SIEMENS

Data sheet 3RW4454-6BC44



SIRIUS soft starter Values at 400 V, 40 °C standard: 615 A, 355 kW Inside-delta: 1065 A, 630 kW 200-460 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5552-6HA14<<

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 according to EN 61346-2		Q
reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750		G
Power Electronics		
product designation		Soft starter
operational current		
 at 40 °C rated value 	Α	615
 at 50 °C rated value 	Α	551
at 60 °C rated value	А	489
operational current for 3-phase motors at inside-delta circuit		
 at 40 °C rated value 	Α	1 065
 at 50 °C rated value 	Α	954
at 60 °C rated value	А	847
yielded mechanical performance for 3-phase motors		
• at 230 V		
 — at standard circuit at 40 °C rated value 	kW	200
 — at inside-delta circuit at 40 °C rated value 	kW	355
• at 400 V		
 — at standard circuit at 40 °C rated value 	kW	355
— at inside-delta circuit at 40 °C rated value	kW	630
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	150
operating frequency rated value	Hz	50 60
relative negative tolerance of the operating frequency	%	-10
relative positive tolerance of the operating frequency	%	10

	.,	200 100
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	Α	123
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	186
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
Machanical data		
Mechanical data		
width	mm	510
width height	mm mm	510 640
width		
width height	mm	640
width height depth	mm	640 290
width height depth fastening method	mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical
width height depth fastening method mounting position	mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical
width height depth fastening method mounting position required spacing with side-by-side mounting	mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards	mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500
width height depth fastening method mounting position required spacing with side-by-side mounting	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 busbar connection
width height depth fastening method mounting position required spacing with side-by-side mounting	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 busbar connection screw-type terminals
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 busbar connection screw-type terminals 0
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 busbar connection screw-type terminals 0 3
width height depth fastening method mounting position required spacing with side-by-side mounting	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 busbar connection screw-type terminals 0 3
width height depth fastening method mounting position required spacing with side-by-side mounting	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 busbar connection screw-type terminals 0 3 1
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width height depth fastening method mounting position required spacing with side-by-side mounting	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 busbar connection screw-type terminals 0 3 1
width height depth fastening method mounting position required spacing with side-by-side mounting	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 busbar connection screw-type terminals 0 3 1 50 240 mm² 70 240 mm² 2x (0.5 2.5 mm²)
width height depth fastening method mounting position required spacing with side-by-side mounting	mm mm mm mm	640 290 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 busbar connection screw-type terminals 0 3 1 50 240 mm² 70 240 mm²

cables		
• for main contacts		2/0 500 kcmil
 for auxiliary contacts 		2x (20 14)
 for auxiliary contacts finely stranded with core end processing 		2x (20 16)
Ambient conditions		
installation altitude at height above sea level	m	5 000
environmental category		
 during transport according to IEC 60721 		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
 during storage according to IEC 60721 		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
during operation according 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		
during operation	°C	60
during storage	°C	-25 +80
derating temperature	°C	40
protection class IP on the front according to IEC 60529		IP00
UL/CSA ratings		
yielded mechanical performance [hp] for 3-phase AC motor		
• at 200/208 V		
 at inside-delta circuit at 50 °C rated value 	hp	350
• at 220/230 V		
 at standard circuit at 50 °C rated value 	hp	200
 at inside-delta circuit at 50 °C rated value 	hp	400
• at 460/480 V		
 — at standard circuit at 50 °C rated value 	hp	450
 at inside-delta circuit at 50 °C rated value 	hp	850
contact rating of auxiliary contacts according to UL		B300 / R300
Approvals Certificates		

Approvals Certificates

General Product Approval



Confirmation









General Product Approval EMV Test Certificates Marine / Shipping





<u>KC</u>

Special Test Certificate





Marine / Shipping other Environment



Confirmation

Environmental Confirmations

Further information

Simulation Tool for Soft Starters (STS)

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

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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

https://www.siemens.com/ic10

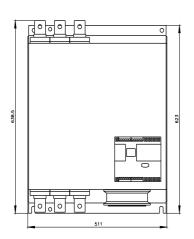
Industry Mall (Online ordering system)

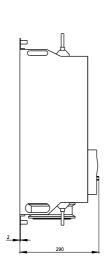
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4454-6BC44

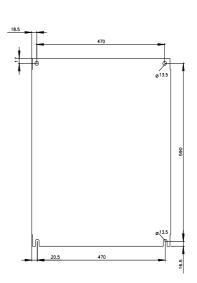
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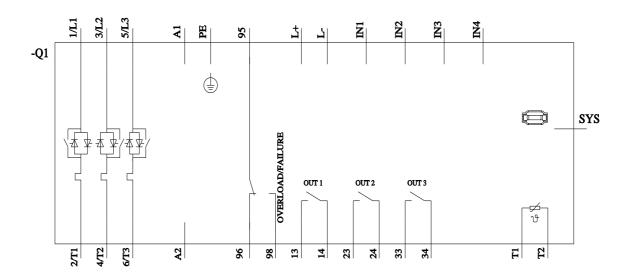
 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW4454-6BC44}$

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









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