SIEMENS

Data sheet 3RW4454-2BC35



SIRIUS soft starter Values at 575 V, 50 °C standard: 551 A, 600 hp Inside-delta: 954 A, 1050 hp 400-600 V AC, 115 V AC spring-type terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5552-2HA16<<

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	615	
 at 50 °C rated value 	Α	551	
at 60 °C rated value	A	489	
operational current for 3-phase motors at inside-delta circuit			
 at 40 °C rated value 	Α	1 065	
 at 50 °C rated value 	Α	954	
at 60 °C rated value	Α	847	
yielded mechanical performance for 3-phase motors			
● at 400 V			
 at standard circuit at 40 °C rated value 	W	355 000	
 — at inside-delta circuit at 40 °C rated value 	W	630 000	
● at 500 V			
 at standard circuit at 40 °C rated value 	W	400 000	
— at inside-delta circuit at 40 °C rated value	W	710 000	
operating frequency rated value	Hz	50 60	
relative negative tolerance of the operating frequency	%	-10	

poperating voltage at standard circuit rated value relative negative tolerance of the operating voltage at standard circuit relative negative tolerance of the operating voltage at standard circuit relative positive tolerance of the operating voltage at standard circuit relative negative tolerance of the operating voltage at standard circuit relative negative tolerance of the operating voltage at inside-detta circuit relative positive tolerance of the operating voltage at inside-detta circuit relative positive tolerance of the operating voltage at inside-detta circuit relative positive tolerance of the operating voltage at inside-detta circuit relative positive tolerance of the operating voltage at inside-detta circuit relative positive tolerance of the voltage at new position relative negative tolerance of the control supply voltage relative negative tolerance of the control supply voltage requency 1 rated value relative negative tolerance of the control supply voltage requency 2 rated value relative negative tolerance of the control supply voltage requency 2 rated value relative negative tolerance of the control supply voltage requency 2 rated value relative negative tolerance of the control supply voltage requency 2 rated value relative negative tolerance of the control supply voltage requency 2 rated value relative negative tolerance of the control supply voltage requency 3 rated value voltage at AC at 60 ftz relative positive tolerance of the control supply voltage at AC at 60 ftz relative positive tolerance of the control supply voltage at AC at 60 ftz relative positive tolerance of the control supply voltage at AC at 60 ftz relative positive tolerance of the control supply voltage at AC at 60 ftz relative positive tolerance of the control supply voltage at AC at 60 ftz relative positive tolerance of the control supply voltage at AC at 60 ftz relative positive tolerance of the control supply voltage at AC at 60 ftz relative positive tolerance of the control supply voltage at AC at 60 ftz relative positive			
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inside-delta circuit minimum load [½]		%	-15
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Dower loss IW at operational current at 40 °C during operation typical		Α	123
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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 • upwards 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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height depth mm 290 fastening method screw fixing 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 • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection • for auxiliary and control circuit number of NO 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 mm 640 mm 290 with vertical mounting surface +/-90° rotatable, with vertical mount	Mechanical data		
depth fastening method mounting position required spacing with side-by-side mounting	width	mm	510
fastening method screw fixing mounting position required spacing with side-by-side mounting • upwards • at the side • downwards mm 5 wire length maximum number of poles for main current circuit • for auxiliary and control circuit number of NC 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 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-90° r	height	mm	640
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required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit **Connections/ Terminals** type of electrical connection • for main current circuit **of or auxiliary and control circuit number of NC 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 **vertical mounting surface +/- 22.5° tiltable to the front and back **mm** 100 **mm** 500 **at the side **mm** **mm** 500 **support of contacts for main current circuit **busbar connection **spring-loaded terminals 0 number of NC contacts for auxiliary contacts 1 **type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded **support in the front and back **title to the front and back **mm** **support in the final support in the fin			ū
 upwards at the side downwards mm downwards mm mm<th>mounting position</th><th></th><th>vertical mounting surface +/- 22.5° tiltable to the front and</th>	mounting position		vertical mounting surface +/- 22.5° tiltable to the front and
 upwards at the side downwards mm downwards mm mm<th>required spacing with side-by-side mounting</th><th></th><th></th>	required spacing with side-by-side mounting		
		mm	100
wire length maximum number of poles for main current circuit Connections/ Terminals type of electrical connection	•	mm	5
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
 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 busbar connection 3 1 50 240 mm² 	Connections/ Terminals		
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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			busbar connection
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	 for auxiliary and control circuit 		spring-loaded terminals
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		
70 0402	 finely stranded 		50 240 mm²
■ Strantied 70 240 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
• .		

Certificates/ approvals

General Product Approval

ЕМС

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	450		
 at inside-delta circuit at 50 °C rated value 	hp	850		
• at 575/600 V				
 at standard circuit at 50 °C rated value 	hp	600		
— at inside-delta circuit at 50 °C rated value	hp	1 050		
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=3RW4454-2BC35

Cax online generator

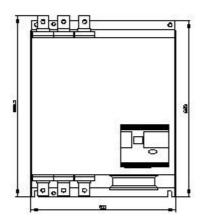
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4454-2BC35

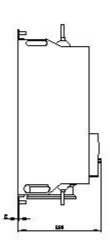
 ${\bf Service \& Support~(Manuals,~Certificates,~Characteristics,~FAQs,...)}$

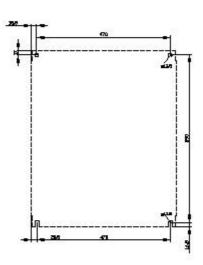
https://support.industry.siemens.com/cs/ww/en/ps/3RW4454-2BC35

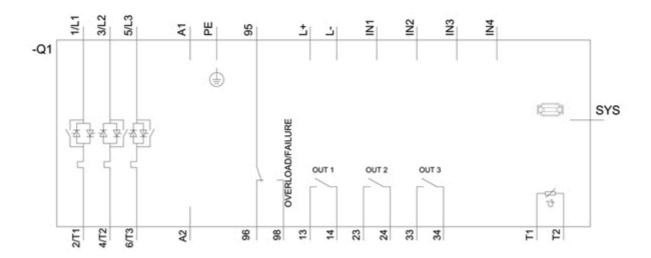
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4454-2BC35\&lang=en}$









last modified: 1/18/2021 **C**