

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 !!! Phased-out product
 !!! Successor is SIRIUS 3RW5, Preferred successor
 type is >>3RW5556-6HA14<<

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
Insulation voltage rated value	V	690
Degree of pollution		3, acc. to IEC 60947-4-2
Reference code acc. to DIN EN 61346-2		Q
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G

Power Electronics

Product designation		Soft starter
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 [%]	%	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 circuit/ Control

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 50 Hz	%	-15
Relative positive tolerance of the control supply voltage at AC at 50 Hz	%	10
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		

<ul style="list-style-type: none"> • solid • finely stranded with core end processing 		<p>2x (0.5 ... 2.5 mm²)</p> <p>2x (0.5 ... 1.5 mm²)</p>
Type of connectable conductor cross-sections at AWG conductors <ul style="list-style-type: none"> • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing 		<p>2/0 ... 500 kcmil</p> <p>2x (20 ... 14)</p> <p>2x (20 ... 16)</p>

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 • during storage acc. to IEC 60721 • during operation acc. to IEC 60721 		<p>2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)</p> <p>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4</p> <p>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</p>
Ambient temperature <ul style="list-style-type: none"> • during operation • during storage 	<p>°C</p> <p>°C</p>	<p>60</p> <p>-25 ... +80</p>
Derating temperature	°C	40
Protection class IP		IP00

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)



Marine / Shipping	other
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[Confirmation](#)

UL/CSA ratings

Yielded mechanical performance [hp] for three-phase AC motor

• at 200/208 V

— at inside-delta circuit at 50 °C rated value hp 550

• at 220/230 V

— at standard circuit at 50 °C rated value hp 350

— at inside-delta circuit at 50 °C rated value hp 650

• at 460/480 V

— at standard circuit at 50 °C rated value hp 750

— at inside-delta circuit at 50 °C rated value 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,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

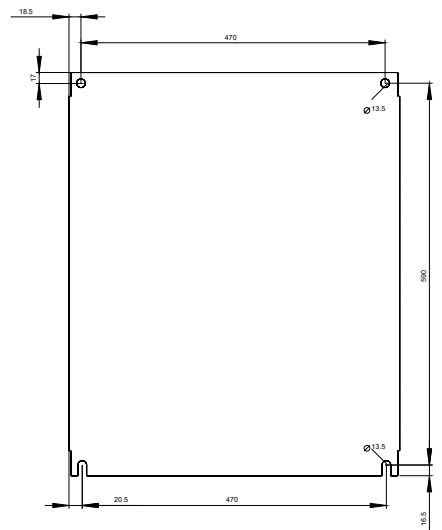
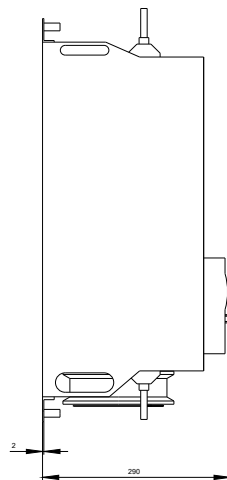
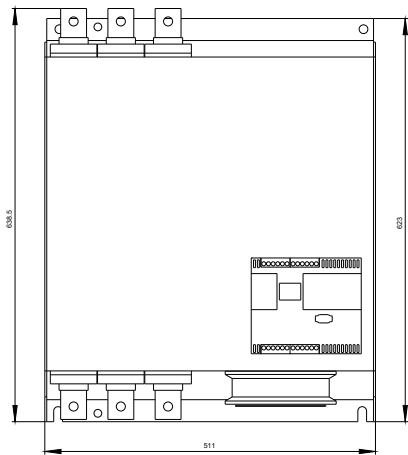
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4458-6BC44>

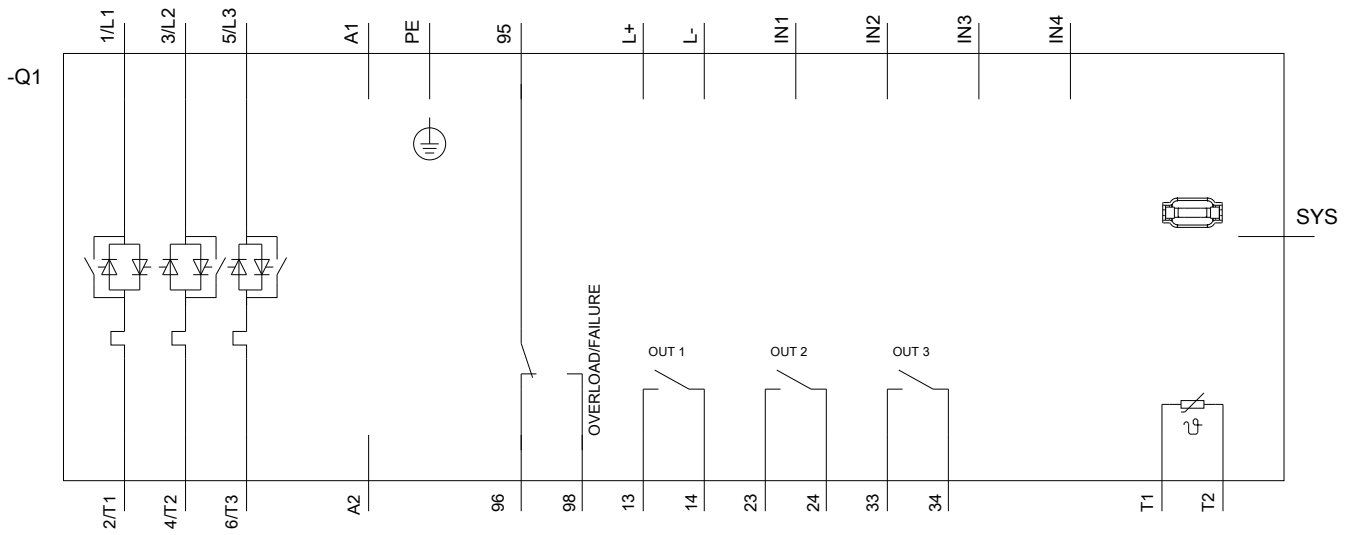
Cax online generator

<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>





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