SIEMENS



Data sheet 3RW4435-6BC44



SIRIUS soft starter Values at 400 V, 40 °C standard: 134 A, 75 kW Inside-delta: 232 A, 132 kW 200-460 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5535-6HA14<<

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 according to IEC 204-2 according to IEC 750		G
Power Electronics		
product designation		Soft starter
operational current		
at 40 °C rated value	А	134
 at 50 °C rated value 	Α	117
 at 60 °C rated value 	Α	100
operational current for 3-phase motors at inside-delta circuit		
at 40 °C rated value	Α	232
• at 50 °C rated value	А	203
• at 60 °C rated value	А	173
yielded mechanical performance for 3-phase motors		
• at 230 V		
 — at standard circuit at 40 °C rated value 	kW	37
 at inside-delta circuit at 40 °C rated value 	kW	75
● at 400 V		
 at standard circuit at 40 °C rated value 	kW	75
— at inside-delta circuit at 40 °C rated value	kW	132
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	30
<u> </u>	Hz	50 60

relative negative tolerance of the operating frequency	%	-10 disaptadana
relative positive tolerance of the operating frequency	- %	10 dientudong
operating voltage at standard circuit rated value	V	
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	Α	26
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	76
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	170
height	mm	200
depth	mm	270
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		screw-type 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 main contacts for box terminal using the front clamping point		
finely stranded with core end processing		16 70 mm²

ype of connectable conductor cross-sections for main contacts for box terminal using the back clamping point if finely stranded with core end processing if finely stranded with core end processing if finely stranded with core end processing if finely stranded with core end processing if finely stranded if finely stranded with core end processing if finely stranded if finely stranded with core end processing if finely stranded if finely stranded with core end processing if f	 finely stranded without core end processing 		16
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• finely stranded without core end processing • stranded type of connectable conductor cross-sections for main contacts for box terminal using both clamping points • finely stranded with core end processing • finely stranded without core end processing • stranded 10	type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point		mencanoni
stranded type of connectable conductor cross-sections for main contacts for box terminal using both clamping points	 finely stranded with core end processing 		16 70 mm²
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points • finely stranded with core end processing • stranded type of connectable conductor cross-sections at AWG cables for main contacts for box terminal • using the back clamping point • using both clamping point • using both clamping point • using both clamping points • using both clamping points • stranded type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded • stranded • stranded • stranded • stranded • type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing • finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing • for auxiliary contacts finely stranded with core end processing • for auxiliary contact	 finely stranded without core end processing 		16 70 mm²
mian contacts for box terminal using both clamping points • finely stranded with core end processing • finely stranded without core end processing • stranded type of connectable conductor cross-sections at AWG cables for main contacts for box terminal • using the back clamping point • using be the back clamping point • using befront clamping point • using both clamping points type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded • stranded type of connectable conductor cross-sections for auxiliary contacts • soild • finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts • soild • for main contacts • for main contacts • for main contacts • for auxiliary contacts • for main contacts • for	• stranded		16 70 mm²
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type of connectable conductor cross-sections at AWG cables for main contacts for box terminal	 finely stranded with core end processing 		max. 1x 50 mm², 1x 70 mm²
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal • using the front clamping point • using both clamping points • using both clamping point • using	 finely stranded without core end processing 		max. 1x 50 mm², 1x 70 mm²
• using the back clamping point • using the front clamping point • using both clamping point • using both clamping point • using both clamping point • incly stranded • stranded • stranded • stranded • stranded • stranded • solid • finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing • for onnectable conductor cross-sections at AWG cables • for auxiliary contacts • for on auxiliary contacts • for auxiliary contacts • for ouxiliary contacts • for auxiliary contacts • for ouxiliary contacts • for one for the fore the conductor cross-sections at AWG cables • for auxiliary contacts • for one for the form the front according to IEC 60721 • during storage according to IEC 60721 • during storage according to IEC 60721 • during operation • during operation • during operation • during storage • during operation • during storage • derating temperature • during storage • derating temperature • during storage • derating temperature • during storage • for usure for the front according to IEC 60529 • finger-safe, for vertical contact from the front with box terminal/cover	• stranded		max. 2x 70 mm²
using the front clamping point using both clamping points type of connectable conductor cross-sections for DIN cable lug for main contacts initially stranded	71		
• using both clamping points type of connectable conductor cross-sections for DIN cable lug for main contacts • firely stranded • stranded • stranded • stranded type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing † type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for on auxiliary contacts • for on auxiliary contacts • for on auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for on auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for on auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for on auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for on auxiliary contacts • for auxiliary contacts • for on auxiliary contacts • for auxiliary contacts	 using the back clamping point 		6 2/0
type of connectable conductor cross-sections for DIN cable lug for main contacts • finely stranded • stranded type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for an unit of a maximum contacts • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing mblent 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 • during operation according to IEC 60721 • during operation • during operation • during storage derating temperature • during storage derating temperature • during storage derating temperature • for auxiliary contacts finely stranded with core end processing move the conditions ambient temperature • during operation • during storage derating temperature • for auxiliary contacts finely stranded with core end protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with box terminal/cover	 using the front clamping point 		6 2/0
eincely stranded • stranded type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts innely stranded with core end processing mblent conditions Installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation • during operation • during storage • during operation • condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 amblent temperature • during operation • during storage • condensation) • condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 amblent temperature • during operation • condensation) • condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 amblent temperature • during operation • condensation) • condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 amblent temperature • during storage • condensation) • con	using both clamping points		max. 2x 1/0
• stranded type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts finely stranded with core end processing mbient 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 • during storage • during storage • during storage • during storage • for auxiliary contacts 2x (0.5 1.5 mm²) 2x (0 14) 2x (20 14) 2x (20 16) 2x (2 14) 2x (2 16) 2x (2 14) 2x (2 16) 2x (2 14) 2x (2 16) 2x (2 1	type of connectable conductor cross-sections for DIN cable lug for main contacts		
type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts in ely stranded with core end processing mblent conditions installation altitude at height above sea level • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721 • during storage • during	 finely stranded 		16 95 mm²
**Solid **Soli	stranded		25 120 mm²
type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing mbient conditions installation altitude at height above sea level environmental category • during transport according to IEC 60721 • during operation • during operation • during storage ambient temperature • during operation • during storage derating temperature • during storage derating temperature • during operation • conditions **C 60 • during storage derating temperature protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 touch protection on the front according to IEC 60529 **C 1.5 mm²) 4 250 kcmil 2x (20 14) 2x (20 16) 2x (20 14) 2x (20 16)	type of connectable conductor cross-sections for auxiliary contacts		
type of connectable conductor cross-sections at AWG cables • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing mbient 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 ambient temperature • during operation • during storage derating temperature or during storage derating temperature protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 during storage 4 250 kcmil 2x (20 14) 2x (20 16) 7x (20	• solid		
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• for auxiliary contacts • for auxiliary contacts finely stranded with core end processing mbient 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 ambient temperature • during operation • during storage • during storage or during operation • during operation • during operation • during operation • during storage or during s	cables		
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environmental category • during transport according to IEC 60721 • during storage according to IEC 60721 • during operation according to IEC 60721 ambient temperature • during operation • during storage • during operation • during operation • c 60 • during storage • during operation • c 60 • during storage • during storage • during operation • c 60 • during storage • during temperature • during storage • c 40 IP00; IP20 with box terminal/cover finger-safe, for vertical contact from the front with box terminal/cover	mbient conditions		
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 during storage according to IEC 60721 during operation according to IEC 60721 during operation according to IEC 60721 3K6 (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 during operation during storage C 60 during storage C -25 +80 derating temperature protection class IP on the front according to IEC 60529 IP00; IP20 with box terminal/cover finger-safe, for vertical contact from the front with box terminal/cover 	environmental category		
Stand must not get inside the devices), 1M4 during operation according to IEC 60721 ambient temperature during operation during storage derating temperature protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 1S2 (sand must not get inside the devices), 1M4 3K6 (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 c 60 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get inside the devices), 3M6 c 60 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get inside the devices), 3M6 c 60 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get inside the devices), 3M6 c 60 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get inside the devices), 3M6 c 60 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get inside the devices), 3M6 c 60 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 c 7C devices (no formation of ice, no condensation), 3C3 (no sal mist), 3S2 (sand must not get into the devices), 3M6 c 8C devices (no formation of ice, no condensation), 3C3 (no formation of ice, no condensation),	 during transport according to IEC 60721 		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
mist), 3S2 (sand must not get into the devices), 3M6 ambient temperature • during operation • during storage c c c c c c c c c c c c c c c c c c c	 during storage according to IEC 60721 		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
 during operation during storage C -25 +80 derating temperature C 40 Protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with box terminal/cover 	during operation according to IEC 60721		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
 during storage derating temperature C 40 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with box terminal/cover 			
derating temperature °C 40 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with box terminal/cover			
protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with box terminal/cover		_	
touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with box terminal/cover		°C	
terminal/cover	60529		
ertificates/ approvals	touch protection on the front according to IEC 60529		
	ertificates/ approvals		



Confirmation









Declaration of Conformity Test Certificates	Marine / Shipping
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Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping

other





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	60
• at 220/230 V		
 at standard circuit at 50 °C rated value 	hp	40
 at inside-delta circuit at 50 °C rated value 	hp	75
• at 460/480 V		
 at standard circuit at 50 °C rated value 	hp	75
 at inside-delta circuit at 50 °C rated value 	hp	150
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=3RW4435-6BC44

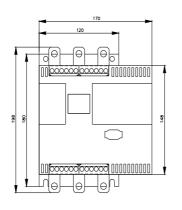
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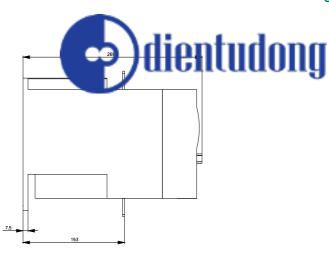
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4435-6BC44

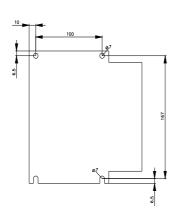
 ${\bf Service \& Support~(Manuals,~Certificates,~Characteristics,~FAQs,...)}$

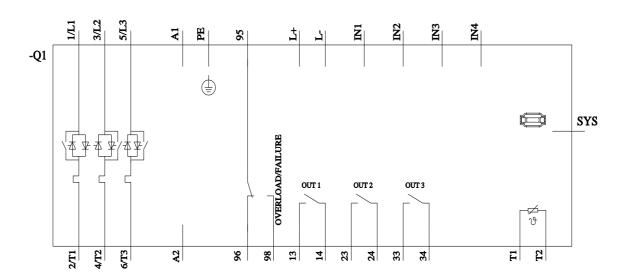
https://support.industry.siemens.com/cs/ww/en/ps/3RW4435-6BC44

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4435-6BC44&lang=en









last modified: 1/16/2022 🖸