



SIRIUS SOFT STARTER, VALUES WITH 400 V, 40 DEG., STANDARD: 313A, 160KW, INSIDE-DELTA CIRCUIT 3: 542A, 315KW, 200-460 V AC, 230 V AC, CAGE CLAMP TERMINALS

General technical data:

product brand name		SIRIUS
Product feature		
• integrated bypass contact system		Yes
• Thyristors		Yes
Product function		
• Intrinsic device protection		Yes
• motor overload protection		Yes
• Evaluation of thermistor motor protection		Yes
• External reset		Yes
• Adjustable current limitation		Yes
• inside-delta circuit		Yes
Product component Motor brake output		Yes
Equipment marking acc. to DIN EN 61346-2		Q
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G

Power Electronics:

Product designation		soft starters for high feature applications
Operating current		
• at 40 °C Rated value	A	313
• at 50 °C Rated value	A	280
• at 60 °C Rated value	A	250
Operating current for three-phase motors at 3-phase root switching		
• at 40 °C Rated value	A	542

• at 50 °C Rated value	A	485
• at 60 °C Rated value	A	433
Mechanical power output for three-phase motors		
• at 230 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
• at 400 V		
— at standard circuit at 40 °C Rated value	W	160 000
— at 3-phase root switching at 40 °C Rated value	W	315 000
yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C Rated value	metric hp	75
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	200 ... 460
Relative negative tolerance of the operating voltage at standard circuit	%	-15
Relative positive tolerance of the operating voltage at standard circuit	%	10
Operating voltage at 3-phase root switching Rated value	V	200 ... 460
Relative negative tolerance of the operating voltage at 3-phase root switching	%	-15
Relative positive tolerance of the operating voltage at 3-phase root switching	%	10
Minimum load in % of I_M	%	8
Adjustable motor current for motor overload protection minimum rated value	A	62
Continuous operating current in % of I_e at 40 °C	%	115
Active power loss at operating current at 40 °C during operation typical	W	145
Control electronics:		
Type of voltage of the control supply voltage		AC
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	230

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

Mechanical data:		
Width	mm	210
Height	mm	230
Depth	mm	298
Mounting type		screw fixing
mounting position		bei senkrechter Montageebene +/- 90° drehbar, bei senkrechter Montageebene +/- 22,5° nach vorne und hinten kippbar
Required spacing with side-by-side mounting		
• upwards	mm	100
• at the side	mm	5
• downwards	mm	75
Installation altitude at height above sea level	m	5 000
Cable length maximum	m	500
Number of poles for main current circuit		3

Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		busbar connection
• for auxiliary and control current circuit		spring-loaded terminals
Number of NC contacts for auxiliary contacts		0
Number of NO contacts for auxiliary contacts		3
Number of CO contacts for auxiliary contacts		1
Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point		
• finely stranded with core end processing		70 ... 240 mm ²
• finely stranded without core end processing		70 ... 240 mm ²
• stranded		95 ... 300 mm ²
Type of connectable conductor cross-section for main contacts for box terminal using the back clamping point		
• finely stranded with core end processing		120 ... 185 mm ²
• finely stranded without core end processing		120 ... 185 mm ²
• stranded		120 ... 240 mm ²
Type of connectable conductor cross-section for main contacts for box terminal using both clamping points		

<ul style="list-style-type: none"> • finely stranded with core end processing • finely stranded without core end processing • stranded 		min. 2x 50 mm ² , max. 2x 185 mm ² min. 2x 50 mm ² , max. 2x 185 mm ² max. 2x 70 mm ² , max. 2x 240 mm ²
Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal <ul style="list-style-type: none"> • using the back clamping point • using the front clamping point • using both clamping points 		250 ... 500 kcmil 3/0 ... 600 kcmil min. 2x 2/0, max. 2x 500 kcmil
Type of connectable conductor cross-section for DIN cable lug for main contacts <ul style="list-style-type: none"> • finely stranded • stranded 		50 ... 240 mm ² 70 ... 240 mm ²
Type of connectable conductor cross-section for auxiliary contacts <ul style="list-style-type: none"> • solid • finely stranded with core end processing 		2x (0.25 ... 1.5 mm ²) 2x (0.25 ... 1.5 mm ²)
Type of connectable conductor cross-section for AWG conductors <ul style="list-style-type: none"> • for main contacts • for auxiliary contacts 		2/0 ... 500 kcmil 2x (24 ... 16)

Ambient conditions:

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

Certificates/ approvals:

General Product Approval	EMC	Declaration of Conformity
--------------------------	-----	---------------------------



Test Certificates	Shipping Approval
-------------------	-------------------

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Shipping Approval	other
-------------------	-------



[Environmental Confirmations](#)

UL/CSA ratings:

yielded mechanical performance [hp] for three-phase AC motor		
<ul style="list-style-type: none"> at 200/208 V <ul style="list-style-type: none"> at 3-phase root switching at 50 °C Rated value at 220/230 V <ul style="list-style-type: none"> at standard circuit at 50 °C Rated value at 3-phase root switching at 50 °C Rated value at 460/480 V <ul style="list-style-type: none"> at standard circuit at 50 °C Rated value at 3-phase root switching at 50 °C Rated value 	metric hp	150
	metric hp	100
	metric hp	200
	metric hp	200
	metric hp	400
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

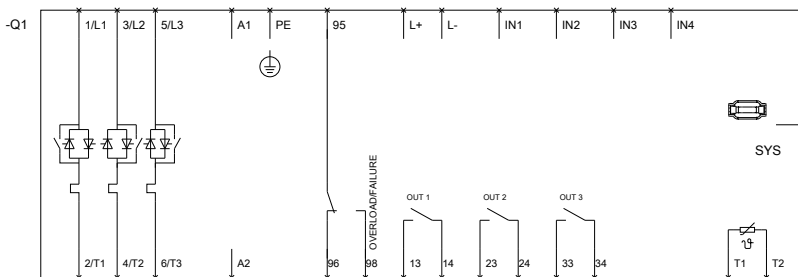
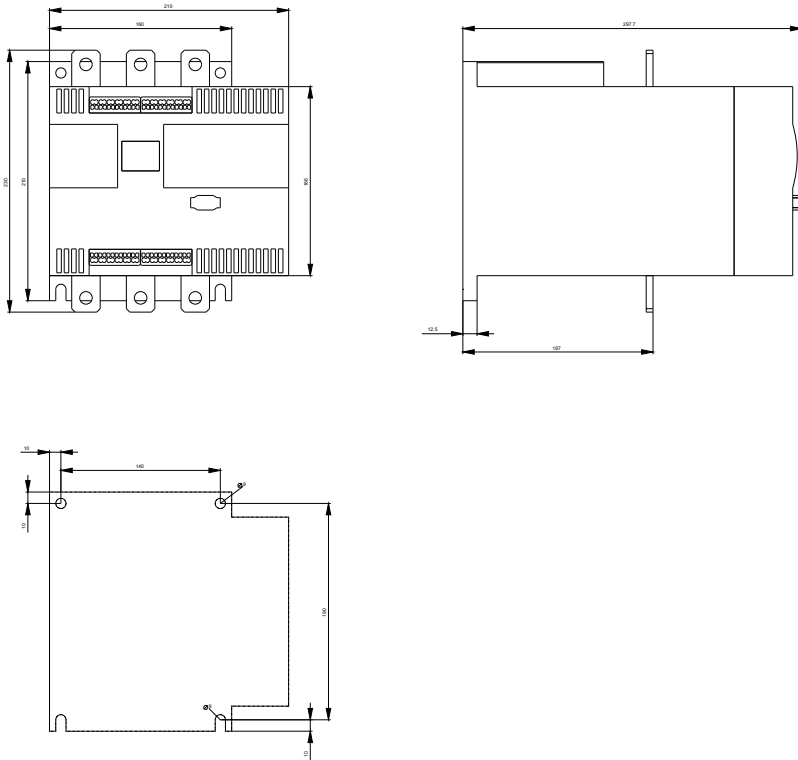
<http://support.automation.siemens.com/WW/CAxorder/default.aspx?lang=en&mlfb=3RW44452BC44>

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

<http://support.automation.siemens.com/WW/view/en/3RW44452BC44/all>

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

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RW44452BC44&lang=en>



last modified:

15.01.2015