

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 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
Reference code acc. to DIN EN 61346-2		Q
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G

## Power Electronics

<b>Product designation</b>		Soft starter
<b>Operating current</b>		
• at 40 °C rated value	A	12.5
• at 50 °C rated value	A	12
• at 60 °C rated value	A	11
<b>Mechanical power output for three-phase motors</b>		
• at 230 V — at standard circuit at 40 °C rated value	W	3 000
• at 400 V — at standard circuit at 40 °C rated value	W	5 500
<b>Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value</b>	hp	3
<b>Operating frequency rated value</b>	Hz	50 ... 60
<b>Relative negative tolerance of the operating frequency</b>	%	-10
<b>Relative positive tolerance of the operating frequency</b>	%	10
<b>Operating voltage at standard circuit rated value</b>	V	200 ... 480
<b>Relative negative tolerance of the operating voltage at standard circuit</b>	%	-15
<b>Relative positive tolerance of the operating voltage at standard circuit</b>	%	10
<b>Minimum load [%]</b>	%	10
<b>Continuous operating current [% of Ie] at 40 °C</b>	%	115
<b>Power loss [W] at operating current at 40 °C during operation typical</b>	W	2

## Control electronics

<b>Type of voltage of the control supply voltage</b>		AC/DC
<b>Control supply voltage frequency 1 rated value</b>	Hz	50
<b>Control supply voltage frequency 2 rated value</b>	Hz	60
<b>Relative negative tolerance of the control supply voltage frequency</b>	%	-10
<b>Relative positive tolerance of the control supply voltage frequency</b>	%	10
<b>Control supply voltage 1 at AC</b>		
• at 50 Hz rated value	V	24
• at 60 Hz rated value	V	24
<b>Relative negative tolerance of the control supply voltage at AC at 50 Hz</b>	%	-20
<b>Relative positive tolerance of the control supply voltage at AC at 50 Hz</b>	%	20
<b>Relative negative tolerance of the control supply voltage at AC at 60 Hz</b>	%	-20

Relative positive tolerance of the control supply voltage at AC at 60 Hz	%	20
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
(mounting type)		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 current 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 <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> )
• finely stranded with core end processing		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> )
Type of connectable conductor cross-sections at AWG conductors 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 <sup>2</sup>
• finely stranded with core end processing		1 ... 2.5 mm <sup>2</sup>

Type of connectable conductor cross-sections for auxiliary contacts		
• solid		2x (0.25 ... 2.5 mm <sup>2</sup> )
• finely stranded with core end processing		2x (0.25 ... 1.5 mm <sup>2</sup> )
Type of connectable conductor cross-sections at AWG conductors		
• for main contacts		16 ... 12
• for auxiliary contacts		2x (24 ... 14)
<b>Ambient conditions</b>		
Installation altitude at height above sea level	m	5 000
Environmental category		
• during transport acc. to IEC 60721		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
• during storage acc. to IEC 60721		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
• during operation acc. 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		IP20

<b>Certificates/approvals</b>		
General Product Approval	EMC	Declaration of Conformity



CCC



CSA



UL



EG-Konf.

Declaration of Conformity	Test Certificates	other
<a href="#">Miscellaneous</a>	<a href="#">Type Test Certificates/Test Report</a>	<a href="#">Miscellaneous</a>

UL/CSA ratings	
Yielded mechanical performance [hp] for three-phase AC motor	
• at 220/230 V	

— at standard circuit at 50 °C rated value	hp	3
• at 460/480 V	hp	7.5
— at standard circuit at 50 °C rated value		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)

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

### Cax online generator

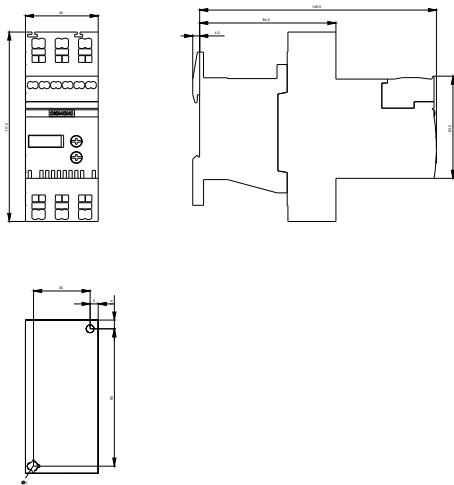
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW3017-2BB04>

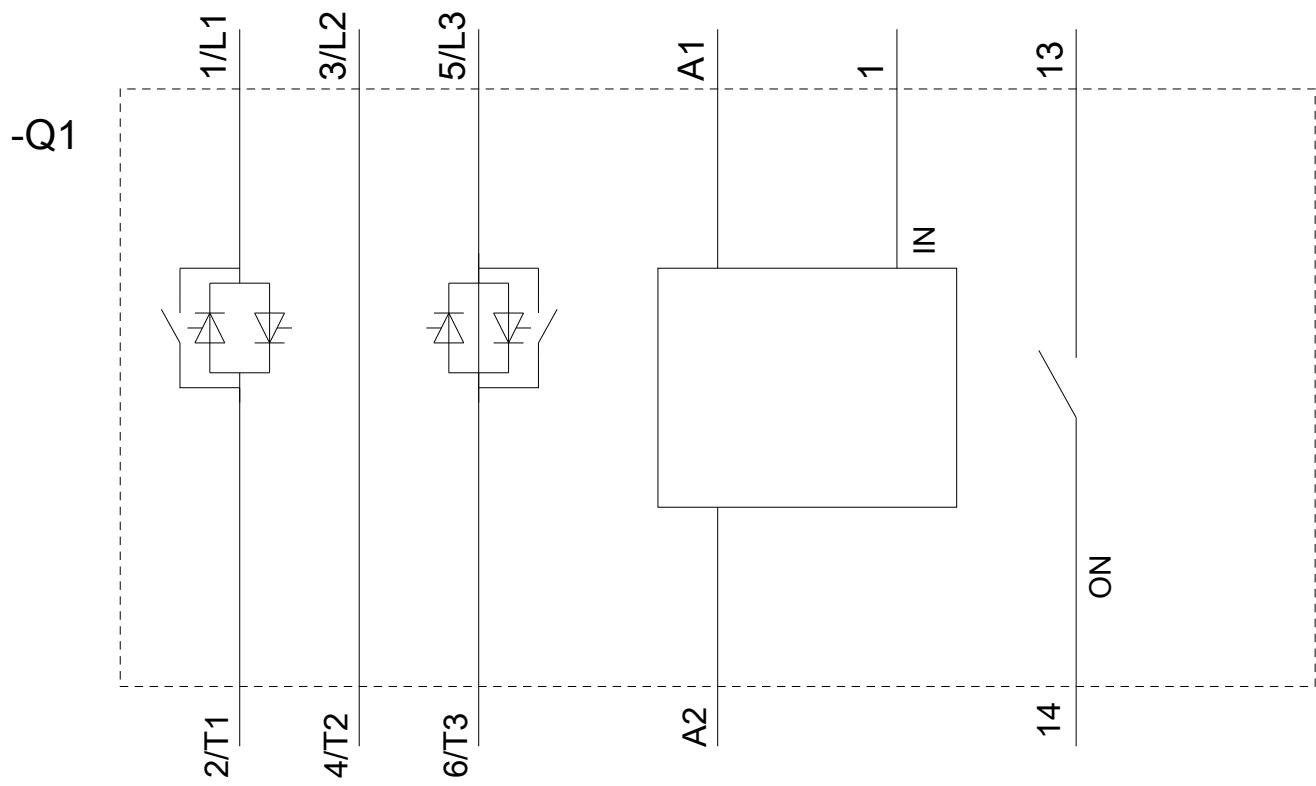
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW3017-2BB04>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW3017-2BB04&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW3017-2BB04&lang=en)





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