

SIRIUS soft starter 200-480 V 250 A, 24 V AC/DC spring-type terminals Thermistor input



Figure similar

Product brand name	SIRIUS
Product category	Hybrid switching devices
Product designation	Soft starter
Manufacturer's article number	<div><ul style="list-style-type: none">• of HMI module usable• of HMI-Modul high-feature usable• of communication module PROFINET standard usable• of communication module PROFIBUS usable• of communication module Modbus TCP usable• 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</div>

- [3RW5980-0HS00](#)
- [3RW5980-0HF00](#)
- [3RW5980-0CS00](#)
- [3RW5980-0CP00](#)
- [3RW5980-0CT00](#)
- [3VA2440-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10](#)
- [3VA2440-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10](#)
- [3VA2450-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10](#)
- [3VA2450-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10](#)
- 2x3NA3354-6; Type of coordination 1, Iq = 65 kA

- 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

2x3NA3354-6; Type of coordination 1, I_q = 65 kA

[3NE1331-0; Type of coordination 2, I_q = 65 kA](#)

[3NE3336; Type of coordination 2, I_q = 65 kA](#)

General technical data

Starting voltage [%]	30 ... 100 %
Start-up ramp time of soft starter	0 ... 20 s
Product component	
• 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
Insulation voltage	
• rated value	600 V
Degree of pollution	3
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	
• between main and auxiliary circuit	600 V
Protection class IP	IP00; IP20 with additional terminal covers for vertical touching from the front
Usage category acc. to IEC 60947-4-2	AC 53a
Shock resistance	15 g / 11 ms, from 12 g / 11 ms with potential contact lifting
Vibration resistance	15 mm to 6 Hz; 2g to 500 Hz
Reference code acc. to DIN EN 81346-2	Q
Product function	
• ramp-up (soft starting)	Yes
• ramp-down (soft stop)	Yes
• Soft Torque	Yes
• Adjustable current limitation	Yes
• pump ramp down	Yes
• Intrinsic device protection	Yes
• motor overload protection	Yes; Full motor protection (thermistor motor protection and electronic motor overload protection)
• Evaluation of thermistor motor protection	Yes; Type A PTC or Klaxon / Thermoclick
• inside-delta circuit	Yes
• Auto-reset	Yes
• Manual RESET	Yes

• remote reset	Yes; By turning off the control supply voltage
• communication function	Yes
• via software configurable	Yes
• firmware update	Yes
• removable terminal for control circuit	Yes
• analog output	No

Power Electronics

Operating current	
• at 40 °C rated value	250 A
• at 50 °C rated value	220 A
• at 60 °C rated value	200 A
Operating current at inside-delta circuit	
• at 40 °C rated value	433 A
• at 50 °C rated value	381 A
• at 60 °C rated value	346 A
Operating voltage	
• rated value	200 ... 480 V
• at inside-delta circuit rated value	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 three-phase motors	
• at 230 V at 40 °C rated value	75 kW
• at 230 V at inside-delta circuit at 40 °C rated value	132 kW
• at 400 V at 40 °C rated value	132 kW
• at 400 V at inside-delta circuit at 40 °C rated value	250 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	
• minimum	100 A
• at inside-delta circuit minimum	173 A
Minimum load [%]	15 %; Relative to smallest settable I _e
Power loss [W] for rated value of the current at AC	
• at 40 °C to power-up	87 W

- at 50 °C to power-up
- at 60 °C to power-up

78 W

72 W

Control circuit/ Control

Type of voltage of the control supply voltage	AC/DC
Control supply voltage at AC	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
Relative negative tolerance of the control supply voltage at AC at 50 Hz	-20 %
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	50 ... 60 Hz
Relative negative tolerance of the control supply voltage frequency	-10 %
Relative positive tolerance of the control supply voltage frequency	10 %
Control supply voltage	
• 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 the by-pass mode operating rated value	470 mA
Starting current at close of by-pass contact maximum	7.6 A
Inrush current peak at connect of control supply voltage maximum	3.3 A
Duration of inrush current peak at connect 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 (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
• not parameterizable	2
Digital output version	2 normally-open contacts (NO) / 1 changeover contact (CO)
Number of inputs for thermistor connection	1; Type A PTC or Klaxon / Thermoclick

Number of analog outputs	0
Switching capacity current of the relay outputs	
• at AC-15 at 250 V rated value	3 A
• at DC-13 at 24 V rated value	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
Mounting type	screw fixing
Height	393 mm
Width	210 mm
Depth	203 mm
Required spacing with side-by-side mounting	
• forwards	10 mm
• Backwards	0 mm
• upwards	100 mm
• downwards	75 mm
• at the side	5 mm
Installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
Weight without packaging	9.9 kg

Connections/Terminals

Type of electrical connection	
• for main current circuit	screw-type terminals
• for control circuit	spring-loaded terminals
Type of connectable conductor cross-sections	
• for DIN cable lug for main contacts stranded	2x (50 ... 240 mm²)
• for DIN cable lug for main contacts finely stranded	2x (70 ... 240 mm²)
Type of connectable conductor cross-sections at AWG conductors for control circuit	
• solid	2x (24 ... 16)
• finely stranded with core end processing	2x (24 ... 16)
Wire length	
• between soft starter and motor maximum	800 m
• at the digital inputs at AC maximum	100 m
• at the digital inputs at DC maximum	1 000 m

Ambient conditions

Ambient temperature	
• during operation	-25 ... +60 °C
• during storage and transport	-40 ... +80 °C
Environmental category	

- during operation acc. to IEC 60721
- during storage acc. to IEC 60721
- during transport acc. to IEC 60721

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)

EMC emitted interference acc. to IEC 60947-1

CISPR11, ambience A (industrial sector)

Communication/ Protocol

Communication module is supported

- PROFINET standard
- Modbus TCP
- PROFIBUS

Yes

Yes

Yes

UL/CSA ratings

Manufacturer's article number

- of the fuse usable up to 575/600 V according to UL
- of the fuse usable at inside-delta circuit up to 575/600 V according to UL

Type: Class J / L, max. 800 A; Standard fault, I_q = 18 kA

Type: Class J / L, max. 800 A

Operating power [hp] for three-phase motors

- 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
- 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

60 hp

75 hp

150 hp

125 hp

150 hp

300 hp

Contact rating of auxiliary contacts according to UL

R300-B300

General Product Approval

Declaration of Conformity

other



[Confirmation](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5244-2TC04>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5244-2TC04>

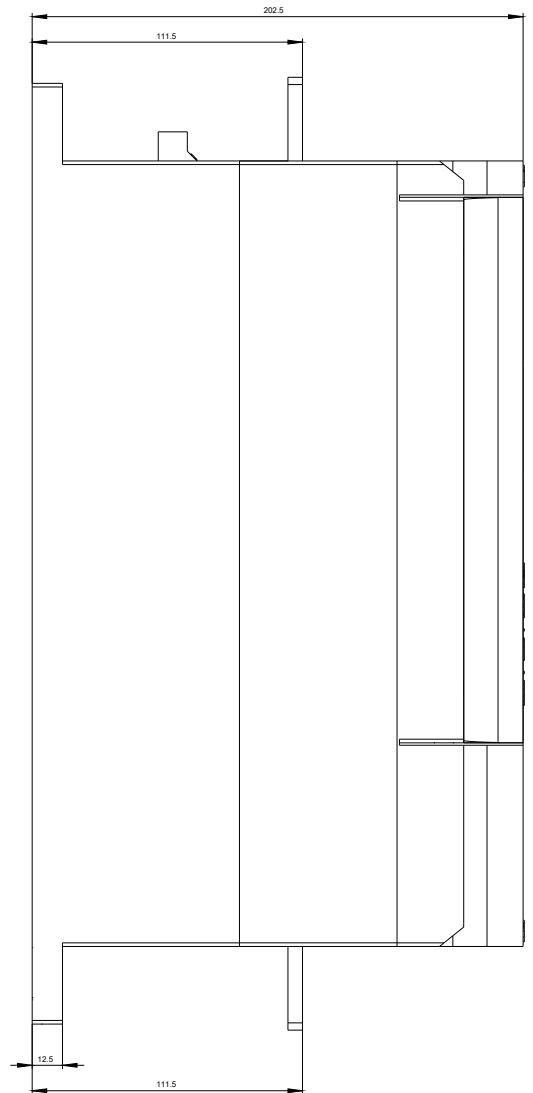
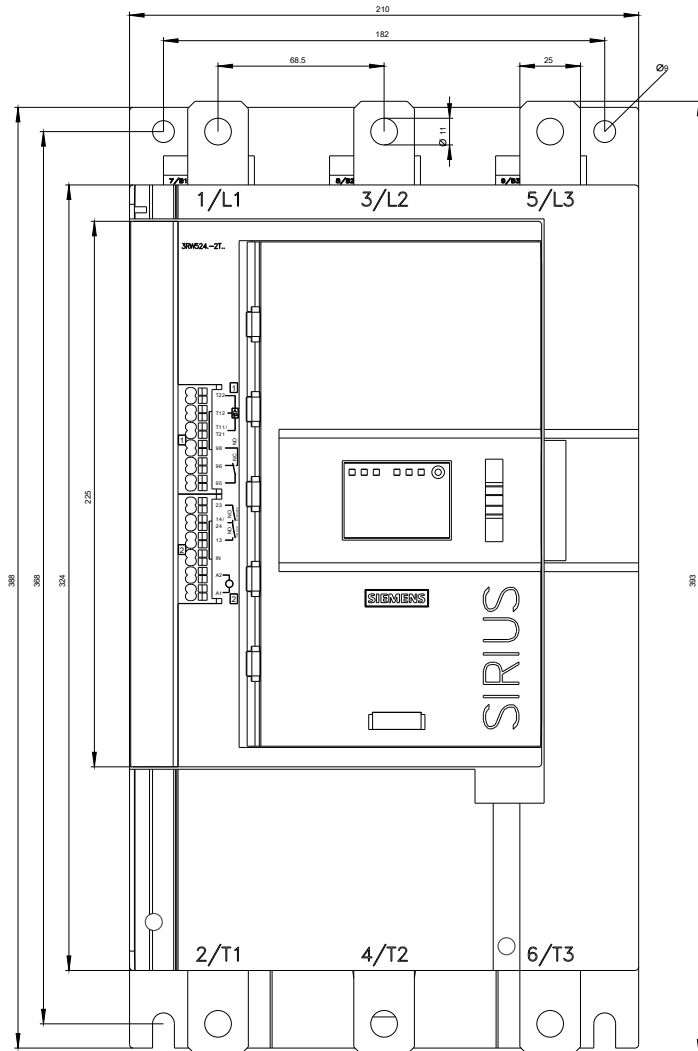
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

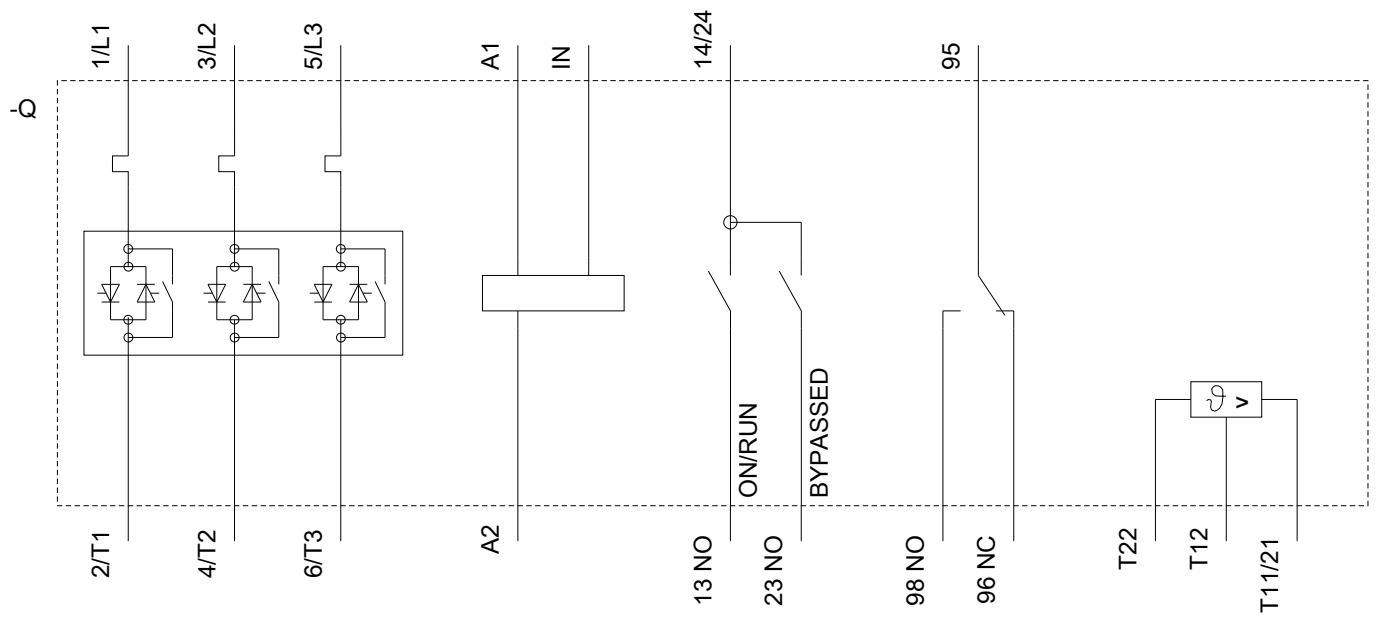
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5244-2TC04>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5244-2TC04&lang=en

Characteristic: Tripping characteristics, I^2t , Let-through current
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5244-2TC04/char>

Characteristic: Installation altitude
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5244-2TC04&objecttype=14&gridview=view1>





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