

SIRIUS SOFT STARTER, S3, 80A, 55KW/500V, 40 DEGR., AC 400-600V, AC/DC 110-230V, SCREW TERMINALS



General technical data:

<b>product brand name</b>		SIRIUS
<b>Product feature</b>		
<ul style="list-style-type: none"> <li>integrated bypass contact system</li> </ul>		Yes
<ul style="list-style-type: none"> <li>Thyristors</li> </ul>		Yes
<b>Product function</b>		
<ul style="list-style-type: none"> <li>Intrinsic device protection</li> </ul>		Yes
<ul style="list-style-type: none"> <li>motor overload protection</li> </ul>		Yes
<ul style="list-style-type: none"> <li>Evaluation of thermistor motor protection</li> </ul>		No
<ul style="list-style-type: none"> <li>External reset</li> </ul>		Yes
<ul style="list-style-type: none"> <li>Adjustable current limitation</li> </ul>		Yes
<ul style="list-style-type: none"> <li>inside-delta circuit</li> </ul>		No
<b>Product component Motor brake output</b>		No
<b>Equipment marking acc. to DIN EN 61346-2</b>		Q
<b>Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>		G

Power Electronics:

<b>Product designation</b>		soft starters for standard applications
----------------------------	--	---

<b>Operating current</b>		
• at 40 °C Rated value	A	80
• at 50 °C Rated value	A	73
• at 60 °C Rated value	A	66
<b>Mechanical power output for three-phase motors</b>		
• at 400 V		
— at standard circuit at 40 °C Rated value	W	45 000
• at 500 V		
— at standard circuit at 40 °C Rated value	W	55 000
Operating frequency Rated value	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	400 ... 600
<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 [% of IM]</b>	%	20
<b>Adjustable motor current for motor overload protection minimum rated value</b>	A	43
<b>Continuous operating current [% of I<sub>e</sub>] at 40 °C</b>	%	115
<b>Active power loss at operating current at 40 °C during operation typical</b>	W	12

<b>Control electronics:</b>		
<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 at 50 Hz</b>	V	110 ... 230
<b>Control supply voltage 1 at AC at 60 Hz</b>	V	110 ... 230
<b>Relative negative tolerance of the control supply voltage at AC at 60 Hz</b>	%	-15
<b>Relative positive tolerance of the control supply voltage at AC at 60 Hz</b>	%	10
<b>Control supply voltage 1 at DC</b>	V	110 ... 230
<b>Relative negative tolerance of the control supply voltage at DC</b>	%	-15
<b>Relative positive tolerance of the control supply voltage at DC</b>	%	10
<b>Display version for fault signal</b>		red

**Mechanical data:**

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

**Connections/ Terminals:**

<b>Type of electrical connection</b>		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
<b>Number of NC contacts for auxiliary contacts</b>		0
<b>Number of NO contacts for auxiliary contacts</b>		2
<b>Number of CO contacts for auxiliary contacts</b>		1
Type of connectable conductor cross-section 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-section for main contacts for box terminal using the back clamping point		
• solid		2x (2.5 ... 16 mm <sup>2</sup> )
• finely stranded with core end processing		2.5 ... 50 mm <sup>2</sup>
• stranded		10 ... 70 mm <sup>2</sup>
Type of connectable conductor cross-section for main contacts for box terminal using both clamping points		
• solid		2x (2.5 ... 16 mm <sup>2</sup> )
• finely stranded with core end processing		2x (2.5 ... 35 mm <sup>2</sup> )
• stranded		2x (10 ... 50 mm <sup>2</sup> )

<b>Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal</b> <ul style="list-style-type: none"> <li>• using the back clamping point</li> <li>• using the front clamping point</li> <li>• using both clamping points</li> </ul>		2x (10 ... 1/0) 2x (10 ... 1/0) 10 ... 2/0
<b>Type of connectable conductor cross-section for DIN cable lug for main contacts</b> <ul style="list-style-type: none"> <li>• finely stranded</li> <li>• stranded</li> </ul>		2 x (10 ... 50 mm <sup>2</sup> ) 2x (10 ... 70 mm <sup>2</sup> )
<b>Type of connectable conductor cross-section for auxiliary contacts</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> </ul>		2x (0.5 ... 2.5 mm <sup>2</sup> ) 2x (0.5 ... 1.5 mm <sup>2</sup> )
<b>Type of connectable conductor cross-section for AWG conductors</b> <ul style="list-style-type: none"> <li>• for main contacts</li> <li>• for auxiliary contacts</li> <li>• for auxiliary contacts finely stranded with core end processing</li> </ul>		2x (7 ... 1/0) 2x (20 ... 14) 2x (20 ... 16)

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

Certificates/ approvals:

General Product Approval	EMC	For use in hazardous locations
--------------------------	-----	--------------------------------



Declaration of Conformity	Test Certificates	Shipping Approval
---------------------------	-------------------	-------------------



[Typprüfbescheinigung/Werkszeugnis](#)

[spezielle Prüfbescheinigung](#)



Shipping Approval	other
-------------------	-------



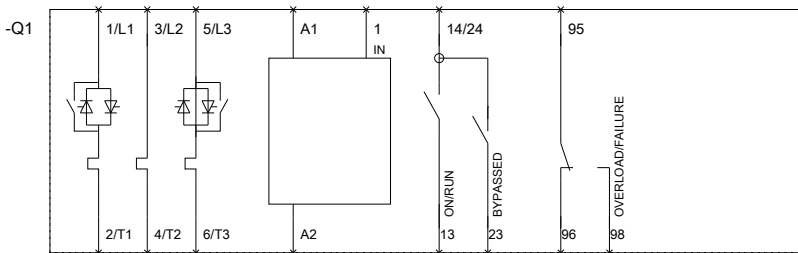
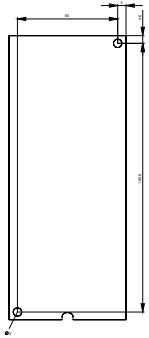
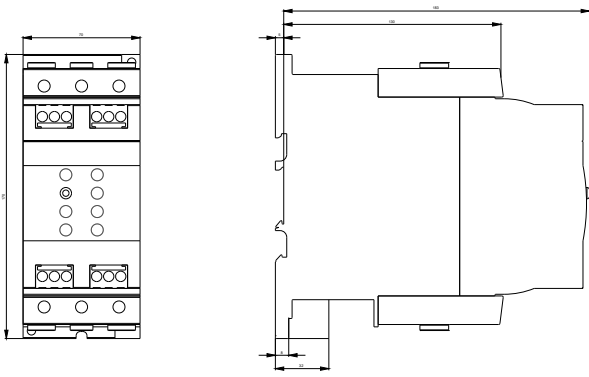
[Umweltbestätigung](#)

**UL/CSA ratings:**

<b>yielded mechanical performance [hp] for three-phase AC motor</b>		
<ul style="list-style-type: none"> <li>at 460/480 V           <ul style="list-style-type: none"> <li>at standard circuit at 50 °C Rated value</li> </ul> </li> <li>at 575/600 V           <ul style="list-style-type: none"> <li>at standard circuit at 50 °C Rated value</li> </ul> </li> </ul>	hp	50
	hp	60
<b>Contact rating of the auxiliary contacts acc. to UL</b>		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)**  
<http://www.siemens.com/industrymall>
- Cax online generator**  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW40461BB15>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/ww/en/ps/3RW40461BB15>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW40461BB15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW40461BB15&lang=en)



last modified:

17.07.2015