



SIRIUS soft starter S00 12.5 A, 5.5 kW/400 V, 40 °C 200-480 V AC, 24 V AC/DC Spring-type terminals

General technical data

product brand name		SIRIUS
product designation		Soft starter
product feature		
• integrated bypass contact system		Yes
• thyristors		Yes
product function		
• intrinsic device protection		No
• motor overload protection		No
• evaluation of thermistor motor protection		No
• external reset		No
• adjustable current limitation		No
• inside-delta circuit		No
product component motor brake output		No
insulation voltage rated value	V	600
degree of pollution		3, acc. to IEC 60947-4-2
blocking voltage of the thyristor maximum	V	1 600
reference code according to EN 61346-2		Q
reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750		G

Power Electronics

operational current		
• at 40 °C rated value	A	12.5
• at 50 °C rated value	A	12
• at 60 °C rated value	A	11
yielded mechanical performance for 3-phase motors		
• at 230 V		
— at standard circuit at 40 °C rated value	kW	3
• at 400 V		
— at standard circuit at 40 °C rated value	kW	5.5
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	3
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 [%]	%	10

continuous operating current [% of I _e] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	2
Control circuit/ Control		
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 at AC		
• at 50 Hz rated value	V	24
• at 60 Hz rated value	V	24
relative negative tolerance of the control supply voltage at AC at 50 Hz	%	-15
relative positive tolerance of the control supply voltage at AC at 50 Hz	%	10
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
control supply voltage 1 at DC rated value	V	24
relative negative tolerance of the control supply voltage at DC	%	-20
relative positive tolerance of the control supply voltage at DC	%	20
display version for fault signal		red
Mechanical data		
size of engine control device		S00
width	mm	45
height	mm	120
depth	mm	150
fastening method		screw and snap-on mounting
mounting position		With vertical mounting surface +/-10° rotatable, with vertical mounting surface +/- 10° tiltable to the front and back
required spacing with side-by-side mounting		
• upwards	mm	60
• at the side	mm	15
• downwards	mm	40
wire length maximum	m	300
number of poles for main current circuit		3
Connections/ Terminals		
type of electrical connection		
• for main current circuit		spring-loaded terminals
• for auxiliary and control circuit		spring-loaded terminals
number of NC contacts for auxiliary contacts		0
number of NO contacts for auxiliary contacts		1
number of CO contacts for auxiliary contacts		0
type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point		
• solid		2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²)
• finely stranded with core end processing		2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²)
type of connectable conductor cross-sections for AWG cables for main contacts for box terminal		
• using the front clamping point		2x (16 ... 10)
type of connectable conductor cross-sections for main contacts		
• solid		1 ... 4 mm ²
• finely stranded with core end processing		1 ... 2.5 mm ²
type of connectable conductor cross-sections for auxiliary contacts		
• solid		2x (0.25 ... 2.5 mm ²)
• finely stranded with core end processing		2x (0.25 ... 1.5 mm ²)
type of connectable conductor cross-sections for AWG		

cables		
• for main contacts		16 ... 12
• for auxiliary contacts		2x (24 ... 14)

Ambient conditions

installation altitude at height above sea level	m	5 000
environmental category		
• during transport according to IEC 60721		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
• during storage according to IEC 60721		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
• during operation according to IEC 60721		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
ambient temperature		
• during operation	°C	-25 ... +60
• during storage	°C	-40 ... +80
derating temperature	°C	40
protection class IP on the front according to IEC 60529		IP20
touch protection on the front according to IEC 60529		finger-safe, for vertical contact from the front

Environmental footprint

global warming potential [CO2 eq] total	kg	63.9
global warming potential [CO2 eq] during manufacturing	kg	11.1
global warming potential [CO2 eq] during sales	kg	0.109
global warming potential [CO2 eq] during operation	kg	54.3
global warming potential [CO2 eq] after end of life	kg	-1.64

UL/CSA ratings

yielded mechanical performance [hp] for 3-phase AC motor		
• at 220/230 V		
— at standard circuit at 50 °C rated value	hp	3
• at 460/480 V		
— at standard circuit at 50 °C rated value	hp	7.5
contact rating of auxiliary contacts according to UL		B300 / R300

Approvals Certificates

General Product Approval



[Confirmation](#)



EMV	Test Certificates	other	Environment
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[KC](#)

[Type Test Certificates/Test Report](#)

[Confirmation](#)

[Miscellaneous](#)



Environment

Siemens
EcoTech



[Environmental Confirmations](#)

Further information

Simulation Tool for Soft Starters (STS)

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

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW3017-2BB04>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW3017-2BB04>



