



SIRIUS SOFT STARTER, S3, 80A,  
45KW/400V, 40 DEGR., AC 200-480V,  
AC/DC 24V, SCREW TERMINALS

### General details:

#### product brand name

SIRIUS

#### Product equipment

- integrated bridging contact system
- thyristors

Yes

Yes

#### Product function

- intrinsic device protection
- motor overload protection
- evaluation of thermal resistor motor protection
- reset external
- adjustable current limitation
- inside-delta circuit

Yes

Yes

No

Yes

Yes

No

#### Product component / outlet for enine brake

No

#### Reference code

- according to DIN EN 61346-2
- according to DIN 40719 extended according to IEC 204-2 / according to IEC 750

Q

G

### Power Electronics:

#### Product designation

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	W	22,000
• rated value		
• at 400 V / at standard switching / at 40 °C	W	45,000
• rated value		
<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

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

Relative negative tolerance / of the control supply voltage / for DC	%	-20
Relative positive tolerance / of the control supply voltage / for DC	%	20
Type of display / for fault signal		red

#### Mechanical design:

Size of the engine control device		S3
Width	mm	70
Height	mm	170
Depth	mm	190
Mounting type		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
Distance, to be maintained, to the ranks assembly		
• upwards	mm	60
• sideways	mm	30
• downwards	mm	40
Installation altitude / at a height over sea level	m	5,000
Cable length / maximum	m	300
Number of poles / for main current circuit		3

#### Electrical connections:

Design of the electrical connection		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
Number of NC contacts / for auxiliary contacts		0
Number of NO contacts / for auxiliary contacts		2
Number of changeover contacts / for auxiliary contacts		1
Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the front clamping point		
• 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>
Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the back clamping point		
• 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>
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CCC



CSA



UL



C-TICK



ATEX

<b>Test Certificates</b>	<b>Shipping Approval</b>
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



DNV



GL



LRS



PRS

**other**

[Declaration of Conformity](#)

[Environmental Confirmations](#)

### 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**

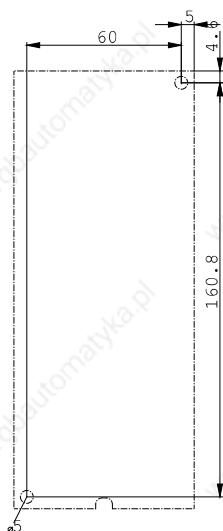
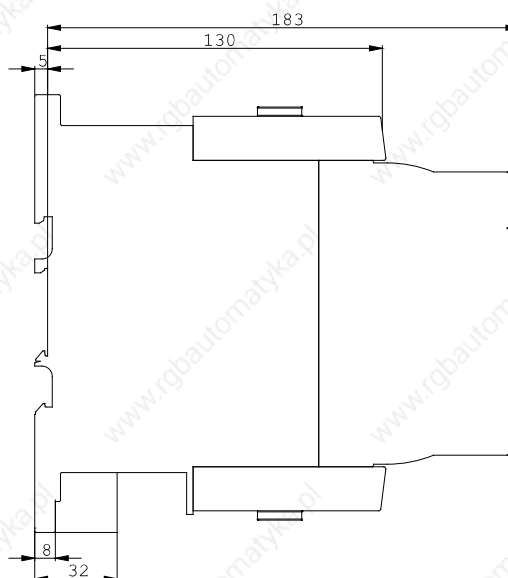
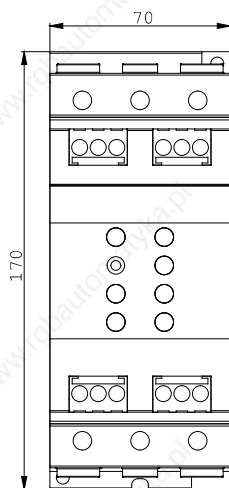
<http://www.siemens.com/cax>

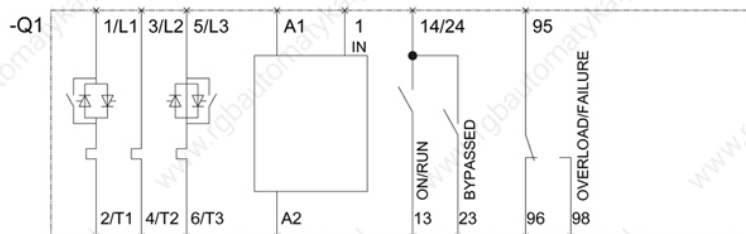
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/VW/view/en/3RW4046-1BB04/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RW4046-1BB04](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RW4046-1BB04)





last change:

Jul 7, 2014