



SIRIUS SOFT STARTER, VALUES WITH 690 V,  
40 DEG., STANDARD: 29A, 30KW,  
INSIDE-DELTA CIRCUIT 3: ONLY UP TO 600V,  
400-690 V AC, 230 V AC,  
CAGE CLAMP 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>		Yes
<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>		Yes
<b>Product component / outlet for enine brake</b>		Yes
<b>Item designation</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 extendable after IEC 204-2 / according to IEC 750</li> </ul>		G

**Power Electronics:**

<b>product designation</b>		soft starters for high feature applications
Operating current		

• at 40 °C / rated value	A	29
• at 50 °C / rated value	A	26
• at 60 °C / rated value	A	23
• for three-phase servomotors / at 3-phase root switching		
• at 40 °C / rated value	A	50
• at 50 °C / rated value	A	45
• at 60 °C / rated value	A	40
<b>Emitted mechanical power / for three-phase servomotors</b>		
• at 400 V / at standard switching / at 40 °C		
• rated value	W	15,000
• at 500 V / at standard switching / at 40 °C		
• rated value	W	18,500
• at 690 V / at standard switching / at 40 °C		
• rated value	W	30,000
• at 400 V / at 3-phase root switching / at 40 °C		
• rated value	W	22,000
• at 500 V / at 3-phase root switching / at 40 °C		
• rated value	W	30,000
<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	400 ... 690
<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>Operating voltage / at 3-phase root switching / rated value</b>	V	400 ... 600
<b>Relative negative tolerance / of the operating voltage / with inside-delta circuit</b>	%	-15
<b>Relative positive tolerance / of the operating voltage / with inside-delta circuit</b>	%	10
<b>Minimum load in % of I<sub>M</sub></b>	%	8
<b>Adjustable rated current / of the motor / for motor overload protection / minimum</b>	A	5
<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	8
<b>Control electronics:</b>		
<b>Type of voltage / of the controlled supply voltage</b>		AC
<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>		
• at 50 Hz / for AC	V	230
• at 60 Hz / for AC	V	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>Type of display / for fault signal</b>		Display

#### Mechanical design:

<b>Width</b>	mm	170
<b>Height</b>	mm	192
<b>Depth</b>	mm	270
<b>Type of mounting</b>		screw fixing
<b>mounting position</b>		bei senkrechter Montageebene +/-90° drehbar, bei senkrechter Montageebene +/- 22,5° nach vorne und hinten kippbar
<b>Distance, to be maintained, to the ranks assembly</b>		
• upwards	mm	100
• sideways	mm	5
• downwards	mm	75
<b>Installation altitude / at a height over sea level</b>	m	5,000
<b>Cable length / maximum</b>	m	500
<b>Number of poles / for main current circuit</b>		3

#### Electrical connections:

<b>Design of the electrical connection</b>		
• for main current circuit		box terminals
• for auxiliary and control current circuit		spring-loaded terminals
<b>Number of NC contacts / for auxiliary contacts</b>		0
<b>Number of NO contacts / for auxiliary contacts</b>		3
<b>Number of change-over switches / 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		2.5 ... 16 mm <sup>2</sup>
• finely stranded / with conductor end processing		2.5 ... 35 mm <sup>2</sup>
• finely stranded / without conductor end processing		4 ... 50 mm <sup>2</sup>
• stranded		4 ... 70 mm <sup>2</sup>

<p><b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using the back clamping point</b></p> <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded / with conductor end processing</li> <li>• without conductor final cutting / without conductor end processing</li> <li>• stranded</li> </ul>		<p>2,5 ... 16 mm<sup>2</sup></p> <p>2.5 ... 50 mm<sup>2</sup></p> <p>10 ... 50 mm<sup>2</sup></p> <p>10 ... 70 mm<sup>2</sup></p>
<p><b>Type of the connectable conductor cross-section / for main contacts / for box terminal / when using both clamping points</b></p> <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded / with conductor end processing</li> <li>• without conductor final cutting / without conductor end processing</li> <li>• stranded</li> </ul>		<p>2x (2.5 ... 16 mm<sup>2</sup>)</p> <p>2x (2.5 ... 35 mm<sup>2</sup>)</p> <p>2x (4 ... 35 mm<sup>2</sup>)</p> <p>2x (4 ... 50 mm<sup>2</sup>)</p>
<p><b>Type of the connectable conductor cross-section / for AWG conductors / for main contacts / for box terminal</b></p> <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>		<p>10 ... 2/0</p> <p>10 ... 2/0</p> <p>2x (10 ... 1/0)</p>
<p><b>Type of the connectable conductor cross-section</b></p> <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</li> </ul>		<p>2x (0.25 ... 1.5 mm<sup>2</sup>)</p> <p>2x (0.25 ... 1.5 mm<sup>2</sup>)</p> <p>2x (24 ... 16)</p>

#### Ambient conditions:

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

#### Certificates/approvals:

General Product Approval

EMC



Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Shipping Approval



other

[Declaration of Conformity](#)

[Environmental Confirmations](#)

UL/CSA ratings

yielded mechanical performance (hp) / for three-phase squirrel cage motors

- at 460/480 V / at standard circuit

- at 50 °C / rated value

hp 15

- at 575/600 V / at standard circuit

- at 50 °C / rated value

hp 20

- at 460/480 V / at inside-delta circuit / at 50 °C / rated value

hp 30

- at 575/600 V / at inside-delta circuit / at 50 °C / rated value

hp 40

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

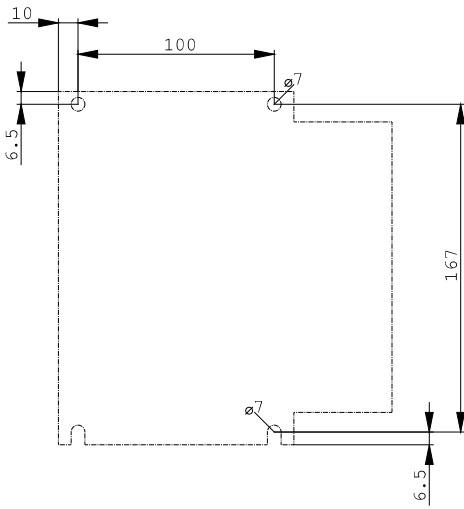
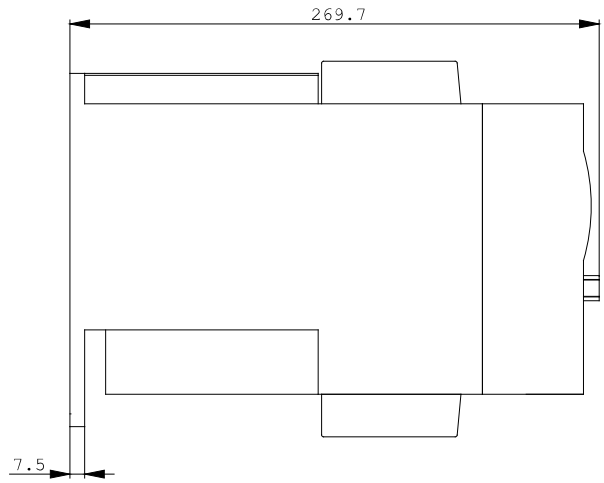
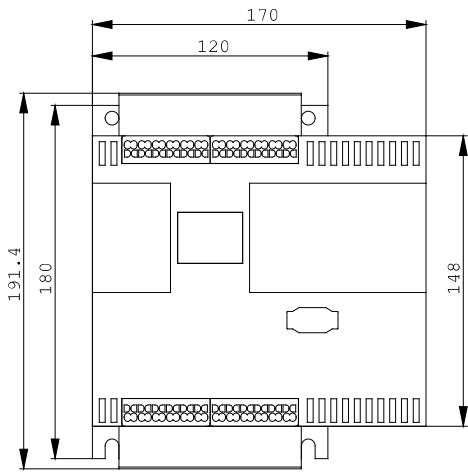
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RW4422-3BC46/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RW4422-3BC46](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RW4422-3BC46)



last change:

Feb 7, 2013