



SIRIUS SOFT STARTER, VALUES WITH 690 V,
40 DEG., STANDARD: 93A, 90KW,
INSIDE-DELTA CIRCUIT 3: ONLY UP TO 600V,
400-690 V AC, 230 V AC, SCREW TERMINALS

General details:

product brand name		SIRIUS
Product equipment		
• integrated bridging contact system		Yes
• thyristors		Yes
Product function		
• intrinsic device protection		Yes
• motor overload protection		Yes
• evaluation of thermal resistor motor protection		Yes
• reset external		Yes
• adjustable current limitation		Yes
• inside-delta circuit		Yes
Product component / outlet for engine brake		Yes
Item designation		
• according to DIN EN 61346-2		Q
• according to DIN 40719 extendable after IEC 204-2 / according 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
• for three-phase servomotors / at 3-phase root switching		
• at 40 °C / rated value	A	161
• at 50 °C / rated value	A	142
• at 60 °C / rated value	A	125
Emitted mechanical power / for three-phase servomotors		
• at 400 V / at standard switching / at 40 °C		
• rated value	W	45,000
• at 500 V / at standard switching / at 40 °C		
• rated value	W	55,000
• at 690 V / at standard switching / at 40 °C		
• rated value	W	90,000
• at 400 V / at 3-phase root switching / at 40 °C		
• rated value	W	90,000
• at 500 V / at 3-phase root switching / at 40 °C		
• rated value	W	110,000
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 / with standard circuit / rated value		
	V	400 ... 690
Relative negative tolerance / of the operating voltage / with standard circuit		
	%	-15
Relative positive tolerance / of the operating voltage / with standard circuit		
	%	10
Operating voltage / at 3-phase root switching / rated value		
	V	400 ... 600
Relative negative tolerance / of the operating voltage / with inside-delta circuit		
	%	-15
Relative positive tolerance / of the operating voltage / with inside-delta circuit		
	%	10
Minimum load in % of I_M		
	%	8
Adjustable rated current / of the motor / for motor overload protection / minimum		
	A	18
Continuous operating current in % of I_e / at 40°C		
	%	115
Active power loss / at operating current / at 40°C / during operating phase / typical		
	W	55
Control electronics:		
Type of voltage / of the controlled 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 50 Hz / for AC	V	230
• at 60 Hz / for AC	V	230
Relative negative tolerance / of the control supply voltage / at 60 Hz / for AC	%	-15
Relative positive tolerance / of the control supply voltage / at 60 Hz / for AC	%	10
Type of display / for fault signal		Display

Mechanical design:		
Width	mm	170
Height	mm	192
Depth	mm	270
Type of mounting		screw fixing
mounting position		bei senkrechter Montageebene +/-90° drehbar, bei senkrechter Montageebene +/- 22,5° nach vorne und hinten kippbar
Distance, to be maintained, to the ranks assembly		
• upwards	mm	100
• sideways	mm	5
• downwards	mm	75
Installation altitude / at a height over sea level	m	5,000
Cable length / maximum	m	500
Number of poles / for main current circuit		3

Electrical connections:		
Design of the 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 change-over switches / for auxiliary contacts		1
Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the front clamping point		
• solid		2.5 ... 16 mm ²
• finely stranded / with conductor end processing		2.5 ... 35 mm ²
• finely stranded / without conductor end processing		4 ... 50 mm ²
• stranded		4 ... 70 mm ²

Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the back clamping point • solid • finely stranded / with conductor end processing • without conductor final cutting / without conductor end processing • stranded		2,5 ... 16 mm ² 2.5 ... 50 mm ² 10 ... 50 mm ² 10 ... 70 mm ²
Type of the connectable conductor cross-section / for main contacts / for box terminal / when using both clamping points • solid • finely stranded / with conductor end processing • without conductor final cutting / without conductor 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 the connectable conductor cross-section / for AWG conductors / for main contacts / for box terminal • when using the back cl • when using the front c • when using both clampi		10 ... 2/0 10 ... 2/0 2x (10 ... 1/0)
Type of the connectable conductor cross-section • for auxiliary contacts • solid • finely stranded / with conductor end processing • for AWG conductors / for auxiliary contacts • finely stranded / with wire end proc		2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²) 2x (20 ... 14) 2x (20 ... 16)

Ambient conditions:

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

Certificates/approvals:

General Product Approval			EMC	Test Certificates	
 CSA	 GOST	 UL	 C-TICK	Special Test Certificate	Type Test Certificates/Test Report
Shipping Approval					
 BUREAU VERITAS	 DNV	 GL	 LRS	 PRS	
other					
Declaration of Conformity		Environmental Confirmations			

UL/CSA ratings

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

- at 460/480 V / at standard circuit
 - at 50 °C / rated value
- at 575/600 V / at standard circuit
 - at 50 °C / rated value
- at 460/480 V / at inside-delta circuit / at 50 °C / rated value
- at 575/600 V / at inside-delta circuit / at 50 °C / rated value

hp	60
hp	75
hp	100
hp	125

Contact rating designation / for auxiliary contacts / according to UL

B300 / R300

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

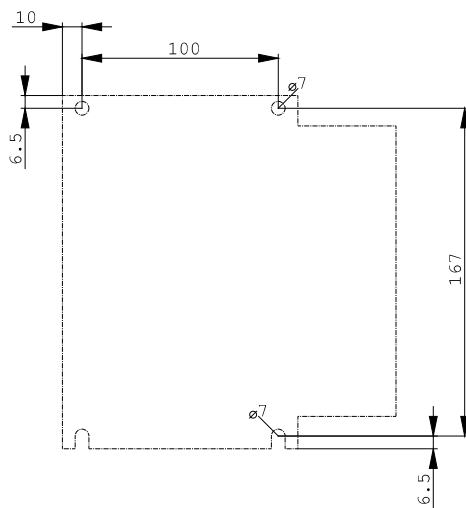
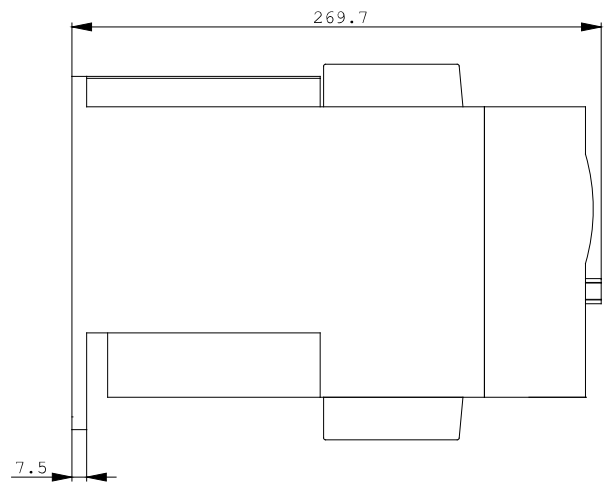
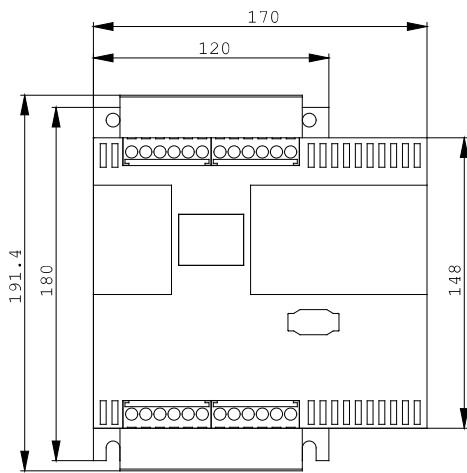
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RW4427-1BC46/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RW4427-1BC46



last change:

Feb 7, 2013