



SIRIUS soft starter Values at 400 V, 40 °C standard: 47 A, 22 kW Inside-delta: 81 A, 45 kW 200-460 V AC, 230 V AC Screw terminals !!! Phased-out product !!!
 Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5524-1HA14<<

General technical data		
Product brand name		SIRIUS
Product feature		
<ul style="list-style-type: none"> integrated bypass contact system 		Yes
<ul style="list-style-type: none"> 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
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	47
• at 50 °C rated value	A	42
• at 60 °C rated value	A	37
Operating current for three-phase motors at inside-delta circuit		
• at 40 °C rated value	A	81
• at 50 °C rated value	A	73
• at 60 °C rated value	A	64
Mechanical power output for three-phase motors		
• at 230 V		
— at standard circuit at 40 °C rated value	W	11 000
— at inside-delta circuit at 40 °C rated value	W	22 000
• at 400 V		
— at standard circuit at 40 °C rated value	W	22 000
— at inside-delta circuit at 40 °C rated value	W	45 000
Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	10
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	9
Continuous operating current [% of I_e] at 40 °C	%	115
Power loss [W] at operating current at 40 °C during operation typical	W	32

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	170
Height	mm	192
Depth	mm	270
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		box terminal
• 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 main contacts for box terminal using the front clamping point		
• solid		2.5 ... 16 mm ²
• finely stranded with core end processing		2.5 ... 35 mm ²

<ul style="list-style-type: none"> finely stranded without core end processing stranded 		<p>4 ... 50 mm²</p> <p>4 ... 70 mm²</p>
Type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point <ul style="list-style-type: none"> solid finely stranded with core end processing finely stranded without core end processing stranded 		<p>2,5 ... 16 mm²</p> <p>2.5 ... 50 mm²</p> <p>10 ... 50 mm²</p> <p>10 ... 70 mm²</p>
Type of connectable conductor cross-sections for main contacts for box terminal using both clamping points <ul style="list-style-type: none"> solid finely stranded with core end processing finely stranded without core end processing stranded 		<p>2x (2.5 ... 16 mm²)</p> <p>2x (2.5 ... 35 mm²)</p> <p>2x (4 ... 35 mm²)</p> <p>2x (4 ... 50 mm²)</p>
Type of connectable conductor cross-sections at 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 		<p>10 ... 2/0</p> <p>10 ... 2/0</p> <p>2x (10 ... 1/0)</p>
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 auxiliary contacts for auxiliary contacts finely stranded with core end processing 		<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
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Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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CCC



CSA



UL



RCM



EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU VERITAS



LRS

Marine / Shipping	other
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PRS



DNV-GL

[Confirmation](#)

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 <ul style="list-style-type: none"> at standard circuit at 50 °C rated value at inside-delta circuit at 50 °C rated value at 460/480 V <ul style="list-style-type: none"> at standard circuit at 50 °C rated value at inside-delta circuit at 50 °C rated value 	hp	20
	hp	15
	hp	25
	hp	25
	hp	50
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=3RW4424-1BC44>

Cax online generator

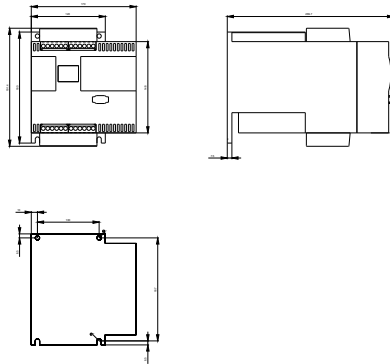
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4424-1BC44>

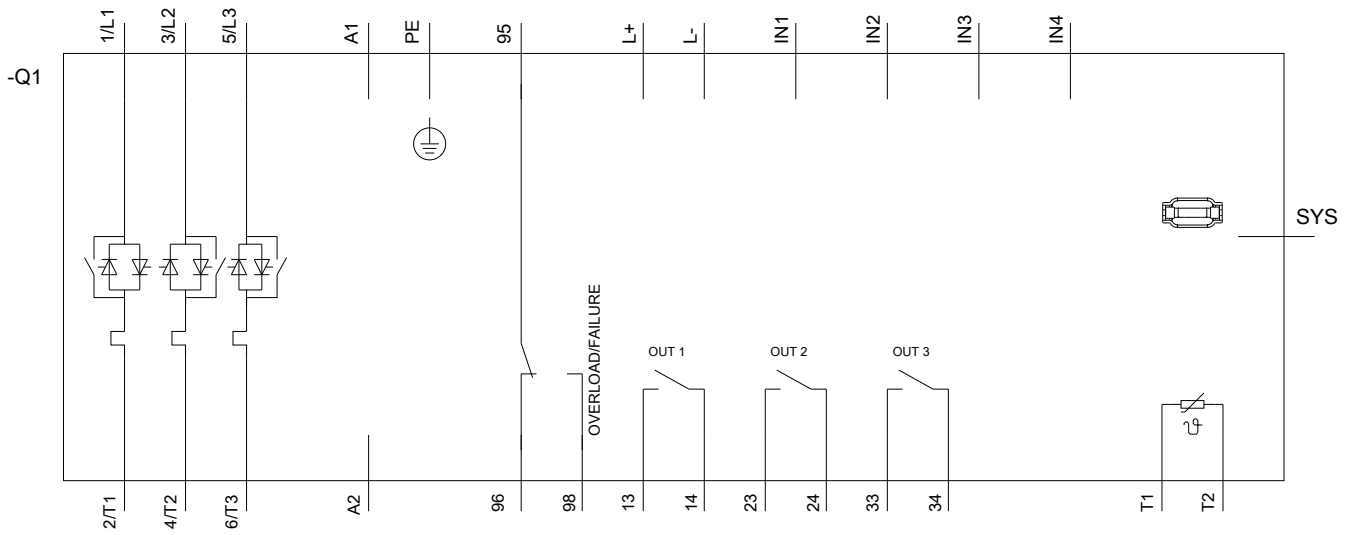
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4424-1BC44>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4424-1BC44&lang=en





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