



SIRIUS soft starter S12 280 A, 200 kW/500 V, 40 °C 400-600 V AC, 230 V AC Screw terminals !!! Phased-out product !!!
Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5074-6AB15<<

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		No
• external reset		Yes
• adjustable current limitation		Yes
• inside-delta circuit		No
product component motor brake output		No
insulation voltage rated value	V	600
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	A	280
• at 50 °C rated value	A	248
• at 60 °C rated value	A	215
yielded mechanical performance for 3-phase motors		
• at 400 V		
— at standard circuit at 40 °C rated value	kW	160
• at 500 V		
— at standard circuit at 40 °C rated value	kW	200
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 ... 600
relative negative tolerance of the operating voltage at standard circuit	%	-15
relative positive tolerance of the operating voltage at standard circuit	%	10
minimum load [%]	%	20
adjustable motor current for motor overload	A	130
protection minimum rated value		
continuous operating current [% of I _e] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	90

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		red
Mechanical data		
size of engine control device		S12
width	mm	160
height	mm	230
depth	mm	278
fastening method		screw fixing
mounting position		With additional fan: With vertical mounting surface +/- 90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back Without additional fan: With vertical mounting surface +/- 10° rotatable, with vertical mounting surface +/- 10° t
required spacing with side-by-side mounting		
• upwards	mm	100
• at the side	mm	5
• downwards	mm	75
wire length maximum	m	300
number of poles for main current circuit		3
Connections/ Terminals		
type of electrical connection		busbar connection screw-type terminals
• for main current circuit		
• for auxiliary and control circuit		
number of NC contacts for auxiliary contacts		0
number of NO contacts for auxiliary contacts		2
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		70 ... 240 mm²
• finely stranded without core end processing		70 ... 240 mm²
• stranded		95 ... 300 mm²
type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point		
• finely stranded with core end processing		120 ... 185 mm²
• finely stranded without core end processing		120 ... 185 mm²
• stranded		120 ... 240 mm²
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		
• finely stranded with core end processing		min. 2x 50 mm², max. 2x 185 mm²
• finely stranded without core end processing		min. 2x 50 mm², max. 2x 185 mm²
• stranded		max. 2x 70 mm², max. 2x 240 mm²
type of connectable conductor cross-sections at AWG cables for main contacts for box terminal		
• using the back clamping point		250 ... 500 kcmil
• using the front clamping point		3/0 ... 600 kcmil

<ul style="list-style-type: none"> • using both clamping points type of connectable conductor cross-sections for DIN cable lug for main contacts <ul style="list-style-type: none"> • finely stranded • stranded type of connectable conductor cross-sections for auxiliary contacts <ul style="list-style-type: none"> • solid • finely stranded with core end processing type of connectable conductor cross-sections at AWG cables <ul style="list-style-type: none"> • for main contacts • for auxiliary contacts • for auxiliary contacts finely stranded with core end processing 	min. 2x 2/0, max. 2x 500 kcmil 50 ... 240 mm ² 70 ... 240 mm ² 2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²) 2/0 ... 500 kcmil 2x (20 ... 14) 2x (20 ... 16)
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Ambient conditions

installation altitude at height above sea level	m	5 000
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 	°C	-25 ... +60
derating temperature	°C	-40 ... +80
protection class IP on the front according to IEC 60529	°C	40
touch protection on the front according to IEC 60529		IP00; IP20 with cover
		finger-safe, for vertical contact from the front with cover

Certificates/ approvals

General Product Approval	EMC
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[Confirmation](#)



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



[Confirmation](#)

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 575/600 V <ul style="list-style-type: none"> — at standard circuit at 50 °C rated value 	hp	200
contact rating of auxiliary contacts according to UL	hp	250
		B300 / R300

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- 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=3RW4074-6BB45>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4074-6BB45>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4074-6BB45>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4074-6BB45&lang=en



