



SIRIUS, COMPACT STARTER, DIRECT STARTER 690 V, 24 V AC/DC, 50 ... 60 HZ, 0.32 ... 1.25 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
Product expansion	
<ul style="list-style-type: none"> Auxiliary switch 	Yes
Insulation voltage	
<ul style="list-style-type: none"> Rated value 	690 V
Surge voltage resistance Rated value	6 000 V
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 	250 V 300 V 400 V
Protection class IP	IP20
Degree of pollution	3
Vibration resistance	f= 4 ... 5.8 Hz, d= 15 mm; f= 5.8 ... 500 Hz, a= 20 m/s ² ; 10 cycles
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 	100 000

<ul style="list-style-type: none"> • at AC-15 at 6 A at 230 V typical 	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 	100 000
<ul style="list-style-type: none"> • at AC-15 at 6 A at 230 V typical 	500 000
Type of assignment	continuous operation according to IEC 60947-6-2
Equipment marking	
<ul style="list-style-type: none"> • acc. to DIN EN 61346-2 	Q

Ambient conditions:

Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
<ul style="list-style-type: none"> • during operation 	-20 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-55 ... +80 °C
<ul style="list-style-type: none"> • during transport 	-55 ... +80 °C
Relative humidity during operation	10 ... 90 %

Main circuit:

Number of poles for main current circuit	3
Adjustable response value current of the current-dependent overload release	0.32 ... 1.25 A
Formula for making capacity limit current	$38.4 \times I_e$
Formula for interruption capacity limit current	$32 \times I_e$
Mechanical power output for 4-pole AC motor	
<ul style="list-style-type: none"> • at 400 V Rated value 	0.37 kW
<ul style="list-style-type: none"> • at 500 V Rated value 	0.55 kW
<ul style="list-style-type: none"> • at 690 V Rated value 	0.75 kW
Operating voltage	
<ul style="list-style-type: none"> • at AC-3 Rated value maximum 	690 V
Operating current	
<ul style="list-style-type: none"> • at AC at 400 V Rated value 	1.25 A
<ul style="list-style-type: none"> • at AC-43 <ul style="list-style-type: none"> — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value 	1.1 A 1.2 A 1.1 A
No-load switching frequency	3 600 1/h
Operating frequency	
<ul style="list-style-type: none"> • at AC-41 acc. to IEC 60947-6-2 maximum 	750 1/h
<ul style="list-style-type: none"> • at AC-43 acc. to IEC 60947-6-2 maximum 	250 1/h

Control circuit/ Control:

Type of voltage	AC
Control supply voltage 1 at AC	

<ul style="list-style-type: none"> • at 50 Hz Rated value • at 60 Hz Rated value 	24 V 24 V
Control supply voltage 1	
<ul style="list-style-type: none"> • at DC Rated value • Rated value 	24 V 50 Hz
Control supply voltage frequency 2 Rated value	60 Hz
Holding power	
<ul style="list-style-type: none"> • with AC maximum • for DC maximum 	2.8 W 2.9 W

Auxiliary circuit:

Number of NC contacts	
<ul style="list-style-type: none"> • for auxiliary contacts 	1
Number of NO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts • of the instantaneous short-circuit release for signaling contact 	1 1
Number of CO contacts	
<ul style="list-style-type: none"> • of the current-dependent overload release for signaling contact 	1
Operating current of the auxiliary contacts at AC-12 maximum	10 A
Operating current of the auxiliary contacts at DC-13	
<ul style="list-style-type: none"> • 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)	
<ul style="list-style-type: none"> • at 400 V • at 500 V Rated value • at 690 V Rated value 	53 kA 3 kA 3 kA

UL/CSA ratings:

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V Rated value • at 600 V Rated value 	1.25 A 1.25 A
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for three-phase AC motor <ul style="list-style-type: none"> — at 460/480 V Rated value — at 575/600 V Rated value 	0.5 hp 0.5 hp
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:**Design of the fuse link**

- 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**

- recommended

any

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
- removable terminal for auxiliary and control circuit

Yes

Yes

Type of electrical connection

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

screw-type terminals

screw-type terminals

Type of connectable conductor cross-section

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

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

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

Type of connectable conductor cross-section

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

0.5 ... 4 mm², 2x (0.5 ... 2.5 mm²)0.5 ... 2.5 mm², 2x (0.5 ... 1.5 mm²)

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
- with high demand rate acc. to SN 31920

40 %

50 %

T1 value for proof test interval or service life acc. to IEC 61508

20 y

Communication/ Protocol:

Product function Bus communication	No
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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
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
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Certificates/ approvals:

General Product Approval	EMC	Functional Safety/Safety of Machinery
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Declaration of Conformity	Test Certificates	Shipping Approval
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[Typrüfbescheinigung/Werkszeugnis](#)



Shipping Approval	other
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[Umweltbestätigung](#)

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

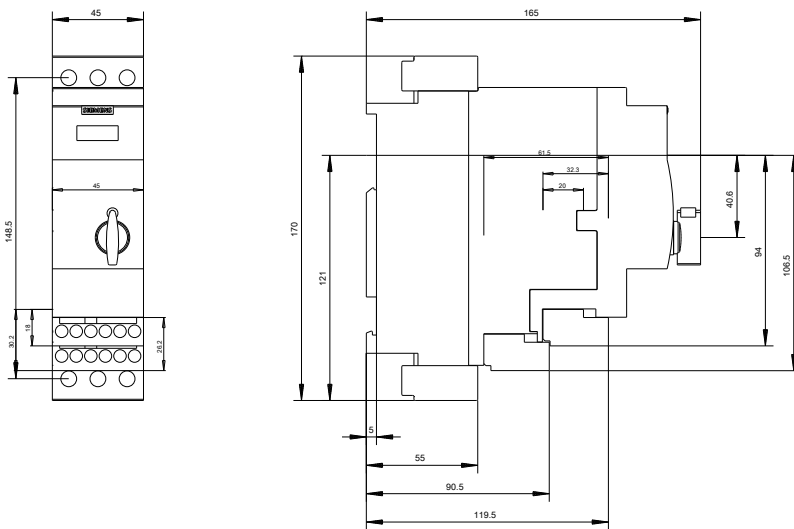
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RA61201BB32>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA61201BB32>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RA61201BB32&lang=en



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