



SIRIUS soft starter Values at 400 V, 40 °C standard: 93 A, 45 kW Inside-delta: 161 A, 90 kW 200-460 V AC, 230 V AC spring-type terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5527-3HA14<<

General technical data

product brand name	SIRIUS
product designation	Soft starter
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	690 V
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

operational current	
• at 40 °C rated value	93 A
• at 50 °C rated value	82 A
• at 60 °C rated value	72 A
operational current for 3-phase motors at inside-delta circuit	
• at 40 °C rated value	161 A
• at 50 °C rated value	142 A
• at 60 °C rated value	125 A
yielded mechanical performance for 3-phase motors	
• at 230 V	
— at standard circuit at 40 °C rated value	22 kW
— at inside-delta circuit at 40 °C rated value	45 kW
• at 400 V	
— at standard circuit at 40 °C rated value	45 kW
— at inside-delta circuit at 40 °C rated value	90 kW
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	25 hp
operating frequency rated value	50 ... 60 Hz
relative negative tolerance of the operating frequency	-10 %

relative positive tolerance of the operating frequency	10 %
operating voltage at standard circuit rated value	200 ... 460 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	200 ... 460 V
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	18 A
continuous operating current [% of I _e] at 40 °C	115 %
power loss [W] at operational current at 40 °C during operation typical	55 W
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage frequency 1 rated value	50 Hz
control supply voltage frequency 2 rated value	60 Hz
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	230 V
• at 60 Hz rated value	230 V
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	170 mm
height	192 mm
depth	270 mm
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	100 mm
• at the side	5 mm
• downwards	75 mm
wire length maximum	500 m
number of poles for main current circuit	3
Connections/ Terminals	
type of electrical connection	
• for main current circuit	box terminal
• 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 main contacts for box terminal using the front clamping point	
• solid	2.5 ... 16 mm²
• finely stranded with core end processing	2.5 ... 35 mm²
• finely stranded without core end processing	4 ... 50 mm²
• stranded	4 ... 70 mm²

type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point <ul style="list-style-type: none">• solid• finely stranded with core end processing• finely stranded without core end processing• stranded	2,5 ... 16 mm ² 2.5 ... 50 mm ² 10 ... 50 mm ² 10 ... 70 mm ²	
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points <ul style="list-style-type: none">• solid• finely stranded with core end processing• finely stranded without core end processing• stranded	2x (2.5 ... 16 mm ²) 2x (2.5 ... 35 mm ²) 2x (4 ... 35 mm ²) 2x (4 ... 50 mm ²)	
type of connectable conductor cross-sections for AWG cables for main contacts for box terminal <ul style="list-style-type: none">• using the back clamping point• using the front clamping point• using both clamping points	10 ... 2/0 10 ... 2/0 2x (10 ... 1/0)	
type of connectable conductor cross-sections for auxiliary contacts <ul style="list-style-type: none">• solid• finely stranded with core end processing	2x (0.25 ... 1.5 mm ²) 2x (0.25 ... 1.5 mm ²)	
type of connectable conductor cross-sections for AWG cables <ul style="list-style-type: none">• for auxiliary contacts	2x (24 ... 16)	
Ambient conditions		
installation altitude at height above sea level	5 000 m	
environmental category <ul style="list-style-type: none">• during transport according to IEC 60721• during storage according to IEC 60721• during operation according to IEC 60721	2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6	
ambient temperature <ul style="list-style-type: none">• during operation• during storage	60 °C -25 ... +80 °C	
derating temperature	40 °C	
protection class IP on the front according to IEC 60529	IP20	
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front	
UL/CSA ratings		
yielded mechanical performance [hp] for 3-phase AC motor <ul style="list-style-type: none">• at 200/208 V<ul style="list-style-type: none">— at inside-delta circuit at 50 °C rated value• at 220/230 V<ul style="list-style-type: none">— at standard circuit at 50 °C rated value— at inside-delta circuit at 50 °C rated value• at 460/480 V<ul style="list-style-type: none">— at standard circuit at 50 °C rated value— at inside-delta circuit at 50 °C rated value	40 hp 25 hp 50 hp 60 hp 100 hp	
contact rating of auxiliary contacts according to UL	B300 / R300	
Approvals Certificates		
Environment	General Product Approval	
<div><div>Environmental Conformations</div><div></div><div></div><div></div><div></div><div></div></div>		
EMV	Test Certificates	Maritime application



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Maritime application

other



[Confirmation](#)

[Confirmation](#)



Further information

Simulation Tool for Soft Starters (STS)

<https://www.modulplc.com/?s=3RW4427-3BC44>

Information on the packaging

<https://www.modulplc.com/?s=3RW4427-3BC44>

Information for data generation and storage

<https://www.modulplc.com/?s=3RW4427-3BC44>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.modulplc.com/?s=3RW4427-3BC44>

Industry Mall (Online ordering system)

<https://www.modulplc.com/?s=3RW4427-3BC44>

Cax online generator

<https://www.modulplc.com/?s=3RW4427-3BC44>

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

<https://www.modulplc.com/?s=3RW4427-3BC44>

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

<https://www.modulplc.com/?s=3RW4427-3BC44>



