



SIRIUS soft starter 200-480 V 25 A, 24 V AC/DC 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 circuit breaker usable at 400 V at inside-delta circuit
- of circuit breaker usable at 500 V at inside-delta circuit
- of the gG fuse usable up to 690 V
- of the gG fuse usable at inside-delta circuit up to 500 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

SIRIUS
 Hybrid switching devices
 Soft starter
 3RW52

- [3RW5980-0HS00](#)
- [3RW5980-0HF00](#)
- [3RW5980-0CS00](#)
- [3RW5980-0CP00](#)
- [3RW5980-0CT00](#)
- [3RW5980-0CR00](#)
- [3RW5980-0CE00](#)
- [3RV2032-4EA10; Type of coordination 1, Iq = 65 kA, CLASS 10](#)
- [3RV2032-4EA10; Type of coordination 1, Iq = 15 kA, CLASS 10](#)
- [3RV2032-4VA10; Type of coordination 1, Iq = 65 kA, CLASS 10](#)
- [3RV2032-4VA10; Type of coordination 1, Iq = 15 kA, CLASS 10](#)
- [3NA3822-6; Type of coordination 1, Iq = 65 kA](#)
- [3NA3822-6; Type of coordination 1, Iq = 65 kA](#)
- [3NE1817-0; Type of coordination 2, Iq = 65 kA](#)
- [3NE8021-1; Type of coordination 2, Iq = 65 kA](#)

General technical data

starting voltage [%]	30 ... 100 %
stopping voltage [%]	50 %; non-adjustable
start-up ramp 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	3
trip class	CLASS 10A (default) / 10E / 20E; acc. to IEC 60947-4-2
buffering time in the event of power failure	

<ul style="list-style-type: none"> • for main current circuit • for control circuit 	100 ms
insulation voltage rated value	100 ms
degree of pollution	600 V
impulse voltage rated value	3, acc. to IEC 60947-4-2
blocking voltage of the thyristor maximum service factor	6 kV
surge voltage resistance rated value	1 600 V
maximum permissible voltage for safe isolation	1
<ul style="list-style-type: none"> • between main and auxiliary circuit 	6 kV
shock resistance	600 V
vibration resistance	15 g / 11 ms, from 12 g / 11 ms with potential contact lifting
utilization category according to IEC 60947-4-2	15 mm to 6 Hz; 2g to 500 Hz
reference code according to IEC 81346-2	AC 53a
Substance Prohibitance (Date)	Q
product function	02/15/2018
<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 • inside-delta circuit • auto-RESET • manual RESET • remote reset • communication function • operating measured value display • error logbook • via software parameterizable • via software configurable • PROFInergy 	Yes
<ul style="list-style-type: none"> • firmware update • removable terminal for control circuit • torque control • analog output 	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes; Electronic motor overload protection
	No
	Yes
	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
	Yes
	No
	Yes; 4 ... 20 mA (default) / 0 ... 10 V (parameterizable with High Feature HMI)

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 	25 A 22.3 A 19.6 A
operational current at inside-delta circuit	
<ul style="list-style-type: none"> • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value 	43.3 A 39 A 33.9 A
operating voltage	
<ul style="list-style-type: none"> • rated value • at inside-delta circuit rated value 	200 ... 480 V 200 ... 480 V
relative negative tolerance of the operating voltage	-15 %
relative positive tolerance of the operating voltage	10 %
relative negative tolerance of the operating voltage at inside-delta circuit	-15 %
relative positive tolerance of the operating voltage at inside-delta circuit	10 %
operating power for 3-phase motors	
<ul style="list-style-type: none"> • at 230 V at 40 °C rated value • at 230 V at inside-delta circuit at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value 	5.5 kW 11 kW 11 kW 18.5 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	
• at rotary coding switch on switch position 1	11.5 A
• at rotary coding switch on switch position 2	12.4 A
• at rotary coding switch on switch position 3	13.3 A
• at rotary coding switch on switch position 4	14.2 A
• at rotary coding switch on switch position 5	15.1 A
• at rotary coding switch on switch position 6	16 A
• at rotary coding switch on switch position 7	16.9 A
• at rotary coding switch on switch position 8	17.8 A
• at rotary coding switch on switch position 9	18.7 A
• at rotary coding switch on switch position 10	19.6 A
• at rotary coding switch on switch position 11	20.5 A
• at rotary coding switch on switch position 12	21.4 A
• at rotary coding switch on switch position 13	22.3 A
• at rotary coding switch on switch position 14	23.2 A
• at rotary coding switch on switch position 15	24.1 A
• at rotary coding switch on switch position 16	25 A
• minimum	11.5 A
adjustable motor current	
• for inside-delta circuit at rotary coding switch on switch position 1	19.9 A
• for inside-delta circuit at rotary coding switch on switch position 2	21.5 A
• for inside-delta circuit at rotary coding switch on switch position 3	23 A
• for inside-delta circuit at rotary coding switch on switch position 4	24.6 A
• for inside-delta circuit at rotary coding switch on switch position 5	26.2 A
• for inside-delta circuit at rotary coding switch on switch position 6	27.7 A
• for inside-delta circuit at rotary coding switch on switch position 7	29.3 A
• for inside-delta circuit at rotary coding switch on switch position 8	30.8 A
• for inside-delta circuit at rotary coding switch on switch position 9	32.4 A
• for inside-delta circuit at rotary coding switch on switch position 10	33.9 A
• for inside-delta circuit at rotary coding switch on switch position 11	35.5 A
• for inside-delta circuit at rotary coding switch on switch position 12	37.1 A
• for inside-delta circuit at rotary coding switch on switch position 13	38.6 A
• for inside-delta circuit at rotary coding switch on switch position 14	40.2 A
• for inside-delta circuit at rotary coding switch on switch position 15	41.7 A
• for inside-delta circuit at rotary coding switch on switch position 16	43.3 A
• at inside-delta circuit minimum	19.9 A
minimum load [%]	15 %; Relative to smallest settable I _e
power loss [W] for rated value of the current at AC	
• at 40 °C after startup	20 W
• at 50 °C after startup	19 W
• at 60 °C after startup	18 W
power loss [W] at AC at current limitation 350 %	
• at 40 °C during startup	376 W
• at 50 °C during startup	318 W
• at 60 °C during startup	278 W

Control circuit/ Control

type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	

<ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value 	24 V
relative negative tolerance of the control supply voltage at AC at 50 Hz	24 V
relative positive tolerance of the control supply voltage at AC at 50 Hz	-20 %
relative negative tolerance of the control supply voltage at AC at 60 Hz	20 %
relative positive tolerance of the control supply voltage at AC at 60 Hz	-20 %
control supply voltage frequency	20 %
relative negative tolerance of the control supply voltage frequency	50 ... 60 Hz
relative positive tolerance of the control supply voltage frequency	-10 %
control supply voltage	10 %
<ul style="list-style-type: none"> • at DC rated value 	24 V
relative negative tolerance of the control supply voltage at DC	-20 %
relative positive tolerance of the control supply voltage at DC	20 %
control supply current in standby mode rated value	160 mA
holding current in bypass operation rated value	360 mA
locked-rotor current at close of bypass contact maximum	0.75 A
inrush current peak at application of control supply voltage maximum	3.3 A
duration of inrush current peak at application of control supply voltage	12.1 ms
design of the overvoltage protection	Varistor
design of short-circuit protection for control circuit	4 A gG fuse (I _{cu} =1 kA), 6 A quick-acting fuse (I _{cu} =1 kA), C1 miniature circuit breaker (I _{cu} = 600 A), C6 miniature circuit breaker (I _{cu} = 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	+/- 10° rotation possible and can be tilted forward or backward on vertical mounting surface
fastening method	screw fixing
height	275 mm
width	170 mm
depth	152 mm
required spacing with side-by-side mounting	
<ul style="list-style-type: none"> • forwards • backwards • upwards • downwards • at the side 	10 mm
	0 mm
	100 mm
	75 mm
	5 mm
weight without packaging	2.1 kg

Connections/ Terminals

type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for control circuit 	screw-type terminals
	screw-type terminals
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts 	
— solid	2x (1.0 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²)
— finely stranded with core end processing	2x (1.0 ... 2.5 mm ²), 2x (2.5 ... 6.0 mm ²)
<ul style="list-style-type: none"> • at AWG cables for main current circuit solid 	2x (16 ... 12), 2x (14 ... 8)
type of connectable conductor cross-sections	

<ul style="list-style-type: none"> • 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 mm ²), 2x (0.5 ... 2.5 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
wire length	
<ul style="list-style-type: none"> • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs at DC maximum 	800 m 100 m 1 000 m
tightening torque	
<ul style="list-style-type: none"> • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals 	2 ... 2.5 N·m 0.8 ... 1.2 N·m
tightening torque [lbf·in]	
<ul style="list-style-type: none"> • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals 	18 ... 22 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 catalog
ambient temperature	
<ul style="list-style-type: none"> • 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 	-40 ... +80 °C
environmental category	
<ul style="list-style-type: none"> • during operation according to IEC 60721 	3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
<ul style="list-style-type: none"> • during storage according to IEC 60721 	1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
<ul style="list-style-type: none"> • during transport according to IEC 60721 	2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
EMC emitted interference	acc. to IEC 60947-4-2: Class A
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
UL/CSA ratings	
manufacturer's article number	
<ul style="list-style-type: none"> • of circuit breaker <ul style="list-style-type: none"> — usable for Standard Faults at 460/480 V according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL • 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 — usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL — usable for High Faults at inside-delta circuit up to 575/600 V according to UL 	Siemens type: 3RV2742, max. 70 A or 3VA51, max. 80 A; Iq = 5 kA Siemens type: 3RV2742, max.40 A or 3VA51, max. 60 A; Iq max = 65 kA Siemens type: 3RV2742, max. 70 A or 3VA51, max. 80 A; Iq = 5 kA Siemens type: 3VA51, max. 60 A; Iq max = 65 kA Siemens type: 3RV2742, max. 70 A or 3VA51, max. 80 A; Iq = 5 kA Siemens type: 3RV2742, max. 70 A or 3VA51, max. 80 A; Iq = 5 kA Type: Class RK5 / K5, max. 100 A; Iq = 5 kA Type: Class J / L, max. 100 A; Iq = 100 kA Type: Class RK5 / K5, max. 100 A; Iq = 5 kA Type: Class J / L, max. 100 A; Iq = 100 kA
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 • at 200/208 V at inside-delta circuit at 50 °C rated value 	5 hp 7.5 hp 15 hp 10 hp

- at 220/230 V at inside-delta circuit at 50 °C rated value
- at 460/480 V at inside-delta circuit at 50 °C rated value

10 hp

25 hp

contact rating of auxiliary contacts according to UL

R300-B300

Safety related data

protection class IP on the front according to IEC 60529

IP20

touch protection on the front according to IEC 60529
electromagnetic compatibility

finger-safe, for vertical contact from the front
in accordance with IEC 60947-4-2

Certificates/ approvals

General Product Approval

EMC



[Confirmation](#)



Declaration of Conformity

Test Certificates

Marine / Shipping



[Type Test Certificates/Test Report](#)



Marine / Shipping

other



[Confirmation](#)

Further information

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=3RW5215-1AC04>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5215-1AC04>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5215-1AC04>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5215-1AC04&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

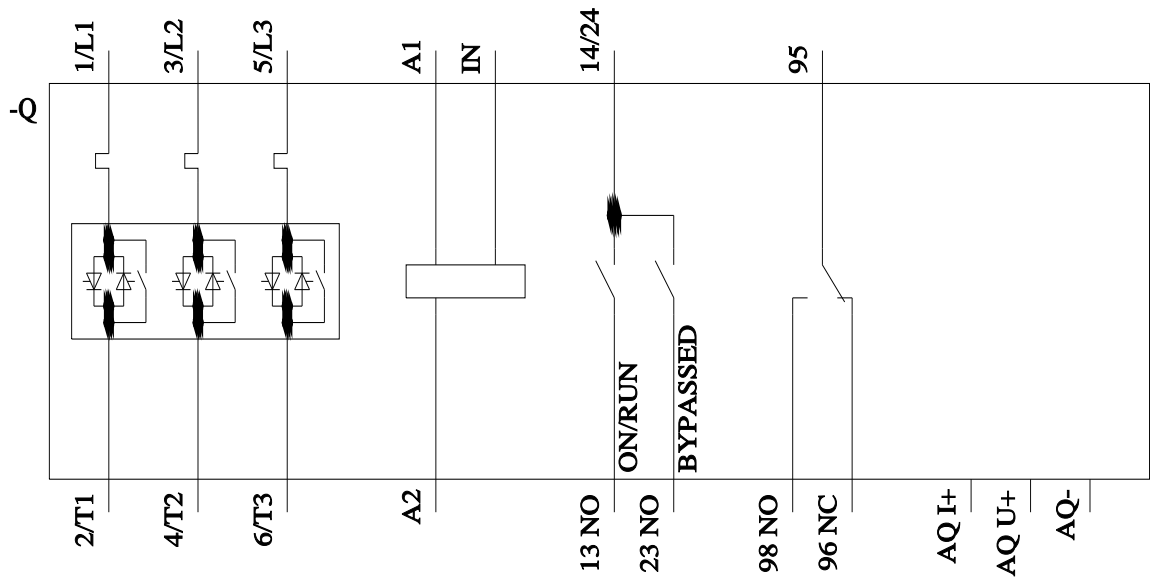
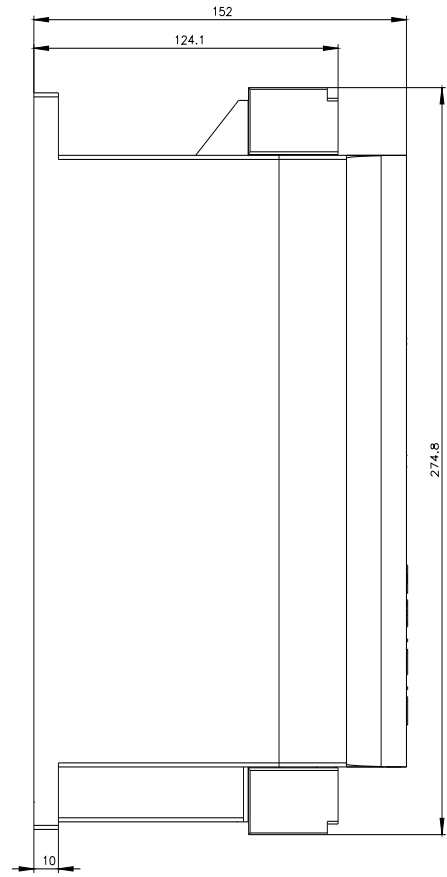
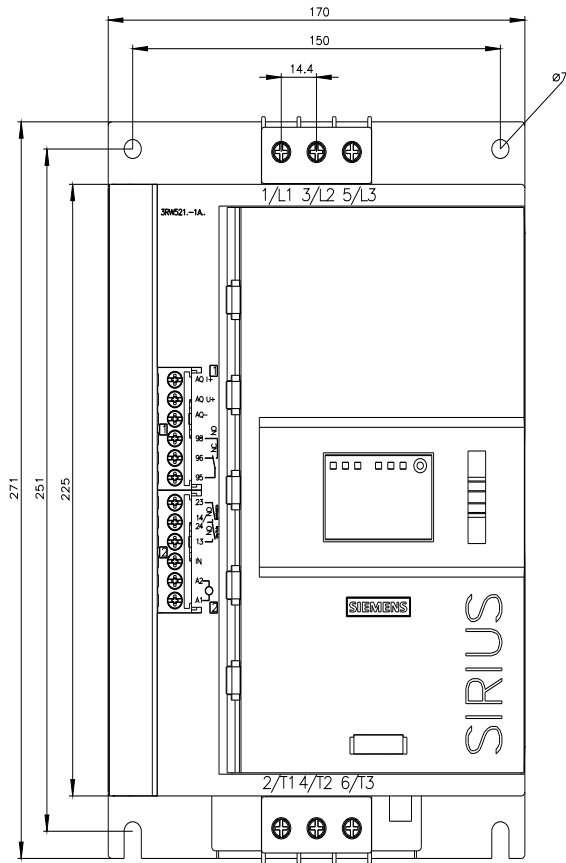
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5215-1AC04/char>

Characteristic: Installation altitude

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5215-1AC04&objecttype=14&gridview=view1>

Simulation Tool for Soft Starters (STS)

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



last modified:

9/13/2022 