SIEMENS

Data sheet

3RW4425-1BC35



SIRIUS soft starter Values at 575 V, 50 °C standard: 51 A, 40 hp Inside-delta: 88 A, 75 hp 400-600 V AC, 115 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5525-1HA16<<

General technical data		
product brand name		SIRIUS
product feature		51105
integrated bypass contact system		Yes
		Yes
• thyristors		res
product function		N/
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 according to IEC 204-2 according to IEC 750		G
Power Electronics		
product designation		Soft starter
operational current		
 at 40 °C rated value 	А	57
 at 50 °C rated value 	А	51
 at 60 °C rated value 	А	45
operational current for 3-phase motors at inside-delta circuit		
 at 40 °C rated value 	А	99
 at 50 °C rated value 	А	88
 at 60 °C rated value 	А	78
yielded mechanical performance for 3-phase motors		
• at 400 V		
 — at standard circuit at 40 °C rated value 	kW	30
— at inside-delta circuit at 40 °C rated value	kW	55
• at 500 V		
— at standard circuit at 40 °C rated value	kW	37
— at inside-delta circuit at 40 °C rated value	kW	55
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	%	-15
standard circuit	/0	-10

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	11
protection minimum rated value		
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	36
Control circuit/ Control	_	
		AC
type of voltage of the control supply voltage		
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		
	mm	170
width	mm	170 192
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	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 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 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 1 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 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 • 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 1 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 processi stranded type of connectable conductor cross-section main contacts for box terminal using both cl 	ns for	10 50 mm² 10 70 mm²		
 points solid finely stranded with core end processing finely stranded without core end processing stranded type of connectable conductor cross-section cables for main contacts for box terminal 	-	2x (2.5 16 2x (2.5 35 2x (4 35 m 2x (4 50 m	mm²) Im²)	
 using the back clamping point using the front clamping point using both clamping points type of connectable conductor cross-section auxiliary contacts solid finely stranded with core end processing type of connectable conductor cross-section cables 		10 2/0 10 2/0 2x (10 1/0) 2x (0.5 2.5 2x (0.5 1.5	5 mm²)	
 for auxiliary contacts for auxiliary contacts finely stranded with processing 	core end	2x (20 14) 2x (20 16)		
Ambient conditions				
installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721		1K6 (only occ 1S2 (sand m	61, 2M2 (max. fall heigh casional condensation), ust not get inside the de ation of ice, no condens	1C2 (no salt mist), evices), 1M4
ambient temperature • during operation • during storage derating temperature protection class IP on the front according to 60529		mist), 3S2 (si °C 60 °C -25 +80 °C 40 IP20	and must not get into the	e devices), 3M6
touch protection on the front according to IE	C 60529	finger-safe, fo	or vertical contact from t	the front
Certificates/ approvals General Product Approval	_	_	_	EMC
General Product Approval				EMIC
Confirmation CSA			EHC	RCM
Declaration of Conformity	Fest Certificates		Marine / Shipping	
	<u>Fype Test Certific-</u> ates/Test Report	<u>Special Test Certific-</u> <u>ate</u>	ABS	B U R E A U VERITAS
Marine / Shipping		other		
Hovds Register URS PRS	DINV-GL EMISLEDIEM	<u>Confirmation</u>		
UL/CSA ratings				

yielded mechanical performance [hp] for 3-phase AC motor • at 460/480 V		
• al 400/400 v		
 — at standard circuit at 50 °C rated value 	hp	30
- at inside-delta circuit at 50 °C rated value	hp	60
• at 575/600 V		
— at standard circuit at 50 °C rated value	hp	40
 — at inside-delta circuit at 50 °C rated value 	hp	75
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=3RW4425-1BC35

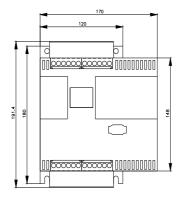
Cax online generator

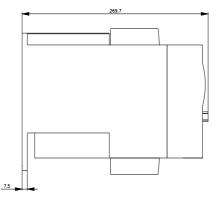
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4425-1BC35

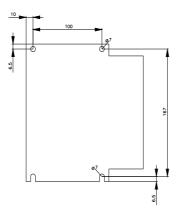
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

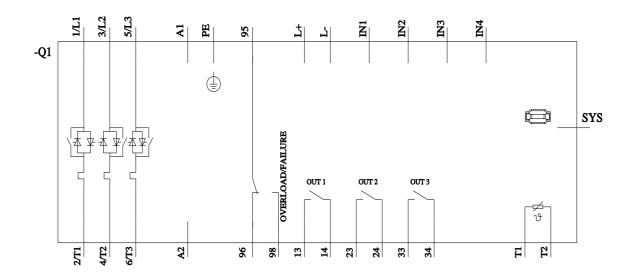
https://support.industry.siemens.com/cs/ww/en/ps/3RW4425-1BC35

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4425-1BC35&lang=en









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