



SIRIUS, COMPACT STARTER, DIRECT STARTER 690 V, 110 ... 240 V AC/DC, 50 ... 60 HZ, 1 ... 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 |

| General technical data: | | |
|--|---|--|
| Product function | | |
| <ul style="list-style-type: none"> Control circuit interface to parallel wiring | | Yes |
| Insulation voltage | | |
| <ul style="list-style-type: none"> Rated value | V | 690 |
| maximum permissible voltage for safe isolation | | |
| <ul style="list-style-type: none"> between auxiliary and auxiliary circuit between control and auxiliary circuit between main and auxiliary circuit | V | 250 300 400 |
| Degree of pollution | | 3 |
| Shock resistance | | a=60 m/s ² (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 |
| Surge voltage resistance Rated value | V | 6 000 |
| Mechanical service life (switching cycles) | | |
| <ul style="list-style-type: none"> of the main contacts typical of the auxiliary contacts typical of the signaling contacts typical | | 10 000 000 10 000 000 10 000 000 |
| Electrical endurance (switching cycles) of the auxiliary contacts | | |
| <ul style="list-style-type: none"> at DC-13 at 6 A at 24 V typical at AC-15 at 6 A at 230 V typical | | 100 000 500 000 |

| | | |
|---|--|---|
| Electrical endurance (switching cycles) of the signaling contacts | | |
| <ul style="list-style-type: none"> • at DC-13 at 6 A at 24 V typical • at AC-15 at 6 A at 230 V typical | | 100 000 500 000 |
| Type of assignment | | continuous operation according to IEC 60947-6-2 |
| Protection class IP | | IP20 |
| Equipment marking | | |
| <ul style="list-style-type: none"> • 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 | 1 ... 4 |
| Formula for making capacity limit current | | 12 x I _e |
| Formula for interruption capacity limit current | | 10 x I _e |
| Mechanical power output for 4-pole AC motor | | |
| <ul style="list-style-type: none"> • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value | kW kW kW | 1.5 2.2 3 |
| Operating voltage | | |
| <ul style="list-style-type: none"> • at AC-3 Rated value maximum | V | 690 |
| Operating current | | |
| <ul style="list-style-type: none"> • with AC at 400 V Rated value • at AC-43 <ul style="list-style-type: none"> — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value | A A A A | 4 3.6 3.9 3.8 |
| Operating power | | |
| <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V Rated value • at AC-43 <ul style="list-style-type: none"> — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value | W W W W | 1 500 1 500 2 200 3 000 |
| Operating frequency | | |
| <ul style="list-style-type: none"> • at AC-41 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum | 1/h 1/h | 750 250 |
| No-load switching frequency | 1/h | 3 600 |

Control circuit/ Control:

| | | |
|--|--------|----------------------------|
| Type of voltage | | AC |
| Control supply voltage 1 with AC | | |
| <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz | V V | 110 ... 240 110 ... 240 |

| | | |
|---|----|-------------|
| Control supply voltage 1 | | |
| • for DC | V | 110 ... 240 |
| • Rated value | Hz | 50 |
| Control supply voltage frequency 2 Rated value | Hz | 60 |
| Holding power | | |
| • with AC maximum | W | 6 |
| • for DC maximum | W | 5.1 |

Auxiliary circuit:

| | | |
|---|---|------|
| Number of NC contacts | | |
| • for auxiliary contacts | | 1 |
| Number of NO contacts | | |
| • for auxiliary contacts | | 1 |
| • 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 | A | 0.27 |

Protective and monitoring functions:

| | | |
|--|----|----------------------------|
| 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 | A | 4 |
| • at 600 V Rated value | A | 4 |
| yielded mechanical performance [hp] | | |
| • for three-phase AC motor at 200/208 V Rated value | metric hp | 0.75 |
| • for three-phase AC motor at 220/230 V Rated value | metric hp | 0.75 |
| • for three-phase AC motor at 460/480 V Rated value | metric hp | 2 |

| | | |
|---|-----------|---|
| <ul style="list-style-type: none"> for three-phase AC motor at 575/600 V Rated value | metric hp | 3 |
| 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 <ul style="list-style-type: none"> for short-circuit protection of the auxiliary switch 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 overload release required | | fuse gL/gG: 10 A 6A gL/gG/400V 4A gL/gG/400V |

Installation/ mounting/ dimensions:

| | | |
|---|----|--|
| mounting position | | any |
| <ul style="list-style-type: none"> recommended | | vertical, on horizontal standard mounting rail |
| Mounting type | | screw and snap-on mounting |
| Height | mm | 170 |
| Width | mm | 45 |
| Depth | mm | 165 |

Connections/ Terminals:

| | | |
|--|--|---|
| Type of electrical connection | | |
| <ul style="list-style-type: none"> for main current circuit for auxiliary and control current circuit | | screw-type terminals screw-type terminals |
| Product function | | |
| <ul style="list-style-type: none"> removable terminal for main circuit removable terminal for auxiliary and control circuit | | Yes Yes |
| Type of connectable conductor cross-section | | |
| <ul style="list-style-type: none"> for main contacts <ul style="list-style-type: none"> — solid — finely stranded with core end processing for AWG conductors for main contacts for auxiliary contacts <ul style="list-style-type: none"> — solid — finely stranded with core end processing for AWG conductors for auxiliary contacts | | 2x (1.5 ... 6 mm ²), 1x 10 mm ² 2x (1.5 ... 6 mm ²) 2x (16 ... 10), 1x 8 0.5 ... 4 mm ² , 2x (0.5 ... 2.5 mm ²) 0.5 ... 2.5 mm ² , 2x (0.5 ... 1.5 mm ²) 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 | y | 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 Product Approval | EMC | Functional Safety/Safety of Machinery |
|--------------------------|-----|---------------------------------------|



| | |
|-------------------|-------------------|
| Test Certificates | Shipping Approval |
|-------------------|-------------------|

[Type Test Certificates/Test Report](#)



| | |
|-------------------|-------|
| Shipping Approval | other |
|-------------------|-------|



[Environmental Confirmations](#)

[Declaration of Conformity](#)

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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

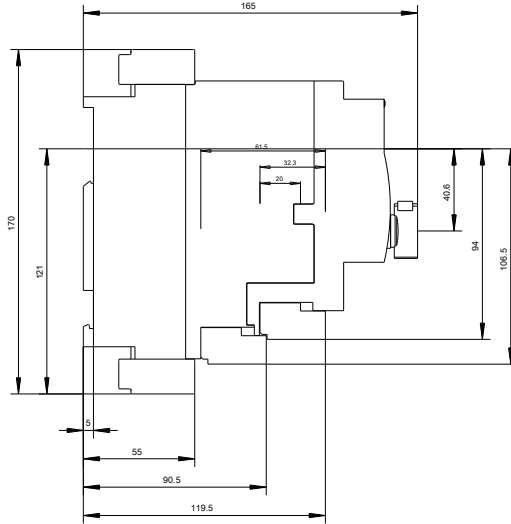
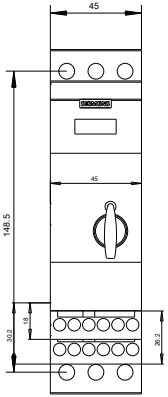
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RA61201CP32>

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

<http://support.automation.siemens.com/WW/view/en/3RA61201CP32/all>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RA61201CP32&lang=en



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