SIEMENS

## Data sheet 3RA6250-2BP33

SIRIUS, COMPACT STARTER, REVERSING STARTER 690 V, 110 ... 240 V AC/DC, 50 ... 60 HZ, 0.32 ... 1.25 A, IP20, MAIN CIRCUIT CONNECTION: PLUG-IN, W/O TERMINALS, AUXILIARY CIRCUIT CONNECTION: SPRING-LOADED TERMINAL

| | |
|---|---|
| **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 |
| **Product extension** | |
| • Auxiliary switch | Yes |
| **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 auxiliary and auxiliary circuit | 250 V |
| • between control and auxiliary circuit | 300 V |
| • between main and auxiliary circuit | 400 V |
| **Protection class IP** | IP20 |
| **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 |
| **Equipment marking** | |
| • acc. to DIN EN 61346-2 | Q |
| • acc. to DIN EN 81346-2 | Q |

## Ambient conditions

| | |
|---|---|
| **Ambient temperature** | |
| • during operation | -20 ... +60 °C |
| • during storage | -55 ... +80 °C |
| • during transport | -55 ... +80 °C |

## Main circuit

| | |
|---|---|
| **Number of poles for main current circuit** | 3 |
| **Adjustable pick-up value current of the current-dependent overload release** | 0.32 ... 1.25 A |
| **Formula for making capacity limit current** | 38.4 x Ie |
| **Formula for interruption capacity limit current** | 32 x Ie |
| **Mechanical power output for 4-pole AC motor** | |
| • at 400 V rated value | 0.37 kW |
| • at 500 V rated value | 0.55 kW |
| • at 690 V rated value | 0.75 kW |
| **Operating voltage** | |
| • at AC-3 rated value maximum | 690 V |
| **Operating current** | |
| • at AC at 400 V rated value | 1.25 A |
| • at AC-43 | |
| — at 400 V rated value | 1.1 A |
| — at 500 V rated value | 1.2 A |
| — at 690 V rated value | 1.1 A |
| **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 |
| **Control supply voltage 1 at AC** | |

| | |
|---|---|
| • at 50 Hz | 110 ... 240 V |
| • at 60 Hz | 110 ... 240 V |
| **Control supply voltage 1** | |
| • at DC | 110 ... 240 V |
| **Holding power** | |
| • at AC maximum | 6 W |
| • at DC maximum | 5.1 W |

## Auxiliary circuit

| | |
|---|---|
| **Number of NC contacts** | |
| • for auxiliary contacts | 0 |
| **Number of NO contacts** | |
| • for auxiliary contacts | 2 |
| • of instantaneous short-circuit trip unit for signaling contact | 1 |
| **Number of CO contacts** | |
| • of the current-dependent overload release for signaling contact | 1 |
| **Operating current of auxiliary contacts at AC-12 maximum** | 10 A |
| **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 |
| **Off-delay time** | 50 ms |
| **Operational short-circuit current breaking capacity (Ics)** | |
| • 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 | 1.25 A |
| • at 600 V rated value | 1.25 A |
| **Yielded mechanical performance [hp]** | |
| • for three-phase AC motor | |
| — at 460/480 V rated value | 0.5 hp |
| — at 575/600 V rated value | 0.5 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 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** | 191 mm |
| **Width** | 90 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 | spring-loaded terminals |
| **Type of connectable conductor cross-sections** | |
| • for main contacts | |
| — solid | 2x (1.5 ... 6 mm²), 1x 10 mm² |
| — finely stranded with core end processing | 2x (1.5 ... 6 mm²) |
| — finely stranded without core end processing | 2x (1.5 ... 6 mm²) |
| • at AWG conductors for main contacts | 2x (16 ... 10), 1x 8 |
| **Type of connectable conductor cross-sections** | |
| • for auxiliary contacts | |
| — solid | 2x (0.25 ... 1.5 mm²) |
| — finely stranded with core end processing | 2x (0.25 ... 1.5 mm²) |
| — finely stranded without core end processing | 2x (0.25 ... 1.5 mm²) |
| • at AWG conductors for auxiliary contacts | 2x (24 ... 16) |

## 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 |

## Electromagnetic compatibility

| | |
|---|---|
| **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 CISPR11** | 30 ... 1000 MHz Class A |

## Supply voltage

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

## Certificates/approvals

| General Product Approval | | | | EMC | Functional Safety/Safety of Machinery |
|---|---|---|---|---|---|
| CCC | CSA | UL | EAC | C-Tick | VDE |

| Declaration of Conformity | Test Certificates | Marine / Shipping | | | |
|---|---|---|---|---|---|
| EG-Konf. | Type Test Certificates/Test Report | BUREAU VERITAS | DNV | LRS | PRS |

| Marine / Shipping | | other | |
|---|---|---|---|
| RINA | RMRS | Environmental Confirmations | Confirmation |

## Further information

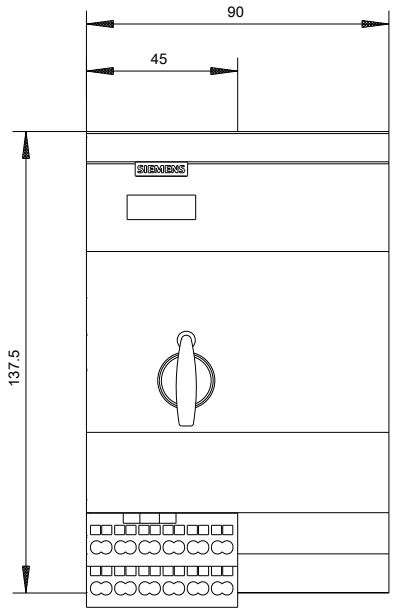
**Information- and Downloadcenter (Catalogs, Brochures,…)**
http://www.siemens.com/industrial-controls/catalogs

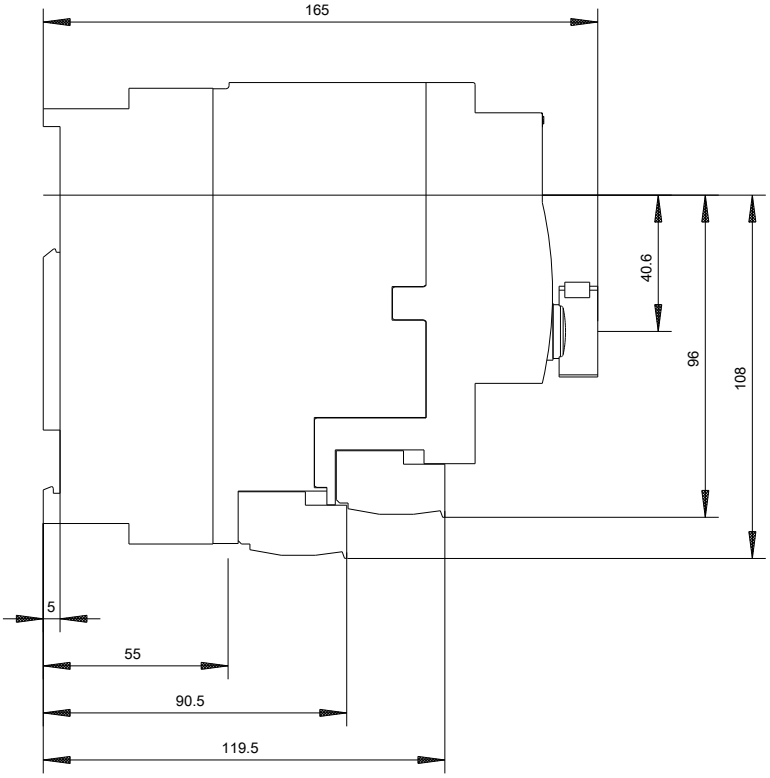
**Industry Mall (Online ordering system)**
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA6250-2BP33

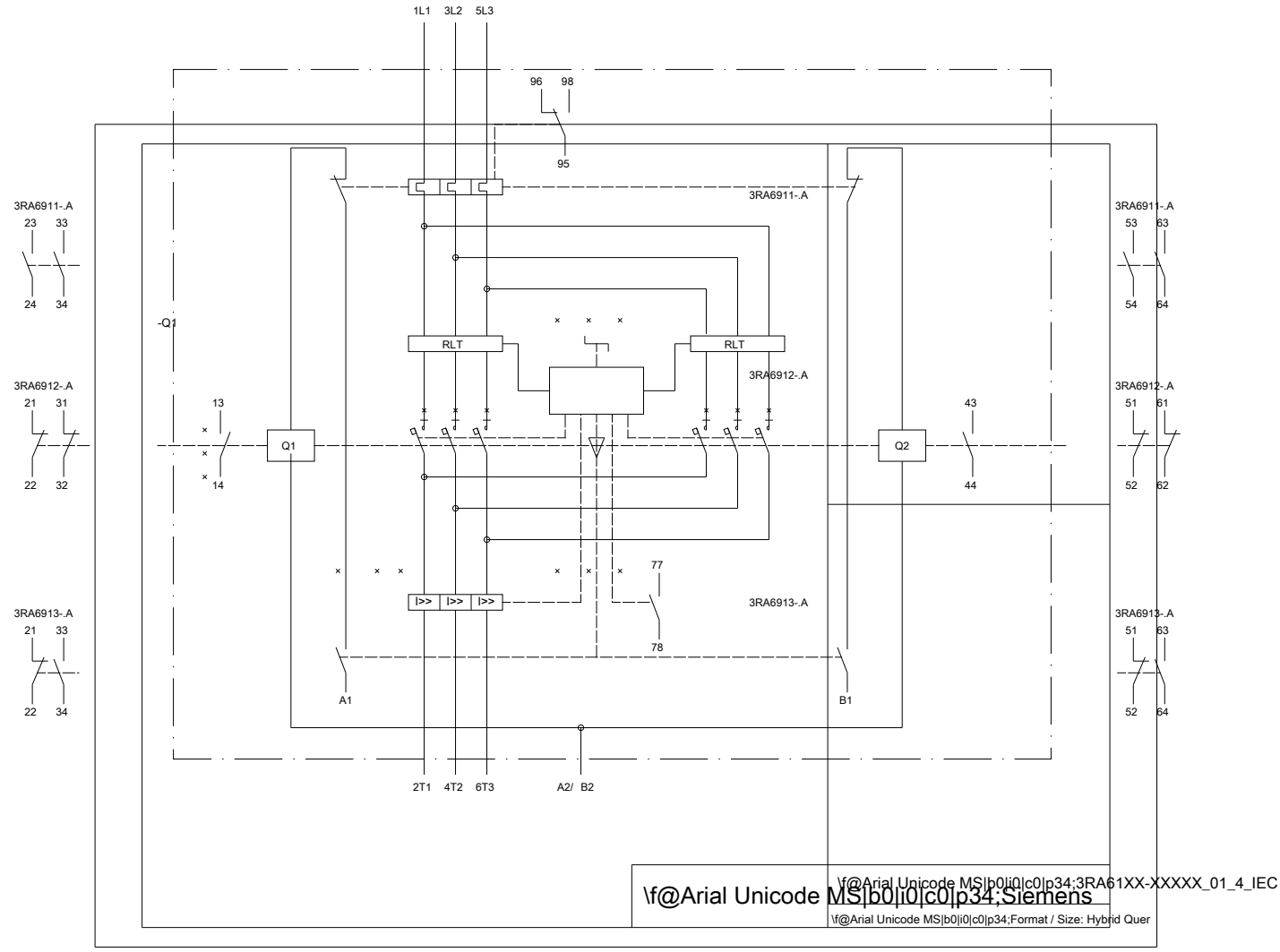
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6250-2BP33

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-2BP33

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6250-2BP33&lang=en



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