



Figure similar

SIRIUS soft starter 200-480 V 570 A, 110-250 V AC Screw terminals
Analog output

product brand name

product category

product designation

product type designation

manufacturer's article number

- of standard HMI module usable
- of high feature HMI module usable
- of communication module PROFINET standard usable
- of communication module PROFIBUS usable
- of communication module Modbus TCP usable
- of communication module Modbus RTU usable
- of communication module Ethernet/IP
- of circuit breaker usable at 400 V
- of circuit breaker usable at 500 V
- of the gG fuse usable up to 690 V
- of full range R fuse link for semiconductor protection usable up to 690 V
- of back-up R fuse link for semiconductor protection usable up to 690 V
- of line contactor usable up to 480 V
- of line contactor usable up to 690 V

SIRIUS
Hybrid switching devices
Soft starter
3RW50
3RW5980-OHS01
3RW5980-OHF00
3RW5980-OCS00
3RW5980-0CP00
3RW5980-0CT00
3RW5980-0CR00
3RW5980-0CE00
3VA2580-6HN32-0AA0 ; Type of assignment 1, Iq = 65 kA
3VA2580-6HN32-0AA0 ; Type of assignment 1, Iq = 65 kA
2x3NA3365-6; Type of coordination 1, Iq = 65 kA
3NE1 437-2 ; Type of coordination 2, Iq = 65 kA
3NE3 340-8 ; Type of coordination 2, Iq = 65 kA
3TF68
3TF68

General technical data

starting voltage [%]	30 ... 100 %
stopping voltage [%]	50 %; non-adjustable
start-up ramp time of soft starter	0 ... 20 s
ramp-down time of soft starter	0 ... 20 s
current limiting value [%] adjustable	130 ... 700 %
certificate of suitability	
• CE marking	Yes
• UL approval	Yes
• CSA approval	Yes
product component	
• HMI-High Feature	No
• is supported HMI-Standard	Yes
• is supported HMI-High Feature	Yes
product feature integrated bypass contact system	Yes
number of controlled phases	2
trip class	CLASS 10A / 10E (preset) / 20E; acc. to IEC 60947-4-2
buffering time in the event of power failure	
• for main current circuit	100 ms

<ul style="list-style-type: none"> • for control circuit 	100 ms
insulation voltage rated value	600 V
degree of pollution	3, acc. to IEC 60947-4-2
impulse voltage rated value	6 kV
blocking voltage of the thyristor maximum	1 600 V
service factor	1
surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	600 V
<ul style="list-style-type: none"> • between main and auxiliary circuit 	15 g / 11 ms, from 12 g / 11 ms with potential contact lifting
shock resistance	15 mm to 6 Hz; 2g to 500 Hz
vibration resistance	AC-53a
utilization category according to IEC 60947-4-2	Q
reference code according to IEC 81346-2	09/23/2019
Substance Prohibitance (Date)	
product function	
<ul style="list-style-type: none"> • ramp-up (soft starting) • ramp-down (soft stop) • Soft Torque • adjustable current limitation • pump ramp down • intrinsic device protection • motor overload protection • evaluation of thermistor motor protection • auto-RESET • manual RESET • remote reset • communication function • operating measured value display • error logbook • via software parameterizable • via software configurable • PROFenergy 	<ul style="list-style-type: none"> Yes Yes Yes Yes Yes Yes Yes; Electronic motor overload protection No Yes Yes Yes; By turning off the control supply voltage Yes Yes; Only in conjunction with special accessories Yes; Only in conjunction with special accessories No Yes Yes; in connection with the PROFINET Standard communication module Yes No Yes; 4 ... 20 mA (default) / 0 ... 10 V (parameterizable with High Feature HMI)
<ul style="list-style-type: none"> • voltage ramp • torque control • analog output 	

Power Electronics

operational current	
<ul style="list-style-type: none"> • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value 	<ul style="list-style-type: none"> 570 A 504 A 460 A
operating voltage	
<ul style="list-style-type: none"> • rated value 	200 ... 480 V
relative negative tolerance of the operating voltage	-15 %
relative positive tolerance of the operating voltage	10 %
operating power for 3-phase motors	
<ul style="list-style-type: none"> • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value 	<ul style="list-style-type: none"> 160 kW 315 kW
Operating frequency 1 rated value	50 Hz
Operating frequency 2 rated value	60 Hz
relative negative tolerance of the operating frequency	-10 %
relative positive tolerance of the operating frequency	10 %
adjustable motor current	
<ul style="list-style-type: none"> • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 • at rotary coding switch on switch position 3 • at rotary coding switch on switch position 4 • at rotary coding switch on switch position 5 • at rotary coding switch on switch position 6 • at rotary coding switch on switch position 7 • at rotary coding switch on switch position 8 • at rotary coding switch on switch position 9 • at rotary coding switch on switch position 10 	<ul style="list-style-type: none"> 240 A 262 A 284 A 306 A 328 A 350 A 372 A 394 A 416 A 438 A

<ul style="list-style-type: none"> • at rotary coding switch on switch position 11 • at rotary coding switch on switch position 12 • at rotary coding switch on switch position 13 • at rotary coding switch on switch position 14 • at rotary coding switch on switch position 15 • at rotary coding switch on switch position 16 • minimum 	460 A
minimum load [%]	482 A
power loss [W] for rated value of the current at AC	504 A
<ul style="list-style-type: none"> • at 40 °C after startup • at 50 °C after startup • at 60 °C after startup 	526 A
power loss [W] at AC at current limitation 350 %	548 A
<ul style="list-style-type: none"> • at 40 °C during startup • at 50 °C during startup • at 60 °C during startup 	570 A
type of the motor protection	240 A
	15 %; Relative to smallest settable Ie
	73 W
	57 W
	47 W
	7 019 W
	5 801 W
	5 048 W
	Electronic, tripping in the event of thermal overload of the motor
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	110 ... 250 V
relative negative tolerance of the control supply voltage at AC at 50 Hz	110 ... 250 V
relative positive tolerance of the control supply voltage at AC at 50 Hz	-15 %
relative negative tolerance of the control supply voltage at AC at 60 Hz	10 %
relative positive tolerance of the control supply voltage at AC at 60 Hz	-15 %
control supply voltage frequency	10 %
relative negative tolerance of the control supply voltage frequency	50 ... 60 Hz
relative positive tolerance of the control supply voltage frequency	-10 %
control supply current in standby mode rated value	10 %
holding current in bypass operation rated value	30 mA
inrush current by closing the bypass contacts maximum	105 mA
inrush current peak at application of control supply voltage maximum	2.2 A
duration of inrush current peak at application of control supply voltage	12.2 A
design of the overvoltage protection	2.2 ms
design of short-circuit protection for control circuit	Varistor
	4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply
Inputs/ Outputs	
number of digital inputs	1
number of digital outputs	3
<ul style="list-style-type: none"> • not parameterizable 	2
digital output version	2 normally-open contacts (NO) / 1 changeover contact (CO)
number of analog outputs	1
switching capacity current of the relay outputs	
<ul style="list-style-type: none"> • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value 	3 A
	1 A
Installation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
fastening method	screw fixing
height	230 mm
width	160 mm
depth	282 mm
required spacing with side-by-side mounting	
<ul style="list-style-type: none"> • forwards 	10 mm

- backwards
- upwards
- downwards
- at the side

0 mm
100 mm
75 mm
5 mm
7.3 kg

weight without packaging

Connections/ Terminals

type of electrical connection

- for main current circuit
- for control circuit

busbar connection
screw-type terminals
35 mm; with connection cover 3RT1966-4EA1 maximum length 45 mm

width of connection bar maximum

type of connectable conductor cross-sections

- for main contacts for box terminal using the front clamping point solid
- for main contacts for box terminal using the front clamping point finely stranded with core end processing
- for main contacts for box terminal using the front clamping point finely stranded without core end processing
- for main contacts for box terminal using the front clamping point stranded
- for main contacts for box terminal using the back clamping point solid
- at AWG cables for main contacts for box terminal using the back clamping point
- for main contacts for box terminal using both clamping points solid
- for main contacts for box terminal using both clamping points finely stranded with core end processing
- for main contacts for box terminal using both clamping points finely stranded without core end processing
- for main contacts for box terminal using both clamping points stranded
- for main contacts for box terminal using the back clamping point finely stranded with core end processing
- for main contacts for box terminal using the back clamping point finely stranded without core end processing
- for main contacts for box terminal using the back clamping point stranded

95 ... 300 mm²
70 ... 240 mm²
70 ... 240 mm²
95 ... 300 mm²
120 ... 240 mm²
250 ... 500 kcmil
min. 2x 70 mm², max. 2x 240 mm²
min. 2x 50 mm², max. 2x 185 mm²
min. 2x 50 mm², max. 2x 185 mm²
min. 2x 70 mm², max. 2x 240 mm²
120 ... 185 mm²
120 ... 185 mm²
120 ... 240 mm²

type of connectable conductor cross-sections

- at AWG cables for main current circuit solid
- for DIN cable lug for main contacts stranded
- for DIN cable lug for main contacts finely stranded

2/0 ... 500 kcmil
50 ... 240 mm²
70 ... 240 mm²

type of connectable conductor cross-sections

- for control circuit solid
- for control circuit finely stranded with core end processing
- at AWG cables for control circuit solid

1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²)
1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
1x (20 ... 12), 2x (20 ... 14)

wire length

- between soft starter and motor maximum
- at the digital inputs at AC maximum

800 m
1 000 m

tightening torque

- for main contacts with screw-type terminals
- for auxiliary and control contacts with screw-type terminals

14 ... 24 N·m
0.8 ... 1.2 N·m

tightening torque [lbf-in]

- for main contacts with screw-type terminals
- for auxiliary and control contacts with screw-type terminals

124 ... 210 lbf-in
7 ... 10.3 lbf-in

Ambient conditions

installation altitude at height above sea level maximum

5 000 m; derating as of 1000 m, see Manual

ambient temperature

- during operation

-25 ... +60 °C; Please observe derating at temperatures of 40 °C or above

<ul style="list-style-type: none"> during storage and transport environmental category <ul style="list-style-type: none"> during operation according to IEC 60721 during storage according to IEC 60721 during transport according to IEC 60721 EMC emitted interference	-40 ... +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A
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Communication/ Protocol

communication module is supported <ul style="list-style-type: none"> PROFINET standard EtherNet/IP Modbus RTU Modbus TCP PROFIBUS 	Yes Yes Yes Yes Yes
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UL/CSA ratings

manufacturer's article number <ul style="list-style-type: none"> of the fuse <ul style="list-style-type: none"> — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL operating power [hp] for 3-phase motors <ul style="list-style-type: none"> at 200/208 V at 50 °C rated value at 220/230 V at 50 °C rated value at 460/480 V at 50 °C rated value 	Type: Class L, max. 1600 A; Iq = 30 kA Type: Class L, max. 1200 A; Iq = 100 kA 150 hp 200 hp 400 hp
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Safety related data

protection class IP on the front according to IEC 60529	IP00; IP20 with cover
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with cover

ATEX

certificate of suitability <ul style="list-style-type: none"> ATEX IECEX UKEX hardware fault tolerance according to IEC 61508 relating to ATEX PFDAvg with low demand rate according to IEC 61508 relating to ATEX PFHD with high demand rate according to EN 62061 relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX T1 value for proof test interval or service life according to IEC 61508 relating to ATEX	Yes Yes Yes 0 0.09 9E-6 1/h SIL1 3 a
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Certificates/ approvals

General Product Approval	For use in hazardous locations
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[Confirmation](#)



For use in hazardous locations	Declaration of Conformity	Test Certificates	Marine / Shipping
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[Explosion Protection Certificate](#)



[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RW5077-6AB14>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5077-6AB14>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5077-6AB14>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5077-6AB14&lang=en

Characteristic: Tripping characteristics, I^t, Let-through current

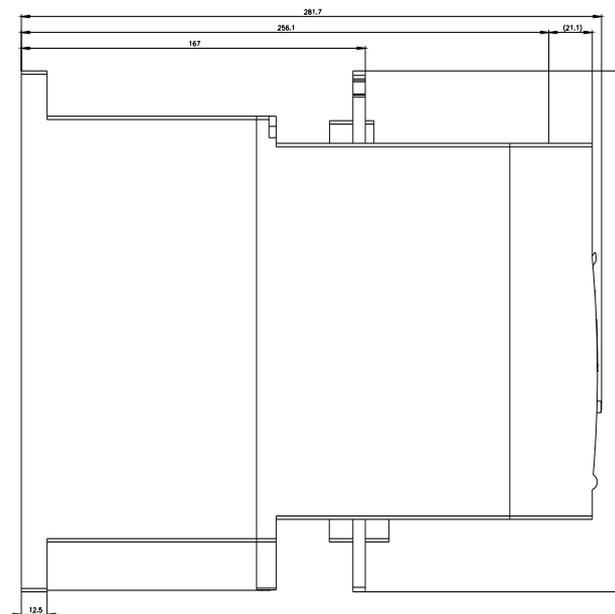
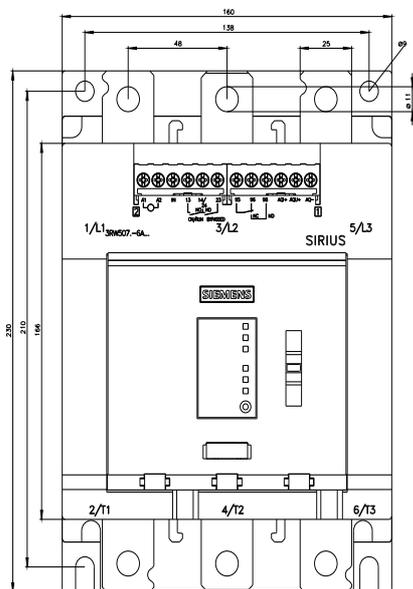
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5077-6AB14/char>

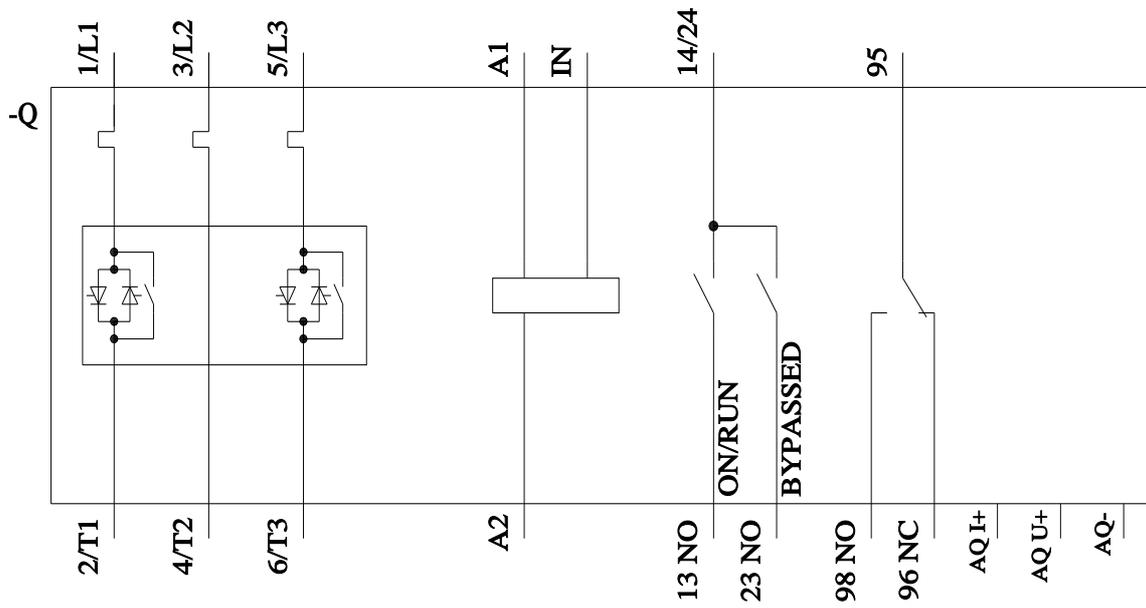
Characteristic: Installation altitude

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5077-6AB14&objecttype=14&gridview=view1>

Simulation Tool for Soft Starters (STS)

<https://support.industry.siemens.com/cs/ww/en/view/101494917>





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