SIEMENS

Data sheet 3RW4457-2BC44



SIRIUS soft starter Values at 400 V, 40 °C standard: 880 A, 500 kW Inside-delta: 1524 A, 900 kW 200-460 V AC, 230 V AC spring-type terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5556-2HA14<<

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	880
 at 50 °C rated value 	Α	780
at 60 °C rated value	Α	693
operational current for 3-phase motors at inside-delta circuit		
 at 40 °C rated value 	Α	1 524
 at 50 °C rated value 	Α	1 351
 at 60 °C rated value 	Α	1 200
yielded mechanical performance for 3-phase motors		
● at 230 V		
 at standard circuit at 40 °C rated value 	W	250 000
— at inside-delta circuit at 40 °C rated value	W	500 000
● at 400 V		
 at standard circuit at 40 °C rated value 	W	500 000
— at inside-delta circuit at 40 °C rated value	W	900 000
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	250

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	200 460
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	200 460
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	А	176
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	250
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	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		
• 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 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
Certificates/ approvals		

General Product Approval

EMC

Declaration of Conformity













Test Certificates

Marine / Shipping

other

Special Test Certific-<u>ate</u>







Confirmation

UL/CSA ratings		
yielded mechanical performance [hp] for 3-phase AC motor		
• at 200/208 V		
 at inside-delta circuit at 50 °C rated value 	hp	450
• at 220/230 V		
 at standard circuit at 50 °C rated value 	hp	300
 at inside-delta circuit at 50 °C rated value 	hp	600
• at 460/480 V		
 at standard circuit at 50 °C rated value 	hp	700
 at inside-delta circuit at 50 °C rated value 	hp	1 200
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,...)

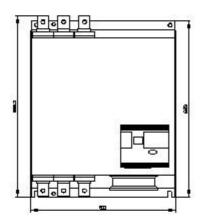
https://www.siemens.com/ic10

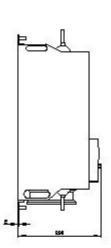
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4457-2BC44

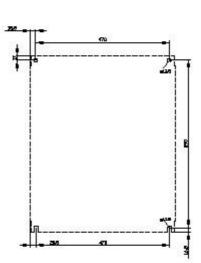
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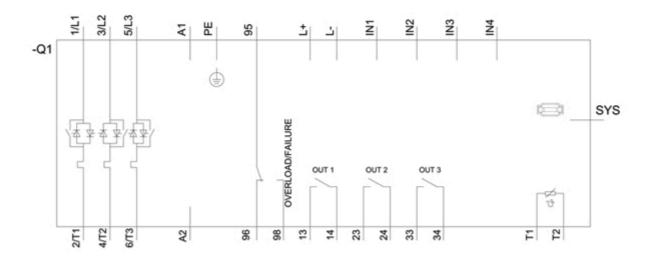
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4457-2BC44 Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RW4457-2BC44

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4457-2BC44&lang=en









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