



SIRIUS SOFT STARTER, S12, 280 A,
160 KW/400 V, 40 DEG., 200-460 V AC,
230 V AC, SCREW TERMINALS

General details:		
product brand name		SIRIUS
Product equipment		
<ul style="list-style-type: none"> integrated bridging contact system 		Yes
<ul style="list-style-type: none"> thyristors 		Yes
Product function		
<ul style="list-style-type: none"> intrinsic device protection 		Yes
<ul style="list-style-type: none"> motor overload protection 		Yes
<ul style="list-style-type: none"> evaluation of thermal resistor motor protection 		No
<ul style="list-style-type: none"> reset external 		Yes
<ul style="list-style-type: none"> adjustable current limitation 		Yes
<ul style="list-style-type: none"> inside-delta circuit 		No
Product component / outlet for enine brake		No
Reference code		
<ul style="list-style-type: none"> according to DIN EN 61346-2 		Q
<ul style="list-style-type: none"> according to DIN 40719 extended according to IEC 204-2 / according to IEC 750 		G
Power Electronics:		
Product designation		soft starters for standard applications
Operating current		

• at 40 °C / rated value	A	280
• at 50 °C / rated value	A	248
• at 60 °C / rated value	A	215
Emitted mechanical power / for three-phase servomotors		
• at 230 V / at standard switching / at 40 °C		
• rated value	W	90,000
• at 400 V / at standard switching / at 40 °C		
• rated value	W	160,000
yielded mechanical performance [hp] / for three-phase squirrel cage motors / at 200/208 V / at standard circuit / at 50 °C / rated value	hp	75
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	200 ... 460
Relative negative tolerance / of the operating voltage / with standard circuit	%	-15
Relative positive tolerance / of the operating voltage / with standard circuit	%	10
Minimum load in % of I_M	%	20
Adjustable rated current of the motor / for motor overload protection / minimum	A	130
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	90

Control electronics:

Voltage type / of control feed 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		
• for AC / at 50 Hz	V	230
• for AC / at 60 Hz	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		red

Mechanical design:		
Size of the engine control device		S12
Width	mm	160
Height	mm	230
Depth	mm	278
Mounting type		screw fixing
mounting position		With additional fan: With vertical mounting surface +/- 90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back Without additional fan: With vertical mounting surface +/- 10° rotatable, with vertical mounting surface +/- 10° t
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	300
Number of poles / for main current circuit		3


Electrical connections:		
Design of the electrical connection		
• for main current circuit		busbar connection
• for auxiliary and control current circuit		screw-type terminals
Number of NC contacts / for auxiliary contacts		0
Number of NO contacts / for auxiliary contacts		2
Number of changeover contacts / for auxiliary contacts		1
Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the front clamping point		
• finely stranded / with conductor end processing		70 ... 240 mm ²
• finely stranded / without conductor end processing		70 ... 240 mm ²
• stranded		95 ... 300 mm ²
Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the back clamping point		
• finely stranded / with conductor end processing		120 ... 185 mm ²
• without conductor final cutting / without conductor end processing		120 ... 185 mm ²
• stranded		120 ... 240 mm ²
Type of the connectable conductor cross-section / for main contacts / for box terminal / when using both clamping points		
• finely stranded / with conductor end processing		min. 2x 50 mm ² , max. 2x 185 mm ²
• without conductor final cutting / without conductor end processing		min. 2x 50 mm ² , max. 2x 185 mm ²

<ul style="list-style-type: none"> • stranded 		max. 2x 70 mm ² , max. 2x 240 mm ²
Type of the connectable conductor cross-section / for AWG conductors / for main contacts / for box terminal <ul style="list-style-type: none"> • when using the back cl • when using the front c • when using both clampi 		250 ... 500 kcmil 3/0 ... 600 kcmil min. 2x 2/0, max. 2x 500 kcmil
Type of the connectable conductor cross-section / for DIN cable lug / for main contacts <ul style="list-style-type: none"> • finely stranded • stranded 		50 ... 240 mm ² 70 ... 240 mm ²
Type of the connectable conductor cross-section <ul style="list-style-type: none"> • for AWG conductors / for main contacts 		2/0 ... 500 kcmil
Type of the connectable conductor cross-section <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> • solid • finely stranded / with conductor end processing • for AWG conductors / for auxiliary contacts <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • during operating • during storage 	°C	-25 ... +60
	°C	-40 ... +80
Derating temperature	°C	40
Protection class IP		IP00

Certificates/approvals:

General Product Approval		EMC	For use in hazardous locations
 CCC	 CSA		 UL
		 C-TICK	 ATEX
Test Certificates	Shipping Approval	other	
Special Test Certificate	 DNV	 GL	 LRS
		Declaration of Conformity	Environmental Confirmations

UL/CSA ratings

yielded mechanical performance [hp] / for three-phase squirrel cage motors <ul style="list-style-type: none"> • at 220/230 V / at standard circuit • at 50 °C / rated value 	hp	100
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- at 460/480 V / at standard circuit
- at 50 °C / rated value

hp	200
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/3RW4074-6BB44/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RW4074-6BB44

