SIEMENS

Data sheet 3RW4445-2BC36



SIRIUS soft starter Values at 575 V, 50 °C standard: 280 A, 250 hp Inside-delta: 485 A, 500 hp 400-690 V AC, 115 V AC spring-type terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5545-2HA16<<

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	
	A	313
• at 50 °C rated value	A	313 280
at 50 °C rated valueat 60 °C rated value		
	Α	280
at 60 °C rated value operational current for 3-phase motors at inside-delta	Α	280
at 60 °C rated value operational current for 3-phase motors at inside-delta circuit	A A	280 250
 at 60 °C rated value operational current for 3-phase motors at inside-delta circuit at 40 °C rated value 	A A	280 250 542
 at 60 °C rated value operational current for 3-phase motors at inside-delta circuit at 40 °C rated value at 50 °C rated value 	A A A	280 250 542 485
 at 60 °C rated value operational current for 3-phase motors at inside-delta circuit at 40 °C rated value at 50 °C rated value at 60 °C rated value 	A A A	280 250 542 485
 at 60 °C rated value operational current for 3-phase motors at inside-delta circuit at 40 °C rated value at 50 °C rated value at 60 °C rated value yielded mechanical performance for 3-phase motors 	A A A	280 250 542 485
at 60 °C rated value operational current for 3-phase motors at inside-delta circuit at 40 °C rated value at 50 °C rated value at 60 °C rated value tielded mechanical performance for 3-phase motors at 400 V	A A A A	280 250 542 485 433
 at 60 °C rated value operational current for 3-phase motors at inside-delta circuit at 40 °C rated value at 50 °C rated value at 60 °C rated value at 60 °C rated value yielded mechanical performance for 3-phase motors at 400 V at standard circuit at 40 °C rated value 	A A A A	280 250 542 485 433
at 60 °C rated value operational current for 3-phase motors at inside-delta circuit at 40 °C rated value at 50 °C rated value at 60 °C rated value yielded mechanical performance for 3-phase motors at 400 V at standard circuit at 40 °C rated value at inside-delta circuit at 40 °C rated value	A A A A	280 250 542 485 433
at 60 °C rated value operational current for 3-phase motors at inside-delta circuit at 40 °C rated value at 50 °C rated value at 60 °C rated value yielded mechanical performance for 3-phase motors at 400 V at standard circuit at 40 °C rated value at inside-delta circuit at 40 °C rated value at 500 V	A A A A W	280 250 542 485 433 160 000 315 000
at 60 °C rated value operational current for 3-phase motors at inside-delta circuit at 40 °C rated value at 50 °C rated value at 60 °C rated value tielded mechanical performance for 3-phase motors at 400 V at standard circuit at 40 °C rated value at inside-delta circuit at 40 °C rated value at 500 V at standard circuit at 40 °C rated value at standard circuit at 40 °C rated value	A A A A W W	280 250 542 485 433 160 000 315 000

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	62
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational 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	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		spring-loaded 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 finely stranded without core end processing stranded type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point finely stranded with core end processing		70 240 mm² 70 240 mm² 95 300 mm²
stranded type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point		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 		400 405 3
		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 cables 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 mm²
stranded		70 240 mm²
type of connectable conductor cross-sections for auxiliary contacts		
• solid		2x (0.25 1.5 mm²)
finely stranded with core end processing		2x (0.25 1.5 mm²)
type of connectable conductor cross-sections at AWG cables		
 for main contacts 		2/0 500 kcmil
for auxiliary contacts		2x (24 16)
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 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
Certificates/ 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	200		
 at inside-delta circuit at 50 °C rated value 	hp	400		
• at 575/600 V				
 at standard circuit at 50 °C rated value 	hp	250		
— at inside-delta circuit at 50 °C rated value	hp	500		
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=3RW4445-2BC36

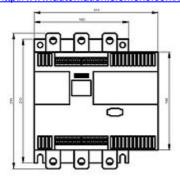
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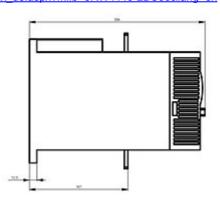
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4445-2BC36

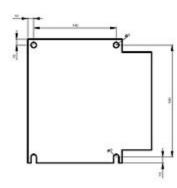
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

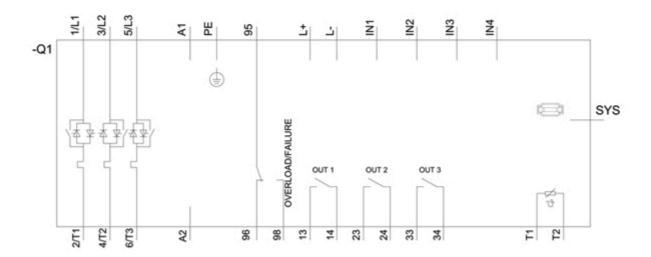
https://support.industry.siemens.com/cs/ww/en/ps/3RW4445-2BC36

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RW4445-2BC36&lang=en









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