SIEMENS

Data sheet 3RW4436-6BC45



SIRIUS soft starter Values at 500 V, 40 °C standard: 162 A, 110 kW Inside-delta: 281 A, 200 kW 400-600 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5536-6HA16<<

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
operational current		
 at 40 °C rated value 	Α	162
 at 50 °C rated value 	Α	145
at 60 °C rated value	Α	125
operational current for 3-phase motors at inside-delta circuit		
 at 40 °C rated value 	Α	281
 at 50 °C rated value 	Α	251
at 60 °C rated value	Α	217
yielded mechanical performance for 3-phase motors		
• at 400 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 500 V		
 — at standard circuit at 40 °C rated value 	W	110 000
 — at inside-delta circuit at 40 °C rated value 	W	200 000
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	400 600		
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	400 600		
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	32		
continuous operating current [% of le] at 40 °C	%	115		
power loss [W] at operational current at 40 °C during operation typical	W	95		
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	200		
depth	mm	270		
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 main contacts for box terminal using the front clamping point				
finely stranded with core end processing		16 70 mm²		

 finely stranded without core end processing 		16 70 mm²		
• stranded		16 70 mm²		
type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point				
 finely stranded with core end processing 		16 70 mm²		
 finely stranded without core end processing 		16 70 mm²		
stranded		16 70 mm²		
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points				
 finely stranded with core end processing 		max. 1x 50 mm	n², 1x 70 mm²	
 finely stranded without core end processing 		max. 1x 50 mm	n², 1x 70 mm²	
stranded		max. 2x 70 mm	l ²	
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal				
 using the back clamping point 		6 2/0		
 using the front clamping point 		6 2/0		
 using both clamping points 		max. 2x 1/0		
type of connectable conductor cross-sections for DIN cable lug for main contacts				
 finely stranded 		16 95 mm²		
stranded		25 120 mm²		
type of connectable conductor cross-sections for auxiliary contacts				
• solid		2x (0.5 2.5 n	nm²)	
finely stranded with core end processing		2x (0.5 1.5 n	nm²)	
type of connectable conductor cross-sections at AWG cables				
for main contacts		4 250 kcmil		
for auxiliary contacts		2x (20 14)		
 for auxiliary contacts finely stranded with core end processing 		2x (20 16)		
mbient conditions				
installation altitude at height above sea level	m	5 000		
environmental category				
 during transport acc. to IEC 60721 			, 2M2 (max. fall hei	· .
during storage acc. to IEC 60721		1K6 (only occa 1S2 (sand mus	sional condensatio t not get inside the	n), 1C2 (no salt mist), 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 on the front acc. to IEC 60529		IP00; IP20 with box terminal/cover		
touch protection on the front acc. to IEC 60529		finger-safe, for vertical contact from the front with box terminal/cover		
ertificates/ approvals				

General Product Approval

EMC

Declaration of Conformity













Test Certificates

Marine / Shipping









Marine / Shipping

other



Confirmation

UL/CSA ratings				
yielded mechanical performance [hp] for 3-phase AC motor				
• at 460/480 V				
 at standard circuit at 50 °C rated value 	hp	100		
 at inside-delta circuit at 50 °C rated value 	hp	200		
● at 575/600 V				
 at standard circuit at 50 °C rated value 	hp	125		
— at inside-delta circuit at 50 °C rated value	hp	250		
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,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4436-6BC45

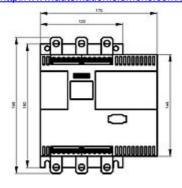
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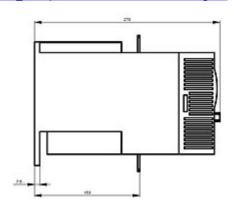
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4436-6BC45

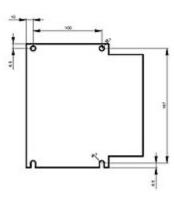
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

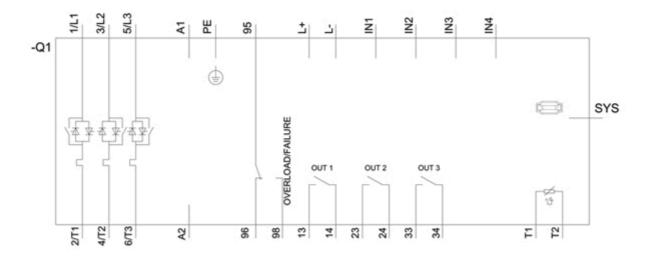
https://support.industry.siemens.com/cs/ww/en/ps/3RW4436-6BC45

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RW4436-6BC45&lang=en









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