



SIRIUS SOFT STARTER, VALUES WITH 400 V, 40 DEG., STANDARD: 162A, 90KW, INSIDE-DELTA CIRCUIT 3: 281A, 160KW, 200-460 V AC, 230 V AC, 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>		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>		Yes
<b>Product component Motor brake output</b>		Yes
<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 high feature applications
<b>Operating current</b>		
<ul style="list-style-type: none"> <li>at 40 °C Rated value</li> </ul>	A	162
<ul style="list-style-type: none"> <li>at 50 °C Rated value</li> </ul>	A	145
<ul style="list-style-type: none"> <li>at 60 °C Rated value</li> </ul>	A	125
<b>Operating current for three-phase motors at 3-phase root switching</b>		
<ul style="list-style-type: none"> <li>at 40 °C Rated value</li> </ul>	A	281

• at 50 °C Rated value	A	251
• at 60 °C Rated value	A	217
<b>Mechanical power output for three-phase motors</b>		
• at 230 V		
— at standard circuit at 40 °C Rated value	W	45 000
— at 3-phase root switching at 40 °C Rated value	W	90 000
• at 400 V		
— at standard circuit at 40 °C Rated value	W	90 000
— at 3-phase root switching at 40 °C Rated value	W	160 000
<b>yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C Rated value</b>	metric hp	40
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	200 ... 460
<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>Operating voltage at 3-phase root switching Rated value</b>	V	200 ... 460
<b>Relative negative tolerance of the operating voltage at 3-phase root switching</b>	%	-15
<b>Relative positive tolerance of the operating voltage at 3-phase root switching</b>	%	10
<b>Minimum load in % of I<sub>M</sub></b>	%	8
<b>Adjustable motor current for motor overload protection minimum rated value</b>	A	32
<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 operation typical</b>	W	95
<b>Control electronics:</b>		
<b>Type of voltage of the control 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 with AC</b>		
• at 50 Hz Rated value	V	230

• at 60 Hz Rated value	V	230
<b>Relative negative tolerance of the control supply voltage with AC at 60 Hz</b>	%	-15
<b>Relative positive tolerance of the control supply voltage with AC at 60 Hz</b>	%	10
<b>Display version for fault signal</b>		Display

Mechanical data:		
<b>Width</b>	mm	170
<b>Height</b>	mm	200
<b>Depth</b>	mm	270
<b>Mounting type</b>		screw fixing
<b>mounting position</b>		bei senkrechter Montageebene +/-90° drehbar, bei senkrechter Montageebene +/- 22,5° nach vorne und hinten kippbar
<b>Required spacing with side-by-side mounting</b>		
• upwards	mm	100
• at the side	mm	5
• downwards	mm	75
<b>Installation altitude at height above sea level</b>	m	5 000
<b>Cable length maximum</b>	m	500
<b>Number of poles for main current circuit</b>		3

Connections/ Terminals:		
<b>Type of electrical connection</b>		
• for main current circuit		busbar connection
• 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>		3
<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		
• finely stranded with core end processing		16 ... 70 mm <sup>2</sup>
• finely stranded without core end processing		16 ... 70 mm <sup>2</sup>
• stranded		16 ... 70 mm <sup>2</sup>
Type of connectable conductor cross-section for main contacts for box terminal using the back clamping point		
• finely stranded with core end processing		16 ... 70 mm <sup>2</sup>
• finely stranded without core end processing		16 ... 70 mm <sup>2</sup>
• stranded		16 ... 70 mm <sup>2</sup>
Type of connectable conductor cross-section for main contacts for box terminal using both clamping points		

<ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> <li>• stranded</li> </ul>		max. 1x 50 mm <sup>2</sup> , 1x 70 mm <sup>2</sup> max. 1x 50 mm <sup>2</sup> , 1x 70 mm <sup>2</sup> max. 2x 70 mm <sup>2</sup>
Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal <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>		6 ... 2/0 6 ... 2/0 max. 2x 1/0
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>		16 ... 95 mm <sup>2</sup> 25 ... 120 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>		4 ... 250 kcmil 2x (20 ... 14) 2x (20 ... 16)

#### Ambient conditions:

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

#### Certificates/ approvals:

General Product Approval	EMC	Declaration of Conformity
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Test Certificates	Shipping Approval
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Shipping Approval	other
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[Environmental Confirmations](#)

**UL/CSA ratings:**

yielded mechanical performance [hp] for three-phase AC motor		
<ul style="list-style-type: none"> <li>at 200/208 V <ul style="list-style-type: none"> <li>at 3-phase root switching at 50 °C Rated value</li> </ul> </li> <li>at 220/230 V <ul style="list-style-type: none"> <li>at standard circuit at 50 °C Rated value</li> <li>at 3-phase root switching at 50 °C Rated value</li> </ul> </li> <li>at 460/480 V <ul style="list-style-type: none"> <li>at standard circuit at 50 °C Rated value</li> <li>at 3-phase root switching at 50 °C Rated value</li> </ul> </li> </ul>	metric hp	75
	metric hp	50
	metric hp	100
	metric hp	100
	metric hp	200
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

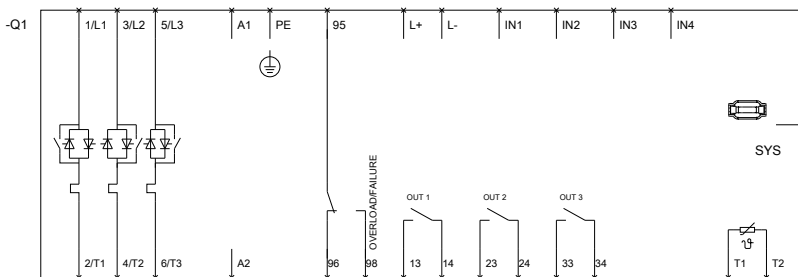
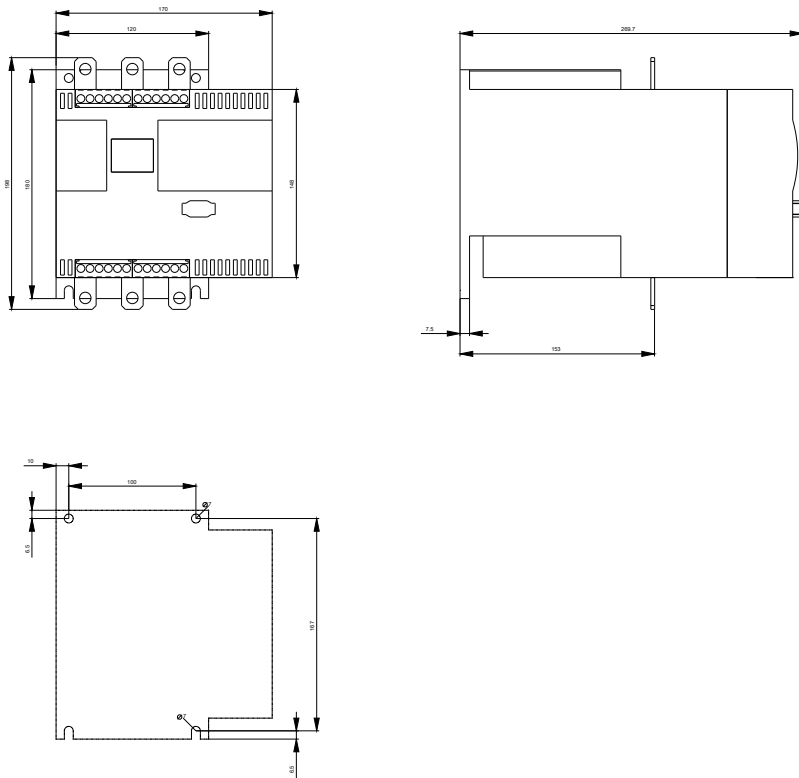
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW44366BC44>

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

<http://support.automation.siemens.com/WW/view/en/3RW44366BC44/all>

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

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RW44366BC44&lang=en>



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