SIEMENS

Data sheet 3RW5513-1HA05



SIRIUS soft starter 200-600 V 13 A, 24 V AC/DC Screw terminals

product brand name	SIRIUS		
product category	Hybrid switching devices		
product designation	Soft starter		
product type designation	3RW55		
manufacturer's article number			
 of high feature HMI module usable 	3RW5980-0HF00		
 of communication module PROFINET standard usable 	3RW5980-0CS00		
 of communication module PROFINET high-feature usable 	3RW5950-0CH00		
 of communication module PROFIBUS usable 	3RW5980-0CP00		
 of communication module Modbus TCP usable 	3RW5980-0CT00		
 of communication module Modbus RTU usable 	3RW5980-0CR00		
 of communication module Ethernet/IP 	3RW5980-0CE00		
 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, lq = 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 to 500 V 	3NA3820-6; Type of coordination 1, Iq = 65 kA		
 of full range R fuse link for semiconductor protection usable up to 690 V 	3NE1815-0; Type of coordination 2, Iq = 65 kA		
 of back-up R fuse link for semiconductor protection usable up to 690 V 	3NE8017-1: Type of coordination 2. Iq = 65 kA		

General technical data	
starting voltage [%]	20 100 %
stopping voltage [%]	50 50 %
start-up ramp time of soft starter	0 360 s
ramp-down time of soft starter	0 360 s
start torque [%]	10 100 %
stopping torque [%]	10 100 %
torque limitation [%]	20 200 %
current limiting value [%] adjustable	125 800 %
breakaway voltage [%] adjustable	40 100 %
breakaway time adjustable	0 2 s
number of parameter sets	3

accuracy class acc. to IEC 61557-12	5 %				
certificate of suitability					
CE marking	Yes				
UL approval	Yes				
CSA approval	Yes				
product component	V				
HMI-High Feature	Yes				
is supported HMI-High Feature	Yes				
product feature integrated bypass contact system	Yes				
number of controlled phases	3				
trip class	CLASS 10A / 10E (default) / 20E / 30E; acc. to IEC 60947-4-2				
current unbalance limiting value [%]	10 60 %				
ground-fault monitoring limiting value [%]	10 95 %				
recovery time after overload trip adjustable	60 1 800 s				
buffering time in the event of power failure					
for main current circuit	100 ms				
for control circuit	100 ms				
idle time adjustable	0 255 s				
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	1.15				
surge voltage resistance rated value	6 kV				
maximum permissible voltage for safe isolation					
between main and auxiliary circuit	600 V; does not apply for thermistor connection				
utilization category acc. to IEC 60947-4-2	AC 53a				
shock resistance	15 g / 11 ms, from 6 g / 11 ms with potential contact lifting				
vibration resistance	15 mm up to 6 Hz; 2 g up to 500 Hz				
reference code acc. to IEC 81346-2	Q				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date)					
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function	Q 15.02.2018 00:00:00				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting)	Q 15.02.2018 00:00:00 Yes				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop)	Q 15.02.2018 00:00:00 Yes Yes				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse	Q 15.02.2018 00:00:00 Yes Yes Yes				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation	Q 15.02.2018 00:00:00 Yes Yes Yes Yes				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
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reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • motor overload protection	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • motor overload protection	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • motor overload protection • evaluation of thermistor motor protection • inside-delta circuit	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • motor overload protection • evaluation of thermistor motor protection • inside-delta circuit • auto-RESET	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • motor overload protection • evaluation of thermistor motor protection • inside-delta circuit • auto-RESET • manual RESET • remote reset	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • motor overload protection • evaluation of thermistor motor protection • inside-delta circuit • auto-RESET • manual RESET • remote reset • communication function	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • motor overload protection • motor overload protection • evaluation of thermistor motor protection • inside-delta circuit • auto-RESET • manual RESET • remote reset • communication function • operating measured value display	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • 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 • event list • error logbook	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • 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 • event list • error logbook • via software parameterizable	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function • ramp-up (soft starting) • ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • slave pointer function • trace function • intrinsic device protection • 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 • event list • error logbook	Q 15.02.2018 00:00:00 Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye				

	N				
• spring-type terminal	No				
PROFlenergy	Yes; in connection with the PROFINET Standard and PROFINET High- Feature communication modules				
a firmulara un data	Yes				
firmware update					
removable terminal for control circuit	Yes				
voltage ramp	Yes				
• torque control	Yes				
combined braking	Yes				
analog output	Yes; 4 20 mA (default) / 0 10 V				
 programmable control inputs/outputs 	Yes				
 condition monitoring 	Yes				
 automatic parameterisation 	Yes				
 application wizards 	Yes				
 alternative run-down 	Yes				
 emergency operation mode 	Yes				
reversing operation	Yes				
 soft starting at heavy starting conditions 	Yes				
Power Electronics					
operational current					
• at 40 °C rated value	13 A				
at 40 °C rated value at 40 °C rated value minimum	2.5 A				
at 40 Crated value at 50 °C rated value					
at 60 °C rated value at 60 °C rated value	11.5 A				
operational current at inside-delta circuit	10.5 A				
	00.5 A				
• at 40 °C rated value	22.5 A				
• at 50 °C rated value	19.9 A				
at 60 °C rated value	18.2 A				
operating voltage					
rated value	200 600 V				
at inside-delta circuit rated value	200 600 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 %				
	10.0%				
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	3 kW				
at 230 V at inside-delta circuit at 40 °C rated value	5.5 kW				
at 400 V at 40 °C rated value	5.5 kW				
at 400 V at inside-delta circuit at 40 °C rated value	11 kW				
at 500 V at 40 °C rated value at 500 V at 40 °C rated value	7.5 kW				
at 500 V at 40 C rated value at 500 V at inside-delta circuit at 40 °C rated value	7.5 kW				
Operating frequency 1 rated value	50 Hz				
	60 Hz				
Operating frequency 2 rated value					
relative negative tolerance of the operating frequency	-10 %				
relative positive tolerance of the operating frequency	10 %				
minimum load [%]	10 %; Relative to set le				
power loss [W] for rated value of the current at AC	AM				
• at 40 °C after startup	4 W				
• at 50 °C after startup	3 W				
• at 60 °C after startup	3 W				
power loss [W] at AC at current limitation 350 %					
 at 40 °C during startup 	198 W				
 at 50 °C during startup 	166 W				
at 60 °C during startup	148 W				
type of the motor protection	Electronic, tripping in the event of thermal overload of the motor				
Control circuit/ Control					
type of voltage of the control supply voltage	AC/DC				

control cumply volters at AC				
control supply voltage at AC	24.V			
 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 -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	420 mA			
holding current in bypass operation rated value	820 mA			
locked-rotor current at close of bypass contact maximum	0.91 A			
inrush current peak at application of control supply voltage maximum	7.5 A			
duration of inrush current peak at application of control supply voltage	20 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	4			
parameterizable	4			
number of inputs for thermistor connection	1; Type A PTC or Klixon / Thermoclick			
	4			
 number of digital outputs 	4			
number of digital outputsnumber of digital outputs parameterizable	3			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO)			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs	3 1			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value Installation/ mounting/ dimensions	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°)			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height width	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm 170 mm			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height width depth	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height width	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm 170 mm			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm 170 mm 152 mm			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting • forwards	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm 170 mm 152 mm 10 mm			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting forwards backwards	3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm 170 mm 152 mm 1 mm 0 mm			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting forwards backwards upwards	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm 170 mm 152 mm 10 mm 0 mm 100 mm			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting forwards backwards upwards downwards	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm 170 mm 152 mm 10 mm 0 mm 100 mm 75 mm			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting forwards backwards upwards downwards at the side	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm 170 mm 152 mm 10 mm 0 mm 100 mm 75 mm 5 mm			
number of digital outputs parameterizable number of digital outputs not parameterizable digital output version number of analog outputs switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting forwards backwards upwards downwards at the side weight without packaging	3 1 3 normally-open contacts (NO) / 1 changeover contact (CO) 1 3 A 1 A Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) screw fixing 275 mm 170 mm 152 mm 10 mm 0 mm 100 mm 75 mm 5 mm			

for control about	screw-type terminals			
for control circuit	screw-type terminals			
wire length for thermistor connection	Solow type terminals			
• 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 processing	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)			
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 DC maximum	1 000 m			
Ambient conditions				
installation altitude at height above sea level maximum	5 000 m; Derating as of 1000 m, see catalog			
ambient temperature				
during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or above			
during storage and transport	-25 +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				
communication module is supported • PROFINET standard	Yes			
• • • • • • • • • • • • • • • • • • • •	Yes No			
PROFINET standard				
PROFINET standardPROFINET high-feature	No			
PROFINET standardPROFINET high-featureEtherNet/IP	No No			
 PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU 	No No No			
 PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP 	No No No Yes			
 PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS 	No No No Yes			
PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings	No No No Yes			
PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number	No No No Yes			
PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number of circuit breaker — usable for Standard Faults at 460/480 V	No No No Yes Yes			
PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number of circuit breaker — usable for Standard Faults at 460/480 V according to UL — usable for High Faults at 460/480 V at	No No No Yes Yes Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; Iq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; Iq max = 65			
PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number of circuit breaker — usable for Standard Faults at 460/480 V according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-	No No Yes Yes Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA			
PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number of circuit breaker — 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 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	No No Yes Yes Yes Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65			
PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number of circuit breaker — usable for Standard Faults at 460/480 V according to UL — usable for High Faults at 460/480 V at inside-delta circuit 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 High Faults at 575/600 V according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at inside-	No No Yes Yes Yes Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65			
PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number of circuit breaker 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 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 usable for High Faults at 575/600 V at inside-delta circuit according to UL usable for Standard Faults at 575/600 V at	No No Yes Yes Yes Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA			
PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number of circuit breaker usable for Standard Faults at 460/480 V according to UL usable for High 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 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 usable for High Faults at 575/600 V at inside-delta circuit according to UL usable for Standard Faults at 575/600 V at inside-delta circuit according to UL	No No Yes Yes Yes Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; Iq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; Iq max = 65 kA Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; Iq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; Iq max = 65 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; Iq max = 65 kA Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; Iq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 40 A; Iq = 5 kA			
PROFINET standard PROFINET high-feature EtherNet/IP Modbus RTU Modbus TCP PROFIBUS UL/CSA ratings manufacturer's article number of circuit breaker — usable for Standard Faults at 460/480 V according to UL — usable for High 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 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 — usable for High Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at	No No Yes Yes Yes Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA Siemens type: 3RV2742, max. 40 A or 3VA51, max. 40 A; lq = 5 kA Siemens type: 3RV2742, max. 30 A or 3VA51, max. 35 A; lq max = 65 kA			

according to UL					
usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL	Type: Class RK5 / K5, max. 50 A; Iq = 5 kA				
 usable for High Faults at inside-delta circuit up to 575/600 V according to UL 	Type: Class J / L, max. 50 A; Iq = 100 kA				
operating power [hp] for 3-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 575/600 V at 50 °C rated value 	10 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				
 at 575/600 V at inside-delta circuit at 50 °C rated value 	15 hp				
contact rating of auxiliary contacts according to UL	R300-B300				
Safety related data					
protection class IP on the front acc. to IEC 60529	IP20				
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front				
electromagnetic compatibility	acc. to IEC 60947-4-2				
ATEX					
certificate of suitability					
• ATEX	Yes	Yes			
• IECEx	Yes				
 according to ATEX directive 2014/34/EU 	BVS 18 ATEX F 003 X				
type of protection according to ATEX directive 2014/34/EU	II (2)G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb], II (2)D [Ex tb Db] [Ex pxb Db], I (M2) [Ex db Mb]				
hardware fault tolerance acc. to IEC 61508 relating to ATEX	0				
Safety Integrity Level (SIL) acc. to IEC 61508 relating to ATEX	SIL1				
Certificates/ approvals					
General Product Approval		EMC	For use in hazard- ous locations		













For use in hazard-ous locations

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=3RW5513-1HA05

Cax online generator

 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW5513-1HA05}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5513-1HA05

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5513-1HA05&lang=en

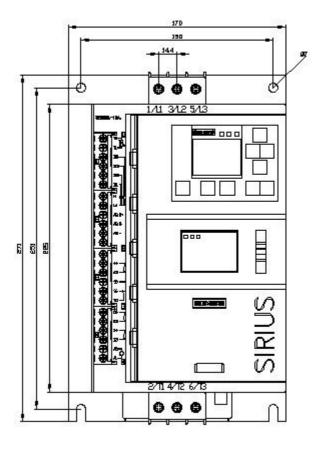
Characteristic: Tripping characteristics, I²t, Let-through current

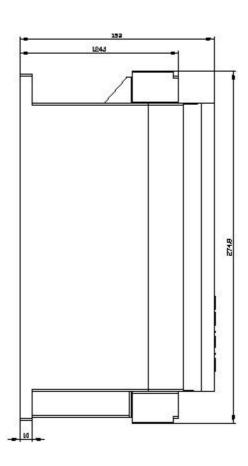
https://support.industry.siemens.com/cs/ww/en/ps/3RW5513-1HA05/char

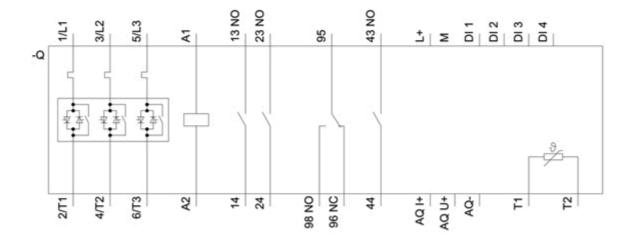
Characteristic: Installation altitude

Simulation Tool for Soft Starters (STS)

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







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