



SIRIUS soft starter Values at 500 V, 40 °C standard: 551 A, 355 kW Inside-delta: 954 A, 630 kW 400-600 V AC, 230 V AC spring-type terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5548-2HA16<<

General technical data	
product brand name	SIRIUS
product designation	Soft starter
product feature	
<ul style="list-style-type: none"> integrated bypass contact system 	Yes
<ul style="list-style-type: none"> thyristors 	Yes
product function	
<ul style="list-style-type: none"> intrinsic device protection 	Yes
<ul style="list-style-type: none"> motor overload protection 	Yes
<ul style="list-style-type: none"> evaluation of thermistor motor protection 	Yes
<ul style="list-style-type: none"> external reset 	Yes
<ul style="list-style-type: none"> adjustable current limitation 	Yes
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> at 40 °C rated value 	551 A
<ul style="list-style-type: none"> at 50 °C rated value 	494 A
<ul style="list-style-type: none"> at 60 °C rated value 	438 A
operational current for 3-phase motors at inside-delta circuit	
<ul style="list-style-type: none"> at 40 °C rated value 	954 A
<ul style="list-style-type: none"> at 50 °C rated value 	856 A
<ul style="list-style-type: none"> at 60 °C rated value 	759 A
yielded mechanical performance for 3-phase motors	
<ul style="list-style-type: none"> at 400 V <ul style="list-style-type: none"> at standard circuit at 40 °C rated value at inside-delta circuit at 40 °C rated value 	315 kW 560 kW
<ul style="list-style-type: none"> at 500 V <ul style="list-style-type: none"> at standard circuit at 40 °C rated value at inside-delta circuit at 40 °C rated value 	355 kW 630 kW
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	400 ... 600 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	400 ... 600 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	110 A
continuous operating current [% of I _e] at 40 °C	115 %
power loss [W] at operational current at 40 °C during operation typical	159 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	510 mm
height	640 mm
depth	290 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	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 mm ²
• stranded	70 ... 240 mm ²
type of connectable conductor cross-sections for auxiliary contacts	
• solid	2x (0.25 ... 1.5 mm ²)
• finely stranded with core end processing	2x (0.25 ... 1.5 mm ²)

type of connectable conductor cross-sections for AWG cables	
<ul style="list-style-type: none"> • for main contacts • for auxiliary contacts 	2/0 ... 500 kcmil 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	IP00

UL/CSA ratings

yielded mechanical performance [hp] for 3-phase AC motor	
<ul style="list-style-type: none"> • 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 • at 575/600 V <ul style="list-style-type: none"> — at standard circuit at 50 °C rated value — at inside-delta circuit at 50 °C rated value 	400 hp 750 hp 500 hp 950 hp
contact rating of auxiliary contacts according to UL	B300 / R300

Approvals Certificates

Environment	General Product Approval
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[Environmental Confirmations](#)



EMV	Test Certificates	Maritime application
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[Special Test Certificate](#)



other

[Confirmation](#)

[Confirmation](#)



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 for data generation and storage
<https://support.industry.siemens.com/cs/ww/en/view/109995012>
- 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=3RW4453-2BC45>
- Cax online generator
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4453-2BC45>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RW4453-2BC45>



