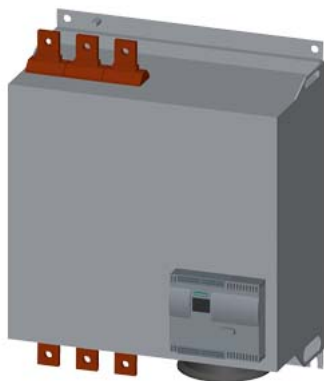




SIRIUS soft starter Values at 400 V, 40 °C standard: 880 A, 500 kW Inside-delta: 1524 A, 900 kW 200-460 V AC, 230 V AC spring-type terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5556-2HA14<<

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	880 A
• at 50 °C rated value	780 A
• at 60 °C rated value	693 A
operational current for 3-phase motors at inside-delta circuit	
• at 40 °C rated value	1 524 A
• at 50 °C rated value	1 351 A
• at 60 °C rated value	1 200 A
yielded mechanical performance for 3-phase motors	
• at 230 V	
— at standard circuit at 40 °C rated value	250 kW
— at inside-delta circuit at 40 °C rated value	500 kW
• at 400 V	
— at standard circuit at 40 °C rated value	500 kW
— at inside-delta circuit at 40 °C rated value	900 kW
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	250 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	176 A
continuous operating current [% of I _e] at 40 °C	115 %
power loss [W] at operational current at 40 °C during operation typical	250 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 mm²
• stranded	70 ... 240 mm²
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	
• for main contacts	2/0 ... 500 kcmil
• for auxiliary contacts	2x (24 ... 16)

Ambient conditions

installation altitude at height above sea level	5 000 m
environmental category	
• during transport according to IEC 60721	2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
• 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 according to IEC 60721	3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
ambient temperature	
• during operation	60 °C
• during storage	-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	
• at 200/208 V	
— at inside-delta circuit at 50 °C rated value	450 hp
• at 220/230 V	
— at standard circuit at 50 °C rated value	300 hp
— at inside-delta circuit at 50 °C rated value	600 hp
• at 460/480 V	
— at standard circuit at 50 °C rated value	700 hp
— at inside-delta circuit at 50 °C rated value	1 200 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=3RW4457-2BC44>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4457-2BC44>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4457-2BC44>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4457-2BC44&lang=en

