



SIRIUS, COMPACT STARTER, DIRECT STARTER .
 690 V, 24 V DC, 3 ... 12 A, IP20, CONN. MAIN
 CIRCUIT: PLUG-IN, W/O TERMINALS, CONN.
 CONTROL 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 		No
Insulation voltage		
<ul style="list-style-type: none"> Rated value 	V	690
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
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	3 ... 12
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		
• at 400 V Rated value	kW	5.5
• at 500 V Rated value	kW	5.5
• at 690 V Rated value	kW	7.5
Operating voltage		
• at AC-3 Rated value maximum	V	690
Operating current		
• with AC at 400 V Rated value	A	12
• at AC-43		
— at 400 V Rated value	A	11.5
— at 500 V Rated value	A	12.4
— at 690 V Rated value	A	8.9
Operating power		
• at AC-3		
— at 400 V Rated value	kW	5.5
• at AC-43		
— at 400 V Rated value	W	5 500
— at 500 V Rated value	W	5 500
— at 690 V Rated value	W	7 500
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
Holding power		
• for DC maximum	W	2.9
Auxiliary circuit:		
Number of NC contacts		
• for auxiliary contacts		0
Number of NO contacts		
• for auxiliary contacts		0
• of the instantaneous short-circuit release for signaling contact		0
Number of CO contacts		

<ul style="list-style-type: none"> of the current-dependent overload release for signaling contact 		0
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 <ul style="list-style-type: none"> 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) <ul style="list-style-type: none"> at 400 V at 500 V Rated value at 690 V Rated value 	kA kA kA	53 3 3

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 	A A	12 12
yielded mechanical performance [hp] <ul style="list-style-type: none"> for three-phase AC motor at 200/208 V Rated value for three-phase AC motor at 220/230 V Rated value for three-phase AC motor at 460/480 V Rated value for three-phase AC motor at 575/600 V Rated value 	metric hp metric hp metric hp metric hp	3 3 7.5 10

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 		fuse gL/gG: 10 A

Installation/ mounting/ dimensions:

mounting position <ul style="list-style-type: none"> recommended 		any 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		plug-in without terminals screw-type terminals
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 		
Product function		Yes Yes
<ul style="list-style-type: none"> • removable terminal for main circuit • removable terminal for auxiliary and control circuit 		
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		
<ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	%	50
Protection against electrical shock		finger-safe

Communication/ Protocol:		
Product function Bus communication		Yes
Protocol is supported		Yes
<ul style="list-style-type: none"> • IO-Link protocol 		
Product function Control circuit interface with IO link		Yes
IO-Link transfer rate		COM2 (38,4 kBaud)
Point-to-point cycle time between master and IO-Link device minimum	ms	2.5
Type of voltage supply via input/output link master		No
Amount of data		
<ul style="list-style-type: none"> • of the address area of the inputs with cyclical transfer total • of the address area of the outputs with cyclical transfer total 	byte	2
	byte	2

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

Relative humidity during operation	%	10 ... 90
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Electromagnetic compatibility:

Conducted interference due to burst acc. to IEC 61000-4-4		4 kV main circuits, 2 kV auxiliary circuits, 2 kV IO-Link, 2 kV limit switches, 2 kV line hand-held device
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5		4 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5		2 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection
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		80 ... 3000 MHz at 10V/m
Electrostatic discharge acc. to IEC 61000-4-2		8 kV

Supply voltage:

Supply voltage required Auxiliary voltage		Yes
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Display:

Display version		green/red dual LED
<ul style="list-style-type: none"> as status display of the input/output link device 		

Certificates/ approvals:

General Product Approval	EMC	Functional Safety/Safety of Machinery
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Test Certificates	Shipping Approval
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[Type Test Certificates/Test Report](#)



other

[Environmental Confirmations](#) [Declaration of Conformity](#) [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

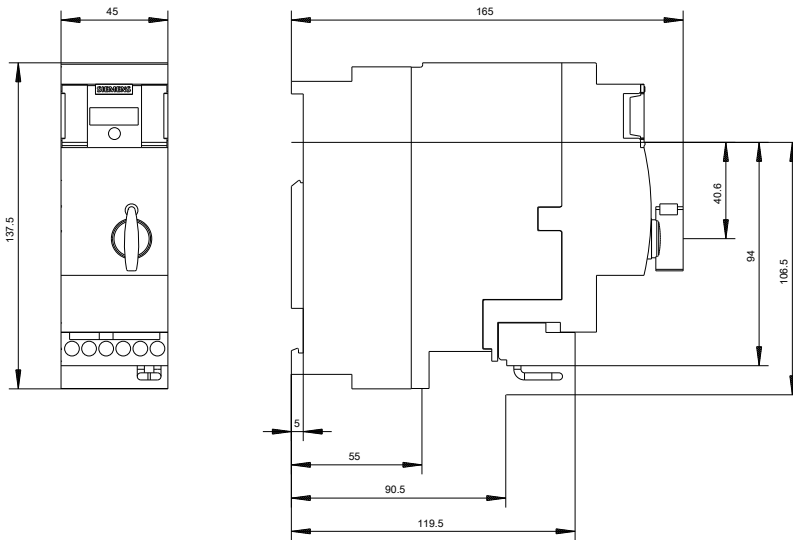
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RA64001DB43>

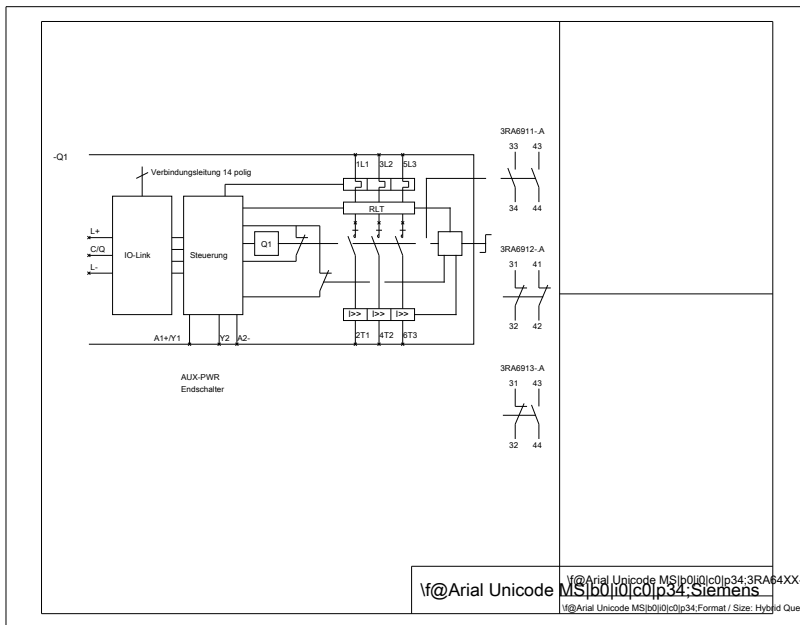
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RA64001DB43/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=3RA64001DB43&lang=en





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