SIEMENS

Data sheet

3RA6250-1AB32



SIRIUS, COMPACT STARTER, REVERSING STARTER 690 V, 24 V AC/DC, 50 ... 60 HZ, 0.1 ... 0.4 A, IP20, MAIN CIRCUIT CONNECTION: SCREW TERMINAL, AUXILIARY CIRCUIT CONNECTION: SCREW TERMINAL

| Figure similar | |
|-----------------------|------------------|
| product brand name | SIRIUS |
| Product designation | compact starter |
| Design of the product | reversing feeder |

| General technical data: | | |
|--|---|--|
| Product function | | |
| Control circuit interface to parallel wiring | | Yes |
| Insulation voltage | | |
| Rated value | V | 690 |
| maximum permissible voltage for safe isolation | | |
| between auxiliary and auxiliary circuit | V | 250 |
| between control and auxiliary circuit | V | 300 |
| between main and auxiliary circuit | V | 400 |
| Degree of pollution | | 3 |
| 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 |
| Surge voltage resistance Rated value | V | 6 000 |
| Mechanical service life (switching cycles) | | |
| of the main contacts typical | | 10 000 000 |
| of the auxiliary contacts typical | | 10 000 000 |
| of the signaling contacts typical | | 10 000 000 |
| Electrical endurance (switching cycles) of the | | |
| auxiliary contacts | | |
| at DC-13 at 6 A at 24 V typical | | 100 000 |
| at AC-15 at 6 A at 230 V typical | | 500 000 |

| Electrical endurance (switching cycles) of the signaling contacts | | |
|---|-----|--|
| ● at DC-13 at 6 A at 24 V typical | | 100 000 |
| • at AC-15 at 6 A at 230 V typical | | 500 000 |
| Type of assignment | _ | continous operation according to IEC 60947-6-2 |
| Protection class IP | _ | IP20 |
| Equipment marking | _ | |
| • acc. to DIN EN 61346-2 | | Q |
| Main circuit: | _ | |
| Number of poles for main current circuit | | 3 |
| Adjustable response value current of the current- dependent overload release | A | 0.1 0.4 |
| Formula for making capacity limit current | - | 120 x le |
| Formula for interruption capacity limit current | | 100 x le |
| Mechanical power output for 4-pole AC motor | | |
| • at 400 V Rated value | kW | 0.09 |
| • at 500 V Rated value | kW | 0.12 |
| • at 690 V Rated value | kW | 0.18 |
| Operating voltage | _ | |
| at AC-3 Rated value maximum | V | 690 |
| Operating current | | |
| with AC at 400 V Rated value | А | 0.4 |
| • at AC-43 | | |
| — at 400 V Rated value | А | 0.3 |
| — at 500 V Rated value | А | 0.32 |
| — at 690 V Rated value | А | 0.35 |
| Operating power | | |
| • at AC-3 | | |
| — at 400 V Rated value | W | 90 |
| • at AC-43 | | |
| — at 400 V Rated value | W | 90 |
| — at 500 V Rated value | W | 120 |
| — at 690 V Rated value | W | 180 |
| Operating frequency | | |
| ● at AC-41 acc. to IEC 60947-6-2 maximum | 1/h | 750 |
| • at AC-43 acc. to IEC 60947-6-2 maximum | 1/h | 250 |
| No-load switching frequency | 1/h | 3 600 |
| Control circuit/ Control: | | |
| Type of voltage | | AC |
| Control supply voltage 1 with AC | | |
| • at 50 Hz Rated value | V | 24 |
| • at 60 Hz Rated value | V | 24 |
| | | |

| Control supply voltage 1 | _ | |
|--|----|----------------------------|
| for DC Rated value | V | 24 |
| Rated value | Hz | 50 |
| Control supply voltage frequency 2 Rated value | Hz | 60 |
| Holding power | _ | |
| with AC maximum | W | 2.8 |
| • for DC maximum | W | 2.9 |
| Auxiliary circuit: | | |
| Number of NC contacts | | |
| for auxiliary contacts | | 0 |
| Number of NO contacts | _ | |
| for auxiliary contacts | | 2 |
| of the instantaneous short-circuit release for signaling contact | | 1 |
| Number of CO contacts | - | |
| of the current-dependent overload release for signaling contact | | 1 |
| Product expansion Auxiliary switch | - | Yes |
| Operating current of the auxiliary contacts at AC-12 maximum | A | 10 |
| Operating current of the auxiliary contacts at DC-13 | _ | |
| • at 250 V | А | 0.27 |
| Protective and monitoring functions: | | |
| Trip class | | CLASS 10 and 20 adjustable |

| Trip class | | CLASS 10 and 20 adjustable |
|---|----|----------------------------|
| OFF-delay time | ms | 50 |
| Operational short-circuit current breaking capacity (Ics) | | |
| • at 400 V | kA | 53 |
| • at 500 V Rated value | kA | 3 |
| • at 690 V Rated value | kA | 3 |

| UL/CSA ratings: | | |
|---|---|--|
| Full-load current (FLA) for three-phase AC motor | | |
| • at 480 V Rated value | А | 0.4 |
| • at 600 V Rated value | А | 0.4 |
| Contact rating of the auxiliary contacts acc. to UL | | contacts 21-22, 13-14, 43-44 Q600 / A600, contacts 77-78 R300 / B300, contacts 95-96-98 R300 / D300 |

| Short-circuit: | |
|---|------------------|
| 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 | | 4A gL/gG/400V |
| switch of the overload release required | | |
| · | _ | |
| Installation/ mounting/ dimensions: | _ | |
| mounting position | | any |
| recommended | - | vertical, on horizontal standard mounting rail |
| Mounting type | | screw and snap-on mounting 170 |
| Height Width | mm | 90 |
| | mm | |
| Depth | mm | 165 |
| Connections/ Terminals: | _ | |
| Type of electrical connection | | |
| for main current circuit | | screw-type terminals |
| for auxiliary and control current circuit | | screw-type terminals |
| Product function | | |
| removable terminal for main circuit | | Yes |
| removable terminal for auxiliary and control circuit | | Yes |
| Type of connectable conductor cross-section | - | |
| for main contacts | | |
| — solid | | 2x (1.5 6 mm²), 1x 10 mm² |
| — finely stranded with core end processing | | 2x (1.5 6 mm ²) |
| for AWG conductors for main contacts | | 2x (16 10), 1x 8 |
| for auxiliary contacts | | 2x (10 10), 1x 0 |
| - | | 0.5 4 mm², 2x (0.5 2.5 mm²) |
| — solid | | |
| — finely stranded with core end processing | | 0.5 2.5 mm ² , 2x (0.5 1.5 mm ²) |
| for AWG conductors for auxiliary contacts | | 2x (20 14) |
| 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 | FIT | 100 |
| T1 value for proof test interval or service life acc. to IEC 61508 | У | 20 |
| Protection against electrical shock | | finger-safe |
| Communication/ Protocol: | | |
| Product function Bus communication | | No |
| Product function Control circuit interface with IO link | | No |

| Ambient conditions: | | | | |
|---|----|---|--|--|
| Installation altitude at height above sea level maximum | m | 2 000 | | |
| Ambient temperature | | | | |
| during operation | °C | -20 +60 | | |
| during storage | °C | -55 +80 | | |
| during transport | °C | -55 +80 | | |
| Relative humidity during operation | % | 10 90 | | |
| Electromagnetic compatibility: | | | | |
| Conducted interference due to burst acc. to IEC 61000-4-4 | | 4 kV main contacts, 2 kV auxiliary contacts | | |
| Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5 | | 4 kV main contacts, 2 kV auxiliary contacts | | |
| Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5 | | 2 kV main contacts, 1 kV auxiliary contacts | | |
| Conducted interference 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 | | |
| Supply voltage: | | | | |
| Supply voltage required Auxiliary voltage | | No | | |
| Certificates/ approvals: | | | | |

| General Produc | t Approval | | | EMC | Functional Safety/Safety of Machinery |
|--|------------------------------|--------------------------------|----------------------------|--------|---|
| | CSA | | EHC | C-TICK | VDE |
| Test Certificates | Shipping Approv | /al | | | |
| <u>Type Test</u> Certificates/Test <u>Report</u> | BUREAU VERITAS | DNV DNV | Lloyd's Register LRS | PRS | RINA |
| Shipping Approval | other | | | | |
| RMRS | Declaration of Conformity | Environmental Confirmations | other | | |

Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

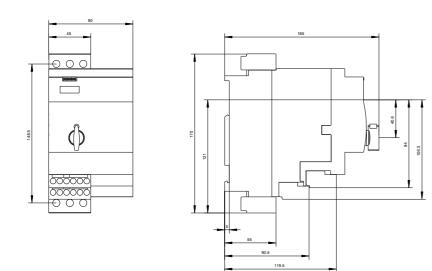
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

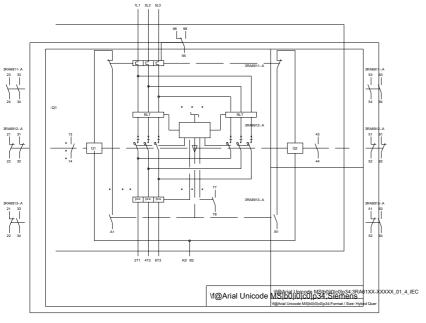
Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA62501AB32

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RA62501AB32/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA62501AB32&lang=en





last modified:

11.03.2015