 at 250 V O.27 A Protective and monitoring functions Trip class CLASS 10 and 20 adjustable Operating current breaking capacity | Number of NO contacts for auxiliary contacts | 1 |
| Signaling contact Number of CO contacts of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 of at 250 V Output Ou | Number of NO contacts | |
| Number of CO contacts • of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V October to and monitoring functions Trip class CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | of instantaneous short-circuit trip unit for | 1 |
| of the current-dependent overload release for signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Ocerating current of auxiliary contacts at DC-13 ocerating current of auxiliary contacts at DC-13 ocerating current of auxiliary contacts at DC-13 CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | | |
| Signaling contact Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Ocerating current of auxiliary contacts at DC-13 • at 250 V CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | Number of CO contacts | |
| Operating current of auxiliary contacts at AC-12 maximum Operating current of auxiliary contacts at DC-13 • at 250 V Octoberation of auxiliary contacts at DC-13 Trip class CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | • | 1 |
| maximum Operating current of auxiliary contacts at DC-13 ● at 250 V 0.27 A Protective and monitoring functions Trip class CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | | 40.0 |
| at 250 V O.27 A Protective and monitoring functions Trip class CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | | 10 A |
| Protective and monitoring functions Trip class CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | Operating current of auxiliary contacts at DC-13 | |
| Trip class CLASS 10 and 20 adjustable Operational short-circuit current breaking capacity | ● at 250 V | 0.27 A |
| Operational short-circuit current breaking capacity | Protective and monitoring functions | |
| | - | CLASS 10 and 20 adjustable |
| | | |
| | (100) | |

| ● at 400 V | 53 kA |
|------------------------|-------|
| • at 500 V rated value | 3 kA |
| • at 690 V rated value | 3 kA |

| UL/CSA ratings | |
|--|---|
| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 12 A |
| • at 600 V rated value | 12 A |
| Yielded mechanical performance [hp] | |
| for three-phase AC motor | |
| — at 200/208 V rated value | 3 hp |
| — at 220/230 V rated value | 3 hp |
| — at 460/480 V rated value | 7.5 hp |
| — at 575/600 V rated value | 10 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 |
| Mounting type | screw and snap-on mounting |
| Height | 170 mm |
| Width | 45 mm |
| Depth | 165 mm |

| Connections/ Terminals | |
|--|---------------------------|
| Product function | |
| removable terminal for main circuit | Yes |
| removable terminal for auxiliary and control circuit | Yes |
| Type of electrical connection | |
| • for main current circuit | plug-in without terminals |
| • for auxiliary and control current circuit | plug-in without terminals |

Safety related data

| B10 value | |
|---|---|
| with high demand rate acc. to SN 31920 | 3 000 000 |
| 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 |
| Communication/ Protocol | |
| Product function Bus communication | No |
| Protocol is supported | |
| IO-Link protocol | No |
| Product function Control circuit interface with IO link | No |
| Electromagnetic compatibility | |
| Conducted interference | |
| • due to burst acc. to IEC 61000-4-4 | 4 kV main contacts, 2 kV auxiliary contacts |
| due to conductor-earth surge acc. to IEC 61000-4-5 | 4 kV main contacts, 2 kV auxiliary contacts |
| due to conductor-conductor surge acc. to IEC 61000-4-5 | 2 kV main contacts, 1 kV auxiliary contacts |
| due to high-frequency radiation acc. to IEC 61000-4-6 | 0.15-80Mhz at 10V |
| Field-bound parasitic coupling 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 | 30 1000 MHz Class A |

| Supply voltage | |
|---|----|
| Supply voltage required Auxiliary voltage | No |
| | |

Certificates/ approvals

CISPR11

General Product Approval

EMC

Functional Safety/Safety of Machinery













| Declaration of | of Conformity |
|----------------|---------------|
|----------------|---------------|

Test Certificates

Marine / Shipping



Miscellaneous

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=3RA6120-0DB30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6120-0DB30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-0DB30

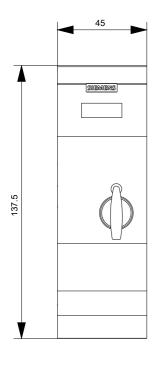
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

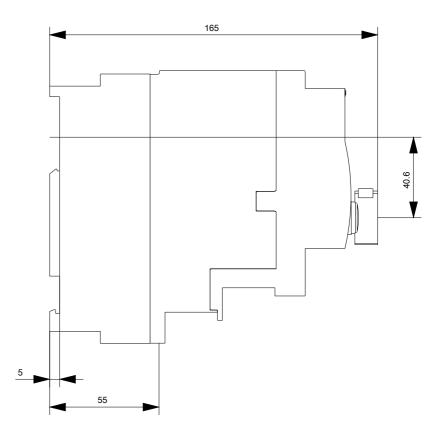
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6120-0DB30&lang=en

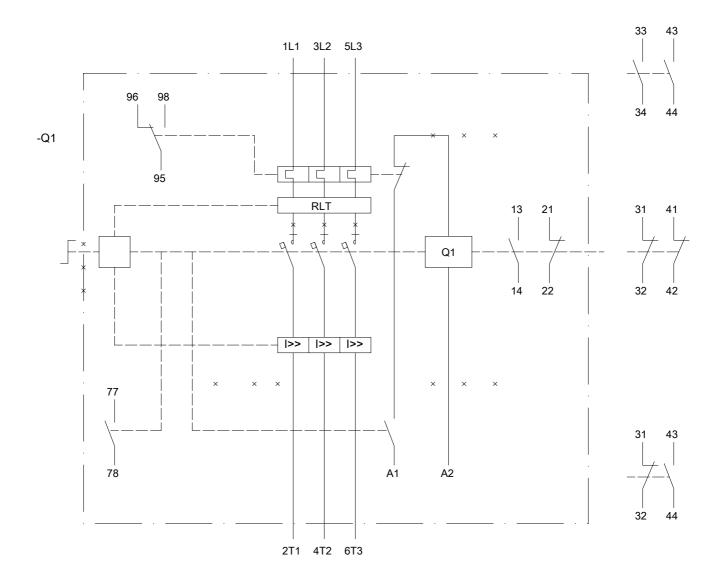
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RA6120-0DB30/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6120-0DB30&objecttype=14&gridview=view1







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