

SIRIUS soft starter 200-480 V 210 A, 24 V AC/DC Screw terminals  
Analog output



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"><li>• of HMI module usable</li><li>• of HMI-Modul high-feature usable</li><li>• of communication module PROFINET standard usable</li><li>• of communication module PROFIBUS usable</li><li>• of communication module Modbus TCP usable</li><li>• of circuit breaker usable at 400 V</li><li>• of circuit breaker usable at 500 V</li><li>• of circuit breaker usable at 400 V at inside-delta circuit</li><li>• of circuit breaker usable at 500 V at inside-delta circuit</li><li>• of the gG fuse usable up to 690 V</li></ul></div>

- [3RW5980-0HS00](#)
- [3RW5980-0HF00](#)
- [3RW5980-0CS00](#)
- [3RW5980-0CP00](#)
- [3RW5980-0CT00](#)
- [3VA2325-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10](#)
- [3VA2325-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10](#)
- [3VA2440-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10](#)
- [3VA2440-7MN32-0AA0; 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<sub>q</sub> = 65 kA

[3NE1230-2; Type of coordination 2, I<sub>q</sub> = 65 kA](#)

[3NE3333; Type of coordination 2, I<sub>q</sub> = 65 kA](#)

#### General technical data

<b>Starting voltage [%]</b>	30 ... 100 %
<b>Start-up ramp time of soft starter</b>	0 ... 20 s
<b>Product component</b>	
• is supported HMI-Standard	Yes
• is supported HMI-High Feature	Yes
<b>Product feature integrated bypass contact system</b>	Yes
<b>Number of controlled phases</b>	3
<b>Trip class</b>	CLASS 10A (default) / 10E / 20E; acc. to IEC 60947-4-2
<b>Insulation voltage</b>	
• rated value	600 V
<b>Degree of pollution</b>	3
<b>Impulse voltage rated value</b>	6 kV
<b>Blocking voltage of the thyristor maximum</b>	1 600 V
<b>Service factor</b>	1
<b>Surge voltage resistance rated value</b>	6 kV
<b>maximum permissible voltage for safe isolation</b>	
• between main and auxiliary circuit	600 V
<b>Protection class IP</b>	IP00; IP20 with additional terminal covers for vertical touching from the front
<b>Usage category acc. to IEC 60947-4-2</b>	AC 53a
<b>Shock resistance</b>	15 g / 11 ms, from 12 g / 11 ms with potential contact lifting
<b>Vibration resistance</b>	15 mm to 6 Hz; 2g to 500 Hz
<b>Reference code acc. to DIN EN 81346-2</b>	Q
<b>Product function</b>	
• 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; Electronic motor overload protection
• Evaluation of thermistor motor protection	No
• inside-delta circuit	Yes
• Auto-reset	Yes
• Manual RESET	Yes

- remote reset
- communication function
- via software configurable
- firmware update
- removable terminal for control circuit
- analog output

Yes; By turning off the control supply voltage

Yes

Yes

Yes

Yes

Yes; 4 ... 20 mA (default) / 0 ... 10 V (parameterizable with High Feature HMI)

## Power Electronics

<b>Operating current</b>	
• at 40 °C rated value	210 A
• at 50 °C rated value	186 A
• at 60 °C rated value	170 A
<b>Operating current at inside-delta circuit</b>	
• at 40 °C rated value	364 A
• at 50 °C rated value	322 A
• at 60 °C rated value	294 A
<b>Operating voltage</b>	
• rated value	200 ... 480 V
• at inside-delta circuit rated value	200 ... 480 V
<b>Relative negative tolerance of the operating voltage</b>	-15 %
<b>Relative positive tolerance of the operating voltage</b>	10 %
<b>Relative negative tolerance of the operating voltage at inside-delta circuit</b>	-15 %
<b>Relative positive tolerance of the operating voltage at inside-delta circuit</b>	10 %
<b>Operating power for three-phase motors</b>	
• at 230 V at 40 °C rated value	55 kW
• at 230 V at inside-delta circuit at 40 °C rated value	110 kW
• at 400 V at 40 °C rated value	110 kW
• at 400 V at inside-delta circuit at 40 °C rated value	200 kW
<b>Operating frequency 1 rated value</b>	50 Hz
<b>Operating frequency 2 rated value</b>	60 Hz
<b>Relative negative tolerance of the operating frequency</b>	-10 %
<b>Relative positive tolerance of the operating frequency</b>	10 %
<b>Adjustable motor current</b>	
• minimum	90 A
• at inside-delta circuit minimum	156 A
<b>Minimum load [%]</b>	15 %; Relative to smallest settable I <sub>e</sub>
<b>Power loss [W] for rated value of the current at AC</b>	
• at 40 °C to power-up	75 W

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

68 W

63 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	0

<b>Number of analog outputs</b>	1
<b>Switching capacity current of the relay outputs</b>	
• at AC-15 at 250 V rated value	3 A
• at DC-13 at 24 V rated value	1 A

#### Installation/ mounting/ dimensions

<b>Mounting position</b>	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
<b>Mounting type</b>	screw fixing
<b>Height</b>	393 mm
<b>Width</b>	210 mm
<b>Depth</b>	203 mm
<b>Required spacing with side-by-side mounting</b>	
• forwards	10 mm
• Backwards	0 mm
• upwards	100 mm
• downwards	75 mm
• at the side	5 mm
<b>Installation altitude at height above sea level maximum</b>	5 000 m; Derating as of 1000 m, see catalog
<b>Weight without packaging</b>	9.9 kg

#### Connections/Terminals

<b>Type of electrical connection</b>	
• for main current circuit	screw-type terminals
• for control circuit	screw-type terminals
<b>Type of connectable conductor cross-sections</b>	
• 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)
<b>Type of connectable conductor cross-sections at AWG conductors for control circuit</b>	
• solid	1x (20 ... 12), 2x (20 ... 14)
<b>Wire length</b>	
• 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

<b>Ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage and transport	-40 ... +80 °C
<b>Environmental category</b>	
• during operation acc. to IEC 60721	3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6

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

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)  
CISPR11, ambience A (industrial sector)

EMC emitted interference acc. to IEC 60947-1

#### 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. 700 A; Standard fault, I<sub>q</sub> = 10 kA  
Type: Class J / L, max. 700 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  
60 hp  
150 hp  
100 hp  
125 hp  
250 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=3RW5243-6AC04>

##### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5243-6AC04>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5243-6AC04>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW5243-6AC04&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5243-6AC04&lang=en)

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current  
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5243-6AC04/char>

Characteristic: Installation altitude  
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5243-6AC04&objecttype=14&gridview=view1>



