SIEMENS

product brand name

Data sheet 3RW5216-3TC14

SIRIUS



SIRIUS soft starter 200-480 V 32 A, 110-250 V AC spring-type terminals Thermistor input

product brand name	011100
product category	Hybrid switching devices
product designation	Soft starter
product type designation	3RW52
manufacturer's article number	
of standard HMI module usable	3RW5980-0HS00
of high feature HMI module usable	3RW5980-0HF00
of communication module PROFINET standard usable	3RW5980-0CS00
 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 	3RV2032-4VA10; Type of coordination 1, Iq = 65 kA, CLASS 10
 of circuit breaker usable at 500 V 	3RV2032-4VA10; Type of coordination 1, Iq = 10 kA, CLASS 10
• of circuit breaker usable at 400 V at inside-delta circuit	3RV2032-4JA10; Type of coordination 1, Iq = 65 kA, CLASS 10
• of circuit breaker usable at 500 V at inside-delta circuit	3RV2032-4JA10; Type of coordination 1, Iq = 10 kA, CLASS 10
 of the gG fuse usable up to 690 V 	3NA3824-6; Type of coordination 1, Iq = 65 kA
• of the gG fuse usable at inside-delta circuit up to 500 V	3NA3824-6; Type of coordination 1, Iq = 65 kA
 of full range R fuse link for semiconductor protection usable up to 690 V 	3NE1818-0; Type of coordination 2, Iq = 65 kA
 of back-up R fuse link for semiconductor protection usable up to 690 V 	3NE8022-1; Type of coordination 2, Iq = 65 kA
eneral technical data	
starting voltage [%]	30 100 %
stopping voltage [%]	50 %; non-adjustable
start-up ramp time of soft starter	0 20 s
current limiting value [%] adjustable	130 700 %
certificate of suitability	
CE marking	Yes
UL approval	Yes
CSA approval	Yes
product component	
HMI-High Feature	No
• is supported HMI-Standard	Yes
is supported HMI-High Feature	Yes
	100
product feature integrated bypass contact system	Yes
product feature integrated bypass contact system number of controlled phases	
· · · · · · · · · · · · · · · · · · ·	Yes
number of controlled phases	Yes 3
number of controlled phases trip class	Yes 3

insulation voltage rated value	600 V
degree of pollution	3, acc. to IEC 60947-4-2
impulse voltage rated value	5, acc. to IEC 60947-4-2
blocking voltage of the thyristor maximum	1 600 V
service factor	1
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	U KV
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 according to IEC 60947-4-2	AC 53a
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	02/15/2018
product function	02/10/2010
• 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	32 A
• at 50 °C rated value	28.4 A
at 60 °C rated value	26 A
operational current at inside-delta circuit	
• at 40 °C rated value	55.4 A
at 50 °C rated value	49 A
at 60 °C rated value	45 A
operating voltage	000 400 14
• 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 inside-delta circuit	-15 %
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	7.5 kW
 at 230 V at inside-delta circuit at 40 °C rated value 	15 kW
 at 400 V at 40 °C rated value 	15 kW
at 400 V at inside-delta circuit at 40 °C rated value	22 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 	14 A
 at rotary coding switch on switch position 2 	15.2 A
 at rotary coding switch on switch position 3 	16.4 A
 at rotary coding switch on switch position 4 	17.6 A
 at rotary coding switch on switch position 5 	18.8 A
 at rotary coding switch on switch position 6 	20 A
 at rotary coding switch on switch position 7 	21.2 A
 at rotary coding switch on switch position 8 	22.4 A
 at rotary coding switch on switch position 9 	23.6 A
 at rotary coding switch on switch position 10 	24.8 A
 at rotary coding switch on switch position 11 	26 A
at rotary coding switch on switch position 12	27.2 A
at rotary coding switch on switch position 13	28.4 A
at rotary coding switch on switch position 14	29.6 A
at rotary coding switch on switch position 15	30.8 A
at rotary coding switch on switch position 16	32 A
minimum	14 A
adjustable motor current	ITA
for inside-delta circuit at rotary coding switch on switch position 1	24.2 A
 for inside-delta circuit at rotary coding switch on switch position 2 	26.3 A
 for inside-delta circuit at rotary coding switch on switch position 3 	28.4 A
 for inside-delta circuit at rotary coding switch on switch position 4 	30.5 A
 for inside-delta circuit at rotary coding switch on switch position 5 	32.6 A
for inside-delta circuit at rotary coding switch on switch position 6	34.6 A
 for inside-delta circuit at rotary coding switch on switch position 7 for inside-delta circuit at rotary coding switch on switch 	36.7 A 38.8 A
position 8 • for inside delta circuit at rotary coding switch on switch	40.9 A
position 9 • for inside-delta circuit at rotary coding switch on switch	43 A
position 10 • for inside-delta circuit at rotary coding switch on switch	45 A
 position 11 for inside-delta circuit at rotary coding switch on switch 	47.1 A
 position 12 for inside-delta circuit at rotary coding switch on switch position 13 	49.2 A
for inside-delta circuit at rotary coding switch on switch position 14	51.3 A
 for inside-delta circuit at rotary coding switch on switch position 15 	53.3 A
 for inside-delta circuit at rotary coding switch on switch position 16 	55.4 A
at inside-delta circuit minimum	24.2 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	22 W
• at 50 °C after startup	21 W
at 60 °C after startup	20 W
power loss [W] at AC at current limitation 350 %	
at 40 °C during startup	531 W
at 50 °C during startup	449 W
at 60 °C during startup	395 W
ontrol circuit/ Control	
type of voltage of the control supply voltage	AC

control supply voltage at AC * at 50 Hz		
a 150 Hz	control supply voltage at AC	
Politic Property Control Supply voltage at AC at 60 Hz	● at 50 Hz	110 250 V
AC at 90 Hz relative positive tolerance of the control supply voltage at AC at 90 Hz relative negative tolerance of the control supply voltage at AC at 90 Hz relative negative tolerance of the control supply voltage at AC at 90 Hz relative negative tolerance of the control supply voltage at AC at 90 Hz relative positive tolerance of the control supply voltage relative negative tolerance of the control supply voltage relative positive tolerance of the control supply relative positive tolerance of t	● at 60 Hz	110 250 V
AC at 60 ftz Creative negative tolerance of the control supply voltage at AC at 60 ftz Control supply voltage frequency		-15 %
AC at 60 Hz relative polarity colorance of the control supply voltage at AC at 60 Hz relative positive tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency control supply current in standby mode rated value		10 %
AC at 60 Hz Control supply voltage frequency relative positive tolerance of the control supply voltage frequency control supply current in standby mode rated value 10 % frequency Control supply current in standby mode rated value 10 % Incush current peak at application of control supply voltage frequency voltage maximum norab current peak at application of control supply voltage maximum norab current peak at application of control supply voltage maximum obasign of the overvoltage protection design of short-circuit protection for control supply voltage 10 % Triputs/ Outputs Variation 4 A QS fuse (curri AA), 6 A quick-acting fuse (curri AA), C1 ministrue circuit breaker (curri SOA), is not part of scope of supply Imputs/ Outputs 1 mumber of digital outputs 3 1 number of digital outputs 4 A QS fuse (curri AA), 6 A quick-acting fuse (curri AA), C1 ministrue circuit breaker (curri SOA), is not part of scope of supply Imputs/ Outputs 1 mumber of digital outputs 3 2 normally-open contacts (NO) / 1 changeover contact (CO) unumber of analog outputs 4 A QS fuse (curri AA), 6 A quick-acting fuse (curri AA), C1 ministrue circuit breaker (curri SOA), is not part of scope of supply Imputs/ Outputs 2 normally-open contacts (NO) / 1 changeover contact (CO) unumber of analog outputs 4 A QS fuse (curri AA), 6 A quick-acting fuse (curri AA), C1 ministrue circuit breaker (curri SOA), is not part of scope of supply Imputs/ Outputs 3 A 4 A QS fuse (curri AA), 6 A quick-acting fuse (curri AA), C1 ministrue circuit breaker (curri SOA), is not part of scope of supply Imputs/ Outputs 3 A 4 A QS fuse (curri AA), 6 A quick-acting fuse (curri AA), C1 ministrue circuit breaker (curri SOA), is not part of scope of supply Imputs/ Outputs 4 A QS fuse (curri AA), 6 A quick-acting fuse (curri AA), C1 ministrue circuit 5 of scope of supply 10 puts/ Outputs 3 A 4 D C fuse (curri AA), 6 A quick-acting fuse (curri AA), C1 ministrue circuit 4 A QS fuse (curri AA), 6 A quick-acting fuse (curri AA), C2		-15 %
relative negative tolerance of the control supply voltage frequency relative positive tolerance of the control supply voltage frequency control supply current in standby mode rated value Incalcurrent in typases operation rated value Incalcurrent peak at application of control supply voltage maximum Inrush current peak at application of control supply voltage maximum duration of inrush current peak at application of control supply voltage design of short-circuit protection for control circuit design of short-circuit protection for control circuit frequency Inpute/ Curputs Inpute/ Curp		10 %
requency relative positive tolerance of the control supply voltage froquency and the positive tolerance of the control supply voltage froquency and the positive tolerance of the control supply voltage and the positive tolerance of the control supply voltage and the positive tolerance of the control supply voltage and the positive tolerance of the po	control supply voltage frequency	50 60 Hz
frequency control supply current in standby mode rated value holding current in bypass operation rated value innush current pelva it application of control supply voltage maximum runsh current peak at application of control supply voltage maximum duration of innush current peak at application of control supply voltage maximum design of the overvoltage protection design of short-circuit protection for control circuit ### A gG size (icu= 1kA), 6 A quick-acting fuse (icu= 1kA), C1 miniature circuit beaker (icu= 300 A), C6 miniature circuit breaker (icu= 300 A); Is not part of scope of supply ### A gG size (icu= 1kA), 6 A quick-acting fuse (icu= 1kA), C1 miniature circuit beaker (icu= 300 A), C6 miniature circuit breaker (icu= 300 A); Is not part of scope of supply ### A gG size (icu= 1kA), 6 A quick-acting fuse (icu= 1kA), C1 miniature circuit beaker (icu= 300 A), C6 miniature circuit breaker (icu= 300 A); Is not part of scope of supply ### A gG size (icu= 1kA), 6 A quick-acting fuse (icu= 1kA), C1 miniature circuit breaker (icu= 300 A), C6 miniature circuit breaker (icu= 300 A); Is not part of scope of supply ### A gG size (icu= 1kA), 6 A quick-acting fuse (icu= 1kA), C1 miniature circuit breaker (icu= 300 A), C6 miniature circuit breaker (icu= 300 A); Is not part of scope of supply ### A gG size (icu= 1kA), 6 A quick-acting fuse (icu= 1kA), C1 miniature circuit breaker (icu= 300 A), C6 miniature circuit breaker (icu= 300 A); Is not part of scope of supply ### A gG size (icu= 1kA), 6 A quick-acting fuse (-10 %
holding current in bypass operation rated value inrush current py closing the bypass contacts maximum nursh current peak at application of control supply voltage maximum 2.2 as duration of inrush current peak at application of control supply voltage maximum 2.2 ms voltage design of the overvoltage protection design of short-circuit protection for control circuit by A GG fue (fucit kA), 6 A quick-acting fuse (fucit kA), C1 miniature circuit breaker (four 800 A), C6 miniature circuit breaker (four 800 A), C6 miniature circuit breaker (four 800 A), C7 miniature circuit breaker (four 800 A), C8 miniature circuit break		10 %
innush current by closing the bypass contacts maximum Innah current peak at application of control supply voltage maximum duration of inrush current peak at application of control supply voltage design of the overvoltage protection Varistor design of short-circuit protection for control circuit breaker (icu= 600 A). C6 miniature circuit breaker (icu= 300 A); Is not part of soppe of supply Inputs/ Outputs unmber of digital inputs number of digital inputs number of digital outputs on of parameterizable other of the supply of the control of the relay outputs at AC-15 at 280 V rated value at AC-15 at 280 V rated value at AC-15 at 280 V rated value at C1-3 at 280 V rated value be at C1-3 at 280 V rated value be at C1-3 at 280 V rated value at C1-3 at 280 V rated value be at C1-3 at 280 V rated value c1-4 at C1-5 at 280 V rated value at C1-6 at 280 V rated value	control supply current in standby mode rated value	30 mA
incust current peak at application of control supply voltage maximum duration of inrush current peak at application of control supply voltage design of the overvoltage protection Variety design of short-circuit protection for control circuit breaker (icu= 600 A). C8 miniature circuit breaker (icu= 900 A), C8 miniature circui	holding current in bypass operation rated value	75 mA
incust current peak at application of control supply voltage maximum duration of inrush current peak at application of control supply voltage design of the overvoltage protection Variety design of short-circuit protection for control circuit breaker (icu= 600 A). C8 miniature circuit breaker (icu= 900 A), C8 miniature circui	inrush current by closing the bypass contacts maximum	0.17 A
voltage design of the overvoltage protection design of short-circuit protection for control circuit breaker (cu= 800 A), 6 A quick-acting fuse (1cu=1 kA), C1 miniature circuit breaker (1cu=300 A), is not part of scope of supply number of digital inputs number of digital inputs number of digital outputs number of analog outputs other of the version at AC-15 at 250 V rated value at DC-13 at 24 V rated value at DC-13 at 24 V rated value at DC-13 at 24 V rated value fastening method fastening method sortew fixing depth 152 mm required spacing with side-by-side mounting of horizons at the side weight without packaging connections! Terminals type of electrical connection evith conductor cross-section = 0.5 mm² maximum evith conductor cross-section = 0.5 mm² maximum evith conductor cross-section = 2.5 mm² maximum evith conductor cross-section = 1.5 mm² maximum evith conductor cross-section = 2.5 mm² maximum evith conductor cross-sect	inrush current peak at application of control supply voltage	12.2 A
design of short-circuit protection for control circuit breaker (lcu= 1 kA), 6 A quick-acting fuse (1cu=1 kA), C1 miniature circuit breaker (1cu= 600 A), 6 miniature circuit breaker (1cu= 300 A), is not part of scope of supply number of digital inputs number of digital outputs number of digital outputs number of analog outputs number of analog outputs 2 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs 0 switching capacity current of the relay outputs 1 at AC-15 at 250 V rated value 1 A 1 A 1 C-13 at 24 V rated value 1 A 1 A 1 Installation/ mounting dimensions mounting position with vertical mounting surface +/-90" rotatable, with vertical mounting surface 4/- 22.5" tiltable to the front and back fastening method screw fixing 4 A grow (1cu=1 kA), 6 A quick-acting fuse (1cu=1 kA), C1 miniature circuit breaker (1cu= 300 A), is not part of supply 1 a 1		2.2 ms
breaker ((cu= 600 A), C8 miniature circuit breaker ((cu= 300 A); Is not part of scope of supply number of digital inputs • not parameterizable • not parameterizable 2 digital output version number of analog outputs • not parameterizable 2 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs • at AC-15 at 250 V rated value • at AC-15 at 250 V rated value • at AC-13 at 24 V rated value • at AC-13 at 24 V rated value • at Normal at 24 V rated value fastening method height virith virit	design of the overvoltage protection	Varistor
Inputs / Outputs number of digital inputs number of digital outputs number of digital outputs number of analog outputs of analog output version number of analog outputs e at AC-15 at 250 V rated value at DC-15 at 250 V rated value 1 A Installation mounting/ dimensions mounting position fastening method screw fixing height 275 mm width 170 mm depth required spacing with side-by-side mounting frowards otherwise at the side at the side very resident of the relation of the side at the side very fixing very of electrical connection for onnot clicuit viris length for thermistor connection with conductor cross-section = 1.5 mm² maximum 250 m type of connectable conductor cross-sections for main contacts - solid - firely stranded with core end processing for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) 2x (1.0 2.5 mm²), 2x (2.5 10 mm²)	design of short-circuit protection for control circuit	breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of
number of digital inputs number of digital outputs on parameterizable digital output version number of analog outputs switching pacetic current of the relay outputs ot at AC-15 at 260 V rated value at DC-13 at 24 V rated value installation/ mounting/ dimensions mounting position fastening method height 275 mm width 170 mm depth frequired spacing with side-by-side mounting forwards otherwards	Inputs/ Outputs	
number of digital outputs • not parameterizable 2 digital output version number of analog outputs • at AC-15 at 250 V rated value • at DC-13 at 24 V rated value • at DC-13 at 24 V rated value 1 A Installation/ mounting / dimensions mounting position ### According outputs ### According ou	· · · · · · · · · · · · · · · · · · ·	1
ont parameterizable 2 digital output version 2 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs 0 with ching 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 with vertical mounting surface +/-90° rotatable, with vertical mounting surface Pv-2.2.5° titiable to the front and back screw fixing height 275 mm width 170 mm depth 170 mm depth 170 mm depth 152 mm required spacing with side-by-side mounting 0 mm at the side 5 mm at the side 5 mm with understanding 2.3 kg Connections/ Terminals type of electrical connection with conductor cross-section = 0.5 mm² maximum 4 with conductor cross-section = 1.5 mm² maximum 50 m with conductor cross-section = 2.5 mm² maximum 50 m with conductor cross-section = 2.5 mm² maximum 50 m with conductor cross-section = 2.5 mm² maximum 50 m with conductor cross-section = 2.5 mm² maximum 50 m with conductor cross-section = 2.5 mm² maximum 50 m with conductor cross-section = 2.5 mm² maximum 50 m with conductor cross-section = 2.5 mm² maximum 50 m with conductor cross-section = 2.5 mm² maximum 50 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) - for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²)		
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 1 A Installation mounting/ dimensions mounting position with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-22.5° tiltable to the front and back 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 • downwards 100 mm • at the side 5 mm weight without packaging 2.3 kg connections/ Terminals type of electrical connection • for control circuit screw-type terminals wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • for main cortacts - solid - finely stranded with core end processing • for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) - cortact contacts - cortact		
number of analog outputs switching capacity current of the relay outputs • at AC-15 at 250 V rated value 1 A Installation/ mounting/ dimensions mounting position with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/-22.5° tiltable to the front and back fastening method screw fixing 170 mm depth 275 mm width 170 mm depth 152 mm required spacing with side-by-side mounting • forwards 100 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 2.3 kg Connections/ Terminals type of electrical connection • for main current circuit spring-loaded terminals with conductor cross-section = 0.5 mm² maximum 250 m • with conductor cross-section = 1.5 mm² maximum 250 m • with connectable conductor cross-sections • for main current circuit spring-loaded terminals type of connectable conductor cross-sections • for main current circuit spring-loaded terminals with conductor cross-section = 2.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing 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) - for AWG cables for main current circuit solid	·	
switching capacity current of the relay outputs at AC-15 at 250 V rated value at DC-13 at 24 V rated value 1 A Installation/ mounting/ dimensions mounting position with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tilabile to the front and back fastening method screw fixing height 275 mm width 170 mm depth 152 mm required spacing with side-by-side mounting • forwards • upwards • upwards • downwards • at the side 5 mm weight without packaging Connections/ Terminals type of electrical connection • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • for main contacts - solid - finely stranded with core end processing • for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²)	-	
at AC-15 at 250 V rated value at DC-13 at 24 V rated value 1 A Installation/ mounting/ dimensions mounting position with vertical mounting surface +/-90* rotatable, with vertical mounting surface +/- 22.5* tiltable to the front and back fastening method screw fixing height 275 mm width 170 mm depth 152 mm required spacing with side-by-side mounting of orwards obackwards omm ownwards otherwises 100 mm ownwards otherwises 100 mm at the side 5 mm weight without packaging connections/ Terminals type of electrical connection of or main current circuit of or control circuit with conductor cross-section = 0.5 mm² maximum owith conductor cross-section = 1.5 mm² maximum owith conductor cross-section = 1.5 mm² maximum owith conductor cross-section = 2.5 mm² maximum owith conductor cross-		U
• at DC-13 at 24 V rated value Installation/ mounting/ dimensions mounting position with vertical mounting surface +/-90* rotatable, with vertical mounting surface +/-22.5* tiltable to the front and back fastening method screw fixing height 275 mm width 170 mm depth 152 mm required spacing with side-by-side mounting • forwards • backwards • upwards • upwards • downwards • downwards • at the side weight without packaging Connections/ Terminals type of electrical connection • for main current circuit wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-sections • for main current circuits - solid - solid - finely stranded with core end processing • for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) - 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) - 6 for AWG cables for main current circuit solid		
Installation/ mounting/ dimensions mounting position with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back fastening method screw fixing height 275 mm width 170 mm depth 152 mm required spacing with side-by-side mounting • forwards • backwards • 0 mm • backwards • 0 mm • ownwards • downwards • at the side 5 mm weight without packaging Connections/ Terminals type of electrical connection • for main current circuit • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-sections • for main contacts - solid - solid - finely stranded with core end processing • for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) - finely stranded with core end processing • for AWG cables for main current circuit solid		
mounting position with vertical mounting surface +/-90" rotatable, with vertical mounting surface +/-2.5" tillable to the front and back screw fixing beight 275 mm width 275 mm required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side • at the side weight without packaging Connections/ Torminals type of electrical connection • for main current circuit • for control circuit wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-sections • for main current circuit - solid - finely stranded with core end processing • for AWG cables for main current circuit solid 2x (1.0 2.5 mm², 2x (2.5 6.0 mm²) - x (16 12), 2x (14 8)		1 A
fastening method screw fixing height 275 mm width 170 mm depth 152 mm required spacing with side-by-side mounting • forwards 100 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 2.3 kg Connections/ Terminals type of electrical connection • for main current circuit spring-loaded terminals wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum 50 m • with conductor cross-section = 2.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • for main 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) • for AWG cables for main current circuit solid 2x (16 12), 2x (14 8)	Installation/ mounting/ dimensions	
height 275 mm width 170 mm depth 152 mm required spacing with side-by-side mounting 10 mm • forwards 0 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 2.3 kg Connections/ Terminals 5 mm type of electrical connection screw-type terminals • for main current circuit spring-loaded terminals wire length for thermistor connection spring-loaded 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 6 or 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) • for AWG cables for main current circuit solid 2x (1.0 12, 2x (1.4 8)	mounting position	· · · · · · · · · · · · · · · · · · ·
width 152 mm required spacing with side-by-side mounting • forwards 10 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 2.3 kg Connections/ Terminals type of electrical connection • for main current circuit spring-loaded 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 • with conductor cross-section = 2.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • with conductor cross-section = 2.5 mm² maximum 250 m • for main contacts - solid - solid - solid - finely stranded with core end processing - for AWG cables for main current circuit solid - finely stranded with core end processing - for AWG cables for main current circuit solid - x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) - x (1.0 2.5 mm²), 2x (2.5 6.0 mm²)	fastening method	screw fixing
depth 152 mm required spacing with side-by-side mounting 10 mm • forwards 0 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 2.3 kg Connections/ Terminals type of electrical connection screw-type terminals • for control circuit spring-loaded terminals wire length for thermistor connection spring-loaded 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 0 mm² • for main contacts 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) - solid 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) - finely stranded with core end processing 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) • for AWG cables for main current circuit solid 2x (16 12), 2x (14 8)	height	275 mm
required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side • at the side **To mm **eat the side **To mm **eat the side **To mm **Very of electrical connection • for main current circuit • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-sections • for main currentside • for main currentside • for main contacts - solid - finely stranded with core end processing • for AWG cables for main current circuit solid **In mm **O mm **Sorw-type terminals **Sorw-type termi	width	170 mm
• forwards • backwards • backwards • upwards • upwards • downwards • at the side • at the side • at the side • at the side weight without packaging Connections/ Terminals type of electrical connection • for main current circuit • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-sections • for main contacts - solid - finely stranded with core end processing • for AWG cables for main current circuit solid 100 mm 5 mm 5 mm 5 mm 5 crew-type terminals 50 m 50 m 150 m 150 m 250 m 270 maximum 250 m 270	depth	152 mm
backwards upwards upwards downwards at the side 5 mm weight without packaging 2.3 kg Connections/ Terminals type of electrical connection • for main current circuit • for control circuit wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-sections • for main contacts — solid — finely stranded with core end processing • for AWG cables for main current circuit solid 100 mm 2.3 kg Connections/ screw-type terminals	required spacing with side-by-side mounting	
 upwards downwards at the side 5 mm weight without packaging 2.3 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum for main contacts solid for main contacts finely stranded with core end processing for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) for AWG cables for main current circuit solid 2x (16 12), 2x (14 8) 	• forwards	10 mm
 downwards at the side 5 mm weight without packaging 2.3 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit screw-type terminals wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum for main contacts for main contacts for main contacts for main contacts finely stranded with core end processing for AWG cables for main current circuit solid for AWG cables for main current circuit solid 	backwards	0 mm
 at the side be mm weight without packaging 2.3 kg Connections/ Terminals type of electrical connection for main current circuit for control circuit screw-type terminals wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum to m with conductor cross-section = 2.5 mm² maximum for main contacts for main contacts solid - solid - finely stranded with core end processing for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) for AWG cables for main current circuit solid 2x (16 12), 2x (14 8) 	• upwards	100 mm
weight without packaging Connections/ Terminals type of electrical connection • for main current circuit • for control circuit wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-sections • for main contacts — solid — finely stranded with core end processing • for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²)	• downwards	75 mm
type of electrical connection • for main current circuit • for control circuit wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • for main contacts — solid — finely stranded with core end processing • for AWG cables for main current circuit solid screw-type terminals screw-type terminals 50 m 50 m 250 m 250 m 250 m	• at the side	5 mm
type of electrical connection • for main current circuit • for control circuit wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • for main contacts — solid — finely stranded with core end processing • for AWG cables for main current circuit solid screw-type terminals screw-type terminals 50 m 50 m 250 m 250 m 250 m	weight without packaging	2.3 kg
type of electrical connection • for main current circuit • for control circuit spring-loaded terminals wire length for thermistor connection • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing • for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²)		
 for main current circuit for control circuit spring-loaded terminals wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for main contacts solid media (1.0 2.5 mm²), 2x (2.5 10 mm²) for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) 2x (1.0 2.5 mm²), 2x (1.0 2.5 mm²) 2x (1.0 2.5 mm²) 		
 ◆ for control circuit wire length for thermistor connection ♦ with conductor cross-section = 0.5 mm² maximum ♦ with conductor cross-section = 1.5 mm² maximum ♦ with conductor cross-section = 2.5 mm² maximum 150 m 250 m type of connectable conductor cross-sections ♦ for main contacts — solid — solid — finely stranded with core end processing ♦ for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) 		screw-type terminals
 wire length for thermistor connection with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for main contacts solid media (2x (1.0 2.5 mm²), 2x (2.5 10 mm²) media (2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (1.0 2.5 mm²) 2x (1.0 2.5 mm²) 		
 with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for main contacts — solid — solid — finely stranded with core end processing for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) 2x (1.0 2.5 mm²), 2x (1.0 2.5 mm²) 		
 with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for main contacts — solid — finely stranded with core end processing for AWG cables for main current circuit solid 150 m 250 m		50 m
 with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections for main contacts — solid — finely stranded with core end processing for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) 2x (16 12), 2x (14 8) 		
type of connectable conductor cross-sections		
 for main contacts — solid — finely stranded with core end processing for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 10 mm²) 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) 2x (1.0 2.5 mm²), 2x (1.0 2.5 mm²) 2x (1.0 2.5 mm²) 2x (1.0 2.5 mm²) 2x (1.0 2.5 mm²) 		200 111
— 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) ● for AWG cables for main current circuit solid 2x (16 12), 2x (14 8)	**	
 — finely stranded with core end processing • for AWG cables for main current circuit solid 2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²) 2x (16 12), 2x (14 8) 		
• for AWG cables for main current circuit solid 2x (16 12), 2x (14 8)	— solid	2x (1.0 2.5 mm ²), 2x (2.5 10 mm ²)
type of connectable conductor cross-sections		2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²)
		2x (1.0 2.5 mm²), 2x (2.5 6.0 mm²)

• for control circuit solid	2x (0.25 1.5 mm²)
for control circuit finely stranded with core end processing	2x (0.25 1.5 mm²)
for AWG cables for control circuit solid	2x (24 16)
for 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 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 terminals 	0.8 1.2 N·m
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	
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
environmental category	
during operation according 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 according to IEC 60721	1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
during transport according 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 File No. (#P)	Yes
• EtherNet/IP	Yes
Modbus RTU Modbus TCP	Yes Yes
PROFIBUS	Yes
UL/CSA ratings	
manufacturer's article number	
of circuit breaker	
usable for Standard Faults at 460/480 V according	Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; Iq = 5 kA
to UL	
— usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at inside-	Siemens type: 3RV2742, max.40 A or 3VA51, max. 60 A; lq max = 65 kA Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; lq = 5 kA
delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL	Siemens type: 3VA51, max. 60 A; lq max = 65 kA
usable for Standard Faults at 575/600 V according to UL	Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; lq = 5 kA
usable for Standard Faults at 575/600 V at insidedelta circuit according to UL	Siemens type: 3RV2742, max. 70 A or 3VA51, max. 100 A; Iq = 5 kA
• of the fuse	
usable for Standard Faults up to 575/600 V according to UL	Type: Class RK5 / K5, max. 125 A; Iq = 5 kA
usable for High Faults up to 575/600 V according to UL	Type: Class J / L, max. 125 A; Iq = 100 kA
usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL	Type: Class RK5 / K5, max. 125 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. 125 A; Iq = 100 kA
usable for High Faults at inside-delta circuit up to	Type: Class J / L, max. 125 A; Iq = 100 kA
 usable for High Faults at inside-delta circuit up to 575/600 V according to UL 	Type: Class J / L, max. 125 A; Iq = 100 kA 7.5 hp
usable for High Faults at inside-delta circuit up to 575/600 V according to UL operating power [hp] for 3-phase motors	
— usable for High Faults at inside-delta circuit up to 575/600 V according to UL operating power [hp] for 3-phase motors • at 200/208 V at 50 °C rated value	7.5 hp
— usable for High Faults at inside-delta circuit up to 575/600 V according to UL 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	7.5 hp 10 hp
— usable for High Faults at inside-delta circuit up to 575/600 V according to UL 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	7.5 hp 10 hp 20 hp

contact rating of auxiliary contacts according to UL	R300-B300
Safety related data	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
electromagnetic compatibility	in accordance with IEC 60947-4-2
Certificates/ approvals	

General Product Approval





Confirmation









Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report







Marine / Shipping



Confirmation

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RW5216-3TC14

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW5216-3TC14}\\$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5216-3TC14

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5216-3TC14&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RW5216-3TC14/char

Characteristic: Installation altitude

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5216-3TC14&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







