SIEMENS

Data sheet 3RW4446-6BC36



SIRIUS soft starter Values at 575 V, 50 °C standard: 315 A, 300 hp Inside-delta: 546 A, 600 hp 400-690 V AC, 115 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5546-6HA16<<

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	356		
 at 50 °C rated value 	Α	315		
at 60 °C rated value	Α	280		
operational current for 3-phase motors at inside-delta circuit				
 at 40 °C rated value 	Α	617		
 at 50 °C rated value 	Α	546		
at 60 °C rated value	Α	485		
yielded mechanical performance for 3-phase motors				
• at 400 V				
 at standard circuit at 40 °C rated value 	W	200 000		
 — at inside-delta circuit at 40 °C rated value 	W	355 000		
● at 500 V				
 at standard circuit at 40 °C rated value 	W	250 000		
 at inside-delta circuit at 40 °C rated value 	W	450 000		
at 690 V at standard circuit at 40 °C rated value	W	355 000		
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	400 690		
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	71		
continuous operating current [% of le] at 40 °C	%	115		
power loss [W] at operational current at 40 °C during operation typical	W	174		
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	115		
at 60 Hz rated value	V	115		
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		
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				

General Product Approval			EMC	Declaration of Conformity	
Gertificates/ approvals		terminal/cover			
touch protection on the front acc. to IEC 60529		finger-safe, for vertical contact from the front with box			
protection class IP on the front acc. to IEC 60529		IP00; IP20 with b	oox terminal/cover		
derating temperature	°C	40			
during storage	°C	-25 +80			
during operation	°C	60			
ambient temperature			must not get into th		
during storage acc. to IEC 60721 during operation acc. to IEC 60721		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 3K6 (no formation of ice, no condensation), 3C3 (no salt			
 during transport acc. to IEC 60721 during storage acc. to IEC 60721 		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) 1K6 (only occasional condensation), 1C2 (no salt mist),			
• during transport acc. to IEC 60721		2K2 2C1 2S1 1	2M2 (may fall heigh	nt () (3 m)	
environmental category	111	3 000			
installation altitude at height above sea level	m	5 000			
mbient conditions					
 for auxiliary contacts finely stranded with core end processing 		2x (20 16)			
for auxiliary contacts		2x (20 14)			
• for main contacts		2/0 500 kcmil			
cables					
type of connectable conductor cross-sections at AWG		ZX (0.0 1.0 IIII	,		
finely stranded with core end processing		2x (0.5 1.5 mr	<i>"</i>		
• solid		2x (0.5 2.5 mr	n²)		
type of connectable conductor cross-sections for auxiliary contacts					
stranded		70 240 mm²			
finely stranded		50 240 mm²			
type of connectable conductor cross-sections for DIN cable lug for main contacts					
using both clamping points		min. 2x 2/0, max	. 2x 500 kcmil		
using the front clamping point		3/0 600 kcmil			
using the back clamping point		250 500 kcmil			
cables for main contacts for box terminal					
stranded type of connectable conductor cross-sections at AWG		max. 2x /u mm²	, max. 2x 240 mm²		
finely stranded without core end processing			max. 2x 185 mm ²		
finely stranded with core end processing			max. 2x 185 mm ²		
main contacts for box terminal using both clamping points					
type of connectable conductor cross-sections for					
stranded		120 240 mm²			
 finely stranded without core end processing 		120 185 mm²			
finely stranded with core end processing		120 185 mm²			
type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point					
• stranded		95 300 mm²			
finely stranded without core end processing		70 240 mm²			
 finely stranded with core end processing 		70 240 mm²			













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	250			
 at inside-delta circuit at 50 °C rated value 	hp	450			
● at 575/600 V					
 at standard circuit at 50 °C rated value 	hp	300			
 at inside-delta circuit at 50 °C rated value 	hp	600			
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=3RW4446-6BC36

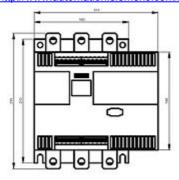
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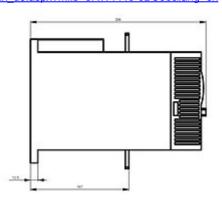
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4446-6BC36

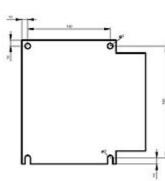
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

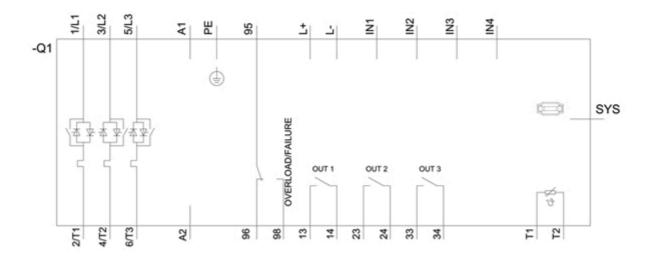
https://support.industry.siemens.com/cs/ww/en/ps/3RW4446-6BC36

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RW4446-6BC36&lang=en









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