SIEMENS

product brand name

Data sheet 3RW5215-1TC14

SIRIUS



SIRIUS soft starter 200-480 V 25 A, 110-250 V AC Screw terminals Thermistor input

311103
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
30 100 %
50 50 %
0 20 s
130 700 %
Yes
Yes
Yes
Yes
Yes
Yes

number of soutualled wheels	2
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	400 mg
for main current circuit	100 ms
• 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	
between main and auxiliary circuit	600 V
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
utilization category acc. to IEC 60947-4-2	AC 53a
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	15.02.2018 00:00:00
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 Klixon / Thermoclick
inside-delta circuit	Yes
auto-RESET	Yes
manual RESET	Yes
remote reset	Yes; By turning off the control supply voltage
 communication function 	Yes
 operating measured value display 	Yes; Only in conjunction with special accessories
error logbook	Yes; Only in conjunction with special accessories
 via software parameterizable 	No
 via software configurable 	Yes
PROFlenergy	Yes; in connection with the PROFINET Standard communication module
• firmware update	Yes
 removable terminal for control circuit 	Yes
 torque control 	No
analog output	No
Power Electronics	
operational current	
 at 40 °C rated value 	25 A
 at 50 °C rated value 	22 A
at 60 °C rated value	20 A
operational current at inside-delta circuit	
 at 40 °C rated value 	43.3 A
 at 50 °C rated value 	39 A
at 60 °C rated value	33.9 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	-15 %
inside-delta circuit	

relative positive tolerance of the operating voltage at inside-delta circuit	10 %
operating power for 3-phase motors	
 at 230 V at 40 °C rated value 	5.5 kW
 at 230 V at inside-delta circuit at 40 °C rated value 	11 kW
 at 400 V at 40 °C rated value 	11 kW
• at 400 V at inside-delta circuit at 40 °C rated value	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 for inside delta circuit at rotary coding switch on	35.5 A
for inside-delta circuit at rotary coding switch on switch position 12 for inside delta circuit at rotary coding switch on	37.1 A
for inside-delta circuit at rotary coding switch on switch position 13 for inside delta circuit at rotary coding switch on	38.6 A
 for inside-delta circuit at rotary coding switch on switch position 14 for inside-delta circuit at rotary coding switch on 	40.2 A 41.7 A
• for inside-delta circuit at rotary coding switch on switch position 15 • for inside-delta circuit at rotary coding switch on	43.3 A
switch position 16	

	40.0.4
at inside-delta circuit minimum	19.9 A
minimum load [%]	15 %; Relative to smallest settable le
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
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 bypass operation rated value	75 mA
locked-rotor current at close of bypass contact maximum	0.17 A
inrush current peak at application of control supply voltage maximum	12.2 A
duration of inrush current peak at application 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
Inputs/ Outputs	
number of digital inputs	1
number of inputs for thermistor connection	1; Type A PTC or Klixon / Thermoclick
number of digital outputs	3
not parameterizable	2
digital output version	2 normally-open contacts (NO) / 1 changeover contact (CO)
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	+/- 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	
• forwards	10 mm
backwards	0 mm
• upwards	100 mm
* uptraido	TVV Hild

downwards	75 mm
at the side	5 mm
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
wire length for thermistor connection	,
 with conductor cross-section = 0.5 mm² maximum 	50 m
 with conductor cross-section = 1.5 mm² maximum 	150 m
 with conductor cross-section = 2.5 mm² maximum 	250 m
type of connectable conductor cross-sections	
for main contacts	
— solid	2x (1.0 2.5 mm²), 2x (2.5 10 mm²)
 finely stranded with core end processing 	2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²)
at AWG cables for main current circuit solid	2x (16 12), 2x (14 8)
type of connectable conductor cross-sections	, , ,
for control circuit solid	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
 for control circuit finely stranded with core end 	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
processing	, ,
at AWG cables 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
tightening torque	
 for main contacts with screw-type terminals 	2 2.5 N·m
 for auxiliary and control contacts with screw-type 	0.8 1.2 N·m
terminals	
tightening torque [lbf·in]	
 for main contacts with screw-type terminals 	18 22 lbf·in
for auxiliary and control contacts with screw-type	7 10.3 lbf·in
terminals	
Ambient conditions	5000 D (
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog
ambient temperature	05 + 00 °0. Disease share a desetting of the constant of the c
during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
 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 60947-4-2: Class A
Communication/ Protocol	
communication module is supported	
 PROFINET standard 	Yes
EtherNet/IP	Yes
Modbus RTU	Yes
Modbus TCP	Yes
PROFIBUS	Yes
UL/CSA ratings	
manufacturer's article number	
of circuit breaker	
— usable for Standard Faults at 460/480 V	Siemens type: 3RV2742, max. 70 A or 3VA51, max. 80 A; Iq = 5 kA
according to UL	
usable for High Faults at 460/480 V according	Siemens type: 3RV2742, max.40 A or 3VA51, max. 60 A; Iq max = 65
to UL	kA Sigmana tung: 2DV2742, may 70 A or 2VAE4, may 90 A t In = 5 kA
 usable for Standard Faults at 460/480 V at 	Siemens type: 3RV2742, max. 70 A or 3VA51, max. 80 A; Iq = 5 kA

inside-delta circuit according to UL

- usable for High Faults at 460/480 V at insidedelta 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

- 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: 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

- 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
- \bullet at 460/480 V at inside-delta circuit at 50 $^{\circ}\text{C}$ rated value

contact rating of auxiliary contacts according to UL

5 hp

7.5 hp

15 hp 10 hp

10 hp

25 hp

R300-B300

Safety related data

protection class IP on the front acc. to IEC 60529

touch protection on the front acc. to IEC 60529

electromagnetic compatibility

IP20

finger-safe, for vertical contact from the front

in accordance with IEC 60947-4-2

Certificates/ approvals

General Product Approval

EMC

Declaration of Conformity













Test Certificates

Marine / Shipping

Type Test Certificates/Test Report











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=3RW5215-1TC14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5215-1TC14

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5215-1TC14

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5215-1TC14&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

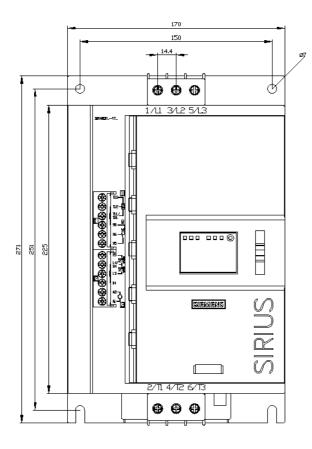
https://support.industry.siemens.com/cs/ww/en/ps/3RW5215-1TC14/char

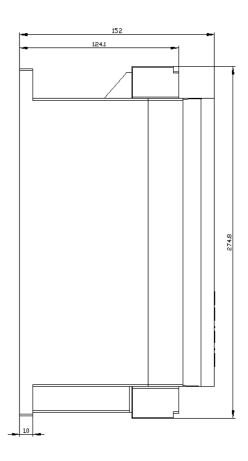
Characteristic: Installation altitude

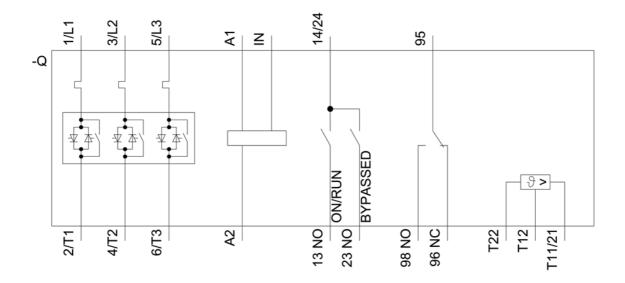
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5215-1TC14&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







last modified: 8/10/2021 🖸