



SIRIUS SOFT STARTER, S3, 80A, 55KW/500V, 40 DEGR., AC 400-600V, AC/DC 24V, SCREW TERMINALS, THERMISTOR MOTOR PROTECTION

**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>		Yes
<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>		
<ul style="list-style-type: none"> <li>at 40 °C Rated value</li> </ul>	A	80
<ul style="list-style-type: none"> <li>at 50 °C Rated value</li> </ul>	A	73
<ul style="list-style-type: none"> <li>at 60 °C Rated value</li> </ul>	A	66
<b>Mechanical power output for three-phase motors</b>		
<ul style="list-style-type: none"> <li>at 400 V</li> </ul>		

— 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
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 in % of I <sub>M</sub>	%	20
Adjustable motor current for motor overload protection minimum rated value	A	43
Continuous operating current in % of I <sub>e</sub> 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
Width	mm	70
Height	mm	170
Depth	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> )
Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal		
• using the back clamping point		2x (10 ... 1/0)
• using the front clamping point		2x (10 ... 1/0)
• using both clamping points		10 ... 2/0

Type of connectable conductor cross-section for DIN cable lug for main contacts <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> )
Type of connectable conductor cross-section for auxiliary contacts <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> )
Type of connectable conductor cross-section for AWG conductors <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)

#### Ambient conditions:

<b>Ambient temperature</b>		
• during operation	°C	-25 ... +60
• during storage	°C	-40 ... +80
<b>Derating temperature</b>	°C	40
<b>Protection class IP</b>		IP00

#### Certificates/ approvals:

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

[Special Test Certificate](#)



<b>other</b>
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[Declaration of Conformity](#)

[Environmental Confirmations](#)

#### UL/CSA ratings:

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

- at 460/480 V

- at standard circuit at 50 °C Rated value

metric  
hp

50

- at 575/600 V

- at standard circuit at 50 °C Rated value

metric  
hp

60

Contact rating of the auxiliary contacts acc. to UL

B300 / R300

### Further information

**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**

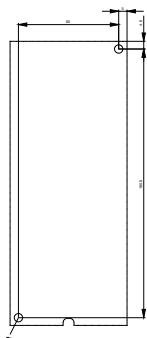
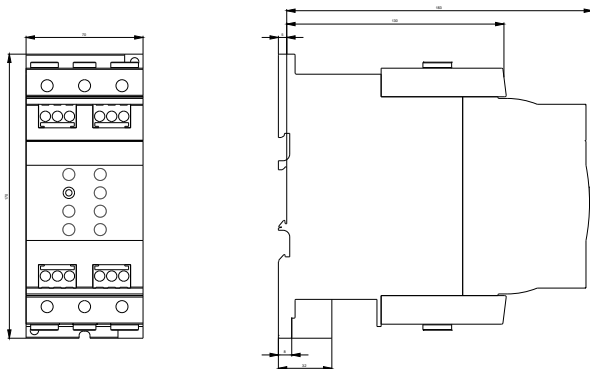
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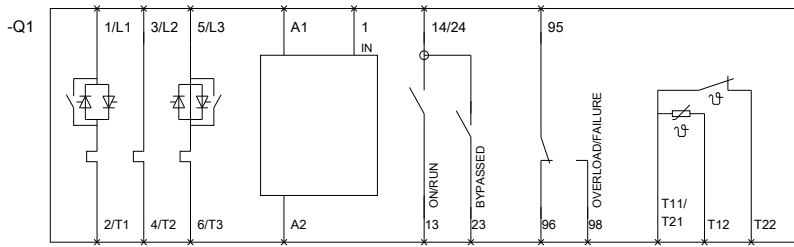
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RW40461TB05/all>

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

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RW40461TB05&lang=en>





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