SIEMENS

Data sheet

3RW5213-1AC14

SIRIUS soft starter 200-480 V 13 A, 110-250 V AC Screw terminals Analog output



Figure similar

Product brand name	SIRIUS
Product category	Hybrid switching devices
Product designation	Soft starter
Manufacturer's article number	
 of HMI module usable 	3RW5980-0HS00
 of HMI-Modul high-feature usable 	<u>3RW5980-0HF00</u>
 of communication module PROFINET standard usable 	3RW5980-0CS00
 of communication module PROFIBUS usable 	3RW5980-0CP00
 of communication module Modbus TCP usable 	3RW5980-0CT00
 of circuit breaker usable at 400 V 	3RV2032-4TA10; Type of coordination 1, Iq = 65 kA, CLASS 10
 of circuit breaker usable at 500 V 	3RV2032-4TA10; Type of coordination 1, Iq = 18 kA, CLASS 10
 of circuit breaker usable at 400 V at inside-delta circuit 	3RV2032-4DA10; Type of coordination 1, Iq = 65 kA, CLASS 10
 of circuit breaker usable at 500 V at inside-delta circuit 	3RV2032-4DA10; Type of coordination 1, Iq = 18 kA, CLASS 10
 of the gG fuse usable up to 690 V 	3NA3820-6; Type of coordination 1, Iq = 65 kA

 of the gG fuse usable at inside-delta circuit up 	3NA3820-6; Type of coordination 1, Iq = 65 kA
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

3NE1815-0; Type of coordination 2, Iq = 65 kA

3NE8017-1; Type of coordination 2, Iq = 65 kA

eneral 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	IP20
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; Electronic motor overload protection
 Evaluation of thermistor motor protection 	No
• inside-delta circuit	Yes
Auto-reset	Yes
Manual RESET	Yes
• remote reset	Yes; By turning off the control supply voltage
	, ,

Name Name Name Name Name Yes Name Yes Yes Yes Yes <th> communication function </th> <th>Yes</th>	 communication function 	Yes
Introduction of the operating voltage Yes • innovable terminal for control circuit Yes • analog output Yes. 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) Power Electronics Feature HMI Operating current 13 A • at 40 °C rated value 10.5 A Operating current at inside-deta circuit 22.5 A • at 60 °C rated value 18.2 A Operating current at inside-deta circuit 19.9 A • at 60 °C rated value 18.2 A Operating current at inside-deta circuit 200 480 V • at 60 °C rated value 10 % • at 230 V at 40 wale 200 480 V • at 230 V at 40 °C rated value 3 KW • at 230 V at 40 °C rated value 5 % KW • at 230 V at 40 °C rated value 14 % • at 400 V at 40 °C rated value 5 % KW • at 230 V at 40 °C rated value 14 KW • at 400 V at		
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• at 40 °C to power-up 16 W	Minimum load [%]	15 %; Relative to smallest settable le
	Power loss [W] for rated value of the current at AC	
• at 50 °C to power-up 15 W	• at 40 °C to power-up	16 W
	● at 50 °C to power-up	15 W

• at 60 °C to power-up

• at 60 °C to power-up	13 W
Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
• at 50 Hz	110 250 V
• at 60 Hz	110 250 V
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 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 current in standby mode rated value	30 mA
Holding current in the by-pass mode operating rated value	75 mA
Starting current at close of by-pass contact maximum	0.17 A
Inrush current peak at connect of control supply voltage maximum	12.2 A
Duration of inrush current peak at connect of control supply voltage	2.2 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

puts/ 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
Number of analog outputs	1
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		

+/- 10° rotation possible and can be tilted forward or backward on vertical mounting surface

Mounting type	screw fixing
Height	275 mm
Width	170 mm
Depth	152 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	2.1 kg
Connections/Terminals	
Type of electrical connection	
 for main current circuit 	screw-type terminals
• for control circuit	screw-type terminals
Type of connectable conductor cross-sections	
• 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 mm²), 2x (2.5 6.0 mm²)
Type of connectable conductor cross-sections at AWG conductors for control circuit	
solid	1x (20 12), 2x (20 14)
Wire length	
 between soft starter and motor maximum 	800 m
 at the digital inputs at AC maximum 	100 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 	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	1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
 during transport acc. to IEC 60721 	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 	Yes
Modbus TCP	Yes

• PROFIBUS	Yes
UL/CSA ratings	
Manufacturer's article number	
 of the fuse usable up to 575/600 V according to UL 	Type: Class RK5 / K5, max. 50 A; Standard fault, Iq = 5 kA
 of the fuse usable at inside-delta circuit up to 575/600 V according to UL 	Type: Class RK5 / K5, max. 50 A
Operating power [hp] for three-phase motors	
• at 200/208 V at 50 °C rated value	2 hp
• at 220/230 V at 50 °C rated value	3 hp
• at 460/480 V at 50 °C rated value	7.5 hp
 at 200/208 V at inside-delta circuit at 50 °C rated value 	5 hp
 at 220/230 V at inside-delta circuit at 50 °C rated value 	5 hp
 at 460/480 V at inside-delta circuit at 50 °C rated value 	10 hp
Contact rating of auxiliary contacts according to UL	R300-B300
General Product Approval	Declaration of other Conformity









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=3RW5213-1AC14

Cax online generator

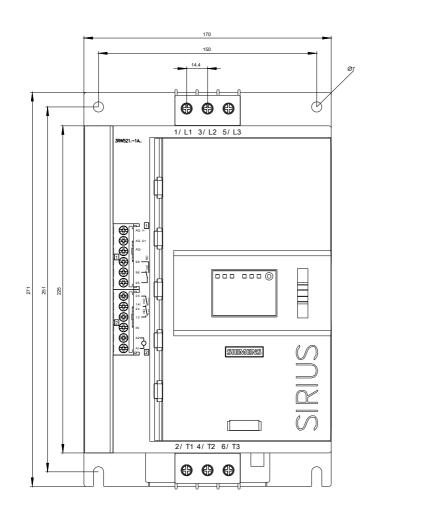
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5213-1AC14

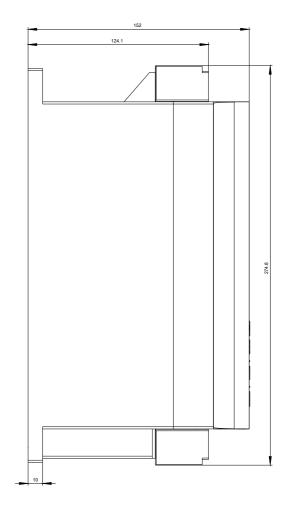
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RW5213-1AC14

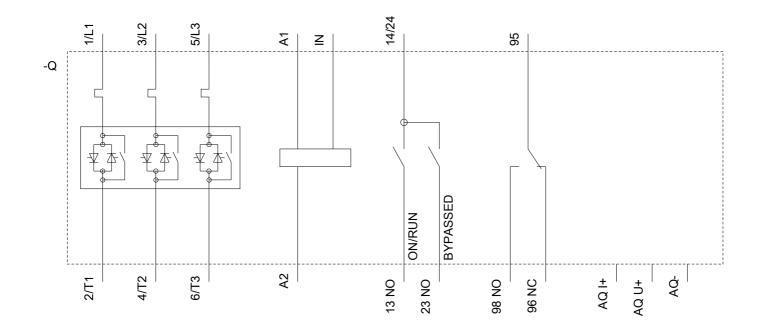
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5213-1AC14&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RW5213-1AC14/char

Characteristic: Installation altitude







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07/02/2018