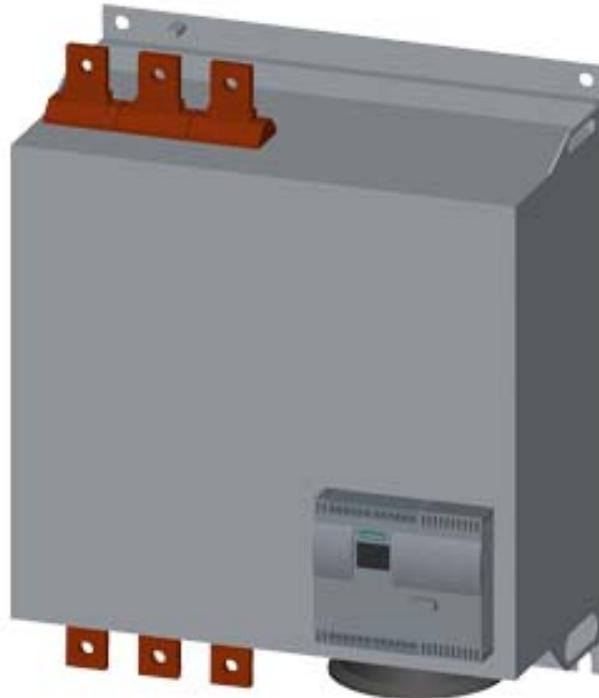


SIRIUS soft starter Values at 400 V, 40 °C Standard:
 970 A, 560 kW Inside-delta: 1680 A, 1000 kW 200-460
 V AC, 230 V AC Screw terminals



General technical data

product brandname		SIRIUS
<ul style="list-style-type: none"> • Product equipment Integrated bypass contact system 		Yes
<ul style="list-style-type: none"> • Product feature Thyristors 		Yes
Product function		
<ul style="list-style-type: none"> • Intrinsic device protection 		Yes
<ul style="list-style-type: none"> • motor overload protection 		Yes
<ul style="list-style-type: none"> • Evaluation of thermistor motor protection 		Yes
<ul style="list-style-type: none"> • External reset 		Yes
<ul style="list-style-type: none"> • Adjustable current limitation 		Yes
<ul style="list-style-type: none"> • 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 starter
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Operating current		
• at 40 °C rated value	A	970
• at 50 °C rated value	A	850
• at 60 °C rated value	A	760
Operating current for three-phase motors at inside-delta circuit		
• at 40 °C rated value	A	1 680
• at 50 °C rated value	A	1 472
• at 60 °C rated value	A	1 316
Mechanical power output for three-phase motors		
• at 230 V		
— at standard circuit at 40 °C rated value	W	315 000
— at inside-delta circuit at 40 °C rated value	W	560 000
• at 400 V		
— at standard circuit at 40 °C rated value	W	560 000
— at inside-delta circuit at 40 °C rated value	W	1 000 000
Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	300
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 inside-delta circuit rated value	V	200 ... 460
Relative negative tolerance of the operating voltage at inside-delta circuit	%	-15
Relative positive tolerance of the operating voltage at inside-delta circuit	%	10
Minimum load [% of IM]	%	8
Adjustable motor current for motor overload protection minimum rated value	A	194
Continuous operating current [% of I_e] at 40 °C	%	115
Power loss [W] at operating current at 40 °C during operation typical	W	270
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 at AC		
• at 50 Hz rated value	V	230
• at 60 Hz rated value	V	230
Relative negative tolerance of the control supply voltage at AC at 60 Hz	%	-15
Relative positive tolerance of the control supply voltage at AC at 60 Hz	%	10
Display version for fault signal		Display

Mechanical data

Width	mm	510
Height	mm	640
Depth	mm	290
Mounting type		screw fixing
Mounting position		with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
Required spacing with side-by-side mounting		
• upwards	mm	100
• at the side	mm	5
• downwards	mm	75
Wire 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		screw-type 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-sections for DIN cable lug for main contacts		
• finely stranded		50 ... 240 mm ²
• stranded		70 ... 240 mm ²
Type of connectable conductor cross-sections for auxiliary contacts		
• solid		2x (0.5 ... 2.5 mm ²)
• finely stranded with core end processing		2x (0.5 ... 1.5 mm ²)
Type of connectable conductor cross-sections at AWG conductors		

- for main contacts
- for auxiliary contacts
- for auxiliary contacts finely stranded with core end processing

	2/0 ... 500 kcmil
	2x (20 ... 14)
	2x (20 ... 16)

Ambient conditions

Installation altitude at height above sea level	m	5 000
Environmental category		
<ul style="list-style-type: none"> • during transport acc. to IEC 60721 		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
<ul style="list-style-type: none"> • during storage acc. to IEC 60721 		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
<ul style="list-style-type: none"> • during operation acc. to IEC 60721 		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
Ambient temperature		
<ul style="list-style-type: none"> • during operation 	°C	60
<ul style="list-style-type: none"> • during storage 	°C	-25 ... +80
Derating temperature	°C	40
Protection class IP		IP00

Certificates/approvals

General Product Approval	EMC	Declaration of Conformity
 CCC	 CSA	 UL
		
 C-Tick		
 EG-Konf.		

Test Certificates	Shipping Approval	other
Special Test Certificate	 ABS	Confirmation
	 BUREAU VERITAS	
	 LRS	
	 PRS	

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 inside-delta circuit at 50 °C rated value • at 220/230 V 	hp	550

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

hp	350
hp	650
hp	750
hp	1 300
Contact rating of auxiliary contacts according to UL	
	B300 / R300

Further information

Simulation Tool for Soft Starters (STS)

<https://support.industry.siemens.com/cs/ww/en/view/101494917>

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4458-6BC44>

Cax online generator

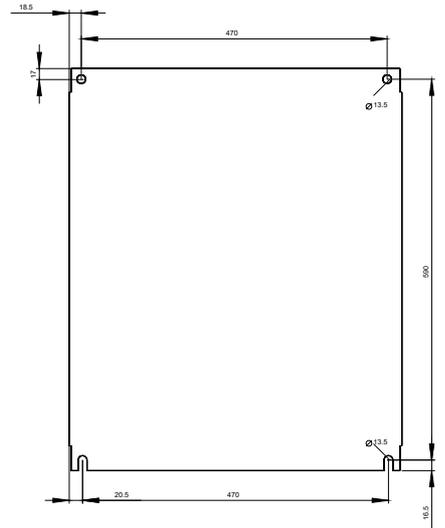
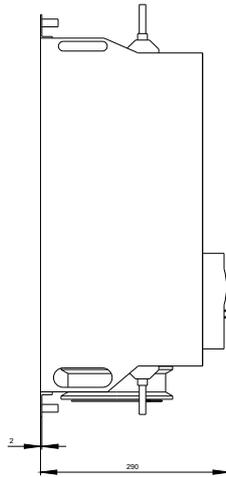
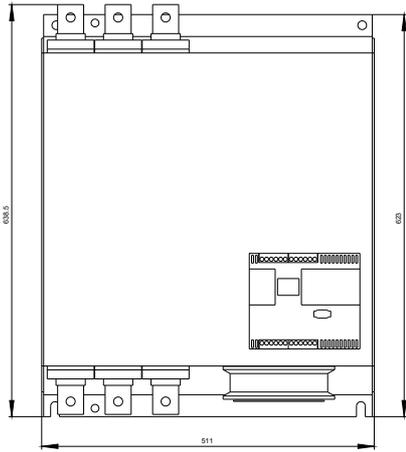
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4458-6BC44>

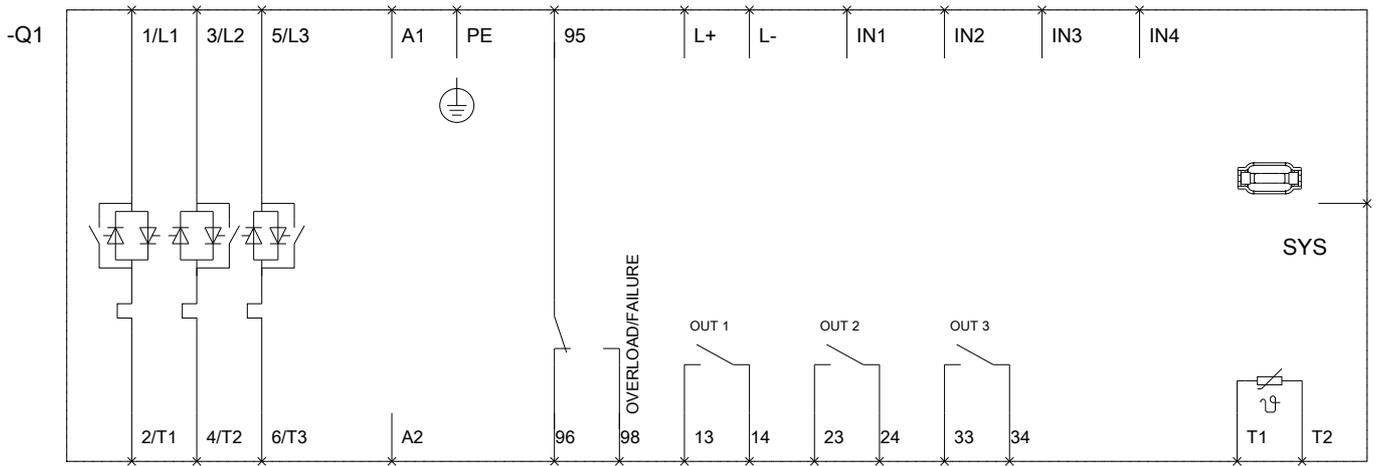
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4458-6BC44>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4458-6BC44&lang=en





last modified:

03/14/2018