



SIRIUS SOFT STARTER, VALUES WITH 400 V, 40 DEG., STANDARD: 93A, 45KW, INSIDE-DELTA
CIRCUIT 3: 161A, 90KW, 200-460 V AC, 230 V AC,
SCREW TERMINALS

General technical data:		
product brand name		SIRIUS
• Product equipment Integrated bypass contact system		Yes
• Product feature Thyristors		Yes
Product function		
• Intrinsic device protection		Yes
• motor overload protection		Yes
• Evaluation of thermistor motor protection		Yes
• External reset		Yes
• Adjustable current limitation		Yes
• Inside-delta circuit		Yes
Product component Motor brake output		Yes
Equipment marking acc. to DIN EN 61346-2		Q
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G
Power Electronics:		
Product designation		soft starters for high feature applications

Operating current		
• at 40 °C rated value	A	93
• at 50 °C rated value	A	82
• at 60 °C rated value	A	72
Operating current for three-phase motors at inside-delta circuit		
• at 40 °C rated value	A	161
• at 50 °C rated value	A	142
• at 60 °C rated value	A	125
Mechanical power output for three-phase motors		
• at 230 V		
— at standard circuit at 40 °C rated value	W	22 000
— at inside-delta circuit at 40 °C rated value	W	45 000
• at 400 V		
— at standard circuit at 40 °C rated value	W	45 000
— at inside-delta circuit at 40 °C rated value	W	90 000
Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	25
Operating frequency rated value	Hz	50 ... 60
Relative negative tolerance of the operating frequency	%	-10
Relative positive tolerance of the operating frequency	%	10
Operating voltage at standard circuit rated value	V	200 ... 460
Relative negative tolerance of the operating voltage at standard circuit	%	-15
Relative positive tolerance of the operating voltage at standard circuit	%	10
Operating voltage at inside-delta circuit rated value	V	200 ... 460
Relative negative tolerance of the operating voltage at inside-delta circuit	%	-15
Relative positive tolerance of the operating voltage at inside-delta circuit	%	10
Minimum load [% of IM]	%	8
Adjustable motor current for motor overload protection minimum rated value	A	18
Continuous operating current [% of I_e] at 40 °C	%	115
Power loss [W] at operating current at 40 °C during operation typical	W	55
Control electronics:		
Type of voltage of the control supply voltage		AC
Control supply voltage frequency 1 rated value	Hz	50
Control supply voltage frequency 2 rated value	Hz	60

Relative negative tolerance of the control supply voltage frequency	%	-10
Relative positive tolerance of the control supply voltage frequency	%	10
Control supply voltage 1 at AC		
• at 50 Hz rated value	V	230
• at 60 Hz rated value	V	230
Relative negative tolerance of the control supply voltage at AC at 60 Hz	%	-15
Relative positive tolerance of the control supply voltage at AC at 60 Hz	%	10
Display version for fault signal		Display

Mechanical data:

Width	mm	170
Height	mm	192
Depth	mm	270
Mounting type		screw fixing
Mounting position		with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
Required spacing with side-by-side mounting		
• upwards	mm	100
• at the side	mm	5
• downwards	mm	75
Installation altitude at height above sea level	m	5 000
Wire length maximum	m	500
Number of poles for main current circuit		3

Connections/ Terminals:

Type of electrical connection		
• for main current circuit		box terminals
• for auxiliary and control current circuit		screw-type terminals
Number of NC contacts for auxiliary contacts		0
Number of NO contacts for auxiliary contacts		3
Number of CO contacts for auxiliary contacts		1
Type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point		
• solid		2.5 ... 16 mm ²
• finely stranded with core end processing		2.5 ... 35 mm ²
• finely stranded without core end processing		4 ... 50 mm ²
• stranded		4 ... 70 mm ²

Type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point • solid • finely stranded with core end processing • finely stranded without core end processing • stranded		2,5 ... 16 mm ² 2.5 ... 50 mm ² 10 ... 50 mm ² 10 ... 70 mm ²
Type of connectable conductor cross-sections for main contacts for box terminal using both clamping points • solid • finely stranded with core end processing • finely stranded without core end processing • stranded		2x (2.5 ... 16 mm ²) 2x (2.5 ... 35 mm ²) 2x (4 ... 35 mm ²) 2x (4 ... 50 mm ²)
Type of connectable conductor cross-sections at AWG conductors for main contacts for box terminal • using the back clamping point • using the front clamping point • using both clamping points		10 ... 2/0 10 ... 2/0 2x (10 ... 1/0)
Type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing		2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²)
Type of connectable conductor cross-sections at AWG conductors • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing		2x (20 ... 14) 2x (20 ... 16)

Ambient conditions:

Ambient temperature		
• during operation	°C	60
• during storage	°C	-25 ... +80
Derating temperature	°C	40
Protection class IP		IP00

Certificates/ approvals:

General Product Approval				EMC	Declaration of Conformity
 CCC	 CSA	 UL		 C-Tick	 EG-Konf.

Test Certificates	Shipping Approval				
Typprüfbescheinigung/Werkszeugnis	spezielle Prüfbescheinigungen	 ABS	 BUREAU VERITAS	 DNV	 GL

Shipping Approval	other	
 LRS	 PRS	Umweltbestätigung Bestätigungen

UL/CSA ratings:

Yielded mechanical performance [hp] for three-phase AC motor		
• at 200/208 V		
— at inside-delta circuit at 50 °C rated value	hp	40
• at 220/230 V		
— at standard circuit at 50 °C rated value	hp	25
— at inside-delta circuit at 50 °C rated value	hp	50
• at 460/480 V		
— at standard circuit at 50 °C rated value	hp	60
— at inside-delta circuit at 50 °C rated value	hp	100
Contact rating of auxiliary contacts according to UL		B300 / R300

Further information

Simulation Tool for Soft Starters (STS)

<https://support.industry.siemens.com/cs/ww/en/view/101494917>

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

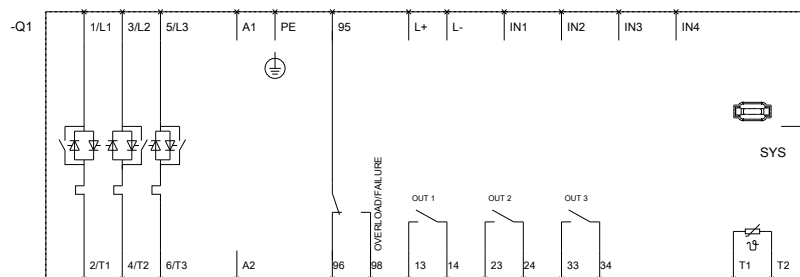
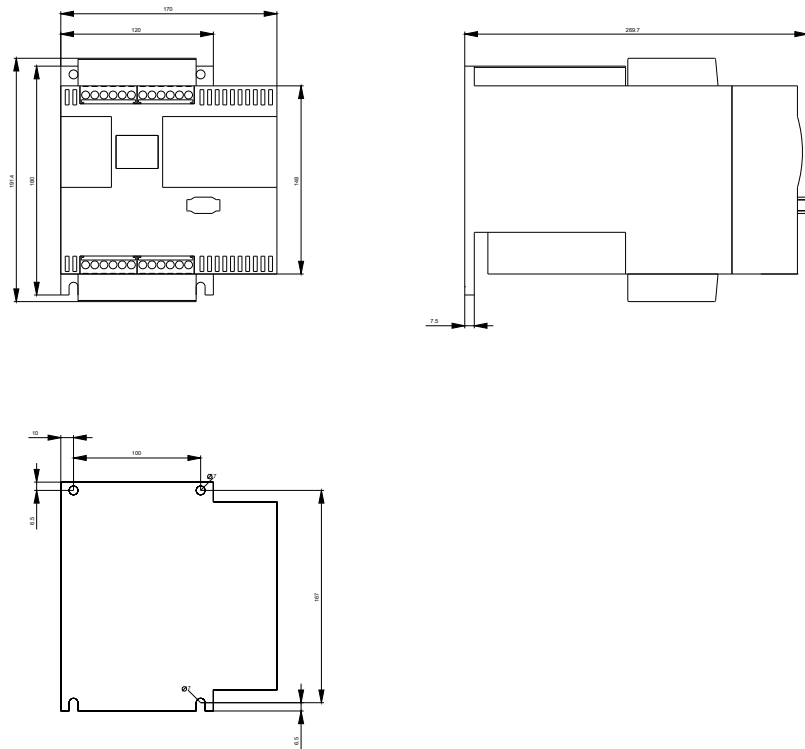
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4427-1BC44>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4427-1BC44>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4427-1BC44&lang=en



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