



SIRIUS, COMPACT STARTER,
 DIRECT STARTER 690 V, 24 V AC/DC,
 50 ... 60 HZ, 1 ... 4 A, IP20,
 CONNECTION MAIN CIRCUIT: SCREW TERMINAL,
 CONNECTION AUXILIARY CIRCUIT: SCREW TERMINAL

| General technical data: | | |
|--|----|---|
| product brand name | | SIRIUS |
| product designation | | compact starter |
| Design of the product | | direct starter |
| Trip class | | CLASS 10 and 20 adjustable |
| Product function | | |
| <ul style="list-style-type: none"> control circuit interface to parallel wiring | | Yes |
| <ul style="list-style-type: none"> bus-communication | | No |
| <ul style="list-style-type: none"> short circuit protection | | Yes |
| <ul style="list-style-type: none"> control circuit interface with IO link | | No |
| Type of assignment | | continuous operation according to IEC 60947-6-2 |
| Protection class IP | | IP20 |
| Degree of pollution | | 3 |
| mounting position / recommended | | vertical, on horizontal standard mounting rail |
| Installation altitude / at a height over sea level | | |
| <ul style="list-style-type: none"> maximum | m | 2,000 |
| Ambient temperature | | |
| <ul style="list-style-type: none"> during storage | °C | -55 ... +80 |
| <ul style="list-style-type: none"> during operating | °C | -20 ... +60 |
| <ul style="list-style-type: none"> during transport | °C | -55 ... +80 |

| | | |
|---|-------------|--|
| Relative humidity • during operating phase | % | 10 ... 90 |
| Resistance against shock | | a=60 m/s ² (6g) with 10 ms per 3 shocks in all axes |
| Resistance against vibration | | f= 4 ... 5.8 Hz, d= 15 mm; f= 5.8 ... 500 Hz, a= 20 m/s ² ; 10 cycles |
| Impulse voltage resistance / rated value | V | 6,000 |
| Field-bound parasitic coupling • according to IEC 61000-4-3 | | 10 V/m |
| Insulation voltage / rated value | V | 690 |
| Conductor-bound parasitic coupling conductor-earth SURGE • according to IEC 61000-4-5 | | 4 kV main contacts, 2 kV auxiliary contacts |
| Conductor-bound parasitic coupling conductor-conductor SURGE • according to IEC 61000-4-5 | | 2 kV main contacts, 1 kV auxiliary contacts |
| Conductor-bound parasitic coupling BURST • according to IEC 61000-4-4 | | 4 kV main contacts, 2 kV auxiliary contacts |
| Maximum permissible voltage for safe disconnection • between main circuit and auxiliary circuit • between control and auxiliary circuit • between auxiliary circuit and auxiliary circuit | V V V | 400 300 250 |
| Item designation • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 • according to DIN EN 61346-2 | | Q Q |

Main circuit:

| | | |
|--|----------------|---------------------|
| Operating voltage / at AC-3 / rated value • maximum | V | 690 |
| Number of poles / for main current circuit | | 3 |
| Adjustable response 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 |
| Emitted mechanical power / for 4-pole three-phase motor • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value | kW kW kW | 1.5 2.2 3 |
| Service power / at AC-3 / at 400 V / rated value | W | 1,500 |
| Frequency of operation / at AC-41 / according to IEC 60947-6-2 / maximum | 1/h | 750 |
| Frequency of operation / at AC-43 / according to IEC 60947-6-2 / maximum | 1/h | 250 |

| | | |
|--|-----|------------|
| Off-load operating frequency | 1/h | 3,600 |
| Mechanical operating cycles as operating time | | |
| • of the main contacts / typical | | 10,000,000 |
| • of the auxiliary contacts / typical | | 10,000,000 |
| • of the signal contacts / typical | | 10,000,000 |

Control circuit:

| | | |
|-----------------------------------|----|-----|
| type of voltage | | AC |
| Control supply voltage / 1 | | |
| • for DC | | |
| • rated value | V | 24 |
| • at 50 Hz / for AC | | |
| • rated value | V | 24 |
| • at 60 Hz / for AC | | |
| • rated value | V | 24 |
| Holding power | | |
| • for AC / maximum | W | 2.8 |
| • for DC / maximum | W | 2.9 |
| Switch-off delay time | ms | 50 |
| Start-up delay time | ms | 70 |

Auxiliary circuit:

| | | |
|--|---|---------|
| Product extension | | |
| • auxiliary switch | | Yes |
| Number of NC contacts | | |
| • for auxiliary contacts | | 1 |
| Number of NO contacts | | |
| • for auxiliary contacts | | 1 |
| • of the non-delayed short-circuit release / for alarm contact | | 1 |
| Number of changeover contacts / of the current-dependent overload release / for alarm contact | | 1 |
| Operating current / of the auxiliary contacts / at AC-12 | | |
| • maximum | A | 10 |
| Electrical switching cycle as operating time / of the auxiliary contacts | | |
| • at AC-15 / at 6 A / at 230 V / typical | | 500,000 |
| • at DC-13 / at 6 A / at 24 V / typical | | 100,000 |
| Electrical switching cycle as operating time / of the signal contacts | | |
| • at AC-15 / at 6 A / at 230 V / typical | | 500,000 |
| • at DC-13 / at 6 A / at 24 V / typical | | 100,000 |

Short-circuit:**Design of the fuse link / for short-circuit protection of the auxiliary switch**

- required

fuse gL/gG: 10 A

Installation/mounting/dimensions:**Type of mounting**

screw and snap-on mounting

Width

mm

45

Height

mm

170

Depth

mm

165

mounting position

any

Connections:**Product function**

- removable terminal for main circuit
- removable terminal for auxiliary and control circuit

Yes

Yes

Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

screw-type terminals

screw-type terminals

Type of the connectable conductor cross-section

- for main contacts
 - solid
 - finely stranded
 - with conductor end processing
- for auxiliary contacts
 - solid
 - finely stranded
 - with conductor end processing
- for AWG conductors
 - for main contacts
 - for auxiliary contacts

2x (1.5 ... 6 mm²), 1x 10 mm²2x (1.5 ... 6 mm²)0.5 ... 4 mm², 2x (0.5 ... 2.5 mm²)0.5 ... 2.5 mm², 2x (0.5 ... 1.5 mm²)

2x (16 ... 10), 1x 8

2x (20 ... 14)

Certificates/approvals:**Verification of suitability**

IEC / EN 60947-6-2

General Product Approval

EMC

**Functional Safety /
Safety of
Machinery**



CCC



CSA



GOST



UL



C-TICK

[other](#)

Test Certificates

Shipping Approval

[Type Test
Certificates/Test
Report](#)



BUREAU
VERITAS



DNV



PRS



RINA

other

[Declaration of
Conformity](#)

[other](#)

[Environmental
Confirmations](#)

UL/CSA ratings:

yielded mechanical performance (hp) / for three-phase squirrel cage motors

- at 200/208 V / rated value
- at 220/230 V / rated value
- at 460/480 V / rated value
- at 575/600 V / rated value

| | |
|----|------|
| hp | 0.75 |
| hp | 0.75 |
| hp | 2 |
| hp | 3 |

Operating current (FLA) / for three-phase squirrel cage motors

- at 480 V / rated value
- at 600 V / rated value

| | |
|---|---|
| A | 4 |
| A | 4 |

Contact rating designation / for 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

Reliability figures:

B10 value

3,000,000

Proportion of dangerous failures

% 50

Proportion of dangerous failures / with low demand rate / according to SN 31920

% 40

Protection against electrical shock

finger-safe

Failure rate (FIT value) / with low demand rate / according to SN 31920

FIT 100

Further information:

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

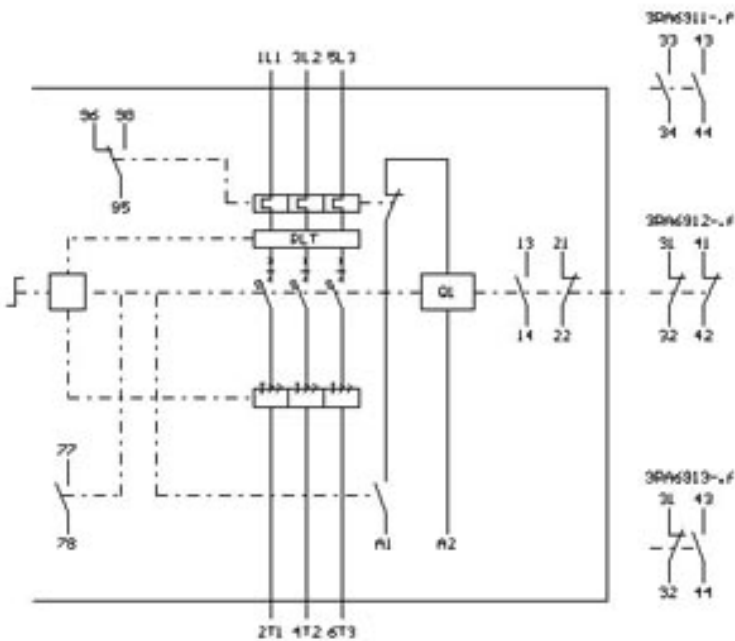
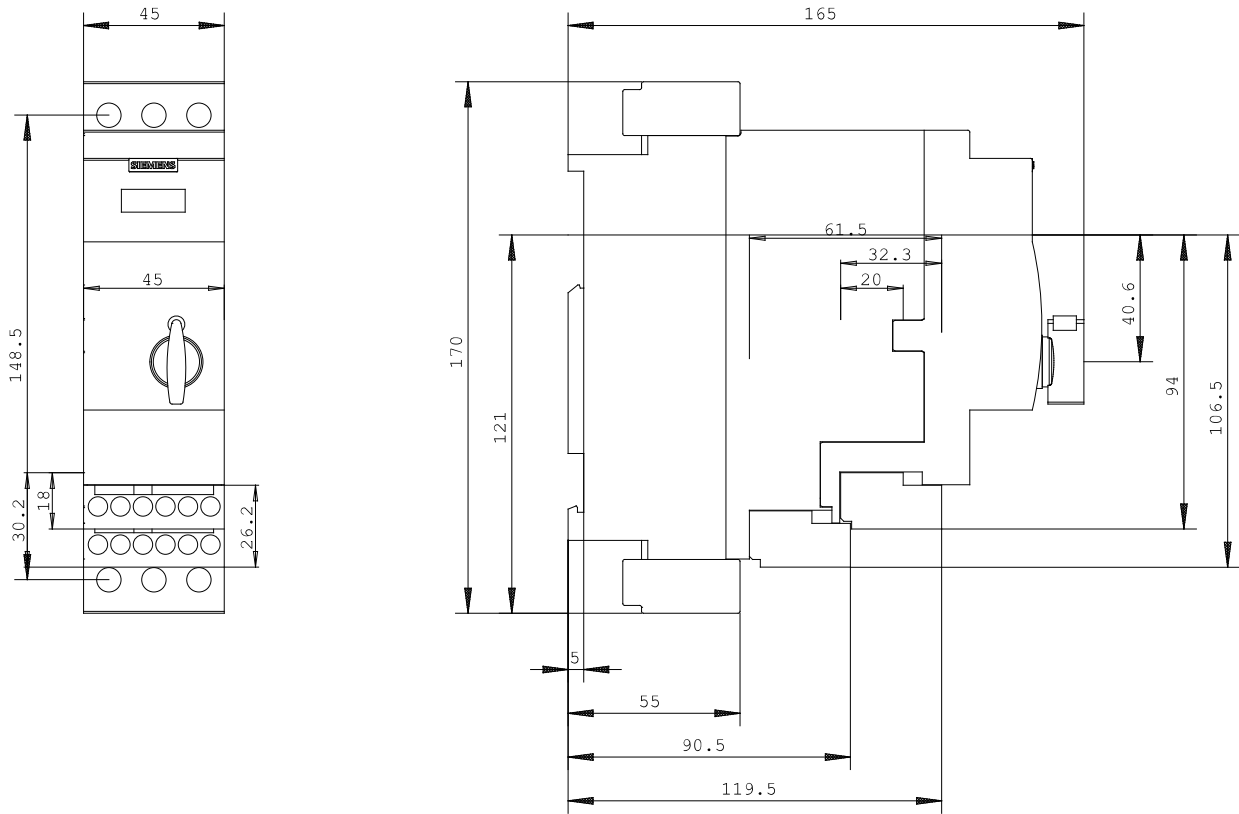
<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrial-controls/mall>

Cax online generator:

<http://www.siemens.com/cax>



last change:

Dec 3, 2012