



SIRIUS soft starter S3 106 A, 75 kW/500 V, 40 °C 400-600 V AC, 110-230 V AC/DC Screw terminals

General technical data		
product brand name		SIRIUS
product feature		
• integrated bypass contact system		Yes
• thyristors		Yes
product function		
• intrinsic device protection		Yes
• motor overload protection		Yes
• evaluation of thermistor motor protection		No
• external reset		Yes
• adjustable current limitation		Yes
• 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		
product designation		Soft starter
operational current		
• at 40 °C rated value	A	106
• at 50 °C rated value	A	98
• at 60 °C rated value	A	90
yielded mechanical performance for 3-phase motors		
• at 400 V		
— at standard circuit at 40 °C rated value	W	55 000
• at 500 V		
— at standard circuit at 40 °C rated value	W	75 000
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 at standard circuit rated value	V	400 ... 600
relative negative tolerance of the operating voltage at standard circuit	%	-15
relative positive tolerance of the operating voltage at standard circuit	%	10
minimum load [%]	%	20

adjustable motor current for motor overload protection minimum rated value	A	46
continuous operating current [% of $I_e$ ] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	21
<b>Control circuit/ Control</b>		
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	V	110 ... 230
control supply voltage 1 at AC at 60 Hz	V	110 ... 230
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	V	110 ... 230
relative negative tolerance of the control supply voltage at DC	%	-15
relative positive tolerance of the control supply voltage at DC	%	10
display version for fault signal		red
<b>Mechanical data</b>		
size of engine control device		S3
width	mm	70
height	mm	170
depth	mm	190
fastening method		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
wire length maximum	m	300
number of poles for main current circuit		3
<b>Connections/ Terminals</b>		
type of electrical connection		
• for main current circuit		screw-type terminals
• for auxiliary and control 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-sections for main contacts for box terminal using the front clamping point		
• solid		2x (2.5 ... 16 mm <sup>2</sup> )
• finely stranded with core end processing		2.5 ... 35 mm <sup>2</sup>
• stranded		4 ... 70 mm <sup>2</sup>
type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point		

• solid • finely stranded with core end processing • stranded		2x (2.5 ... 16 mm <sup>2</sup> ) 2.5 ... 50 mm <sup>2</sup> 10 ... 70 mm <sup>2</sup>
<b>type of connectable conductor cross-sections for main contacts for box terminal using both clamping points</b>  • solid • finely stranded with core end processing • stranded		2x (2.5 ... 16 mm <sup>2</sup> ) 2x (2.5 ... 35 mm <sup>2</sup> ) 2x (10 ... 50 mm <sup>2</sup> )
<b>type of connectable conductor cross-sections at AWG cables for main contacts for box terminal</b>  • using the back clamping point • using the front clamping point • using both clamping points		2x (10 ... 1/0) 2x (10 ... 1/0) 10 ... 2/0
<b>type of connectable conductor cross-sections for DIN cable lug for main contacts</b>  • finely stranded • stranded		2 x (10 ... 50 mm <sup>2</sup> ) 2x (10 ... 70 mm <sup>2</sup> )
<b>type of connectable conductor cross-sections for auxiliary contacts</b>  • solid • finely stranded with core end processing		2x (0.5 ... 2.5 mm <sup>2</sup> ) 2x (0.5 ... 1.5 mm <sup>2</sup> )
<b>type of connectable conductor cross-sections at AWG cables</b>  • 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

<b>installation altitude at height above sea level</b>	m	5 000
<b>environmental category</b>		
• 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
<b>ambient temperature</b>	°C	-25 ... +60
• during operation	°C	-40 ... +80
• during storage		
<b>derating temperature</b>	°C	40
<b>protection class IP on the front acc. to IEC 60529</b>		IP20
<b>touch protection on the front acc. to IEC 60529</b>		finger-safe, for vertical contact from the front

#### Certificates/ approvals

<b>General Product Approval</b>	EMC	For use in hazardous locations
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Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



[Confirmation](#)[Vibration and Shock](#)**UL/CSA ratings**

yielded mechanical performance [hp] for 3-phase AC motor

## • at 460/480 V

— at standard circuit at 50 °C rated value

hp

75

## • at 575/600 V

— at standard circuit at 50 °C rated value

hp

75

contact rating of auxiliary contacts according to UL

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,...)

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4047-1BB15>

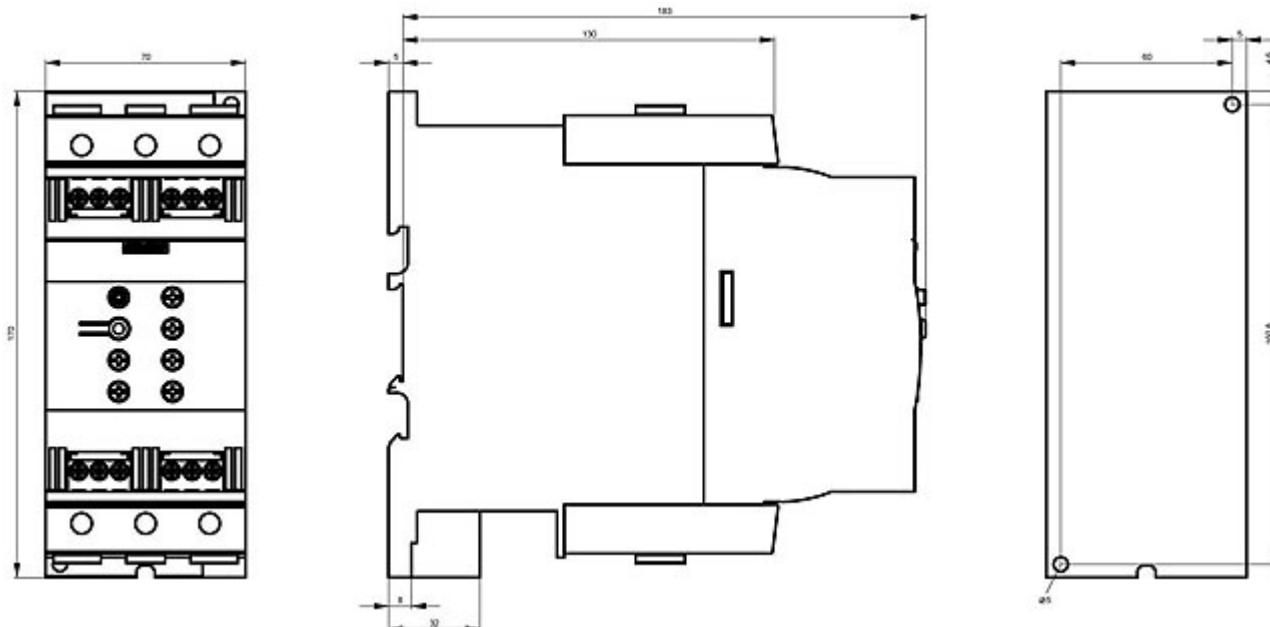
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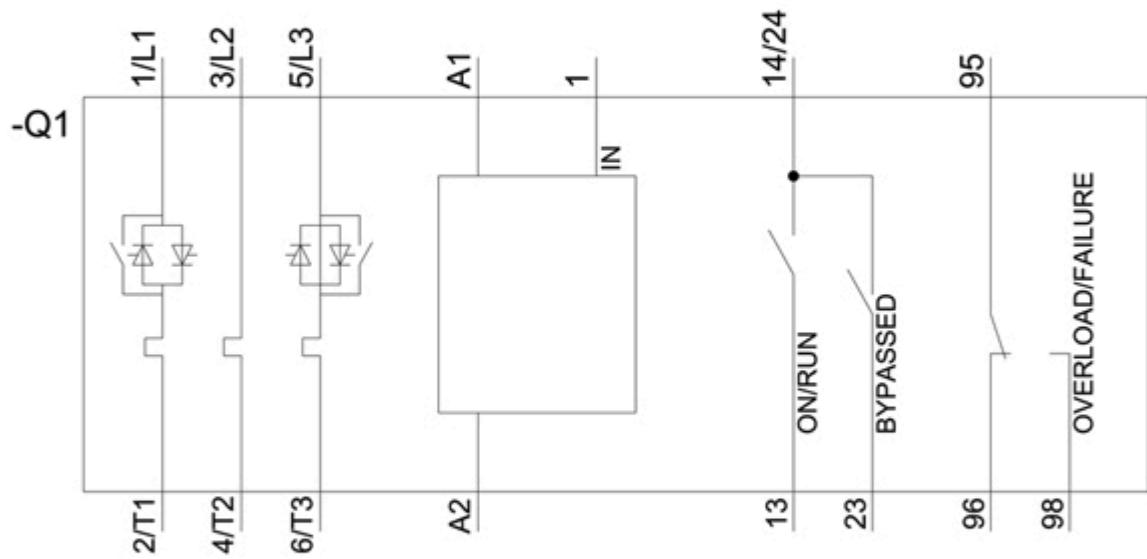
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4047-1BB15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4047-1BB15>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4047-1BB15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4047-1BB15&lang=en)



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