## **SIEMENS**

Data sheet 3RW4027-1BB15



SIRIUS soft starter S0 32 A, 18.5 k kW/500 V, 40 °C 400-600 V AC, 110-230 V AC/DC Screw terminals

General technical data		
product brand name		SIRIUS
product designation		Soft starter
product feature		
<ul> <li>integrated bypass contact system</li> </ul>		Yes
• thyristors		Yes
product function		
<ul> <li>intrinsic device protection</li> </ul>		Yes
<ul> <li>motor overload protection</li> </ul>		Yes
<ul> <li>evaluation of thermistor motor protection</li> </ul>		No
external reset		Yes
<ul> <li>adjustable current limitation</li> </ul>		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
blocking voltage of the thyristor maximum	V	1 600
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> <li>at 40 °C rated value</li> </ul>	Α	32
<ul> <li>at 50 °C rated value</li> </ul>	Α	29
at 60 °C rated value	Α	26
yielded mechanical performance for 3-phase motors		
• at 400 V		
<ul> <li>— at standard circuit at 40 °C rated value</li> </ul>	kW	15
● at 500 V		
— at standard circuit at 40 °C rated value	kW	18.5
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 protection minimum rated value	А	17

continuous operating current [9/, of lo] at 40 °C	%	115
continuous operating current [% of le] at 40 °C	_ % W	13
power loss [W] at operational current at 40 °C during operation typical	VV	13
Control circuit/ Control		
type of voltage of the control supply voltage		AC/DC
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	V	110 230
control supply voltage 1 at AC at 60 Hz	V	110 230
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
control supply voltage 1 at DC	V	110 230
relative negative tolerance of the control supply voltage at DC	%	-15
relative positive tolerance of the control supply voltage at DC	%	10
display version for fault signal		red
Mechanical data		
size of engine control device		S0
width	mm	45
height	mm	125
depth	mm	155
fastening method		screw and snap-on mounting
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		
required spacing with side-by-side mounting  • upwards	mm	
	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t
• upwards		surface +/-10° rotatable, with vertical mounting surface +/- 10° t
<ul><li>upwards</li><li>at the side</li></ul>	mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15
<ul><li>upwards</li><li>at the side</li><li>downwards</li></ul>	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60  15  40
<ul> <li>upwards</li> <li>at the side</li> <li>downwards</li> </ul> wire length maximum	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60  15  40  300
upwards at the side downwards wire length maximum number of poles for main current circuit Connections/ Terminals	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60  15  40  300
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals type of electrical connection	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals type of electrical connection for main current circuit	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals type of electrical connection for main current circuit for auxiliary and control circuit	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals  type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals 0
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals 0 2
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals 0 2 1
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals 0 2 1  2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 1x 10 mm²
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals  type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid finely stranded with core end processing	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals 0 2 1
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals  type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid finely stranded with core end processing  type of connectable conductor cross-sections for AWG cables for main contacts for box terminal	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals 0 2 1  2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 1x 10 mm² 2x (1 2.5 mm²), 2x (2.5 6 mm²)
upwards at the side downwards wire length maximum number of poles for main current circuit  Connections/ Terminals  type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid finely stranded with core end processing type of connectable conductor cross-sections for AWG cables for main contacts for box terminal using the front clamping point type of connectable conductor cross-sections for auxiliary	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals 0 2 1  2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 1x 10 mm²
upwards at the side downwards  wire length maximum number of poles for main current circuit  Connections/ Terminals type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid finely stranded with core end processing type of connectable conductor cross-sections for AWG cables for main contacts for box terminal using the front clamping point type of connectable conductor cross-sections for auxiliary contacts	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals 0 2 1  2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 1x 10 mm² 2x (1 2.5 mm²), 2x (2.5 6 mm²)
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upwards at the side downwards  wire length maximum number of poles for main current circuit  Connections/ Terminals  type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid finely stranded with core end processing type of connectable conductor cross-sections for AWG cables for main contacts for box terminal using the front clamping point type of connectable conductor cross-sections for auxiliary contacts for box terminal finely stranded with core end processing finely stranded with core end processing	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals 0 2 1  2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 1x 10 mm² 2x (1 2.5 mm²), 2x (2.5 6 mm²)
upwards at the side downwards  wire length maximum number of poles for main current circuit  Connections/ Terminals  type of electrical connection for main current circuit for auxiliary and control circuit number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point solid finely stranded with core end processing type of connectable conductor cross-sections for AWG cables for main contacts for box terminal using the front clamping point  type of connectable conductor cross-sections for auxiliary contacts solid	mm mm	surface +/-10° rotatable, with vertical mounting surface +/- 10° t  60 15 40 300 3  screw-type terminals screw-type terminals 0 2 1  2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 1x 10 mm² 2x (1 2.5 mm²), 2x (2.5 6 mm²)  1x 8, 2x (16 10)
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Ambient conditions		
installation altitude at height above sea level	m	5 000
environmental category		
<ul> <li>during transport according to IEC 60721</li> </ul>		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
<ul> <li>during storage according to IEC 60721</li> </ul>		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		
<ul> <li>during operation</li> </ul>	°C	-25 +60
during storage	°C	-40 +80
derating temperature	°C	40
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
Environmental footprint		
Global Warming Potential [CO2 eq] total	kg	121
Global Warming Potential [CO2 eq] during manufacturing	kg	4.24
global warming potential [CO2 eq] during sales	kg	0.207
Global Warming Potential [CO2 eq] during operation	kg	117
Global Warming Potential [CO2 eq] after end of life	kg	-0.229
UL/CSA ratings		
yielded mechanical performance [hp] for 3-phase AC motor		
• at 460/480 V		
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	20
• at 575/600 V		
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	25
contact rating of auxiliary contacts according to UL		B300 / R300
Approvals Certificates		

**General Product Approval** 





Confirmation







EMV For use in hazardous locations Test Certificates



<u>KC</u>





Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping other Railway Environment







Confirmation

Confirmation



Environment



Environmental Confirmations

**Further informatior** 

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

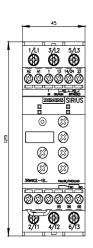
Industry Mall (Online ordering system)

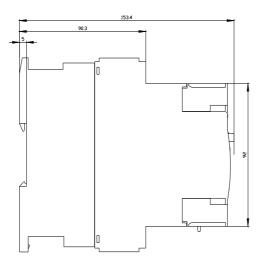
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4027-1BB15

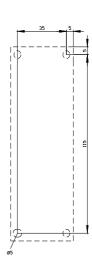
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4027-1BB15

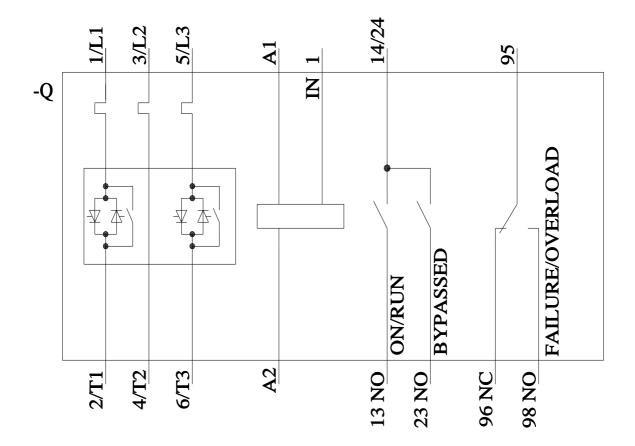
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RW4027-1BB15

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW4027-1BB15&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW4027-1BB15&lang=en</a>









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