



SIRIUS soft starter Values at 575 V, 50 °C standard: 780 A, 850 hp Inside-delta: 1351 A, 1500 hp 400-690 V AC, 115 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5556-6HA16<<

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 acc. to DIN EN 61346-2		Q
reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G
Power Electronics		
product designation		Soft starter
operational current		
• at 40 °C rated value	A	880
• at 50 °C rated value	A	780
• at 60 °C rated value	A	693
operational current for 3-phase motors at inside-delta circuit		
• at 40 °C rated value	A	1 524
• at 50 °C rated value	A	1 351
• at 60 °C rated value	A	1 200
yielded mechanical performance for 3-phase motors		
• at 400 V		
— at standard circuit at 40 °C rated value	W	500 000
— at inside-delta circuit at 40 °C rated value	W	900 000
• at 500 V		
— at standard circuit at 40 °C rated value	W	630 000
— at inside-delta circuit at 40 °C rated value	W	1 000 000
• at 690 V at standard circuit at 40 °C rated value	W	900 000
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 ... 690
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	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 protection minimum rated value	A	176
continuous operating current [% of I <sub>e</sub> ] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	250
<b>Control circuit/ Control</b>		
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	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
<b>Mechanical data</b>		
width	mm	510
height	mm	640
depth	mm	290
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
<b>Connections/ Terminals</b>		
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 DIN cable lug for main contacts		
• finely stranded		50 ... 240 mm <sup>2</sup>

• stranded		70 ... 240 mm <sup>2</sup>
<b>type of connectable conductor cross-sections for auxiliary contacts</b>		
• solid		2x (0.5 ... 2.5 mm <sup>2</sup> )
• finely stranded with core end processing		2x (0.5 ... 1.5 mm <sup>2</sup> )
<b>type of connectable conductor cross-sections at AWG cables</b>		
• for main contacts		2/0 ... 500 kcmil
• for auxiliary contacts		2x (20 ... 14)
• for auxiliary contacts finely stranded with core end processing		2x (20 ... 16)

Ambient conditions		
<b>installation altitude at height above sea level</b>	m	5 000
<b>environmental category</b>		
• during transport acc. to IEC 60721		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
• during storage acc. to IEC 60721		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
• during operation acc. to IEC 60721		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
<b>ambient temperature</b>		
• during operation	°C	60
• during storage	°C	-25 ... +80
<b>derating temperature</b>	°C	40
<b>protection class IP on the front acc. to IEC 60529</b>		IP00

Certificates/ approvals		
General Product Approval	EMC	Declaration of Conformity



Test Certificates	Marine / Shipping	other
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[Special Test Certificate](#)



[Confirmation](#)

UL/CSA ratings		
<b>yielded mechanical performance [hp] for 3-phase AC motor</b>		
• at 460/480 V		
— at standard circuit at 50 °C rated value	hp	700
— at inside-delta circuit at 50 °C rated value	hp	1 200
• at 575/600 V		
— at standard circuit at 50 °C rated value	hp	850
— at inside-delta circuit at 50 °C rated value	hp	1 500
<b>contact rating of auxiliary contacts according to UL</b>		B300 / R300

Further information
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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=3RW4457-6BC36>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4457-6BC36>



