



SIRIUS SOFT STARTER, S3, 80A,  
45KW/400V, 40 DEGR., AC 200-480V,  
AC/DC 110-230V, SCREW TERMINALS

General details:		
<b>product brand name</b>		SIRIUS
<b>Product equipment</b>		
<ul style="list-style-type: none"> <li>integrated bridging 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 thermal resistor motor protection</li> </ul>		No
<ul style="list-style-type: none"> <li>reset external</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 / outlet for enine brake</b>		No
<b>Reference code</b>		
<ul style="list-style-type: none"> <li>according to DIN EN 61346-2</li> </ul>		Q
<ul style="list-style-type: none"> <li>according to DIN 40719 extended according to IEC 204-2 / according to IEC 750</li> </ul>		G
Power Electronics:		
<b>Product designation</b>		soft starters for standard applications
Operating current		

• at 40 °C / rated value	A	80
• at 50 °C / rated value	A	73
• at 60 °C / rated value	A	66
<b>Emitted mechanical power / for three-phase servomotors</b>		
• at 230 V / at standard switching / at 40 °C		
• rated value	W	22,000
• at 400 V / at standard switching / at 40 °C		
• rated value	W	45,000
<b>yielded mechanical performance [hp] / for three-phase squirrel cage motors / at 200/208 V / at standard circuit / at 50 °C / rated value</b>	hp	20
<b>Operating frequency</b>		
• 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 / with standard circuit / rated value</b>	V	200 ... 480
<b>Relative negative tolerance / of the operating voltage / with standard circuit</b>	%	-15
<b>Relative positive tolerance / of the operating voltage / with standard circuit</b>	%	10
<b>Minimum load in % of I<sub>M</sub></b>	%	20
<b>Adjustable rated current of the motor / for motor overload protection / minimum</b>	A	43
<b>Continuous operating current in % of I<sub>e</sub> / at 40°C</b>	%	115
<b>Active power loss / at operating current / at 40°C / during operating phase / typical</b>	W	12

#### Control electronics:

<b>Voltage type / of control feed 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 50 Hz / for AC</b>	V	110 ... 230
<b>Control supply voltage / 1 / at 60 Hz / for AC</b>	V	110 ... 230
<b>Relative negative tolerance / of the control supply voltage / at 60 Hz / for AC</b>	%	-15
<b>Relative positive tolerance / of the control supply voltage / at 60 Hz / for AC</b>	%	10
<b>Control supply voltage / 1 / for DC</b>	V	110 ... 230
<b>Relative negative tolerance / of the control supply voltage / for DC</b>	%	-15

<b>Relative positive tolerance / of the control supply voltage / for DC</b>	%	10
<b>Type of display / for fault signal</b>		red

#### Mechanical design:

<b>Size of the 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>Distance, to be maintained, to the ranks assembly</b>		
• upwards	mm	60
• sideways	mm	30
• downwards	mm	40
<b>Installation altitude / at a height over sea level</b>	m	5,000
<b>Cable length / maximum</b>	m	300
<b>Number of poles / for main current circuit</b>		3

#### Electrical connections:

<b>Design of the 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 changeover contacts / for auxiliary contacts</b>		1
<b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the front clamping point</b>		
• solid		2x (2.5 ... 16 mm <sup>2</sup> )
• finely stranded / with conductor end processing		2.5 ... 35 mm <sup>2</sup>
• stranded		4 ... 70 mm <sup>2</sup>
<b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the back clamping point</b>		
• solid		2x (2.5 ... 16 mm <sup>2</sup> )
• finely stranded / with conductor end processing		2.5 ... 50 mm <sup>2</sup>
• stranded		10 ... 70 mm <sup>2</sup>
<b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using both clamping points</b>		

<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded / with conductor end processing</li> <li>• stranded</li> </ul>		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 the connectable conductor cross-section / for AWG conductors / for main contacts / for box terminal</b> <ul style="list-style-type: none"> <li>• when using the back cl</li> <li>• when using the front c</li> <li>• when using both clampi</li> </ul>		2x (10 ... 1/0)
		2x (10 ... 1/0)
		10 ... 2/0
<b>Type of the 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 the connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for AWG conductors / for main contacts</li> </ul>		2x (7 ... 1/0)
<b>Type of the connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded / with conductor end processing</li> </ul> </li> <li>• for AWG conductors / for auxiliary contacts <ul style="list-style-type: none"> <li>• finely stranded / with wire end proc</li> </ul> </li> </ul>		2x (0.5 ... 2.5 mm <sup>2</sup> )
		2x (0.5 ... 1.5 mm <sup>2</sup> )
		2x (20 ... 14)
		2x (20 ... 16)

#### Ambient conditions:

<b>Ambient temperature</b> <ul style="list-style-type: none"> <li>• during operating</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:

<b>General Product Approval</b>		<b>EMC</b>	<b>For use in hazardous locations</b>
			
CCC	CSA	UL	
			C-TICK
			
			ATEX
<b>Test Certificates</b>		<b>Shipping Approval</b>	
<a href="#">Special Test Certificate</a>	<a href="#">Type Test Certificates/Test Report</a>		
		DNV	GL
			
			LRS
			
			PRS
<b>other</b>			
<a href="#">Declaration of Conformity</a>	<a href="#">Environmental Confirmations</a>		

## UL/CSA ratings

### yielded mechanical performance [hp] / for three-phase squirrel cage motors

- at 220/230 V / at standard circuit
  - at 50 °C / rated value
- at 460/480 V / at standard circuit
  - at 50 °C / rated value

hp	25
hp	50

### Contact rating designation / for auxiliary contacts / according 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/industrial-controls/mall>

### CAX-Online-Generator

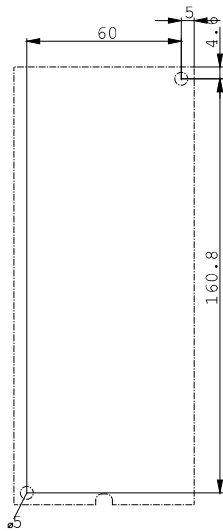
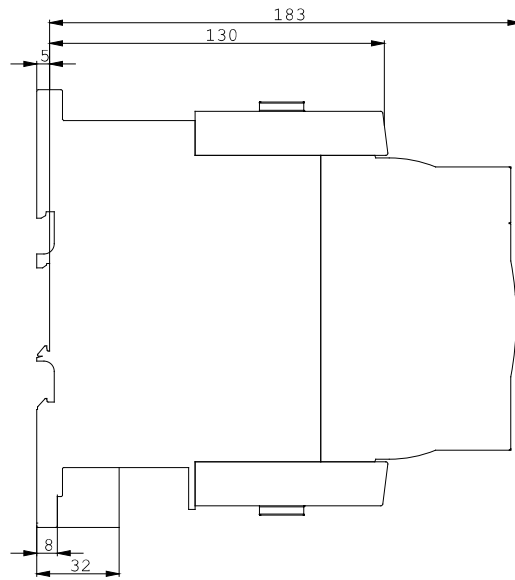
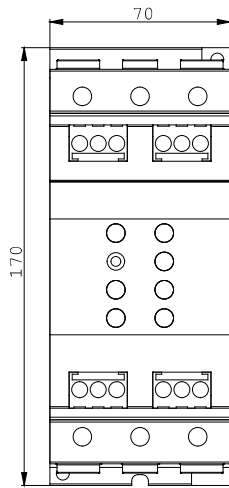
<http://www.siemens.com/cax>

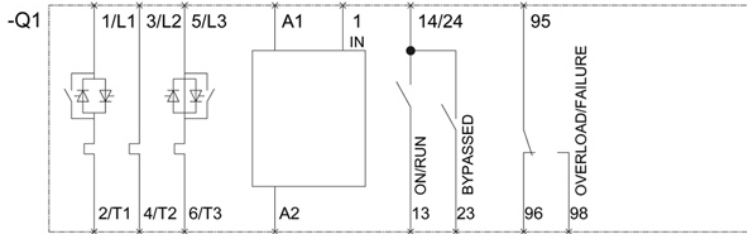
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RW4046-1BB14/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RW4046-1BB14](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RW4046-1BB14)





last change:

Jul 7, 2014