



SIRIUS SOFT STARTER, S3, 80A, 45KW/400V, 40 DEGR., AC 200-480V, AC/DC 24V, SCREW TERMINALS, THERMISTOR MOTOR PROTECTION

General technical data:

product brand name		SIRIUS
Product feature		
<ul style="list-style-type: none"> • integrated bypass 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 thermistor motor protection 		Yes
<ul style="list-style-type: none"> • External reset 		Yes
<ul style="list-style-type: none"> • Adjustable current limitation 		Yes
<ul style="list-style-type: none"> • inside-delta circuit 		No
Product component Motor brake output		No
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 standard applications
Operating current		
<ul style="list-style-type: none"> • at 40 °C Rated value 	A	80
<ul style="list-style-type: none"> • at 50 °C Rated value 	A	73
<ul style="list-style-type: none"> • at 60 °C Rated value 	A	66
Mechanical power output for three-phase motors		
<ul style="list-style-type: none"> • at 230 V 		

— at standard circuit at 40 °C Rated value	W	22 000
• at 400 V		
— at standard circuit at 40 °C Rated value	W	45 000
yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C Rated value	metric hp	20
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 ... 480
Relative negative tolerance of the operating voltage at standard circuit	%	-15
Relative positive tolerance of the operating voltage at standard circuit	%	10
Minimum load in % of I _M	%	20
Adjustable motor current for motor overload protection minimum rated value	A	43
Continuous operating current in % of I _e at 40 °C	%	115
Active power loss at operating current at 40 °C during operation typical	W	12

Control electronics:

Type of voltage of the control supply voltage		AC/DC
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 with AC		
• at 50 Hz Rated value	V	24
• at 60 Hz Rated value	V	24
Relative negative tolerance of the control supply voltage with AC at 60 Hz	%	-20
Relative positive tolerance of the control supply voltage with AC at 60 Hz	%	20
Control supply voltage 1 for DC Rated value	V	24
Relative negative tolerance of the control supply voltage for DC	%	-20
Relative positive tolerance of the control supply voltage for DC	%	20
Display version for fault signal		red

Mechanical data:

Size of engine control device		S3
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Width	mm	70
Height	mm	170
Depth	mm	190
Mounting type		screw and snap-on mounting
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
Required spacing with side-by-side mounting		
• upwards	mm	60
• at the side	mm	30
• downwards	mm	40
Installation altitude at height above sea level	m	5 000
Cable length maximum	m	300
Number of poles for main current circuit		3

Connections/ Terminals:

Type of electrical connection		
• for main current circuit		screw-type 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		2
Number of CO contacts for auxiliary contacts		1
Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point		
• solid		2x (2.5 ... 16 mm ²)
• finely stranded with core end processing		2.5 ... 35 mm ²
• stranded		4 ... 70 mm ²
Type of connectable conductor cross-section for main contacts for box terminal using the back clamping point		
• solid		2x (2.5 ... 16 mm ²)
• finely stranded with core end processing		2.5 ... 50 mm ²
• stranded		10 ... 70 mm ²
Type of connectable conductor cross-section for main contacts for box terminal using both clamping points		
• solid		2x (2.5 ... 16 mm ²)
• finely stranded with core end processing		2x (2.5 ... 35 mm ²)
• stranded		2x (10 ... 50 mm ²)
Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal		
• using the back clamping point		2x (10 ... 1/0)

<ul style="list-style-type: none"> • using the front clamping point • using both clamping points 		2x (10 ... 1/0) 10 ... 2/0
Type of connectable conductor cross-section for DIN cable lug for main contacts <ul style="list-style-type: none"> • finely stranded • stranded 		2 x (10 ... 50 mm ²) 2x (10 ... 70 mm ²)
Type of connectable conductor cross-section for auxiliary contacts <ul style="list-style-type: none"> • 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-section for AWG conductors <ul style="list-style-type: none"> • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing 		2x (7 ... 1/0) 2x (20 ... 14) 2x (20 ... 16)

Ambient conditions:

Ambient temperature <ul style="list-style-type: none"> • during operation • during storage 	°C °C	-25 ... +60 -40 ... +80
Derating temperature	°C	40
Protection class IP		IP00

Certificates/ approvals:

General Product Approval	EMC	For use in hazardous locations
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Test Certificates	Shipping Approval
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



other

[Environmental Confirmations](#)

[Declaration of Conformity](#)

UL/CSA ratings:

yielded mechanical performance [hp] for three-phase AC motor		
<ul style="list-style-type: none"> • at 220/230 V <ul style="list-style-type: none"> — at standard circuit at 50 °C Rated value • at 460/480 V <ul style="list-style-type: none"> — at standard circuit at 50 °C Rated value 	metric hp	25
	metric hp	50
Contact rating of the auxiliary contacts acc. to UL		B300 / R300

Further information

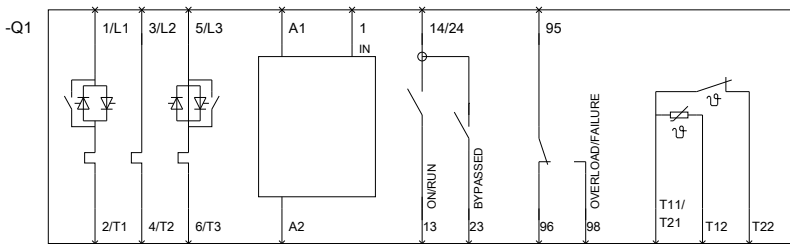
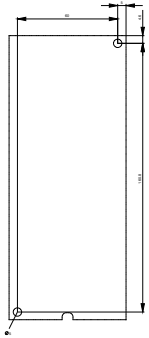
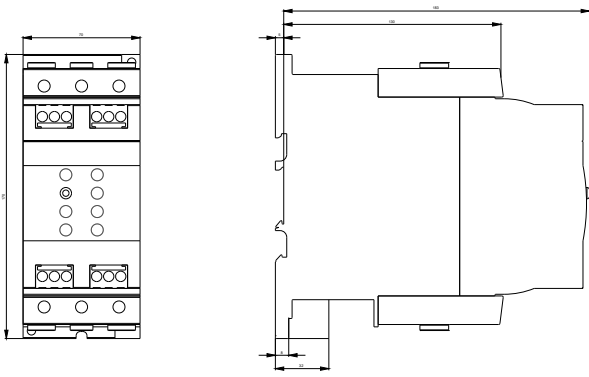
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