SIEMENS

Data sheet

3RW4423-1BC45



SIRIUS soft starter Values at 500 V, 40 °C standard: 36 A, 22 kW Inside-delta: 62 A, 37 kW 400-600 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5517-1HA15<<

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 according to EN 61346-2		Q		
reference code according to DIN 40719 extended		G		
according to IEC 204-2 according to IEC 750				
Power Electronics				
product designation		Soft starter		
operational current				
 at 40 °C rated value 	A	36		
 at 50 °C rated value 	A	32.2		
 at 60 °C rated value 	A	29		
operational current for 3-phase motors at inside-delta circuit				
 at 40 °C rated value 	A	62		
 at 50 °C rated value 	A	55		
 at 60 °C rated value 	А	50		
yielded mechanical performance for 3-phase motors				
• at 400 V				
 — at standard circuit at 40 °C rated value 	kW	18.5		
 — at inside-delta circuit at 40 °C rated value 	kW	30		
• at 500 V				
 — at standard circuit at 40 °C rated value 	kW	22		
— at inside-delta circuit at 40 °C rated value	kW	37		
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	400 600		
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	A	7
protection minimum rated value		
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during	W	10
operation typical	_	
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
Machanical data		
Niechanical gata		
Mechanical data width	mm	170
width	mm	170
width height	mm	192
width height depth		192 270
width height depth fastening method	mm	192 270 screw fixing
width height depth	mm	192 270
width height depth fastening method	mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and
width height depth fastening method mounting position	mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and
width height depth fastening method mounting position required spacing with side-by-side mounting	mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards	mm mm	 192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side	mm mm mm	 192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards	mm mm mm mm	 192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit	mm mm mm mm	 192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit Connections/ Terminals	mm mm mm mm	 192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500
width height depth fastening method mounting position 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	mm mm mm mm	 192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit <u>Connections/ Terminals</u> type of electrical connection • for main current circuit	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal
width height depth fastening method mounting position required spacing with side-by-side mounting • upwards • at the side • downwards wire length maximum number of poles for main current circuit <u>Connections/ Terminals</u> type of electrical connection • for main current circuit • for auxiliary and control circuit	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal screw-type terminals
width height depth fastening method mounting position 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 • for auxiliary and control circuit number of NC contacts for auxiliary contacts	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal screw-type terminals 0
width height depth fastening method mounting position 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 • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal screw-type terminals 0 3
width height depth fastening method mounting position 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 • for auxiliary and control circuit number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal screw-type terminals 0
width height depth fastening method mounting position 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 • 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 main contacts for box terminal using the front clamping point	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal screw-type terminals 0 3 1
width height depth fastening method mounting position 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 • for auxiliary and control circuit number of NC contacts for auxiliary contacts 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 main contacts for box terminal using the front clamping point • solid	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal screw-type terminals 0 3 1 2.5 16 mm ²
width height depth fastening method mounting position 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 • 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 number of Co contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal screw-type terminals 0 3 1 2.5 16 mm ² 2.5 35 mm ²
width height depth fastening method mounting position 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 • for auxiliary and control circuit number of NC contacts for auxiliary contacts 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 main contacts for box terminal using the front clamping point • solid	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal screw-type terminals 0 3 1 2.5 16 mm ²
 width height depth fastening method mounting position 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 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 main contacts for box terminal using the front clamping point solid finely stranded with core end processing finely stranded without core end processing 	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal screw-type terminals 0 3 1 2.5 16 mm ² 2.5 35 mm ² 4 50 mm ²
width height depth fastening method mounting position 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 • for auxiliary and control circuit number of NC contacts for auxiliary contacts 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 main contacts for box terminal using the front clamping point • solid • 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	mm mm mm mm	192 270 screw fixing with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back 100 5 75 500 3 box terminal screw-type terminals 0 3 1 2.5 16 mm ² 2.5 35 mm ² 4 50 mm ²

 finely stranded without core end processing stranded 		10 50 mm ² 10 70 mm ²		
• stranged type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		10 70 mm		
• solid		2x (2.5 16 r	nm²)	
 finely stranded with core end processing 		2x (2.5 35 r	,	
 finely stranded without core end processing 		2x (4 35 mr		
stranded		2x (4 50 mr	m²)	
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal				
using the back clamping point		10 2/0		
 using the front clamping point using both clamping points 		10 2/0 2x (10 1/0)		
type of connectable conductor cross-sections for		2x (10 1/0)		
auxiliary contacts				
• solid		2x (0.5 2.5	,	
 finely stranded with core end processing 		2x (0.5 1.5	mm²)	
type of connectable conductor cross-sections at AWG cables				
for auxiliary contacts		2x (20 14)		
 for auxiliary contacts finely stranded with core end 		2x (20 16)		
processing		(/		
Ambient conditions				
installation altitude at height above sea level	m	5 000		
environmental category				
during transport according to IEC 60721			1, 2M2 (max. fall heigh	
 during storage according to IEC 60721 			asional condensation), ist not get inside the de	
during operation according to IEC 60721		3K6 (no forma	ation of ice, no condens nd must not get into th	sation), 3C3 (no salt
ambient temperature				
during operation	°C	60		
 during storage 	°C	-25 +80		
derating temperature	°C	40		
protection class IP on the front according to IEC		IP20		
60529		finger cofe fo	r vortical contact from	the front
touch protection on the front according to IEC 60529 Certificates/ approvals		linger-sale, io	r vertical contact from	ine noni
General Product Approval				EMC
Constant rouges, approval				1
Confirmation		\frown	гпг	A
(SP) Confirmation) ((l)	FAL	\otimes
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yielded mechanical performance [hp] for 3-phase AC motor		
● at 460/480 V		
 — at standard circuit at 50 °C rated value 	hp	20
 — at inside-delta circuit at 50 °C rated value 	hp	40
• at 575/600 V		
 — at standard circuit at 50 °C rated value 	hp	25
 — at inside-delta circuit at 50 °C rated value 	hp	50
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 on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RW4423-1BC45

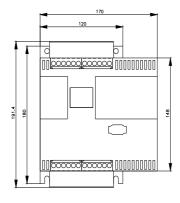
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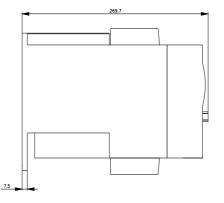
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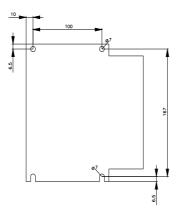
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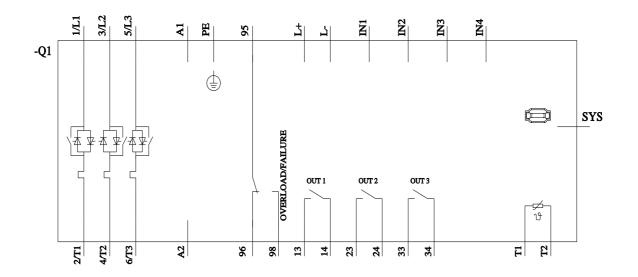
https://support.industry.siemens.com/cs/ww/en/ps/3RW4423-1BC45

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4423-1BC45&lang=en









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