SIEMENS

Data sheet

3RW44 45-6BC44



SIRIUS soft starter Values at 400 V, 40 °C standard: 313 A, 160 kW Inside-delta: 542 A, 315 kW 200-460 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5545-6HA14<<

General technical data Product brand name	_		
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		G	
according to IEC 204-2 acc. to IEC 750			

Power Electronics		
Product designation		Soft starter
Operating current		
• at 40 °C rated value	А	313
• at 50 °C rated value	А	280
• at 60 °C rated value	А	250
Operating current for three-phase motors at inside- delta circuit		
• at 40 °C rated value	А	542
• at 50 °C rated value	А	485
• at 60 °C rated value	А	433
Mechanical power output for three-phase motors		
• at 230 V		
— at standard circuit at 40 °C rated value	W	90 000
— at inside-delta circuit at 40 °C rated value	W	160 000
• at 400 V		
— at standard circuit at 40 °C rated value	W	160 000
— at inside-delta circuit at 40 °C rated value	W	315 000
Yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	75
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	62
Continuous operating current [% of le] at 40 °C	%	115
Power loss [W] at operating current at 40 °C during operation typical	W	145
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

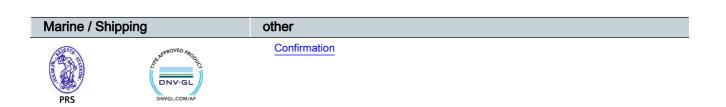
Mechanical data		
Width	mm	210
Height	mm	230
Depth	mm	298
Mounting type		screw fixing
Mounting position		with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
Required spacing with side-by-side mounting		
• upwards	mm	100
• at the side	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 main contacts for box terminal using the front clamping point	
 finely stranded with core end processing 	70 240 mm²
 finely stranded without core end processing 	70 240 mm²

● stranded		95 300 mm²
Type of connectable conductor cross-sections for		
main contacts for box terminal using the back		
clamping point		
 finely stranded with core end processing 		120 185 mm²
 finely stranded without core end processing 		120 185 mm²
• stranded		120 240 mm²
Type of connectable conductor cross-sections for		
main contacts for box terminal using both clamping		
points		
 finely stranded with core end processing 		min. 2x 50 mm², max. 2x 185 mm²
 finely stranded without core end processing 		min. 2x 50 mm², max. 2x 185 mm²
● stranded		max. 2x 70 mm², max. 2x 240 mm²
Type of connectable conductor cross-sections at		
AWG conductors for main contacts for box terminal		
 using the back clamping point 		250 500 kcmil
 using the front clamping point 		3/0 600 kcmil
 using both clamping points 		min. 2x 2/0, max. 2x 500 kcmil
Type of connectable conductor cross-sections for		
DIN cable lug for main contacts		
 finely stranded 		50 240 mm ²
• stranded		70 240 mm²
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 mm²)
Type of connectable conductor cross-sections at AWG conductors		
		2/0 500 komil
• for main contacts		2/0 500 kcmil
• for auxiliary contacts		2x (20 14)
 for auxiliary contacts finely stranded with core 		2x (20 16)
end processing		
Ambient conditions		
Installation altitude at height above sea level	m	5 000
Environmental category		
 during transport acc. to IEC 60721 		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
 during storage acc. to IEC 60721 		1K6 (only occasional condensation), 1C2 (no salt
		mist), 1S2 (sand must not get inside the devices),
		1M4
 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		
during operation	°C	60

• during storage	°C	-25 +80
Derating temperature	°C	40
Protection class IP		IP00

Certificates/ approv	als				
General Produc	t Approval			EMC	Declaration of
					Conformity
	CSA		EHC	RCM	EG-Konf.
Declaration of Conformity	Test Certificates		Marine / Ship	pping	
Miscellaneous	Special Test Certi- ficate	Type Test Certific- ates/Test Report	ABS	BUREAU VERITAS	Lloyd's Register Lrs



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	150
● at 220/230 V		
— at standard circuit at 50 °C rated value	hp	100
— at inside-delta circuit at 50 °C rated value	hp	200
● at 460/480 V		
— at standard circuit at 50 °C rated value	hp	200
— at inside-delta circuit at 50 °C rated value	hp	400
Contact rating of auxiliary contacts according to UL		B300 / R300

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

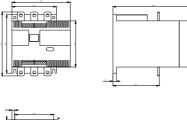
Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4445-6BC44

Cax online generator

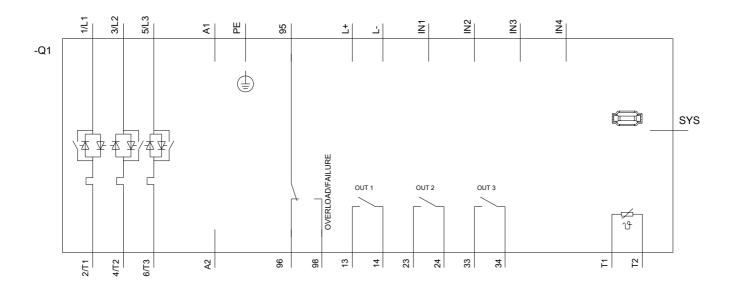
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4445-6BC44

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RW4445-6BC44

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4445-6BC44&lang=en







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