SIEMENS

Data sheet 3RW5556-2HA14

SIRIUS



SIRIUS soft starter 200-480 V 1100 A, 110-250 V AC Spring-type terminals

Figure similar

product brand name

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 	3VA2716-7AB05-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
 of circuit breaker usable at 500 V 	3VA2716-7AB05-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
 of the gG fuse usable up to 690 V 	3x3NA3365-6; Type of coordination 1, Iq = 65 kA
 of full range R fuse link for semiconductor protection usable up to 690 V 	3NB3354-1KK26; Type of coordination 2, Iq = 65 kA
 of back-up R fuse link for semiconductor protection usable up to 690 V 	3x3NE3340-8; 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

# HMH-High Feature Yes supported HMH-High Feature Yes 9 # is supported HMH-High Feature Yes 9 # in the Feature High Feature Communication Models Yes 9 # in manual RESET Yes 9 #		_
e is supported HMI-High Feature Product feature integrated bypass contact system number of controlled phases 13 crip class CLASS 10A / 10E (default) / 20E / 30E; acc. to IEC 60947-4-2 10 60 % ground-fault monitoring limiting value [%] 10 95 % recovery time after overload trip adjustable 60 1800 s buffering time in the event of power failure • for main current circuit • for control circuit	product component	
roduct feature integrated bypass contact system number of controlled phases 3 3 current unbalance limiting value [%] recovery time after overload trip adjustable buffering time in the event of power failure • for main current circuit • for control dicuit • for main current circuit • for main current circuit • for main current circuit • for control dicuit • for control dicuit • for main current circuit • for main current circuit • for control dicuit • for main current circuit • for main current circuit • for control dicuit • for control dicuit • for control dicuit • for main current circuit • for main current	9	
number of controlled phases 3 Class 10A / 10E (default) / 20E / 30E, acc. to IEC 60947-4-2 10 60 % 1		
trip class current unbalance limiting value [%] ground-fault monitoring limiting value [%] recovery time after overload trip adjustable buffering time in the event of power failure • for main current circuit • for control clicuit Idle time adjustable Insulation voltage rated value degree of pollution 3. a.c. to IEC 60947-4-2 impulse voltage rated value 6 kV Maximum permissible voltage for safe isolation • between main and auxiliary circuit • between main and auxiliary circuit • to between main and auxiliary circuit • between construit and auxiliary circuit • circuit • create cook ac. to IEC 60947-4-2 AC 53a 15 my to 6 Hz, 2 g up to 500 Hz 0 corcuit function • camp-own (soft starting) • ramp-own (soft starting)		
Current unbalance limiting value [%] 10 95 %	·	
constant factor		
recovery time after overload trip adjustable buffering time in the event of power failure • for main current circuit • for control circ		
buffering time in the event of power failure • for main current circuit insulation voltage rated value day degree of pollution inpulse voltage rated value for whystor maximum 1 400 V service factor 1 15 surge voltage or the thyristor maximum • between main and auxiliary circuit 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 ference code acc. to IEC 61346-2 Q Substance Prohibitance (Date) • ramp-up (soft starting) • respected in both directions of rotation • resp speed function • resp speed in both directions of rotation • resp speed in both dire		
To rmain current circuit 100 ms		60 1 800 s
• for control circuit 100 ms 10le time adjustable 0 255 s 10le time adjustable 0 255 s 10le time adjustable 480 V 480 V 46gree of pollution 3, acc. to IEC 60947-4-2 6 kV 400 V 400	•	
insulation voltage rated value degree of pollution a) a, co. to IEC 60947-4-2 Impulse voltage rated value blocking voltage of the thyristor maximum service factor 1.15 surge voltage resistance rated value between main and auxiliary circuit utilization category acc. to IEC 60947-4-2 AC 53a Abock resistance 15 g / 11 ms, from 6 g / 11 ms with potential contact lifting vibration 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 Substance Prohibitance (Date) 11.02 2019 00:00:00 product function • ramp-up (soft starting) • ramp-down (soft storp) • reakaway pulse • ramp-down (soft storp) • reakaway pulse • repe speed in both directions of rotation • pump ramp down • DC braking • Dot braking • Sieve ponter function • race function • race function • race function • reside-delta circuit • evaluation of thermistor motor protection • motor overload protection • remote reset • evaluation of thermistor motor protection • reset • evaluation function • perediction (Pes • remote reset • communication function • perediction (Pes • remote reset • communication function • ves • vent list • error logbook • via software parameterizable • via software configurable • vis software configurable • vis software configurable • vis software configurable • vis software configurable • firmware update		
insulation voltage rated value degree of pollution 3, acc. to IEC 60947-4-2 Impulse voltage rated value 6 kV blocking voltage of the thyristor maximum service factor maximum permissible voltage for safe isolation • between main and auxiliary circuit vilization 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 g / 11 ms, from 6 g / 11 ms with potential contact lifting vibration resistance 15 g / 11 ms, from 6 g / 11 ms with potential contact lifting vibration resistance 15 g / 11 ms, from 6 g / 11 ms with potential contact lifting vibration resistance 15 g / 11 ms, from 6 g / 11 ms with potential contact lifting vibration resistance 15 g / 11 ms, from 6 g / 11 ms with potential contact lifting vibration resistance (Date) 11,02.2019 00.00:00 Product function • ramp-up (soft starting) • ramp-down (soft stop) • ramp-down (soft stop) • ramp-down (soft stop) • ramp-down (soft stop) • reak-away pulse • adjustable current limitation • creep speed in both directions of rotation • creep speed in both directions of rotation • response of mother freating • slave pointer function • response of pointer function • race function • race function • motor overload protection • motor overlo		
degree of pollution 3, acc. to IEC 60947-4-2		
Impulse voltage rated value 5 kV		
Service factor 1.15		
service factor surge voltage resistance rated value maximum permissible voltage for safe isolation • between main and auxiliary circuit utilization category acc. to IEC 60947-4-2 AC 53a shock resistance vibration resistance reference code acc. to IEC 81346-2 Q Substance Prohibitance (Cote) • ramp-(soft starting) • ramp-down (soft stop) • reak-away pulse • dealer function • creep speed in both directions of rotation • pump ramp down • Dc braking • salve pointer function • intrinsic device protection • motor overload protection • motor overload protection • motor overload protection • ramical fed aircuit • evaluation of thermistor motor protection • inside-delta circuit • auto-RESET • manual RESET • remote reset • communication function • perior function • perior finction • perior finction • rese • communication function • perior generated value display • event list • error logbook • via software parameterizable • via software configurable • firmware update • firmware update		
surge voltage resistance rated value maximum permissible voltage for safe isolation between main and auxiliary circuit 480 V; does not apply for thermistor connection 480 V; does not apply for thermistor connection for the presistance of presistance on presistance of presistance of presistance on presistance of presistance of presistance on presistance of presistance of presistance on presi		
maximum permissible voltage for safe isolation • between main and auxiliary circuit 480 V; does not apply for thermistor connection with utilization category acc. to IEC 60947-4-2 shock resistance 15 g / 11 ms, from 6 g / 11 ms with potential contact lifting reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 11.02.2019 00.00.00 ramp-down (soft stor) • ramp-down (soft stor) • breakaway pulse • adjustable current limitation • pump ramp down • DC braking • motor heating • motor heating • motor verload protection • motor overload protection • motor overload protection • initrinsic device protection • motor overload protection • ramp-all RESET • ramual RESET • remote reset • communication function • operating measured value display • event list • event list • event list • error logbook • via software configurable • sirm-dy-ve terminal • PROFlenergy • firmware update		
between main and auxiliary circuit 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 Substance Prohibitance (Date) product function • ramp-up (soft starting) • 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 • slave pointer function • trace function • race function • motor overload protection • motor overload protection • motor overload protection • initriasic device protection • evaluation of thermistor motor protection • iniside-delta circuit • evaluation of thermistor motor protection • iniside-delta circuit • communication function • operating measured value display • event list • event list • event list • event list • error logbook • via software configurable • simp-type terminal • PROFlenergy • firmware update		6 kV
shock resistance shock resistance sistance sistance reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) product function ramp-up (soft starting) representation of the sistance significant of the sistance of		
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	<u> </u>	
vibration resistance reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 11.02.2019 00:00:00 ramp-up (soft starting) ramp-up (soft starting) ramp-up (soft starting) ramp-duct function • ramp-up (soft starting) ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • 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 • motor overload protection • evaluation of thermistor motor protection • inside-delta circuit • evaluation of thermistor motor protection • inside-delta circuit • auto-RESET • remote reset • communication function • operating measured value display • event list • event list • event list • event ist • error (opbook • via software parameterizable • screw terminal • PROFlenergy • firmware update	utilization category acc. to IEC 60947-4-2	AC 53a
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) product function ramp-up (soft starting) ramp-up (soft starting) ramp-down (soft stop) breakaway pulse adjustable current limitation respectively and the function of rotation pump ramp down DC braking rate function rate function rate very protection rate function rate very protection respectively and protection (thermistor motor protection and electronic motor overload protection) respectively and protection overload protection in side-delta circuit respectively and RESET remotor east remotor lesset	shock resistance	15 g / 11 ms, from 6 g / 11 ms with potential contact lifting
Substance Prohibitance (Date) 11.02.2019 00:00:00	vibration resistance	15 mm up to 6 Hz; 2 g up to 500 Hz
ramp-up (soft starting) ramp-up (soft starting) ramp-up (soft starting) ramp-up (soft starting) ramp-down (soft stop) breakaway pulse adjustable current limitation reep speed in both directions of rotation pump ramp down Debraking motor heating siave pointer function intrinsic device protection motor overload protection motor overload protection motor overload protection resultation of thermistor motor protection e evaluation of thermistor motor protection inside-delta circuit e evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list everor logbook via software parameterizable via software parameterizable ves; in connection with the PROFINET Standard and PROFINET High-Feature communication modules firmware update	reference code acc. to IEC 81346-2	Q
 ramp-up (soft starting) ramp-down (soft stop) Yes 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 yes; Full motor protection (thermistor motor protection and electronic motor overload protection e evaluation of thermistor motor protection e inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list error logbook via software parameterizable via software parameterizable via software parameterizable via software configurable screut communication modules PROFlenergy firmware update 	Substance Prohibitance (Date)	11.02.2019 00:00:00
• ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • motor heating • intrinsic device protection • intrinsic device protection • motor overload protection • motor overload protection • motor overload protection • motor overload protection • respectively a protection of thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit • evaluation of thermistor motor protection • inside-delta circuit • evaluation of thermistor motor protection • inside-delta circuit • evaluation of thermistor motor protection • inside-delta circuit • respectively a protection / Yes; Type A PTC or Klixon / Thermoclick • inside-delta circuit • respectively a protection / Yes • manual RESET • remote reset • remote reset • remote reset • communication function • operating measured value display • res • event list • error logbook • res • via software parameterizable • via software configurable • via software configurable • via software configurable • via software configurable • screw terminal • PROFlenergy • firmware update • res	product function	
breakaway pulse adjustable current limitation creep speed in both directions of rotation pump ramp down DC braking slave pointer function trace function trace function motor overload protection motor overload protection evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET remote reset communication function comparating measured value display event list event list event grammeter via software parameterizable via software configurable sircume prover in the motor overload protection ves; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. ves; Type A PTC or Klixon / Thermoclick inside-delta circuit yes communication function yes communication function yes event list yes event list yes event list yes event list yes event grammeterizable via software parameterizable via software parameterizable via software configurable ves ves verminal No PROFlenergy Feature communication modules Yes firmware update	ramp-up (soft starting)	Yes
 adjustable current limitation creep speed in both directions of rotation pump ramp down PC braking motor heating slave pointer function trace function trace function motor overload protection motor overload protection motor overload protection wes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. evaluation of thermistor motor protection inside-delta circuit evaluation of thermistor motor protection inside-delta circuit yes auto-RESET remote reset communication function operating measured value display event list event list event list ves event list ves via software parameterizable via software parameterizable via software configurable screw terminal spring-type terminal PROFlenergy firmware update 	ramp-down (soft stop)	Yes
 creep speed in both directions of rotation pump ramp down Yes DC braking motor heating slave pointer function trace function intrinsic device protection motor overload protection yes; Full motor protection (thermistor motor protection and electronic motor overload protection) weside-delta circuit evaluation of thermistor motor protection inside-delta circuit evaluation of thermistor motor protection inside-delta circuit yes auto-RESET manual RESET remote reset communication function operating measured value display event list event list event ogbook via software parameterizable via software parameterizable via software parameterizable screw terminal spring-type terminal PROFlenergy firmware update 	breakaway pulse	Yes
 pump ramp down DC braking motor heating slave pointer function trace function intrinsic device protection motor overload protection motor overload protection yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. evaluation of thermistor motor protection yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit evaluation of thermistor motor protection yes; Type A PTC or Klixon / Thermoclick yes auto-RESET manual RESET yes remote reset communication function yes communication function yes event list error logbook via software parameterizable via software parameterizable via software configurable screw terminal yes screw terminal yes PROFlenergy firmware update Yes Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules Yes	 adjustable current limitation 	Yes
 DC braking motor heating slave pointer function trace function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection evaluation of thermistor motor protection inside-delta circuit evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list event list event ist via software parameterizable via software configurable screw terminal PROFlenergy firmware update 	 creep speed in both directions of rotation 	Yes
 motor heating slave pointer function trace function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection inside-delta circuit evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list event list errol logbook via software parameterizable via software configurable screw terminal PROFlenergy firmware update 	 pump ramp down 	Yes
 slave pointer function trace function intrinsic device protection motor overload protection Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. evaluation of thermistor motor protection inside-delta circuit inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list event list ves event list ves via software parameterizable ves screw terminal spring-type terminal PROFlenergy firmware update 	 DC braking 	Yes
 trace function intrinsic device protection motor overload protection Yes yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. evaluation of thermistor motor protection inside-delta circuit inside-delta circuit yes auto-RESET manual RESET remote reset communication function operating measured value display event list event list error logbook via software parameterizable ves via software configurable screw terminal spring-type terminal PROFlenergy firmware update 	 motor heating 	Yes
 intrinsic device protection motor overload protection Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. evaluation of thermistor motor protection inside-delta circuit inside-delta circuit yes auto-RESET manual RESET remote reset communication function operating measured value display event list error logbook via software parameterizable via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes yes firmware update 	 slave pointer function 	Yes
 motor overload protection Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. 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 via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. Yes Y	trace function	Yes
motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. • evaluation of thermistor motor protection • inside-delta circuit • auto-RESET • manual RESET • manual RESET • remote reset • communication function • operating measured value display • event list • error logbook • via software parameterizable • via software configurable • screw terminal • spring-type terminal • PROFlenergy • firmware update motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit Yes; Type A PTC or Klixon / Thermoclick Yes * yes * yes * yes • ves • via software parameterizable • yes • via software configurable • screw terminal • spring-type terminal • Yes • remote reset • ves * yes • ves • ves • ves • via software configurable • screw terminal • spring-type terminal • yes • remote reset • yes • ves • ves • ves • ves • remote reset • yes • ves • ve	 intrinsic device protection 	Yes
 inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list error logbook via software parameterizable via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes Yes Yes yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules Yes 	 motor overload protection 	motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta
 auto-RESET manual RESET remote reset communication function operating measured value display event list error logbook via software parameterizable via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes Yes Yes Yes Tonnection with the PROFINET Standard and PROFINET High-Feature communication modules Yes 	 evaluation of thermistor motor protection 	Yes; Type A PTC or Klixon / Thermoclick
 manual RESET remote reset communication function operating measured value display event list error logbook via software parameterizable via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes Yes Yes Yes Yes Testure communication modules Yes 	• inside-delta circuit	Yes
 remote reset communication function operating measured value display event list error logbook via software parameterizable via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes 	• auto-RESET	Yes
 communication function operating measured value display event list error logbook via software parameterizable via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Feature communication modules Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes<	• manual RESET	Yes
 operating measured value display event list error logbook via software parameterizable via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes Yes 	• remote reset	Yes
 e vent list e error logbook via software parameterizable via software configurable screw terminal spring-type terminal PROFIenergy firmware update Yes Yes Yes Yes Yes Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules Yes 	 communication function 	Yes
 error logbook via software parameterizable via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes Yes Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules Yes 	 operating measured value display 	Yes
 via software parameterizable via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes Yes Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules Yes 	event list	Yes
 via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules Yes 	• error logbook	Yes
 via software configurable screw terminal spring-type terminal PROFlenergy firmware update Yes Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules Yes 	 via software parameterizable 	Yes
 spring-type terminal PROFIenergy firmware update Yes Yes; in connection with the PROFINET Standard and PROFINET High- Feature communication modules Yes 		Yes
 PROFlenergy Yes; in connection with the PROFINET Standard and PROFINET High- Feature communication modules Yes 	G	No
 PROFlenergy Yes; in connection with the PROFINET Standard and PROFINET High- Feature communication modules Yes 		
		Yes; in connection with the PROFINET Standard and PROFINET High-
removable terminal for control circuit Yes	firmware update	Yes
	 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 	1 100 A
 at 40 °C rated value minimum 	220 A
• at 50 °C rated value	979 A
• at 60 °C rated value	890 A
operational current at inside-delta circuit	
at 40 °C rated value	1 905 A
• at 50 °C rated value	1 695 A
• at 60 °C rated value	1 541 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	40.07
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 	315 kW
	560 kW
 at 230 V at inside-delta circuit at 40 °C rated value 	
 at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value 	560 kW
	560 kW 1 000 kW
• at 400 V at 40 °C rated value	
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value 	1 000 kW
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency 	1 000 kW 50 Hz
at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value	1 000 kW 50 Hz 60 Hz
at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%]	1 000 kW 50 Hz 60 Hz -10 %
at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup 	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup 	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le 330 W 270 W
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup 	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup power loss [W] at AC at current limitation 350 % 	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le 330 W 270 W 223 W
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup power loss [W] at AC at current limitation 350 % at 40 °C during startup 	1 000 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 330 W 270 W 223 W
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup power loss [W] at AC at current limitation 350 % at 40 °C during startup at 50 °C during startup 	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 50 °C during startup at 60 °C during startup 	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W 13 552 W
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 60 °C during startup at 60 °C during startup of the motor protection 	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 40 °C during startup at 50 °C during startup at 60 °C during startup type of the motor protection Control circuit/ Control 	1 000 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W 13 552 W Electronic, tripping in the event of thermal overload of the motor
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 40 °C during startup at 50 °C during startup at 60 °C during startup of 60 °C during startup 	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W 13 552 W
at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup power loss [W] at AC at current limitation 350 % at 40 °C during startup at 50 °C during startup type of the motor protection Control circuit/ Control type of voltage of the control supply voltage control supply voltage at AC	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W 13 552 W Electronic, tripping in the event of thermal overload of the motor
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 50 °C during startup at 60 °C during startup type of the motor protection Control circuit/ Control type of voltage of the control supply voltage at 50 Hz 	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W 13 552 W Electronic, tripping in the event of thermal overload of the motor
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 60 °C during startup 	1 000 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W 13 552 W Electronic, tripping in the event of thermal overload of the motor AC 110 250 V 110 250 V
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 50 °C during startup at 60 °C during startup type of the motor protection Control circuit/ Control type of voltage of the control supply voltage at 50 Hz 	1 000 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W 13 552 W Electronic, tripping in the event of thermal overload of the motor
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 60 °C during startup at 50 °C during startup at 60 °C during startup at 60 °C during startup type of the motor protection Control circuit/ Control type of voltage of the control supply voltage control supply voltage at AC at 50 Hz at 60 Hz relative negative tolerance of the control supply voltage at AC at 50 Hz 	1 000 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W 13 552 W Electronic, tripping in the event of thermal overload of the motor AC 110 250 V 110 250 V
 at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 50 °C during startup at 60 °C during startup type of voltage of the control supply voltage control supply voltage at AC at 50 Hz at 60 Hz relative negative tolerance of the control supply 	1 000 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 330 W 270 W 223 W 18 502 W 15 568 W 13 552 W Electronic, tripping in the event of thermal overload of the motor AC 110 250 V 110 250 V -15 %

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	100 mA
holding current in bypass operation rated value	210 mA
locked-rotor current at close of bypass contact maximum	1 A
inrush current peak at application of control supply voltage maximum	44 A
duration of inrush current peak at application of control supply voltage	1.7 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
number of digital outputs	4
number of digital outputs parameterizable	3
number of digital outputs not parameterizable	1
digital output version	3 normally-open contacts (NO) / 1 changeover contact (CO)
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	Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°)
fastening method	screw fixing
height	764 mm
width	478 mm
depth	241 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
weight without packaging	61 kg
Connections/ Terminals	
type of electrical connection	husbar connection
for main current circuit for control circuit	busbar connection
in tor control circuit width of connection bar maximum	spring-loaded terminals 55 mm
with or connection bar maximum wire length for thermistor connection	00 11811
with conductor cross-section = 0.5 mm² maximum	50 m
with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum	150 m
with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum	250 m
type of connectable conductor cross-sections	200
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	(. · · · · · · · · · · · · ·)
for control circuit solid	2x (0.25 1.5 mm²)
F 101 CONTROL CHICARE SOLICE	- (oo 1.0 mm)

 for control circuit finely stranded with core end 	2x (0.25 1.5 mm²)
processing	
at AWG cables for control circuit solid	2x (24 16)
 at AWG cables for control circuit finely stranded with core end processing 	2x (24 16)
wire length	
 between soft starter and motor maximum 	800 m
 at the digital inputs at DC maximum 	1 000 m
tightening torque	
for main contacts with screw-type terminals	20 35 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 	177 310 lbf·in
for auxiliary and control contacts with screw-type	7 10.3 lbf·in
terminals	
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	-40 +80 °C
during storage and transport environmental category	-40 +00 C
during operation acc. to IEC 60721	3K6 (no ice formation, only occasional condensation), 3C3 (no salt
during operation acc. to IEC 00721	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
 PROFINET high-feature 	Yes
EtherNet/IP	Yes
 Modbus RTU 	Yes
 Modbus TCP 	Yes
• PROFIBUS	Yes
UL/CSA ratings	
manufacturer's article number	
• of the fuse	
 usable for Standard Faults up to 575/600 V according to UL 	Type: Class J / L, max. 3000 A; Iq = 85 kA
 usable for High Faults up to 575/600 V according to UL 	Type: Class J / L, max. 3000 A; Iq = 100 kA
 usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL 	Type: Class J / L, max. 3000 A; Iq = 85 kA
 usable for High Faults at inside-delta circuit up to 575/600 V according to UL 	Type: Class J / L, max. 3000 A; Iq = 100 kA
operating power [hp] for 3-phase motors	
 at 200/208 V at 50 °C rated value 	350 hp
 at 220/230 V at 50 °C rated value 	400 hp
 at 460/480 V at 50 °C rated value 	850 hp
 at 200/208 V at inside-delta circuit at 50 °C rated value 	600 hp
 at 220/230 V at inside-delta circuit at 50 °C rated value 	700 hp
• at 460/480 V at inside-delta circuit at 50 °C rated value	1 500 hp
contact rating of auxiliary contacts according to UL	R300-B300
Safety related data	
protection class IP on the front acc. to IEC 60529	IP00

electromagnetic compatibility	acc. to IEC 60947-4-2
ATEX	
certificate of suitability	
• ATEX	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
PFDavg with low demand rate acc. to IEC 61508 relating to ATEX	0.008
PFHD with high demand rate acc. to EN 62061 relating to ATEX	0.0000005 1/h
Safety Integrity Level (SIL) acc. to IEC 61508 relating to ATEX	SIL1
T1 value for proof test interval or service life acc. to IEC 61508 relating to ATEX	3 y
Certificates/ approvals	



General Product Approval









EMC



For use in hazard-

ous locations

For use in hazardous locations Declaration of Conformity

Test Certificates

Marine / Shipping

other





Type Test Certificates/Test Report





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=3RW5556-2HA14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5556-2HA14

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5556-2HA14

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5556-2HA14&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

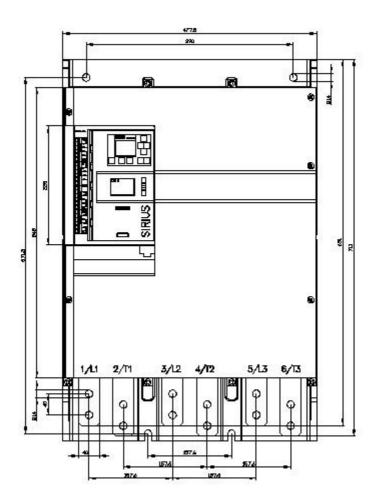
https://support.industry.siemens.com/cs/ww/en/ps/3RW5556-2HA14/char

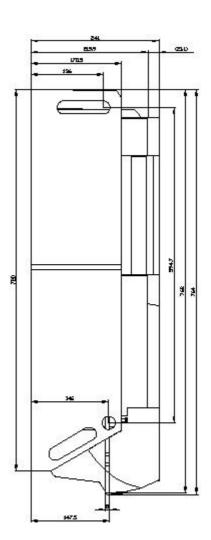
Characteristic: Installation altitude

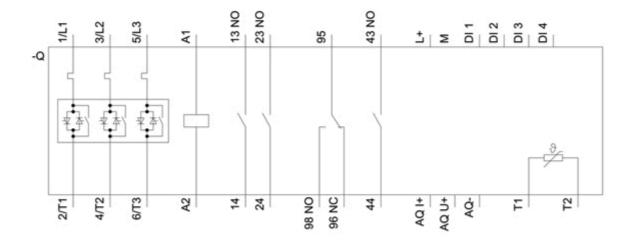
 $\underline{http://www.automation.siemens.com/bilddb/index.aspx?view=Search\&mlfb=3RW5556-2HA14\&objecttype=14\&gridview=view1.pdf}$

Simulation Tool for Soft Starters (STS)

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







last modified: 3/9/2021 🖸