SIEMENS

Data sheet 3RW4456-6BC44



SIRIUS soft starter Values at 400 V, 40 °C standard: 780 A, 450 kW Inside-delta: 1351 A, 800 kW 200-460 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5554-6HA14<<

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	А	780
• at 50 °C rated value	А	693
• at 60 °C rated value	А	615
operational current for 3-phase motors at inside-delta circuit		
• at 40 °C rated value	А	1 351
• at 50 °C rated value	А	1 200
• at 60 °C rated value	А	1 065
yielded mechanical performance for 3-phase motors		
• at 230 V		
 at standard circuit at 40 °C rated value 	kW	250
— at inside-delta circuit at 40 °C rated value	kW	450
• at 400 V		
 — at standard circuit at 40 °C rated value 	kW	450
— at inside-delta circuit at 40 °C rated value	kW	800
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	200
operating frequency rated value	Hz	50 60
relative negative tolerance of the operating frequency	%	-10
relative positive tolerance of the operating frequency	%	10

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operating voltage at standard circuit rated value	V 0/	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	156
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	214
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
fastening method		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 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		
stranded		50 240 mm²
type of connectable conductor cross-sections for auxiliary contacts		50 240 mm² 70 240 mm²
• solid		
		70 240 mm²
• solid		70 240 mm² 2x (0.5 2.5 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	450
• at 220/230 V		
 at standard circuit at 50 °C rated value 	hp	250
— at inside-delta circuit at 50 °C rated value	hp	500
• at 460/480 V		
 at standard circuit at 50 °C rated value 	hp	600
— at inside-delta circuit at 50 °C rated value	hp	1 050
contact rating of auxiliary contacts according to UL		B300 / R300
Approvals Certificates		

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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

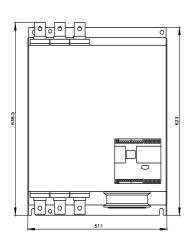
Industry Mall (Online ordering system)

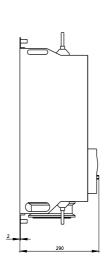
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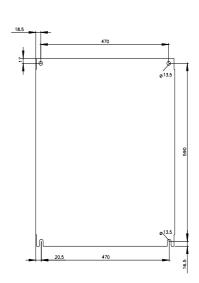
Cax online generator

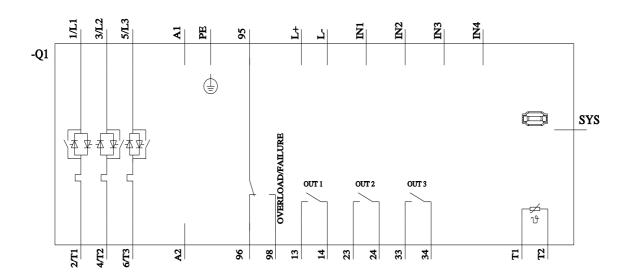
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4456-6BC44

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









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