SIEMENS

Data sheet 3RW4453-2BC45



SIRIUS soft starter Values at 500 V, 40 °C standard: 551 A, 355 kW Inside-delta: 954 A, 630 kW 400-600 V AC, 230 V AC spring-type terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5548-2HA16<<

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	551	
 at 50 °C rated value 	Α	494	
at 60 °C rated value	Α	438	
operational current for 3-phase motors at inside-delta circuit			
 at 40 °C rated value 	Α	954	
 at 50 °C rated value 	Α	856	
 at 60 °C rated value 	Α	759	
yielded mechanical performance for 3-phase motors			
● at 400 V			
 at standard circuit at 40 °C rated value 	W	315 000	
 — at inside-delta circuit at 40 °C rated value 	W	560 000	
● at 500 V			
at 500 V— at standard circuit at 40 °C rated value	W	355 000	
	W	355 000 630 000	
— at standard circuit at 40 °C rated value			

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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 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 main current 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 DIN cable lug for main contacts 50 240 mm²		%	10
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number of poles for main current circuit Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded 50 240 mm²	downwards	mm	75
type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded busbar connection spring-loaded terminals 0 1 type of contacts for auxiliary contacts 1 type of connectable conductor cross-sections for DIN cable lug for main contacts	wire length maximum	m	500
type of electrical connection • for main current circuit • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts 1 type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded busbar connection busbar connection spring-loaded terminals 0 1 1 1 1 1 1 1 1 1 1 1 1	number of poles for main current circuit		3
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number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded 50 240 mm²			0
number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded 50 240 mm²			3
type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded 50 240 mm²			1
	type of connectable conductor cross-sections for DIN		
a stranded 70 240 mm ²	 finely stranded 		50 240 mm²
• Stranded	• 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
• .		

Certificates/ approvals

General Product Approval

EMC

Declaration of Conformity













Test Certificates

Marine / Shipping

other

Special Test Certificate







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	400
 at inside-delta circuit at 50 °C rated value 	hp	750
• at 575/600 V		
 at standard circuit at 50 °C rated value 	hp	500
 at inside-delta circuit at 50 °C rated value 	hp	950
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 Download center (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4453-2BC45

Cax online generator

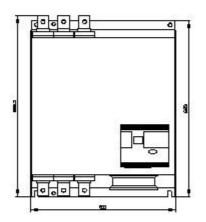
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4453-2BC45

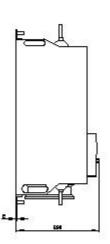
 ${\bf Service \& Support~(Manuals,~Certificates,~Characteristics,~FAQs,...)}$

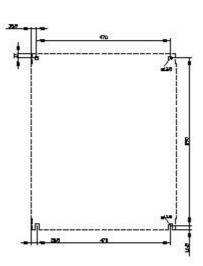
https://support.industry.siemens.com/cs/ww/en/ps/3RW4453-2BC45

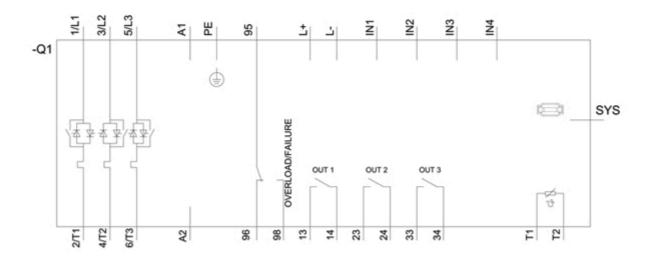
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4453-2BC45\&lang=en}$









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