SIEMENS

Data sheet

3RW5545-2HA14



SIRIUS soft starter 200-480 V 315 A, 110-250 V AC spring-type terminals

product brand name	SIRIUS		
product category	Hybrid switching devices		
product designation	Soft starter		
product type designation	3RW55		
manufacturer's article number			
 of high feature HMI module usable 	<u>3RW5980-0HF00</u>		
 of communication module PROFINET standard usable 	<u>3RW5980-0CS00</u>		
 of communication module PROFINET high-feature usable 	<u>3RW5950-0CH00</u>		
 of communication module PROFIBUS usable 	<u>3RW5980-0CP00</u>		
 of communication module Modbus TCP usable 	<u>3RW5980-0CT00</u>		
 of communication module Modbus RTU usable 	<u>3RW5980-0CR00</u>		
 of communication module Ethernet/IP 	<u>3RW5980-0CE00</u>		
 of circuit breaker usable at 400 V 	3VA2440-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10		
 of circuit breaker usable at 500 V 	3VA2440-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10		
 of circuit breaker usable at 400 V at inside-delta circuit 	3VA2580-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10		
 of circuit breaker usable at 500 V at inside-delta circuit 	3VA2580-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10		
 of the gG fuse usable up to 690 V 	2x3NA3365-6; Type of coordination 1, Iq = 65 kA		
 of the gG fuse usable at inside-delta circuit up to 500 V 	2x3NA3365-6; Type of coordination 1, Iq = 65 kA		
 of full range R fuse link for semiconductor protection usable up to 690 V 	<u>3NE1334-2; Type of coordination 2, Iq = 65 kA</u>		
 of back-up R fuse link for semiconductor protection usable up to 690 V 	<u>3NE3336: Type of coordination 2, Iq = 65 kA</u>		
General technical data			
starting voltage [%]	20 100 %		
stopping voltage [%]	50 %; non-adjustable		
start-up ramp time of soft starter	0 360 s		

stopping voltage [%]	50 %; non-adjustable
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	5 (based on IEC 61557-12)
certificate of suitability	
CE marking	Yes
UL approval	Yes

CSA approval	Yes
product component	No.
HMI-High Feature	Yes
is supported HMI-High Feature	Yes
product feature integrated bypass contact system	Yes
number of controlled phases	3
current unbalance limiting value [%]	10 60 %
ground-fault monitoring limiting value [%]	10 95 %
buffering time in the event of power failure	
 for main current circuit 	100 ms
 for control circuit 	100 ms
idle time adjustable	0 255 s
insulation voltage rated value	480 V
degree of pollution	3, acc. to IEC 60947-4-2
impulse voltage rated value	6 kV
blocking voltage of the thyristor maximum	1 400 V
service factor	1.15
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	
between main and auxiliary circuit	480 V; does not apply for thermistor connection
shock resistance	15 g / 11 ms, from 6 g / 11 ms with potential contact lifting
recovery time after overload trip adjustable	60 1 800 s
utilization category according to IEC 60947-4-2	AC 53a
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date) SVHC substance name	02/15/2018 Lead - 7439-92-1
	Lead monoxide (lead oxide) - 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 Dibutylbis(pentane-2,4-dionato-O,O')tin - 22673-19-4 Dicyclohexyl phthalate (DCHP) - 84-61-7 Dodecamethylcyclohexasiloxane (D6) - 540-97-6 Lead titanium trioxide - 12060-00-3
product function	
 ramp-up (soft starting) 	Yes
 ramp-down (soft stop) 	Yes
 breakaway pulse 	Yes
 adjustable current limitation 	Yes
 creep speed in both directions of rotation 	Yes
 pump ramp down 	Yes
DC braking	
	Yes
 motor heating 	Yes
motor heatingslave pointer function	
-	Yes
slave pointer function	Yes Yes
slave pointer functiontrace function	Yes Yes Yes
 slave pointer function trace function intrinsic device protection 	Yes Yes Yes Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to
 slave pointer function trace function intrinsic device protection motor overload protection 	Yes Yes 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.
 slave pointer function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection 	Yes Yes 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. Yes; Type A PTC or Klixon / Thermoclick
 slave pointer function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection inside-delta circuit 	Yes Yes Yes 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. Yes; Type A PTC or Klixon / Thermoclick Yes
 slave pointer function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection inside-delta circuit auto-RESET 	Yes Yes Yes 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. Yes; Type A PTC or Klixon / Thermoclick Yes Yes
 slave pointer function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET 	Yes Yes Yes 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. Yes; Type A PTC or Klixon / Thermoclick Yes Yes
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 slave pointer function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display 	Yes Yes Yes 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. Yes; Type A PTC or Klixon / Thermoclick Yes Yes Yes Yes
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 slave pointer function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list error logbook via software parameterizable 	Yes Yes Yes Yes Yes Source of the second sec
 slave pointer function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list error logbook via software parameterizable via software configurable 	Yes Yes Yes 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. Yes; Type A PTC or Klixon / Thermoclick Yes Yes Yes Yes Yes Yes Yes
 slave pointer function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list error logbook via software parameterizable via software configurable screw terminal 	Yes Yes Yes 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. Yes; Type A PTC or Klixon / Thermoclick Yes Yes Yes Yes Yes Yes Yes Yes Yes
 slave pointer function trace function intrinsic device protection motor overload protection motor overload protection evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list error logbook via software parameterizable via software configurable screw terminal spring-loaded terminal 	Yes Yes Yes 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. Yes; Type A PTC or Klixon / Thermoclick Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
 slave pointer function trace function intrinsic device protection motor overload protection evaluation of thermistor motor protection inside-delta circuit auto-RESET manual RESET remote reset communication function operating measured value display event list error logbook via software parameterizable via software configurable screw terminal 	Yes Yes Yes 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. Yes; Type A PTC or Klixon / Thermoclick Yes Yes Yes Yes Yes Yes Yes Yes Yes

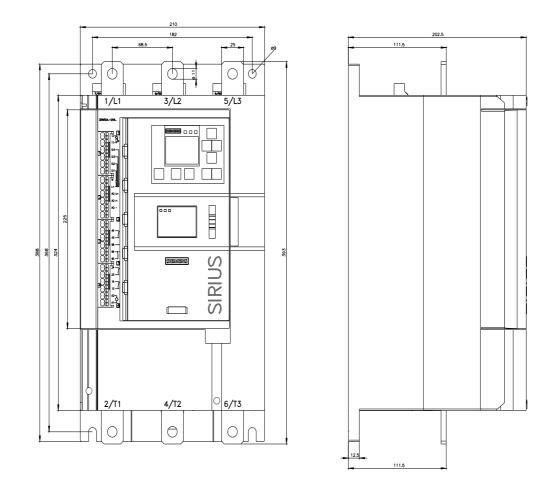
 removable terminal for control circuit 	Yes			
	Yes			
 voltage ramp torque control 	Yes			
combined braking	Yes			
analog output	Yes; 4 20 mA (default) / 0 10 V			
programmable control inputs/outputs	Yes			
condition monitoring				
automatic parameterisation	Yes			
-				
 application wizards alternative run-down 	Yes			
	Yes			
emergency operation mode	Yes			
reversing operation				
soft starting at heavy starting conditions	Yes			
Power Electronics operational current				
at 40 °C rated value	315 A			
at 40 °C rated value minimum	63 A			
at 40 °C rated value at 50 °C rated value	03 A 279 A			
• at 50 °C rated value	279 A 255 A			
	200 A			
operational current at inside-delta circuit • at 40 °C rated value	546 A			
at 40 °C rated value at 50 °C rated value	546 A 483 A			
• at 50 °C rated value	483 A 442 A			
• at 60 °C rated value operating voltage	ר אדי			
rated value	200 480 V			
at inside-delta circuit rated value	200 480 V 200 480 V			
relative negative tolerance of the operating voltage	-15 %			
relative negative tolerance of the operating voltage	10 %			
relative negative tolerance of the operating voltage at	-15 %			
inside-delta circuit				
relative positive tolerance of the operating voltage at inside-delta circuit	10 %			
operating power for 3-phase motors				
 at 230 V at 40 °C rated value 	90 kW			
 at 230 V at inside-delta circuit at 40 °C rated value 	160 kW			
• at 400 V at 40 °C rated value	160 kW			
 at 400 V at inside-delta circuit at 40 °C rated value 	315 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 %			
minimum load [%]	10 %; Relative to set le			
power loss [W] for rated value of the current at AC				
• at 40 °C after startup	95 W			
• at 50 °C after startup	84 W			
at 60 °C after startup	77 W			
power loss [W] at AC at current limitation 350 %				
• at 40 °C during startup	4 966 W			
• at 50 °C during startup	4 153 W			
at 60 °C during startup	3 646 W			
type of the motor protection	Electronic, tripping in the event of thermal overload of the motor			
Control circuit/ Control				
type of voltage of the control supply voltage	AC			
control supply voltage at AC	110 250.1/			
• at 50 Hz	110 250 V			
• at 60 Hz	110 250 V			
relative negative tolerance of the control supply voltage at AC at 50 Hz	-15 %			
relative positive tolerance of the control supply voltage at AC at 50 Hz	10 %			
relative negative tolerance of the control supply voltage at AC at 60 Hz	-15 %			

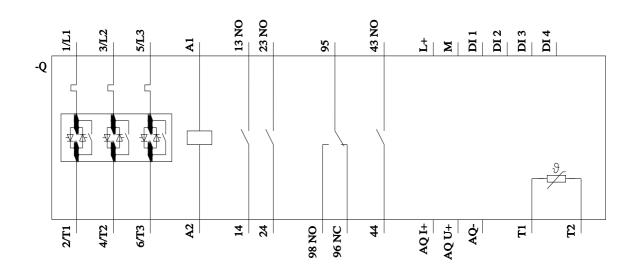
relative positive fortance of the control supply voltage at Control supply voltage frequency 50 - 60 Hz control supply voltage frequency 50 - 60 Hz relative negative fortance of the control supply voltage 10 % relative negative fortance of the control supply voltage 10 % relative negative fortance of the control supply voltage 10 % control supply current in standary mode rated value 50 m Å bolding current forta damaby mode rated value 50 m Å control supply current in standary mode rated value 50 m Å design of the overolage protection Varistor design of abort-circuit protection for control circuit 4 Å number of digital inputs 4 eurother of digital inputs 4 eurother of digital outputs 4 eurother of digital outputs 4 eurother of digital outputs 5 eurother of digital outputs 5 eurother of digital outputs 1 eurother of digital outputs 4 eurother of digital outputs 5 eurother of digital outputs 5 eurother of digital outputs 1 <th></th> <th></th>		
relative tolerance of the control supply voltage frequency. -10 % relative positive tolerance of the control supply voltage frequency. 10 % control supply current in standardy mode rated value 100 n/n holding current in standardy mode rated value 100 n/n holding current in standardy mode rated value 100 n/n holding current in standardy mode rated value 100 n/n holding current in standardy mode rated value 100 n/n holding current in standardy mode rated value 100 n/n holding current in standardy mode rated value 100 n/n holding current in standardy mode rated value 100 n/n holding current in standardy mode rated value 100 n/n design of the overvoltage protection Varistor design of the overvoltage protection Varistor number of digital inputs 4 • number of digital outputs 4 • number of digital outputs 1 • number of digital outputs <th>relative positive tolerance of the control supply voltage at AC at 60 Hz</th> <th>10 %</th>	relative positive tolerance of the control supply voltage at AC at 60 Hz	10 %
requery	control supply voltage frequency	50 60 Hz
frequency 00 mA control supply current in targonas operation rated value 100 mA invalue 50 mA much current to by base operation rated value 50 mA much current posk at application of control supply voltage 43 A much current posk at application of control supply voltage 10 ms design of the overroltage protection Variation design of the overroltage protection Variation mumber of digital inputs 4 - number of digital inputs 4 - quarteristizable 4 - unmber of digital inputs 4 - quarteristizable 3 - number of digital outputs parameterizable 3 - number of digital outputs parameterizable 1 - surder of digital outputs parameterizable 3 - number of digital outputs parameterizable 3 - atol 20 tarder duale 3 A - atol 20 tarder duale 3		-10 %
Indefining current in bypass operation rated value 150 m/k Innuk current by closing the bypass ochicles maximum 0.57 A Innuk current by closing the bypass ochicles maximum 0.57 A Innuk current by closing the bypass ochicles maximum 0.57 A Innuk current bypass de application of control supply value 43 A Gesign of the overvoltage protection Variator design of short-circuit protection for control circuit 4 A gG bing from from from from from from from from		10 %
Image 087 A Image 087 A Image 087 A Image 083 A Image <th>control supply current in standby mode rated value</th> <th>100 mA</th>	control supply current in standby mode rated value	100 mA
much current peak at application of control supply voltage maxmum 43 Å duration of invush current peak at application of control supply voltage 1.6 ms design of the overvoltage protection Varistor design of short-circuit protection for control circuit breaker (cur 600 Å). C6 miniature circuit breaker (cur 500 Å); c miniature circuit breaker (cur 500 Å); c miniature circuit breaker (cur 600 Å). C6 miniature circuit breaker (cur 500 Å); is not part of stransfer for figital outputs and and the circuit breaker (cur 500 Å). C6 miniature circuit breaker (cur 500 Å); is not part of stransfer for figital outputs of anometerizable number of digital outputs parameterizable 4 number of digital outputs parameterizable 3 number of digital outputs parameterizable 3 eutore for an add value 3 A eutore for an add value 3 A et al C-15 at 250 V rated value 1 A featallatour mounting/ dimensions 400 mm mounting open outputs 10 mm etable 203 mm required spacing with side-by-side mounting 203 mm etable 5 mm etable 6 mm velopit without packaging 10 mm i at basis 5 mm velopit without packaging<	holding current in bypass operation rated value	150 mA
maximum 1.0 mm votage 4.0 mm design of the overvoltage protection Variator design of short-circuit protection for control oricuit 4.4 gG fuse (roue 1 kA) 6.4 quick-ading fuse (roue 1 kA), C1 ministure circuit breaker (roue 300 A); Is not part of some of supply fightal Origital Inputs 4 • number of digital outputs 4 • number of digital outputs 4 • number of digital outputs parameterizable 3 • number of digital outputs parameterizable 3 • number of digital outputs parameterizable 3 • attaballot of the roley outputs 1 • attaballot of the roley outputs 1 • attaballot of the roley outputs 3 • attaballot of the roley outputs 3 • attaballot of monting one contacts (NO) / 1 changeover contact (CO) number of attage outputs 3 • attaballot of monting of the roley outputs 3 • attaballot of monting one contacts (NO) / 1 changeover contact (CO) reserve fining method 3A • attaballot of monting of the roley outputs 3A • attaballot of montacts attaff role outputs 3A	inrush current by closing the bypass contacts maximum	0.87 A
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design of short-circuit protection for control circuit 4 Ag G (see (lour 1AA) 6 A quick-exting fuse (lour 1AA) 6 A quick-exting fuse (lour 1AA) 6 A quick-exting fuse (lour 300 A); is not part of toppe of supply Imputs/ Outputs 4 number of digital inputs 4 • parameterizable 4 • number of digital outputs parameterizable 4 • number of digital outputs parameterizable 3 • number of digital outputs on parameterizable 1 • ad OC-13 at 24 V rated value 3 A • at OC-13 at 24 V rated value 1 A • ad OC-13 at 24 V rated value 1 A • required specing with side-by-side mounting 93 mm • offer and the outputs 3 A • ad OC-13 at 24 V rated value 1 A • ad OC-13 at 24 V rated value 1 A • required specing with side-by-side mounting 93 mm • offer and the outputs 1 A • forwards 0 mm • offer and current front 20 mm • oparatis 75 mm • off main current front 50 mm • oparatis 75 mm • off main current front 50 m		1.6 ms
Imputed Outputs Unputs Outputs Imput of digital inputs 4 • parameterizable 4 • number of digital outputs parameterizable 3 • number of digital outputs parameterizable 3 • number of digital outputs parameterizable 3 • number of digital outputs not parameterizable 3 • ath AC-15 at 26V trade value 3. • ath AC-15 at 26V trade value 3. • ath AC-15 at 24V trade value 3. • ath CC-13 at 24V trade value 3.	design of the overvoltage protection	Varistor
number of digital inputs 4 • parameterizable 4 • number of digital outputs 4 • number of digital outputs not parameterizable 3 • number of digital outputs not parameterizable 1 • at DC-15 at 250 V rated value 3. • at DC-15 at 250 V rated value 3.A • at DC-15 at 250 V rated value 1.A Installator/ nounting/ dimensions 1.A Installator/ nounting/ dimensions Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) fastening method screw fixing tight 393 mn width 210 mm • dopth 203 mm required spacing with side-by-side mounting 10 mm • forwards 10 mm • backwards 00 mm • downwards 75 mm • at the side 5 mm wolght without packaging 10.2 kg Connections/ Terminatis 50 m type of disctrical connection 45 mm • with conductor cross-sections = 1.5 mm ² maximum 250 m • for ontiol circuit 50 m • with conductor cross-sections = 1.5 mm ² maximum 250 m • for control circuit finely stranded 2x (02, 1.5 mm ²) • for control circuit solid <t< th=""><th>design of short-circuit protection for control circuit</th><th>breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of</th></t<>	design of short-circuit protection for control circuit	breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of
• parameterizable 4 • number of digital outputs 4 • number of digital outputs parameterizable 3 • number of adigital outputs parameterizable 3 • number of adigital outputs 3 • number of analog outputs 3 • att AC-15 at 25 V rated value 3 A • att AC-15 at 25 V rated value 3 A • att AC-15 at 24 V rated value 3 A • att AC-15 at 24 V rated value 3 A • att AC-15 at 24 V rated value 3 A • att AC-15 at 24 V rated value 3 A • att AC-15 at 24 V rated value 3 A • att AC-15 at 24 V rated value 3 A • att AC-15 at 24 V rated value 3 A • att AC-15 at 24 V rated value 3 A • att AC-15 at 24 V rated value 3 A • att DC-15 at 24 V rated value 3 A • att DC-15 at 24 V rated value 3 A • att DC-15 at 24 V rated value 3 A • att DC-15 at 24 V rated value 20 mm • att DC-15 at 24 V rated value 20 mm • forwards 0 mm • att	Inputs/ Outputs	
	number of digital inputs	4
• number of digital outputs parameterizable 1 • number of digital outputs not parameterizable 1 fightal output version 3 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs 1 switching capacity current of the relay outputs 3 A • at AC-15 at 250 V rated value 3 A • at DC-13 at 24 V rated value 1 A Installation/ mounting/ dimensions Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) fastening method Sorew fixing height 393 nm width 210 nm depth 203 mm required spacing with side-by-side mounting 0 mm • backwards 0 mm • downwards 75 mm • at the side 5 mm • for main current circuit busbar connection • for main current circuit busbar connection • for ontal current store 50 m • with conductor cross-section = 0.5 mm* maximum 50 m • with conductor cross-section = 1.5 mm* maximum 50 m • with conductor cross-section = 0.5 mm* maximum 50 m • with conductor cross-section = 0.5 mm* max	parameterizable	4
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digital output version 3 normally-open contacts (NO) / 1 changeover contact (CO) number of analog outputs 1 switching capacity current of the relay outputs 3 A • at AC-15 at 250 V rated value 3 A • at DC-13 at 24 V rated value 1 A mounting position Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) fasteling method screw fixing height 203 mm victh 210 mm depth 203 mm required spacing with side-by-side mounting • • forwards 0 mm • upwards 00 mm • upwards 00 mm • downwards 75 mm • at the side 5 mm weight without packaging 102 kg Connection I reminals 50 m vift control circuit spring-loaded terminals with conductor cross-section = 0.5 mm² maximum 50 m • with conductor cross-sections 2x (70		
number of analog outputs 1 switching capacity current of the relay outputs 3 A • at QC-15 at 24V rated value 3 A • at DC-13 at 24V rated value 1 A Installation mounting/dimensions 1 A mounting position server fixing fastening method server fixing height 393 mm width 210 mm depth 203 mm required spacing with side-by-side mounting 10 mm • torvards 10 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 10.2 kg Connections/ Terminals 100 mm with conductor cross-section = 0.5 mm² maximum 45 mm with conductor cross-section = 0.5 mm² maximum 50 m • with conductor cross-section = 0.5 mm² maximum 50 m • with conductor cross-section = 0.5 mm² maximum 250 m • with conductor cross-section = 0.5 mm² maximum 20 m • with conductor cross-section = 0.5 mm² maximum 50 m • with conductor cross-section = 0.5 mm² maximum 20 m • for DIN cable lug for main contacts stranded 2x (70240 mm²) • for DIN cable lug for main con		
switching capacity current of the relay outputs 3 A • at AC-15 at 250 V rated value 3 A • at DC-15 at 250 V rated value 1 A Installation/ mounting/ dimensions 1 A mounting position Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) fastening method screw fixing height 393 mm width 210 mm depth 203 mm • forwards 0 mm • backwards 0 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 10.2 kg Connections/ Terminals 50 m vite length 50 m with conductor cross-section = 0.5 mm² maximum 50 m with conductor cross-sections 2x (70 240 mm²) • for runia contact sting is yanded 2x (70 240 mm²) for control circuit at single yanded 2x (70 240 mm²) • with conductor cross-sections 2x (70 240 mm²) • for or Namic contacts stranded 2x (20 240 mm²) • for or Namic contacts stranded 2x (20 240 mm²) • for DIN cable lug for main contacts finely stranded 2x (70 240 mm²) • for control circuit solid 2x (70 240 mm²)		
• 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 titled forward or backward +/- 22.5°) fastening method screw fixing height 393 nm width 210 nm depth 203 nm required spacing with side-by-side mounting • forwards 0 mm • adowards 0 mm • downwards 10 nm • downwards 75 mm • at the side 5 mm weight without packaging 10.2 kg Connections/ Torminals type of electrical connection • for main current circuit spring-loaded terminals width of connection bar maximum 50 m • with conductor cross-section = 0.5 mm* maximum 50 m • with conductor cross-section = 1.5 mm* maximum 50 m • for DIN cable lug for main contacts finanded 2x (50 240 mm*) • for control circuit finely stranded 2x (02 1.5 mm*) • for control circuit finely stranded with core end processing 2x (02 1.5 mm*) • for onthor cable lug for mai		
• at DC-13 at 24 V rated value 1 A Installator/ mounting position Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) fastening method screw fixing height 393 mm width 210 mm depth 203 mm • forwards 00 mm • backwards 01 mm • backwards 00 mm • upwards 100 mm • downwards 75 mm • at the side 5 mm weight without packaging 10.2 kg Connections/ Terminals ypwards with connection encition yping-loaded terminals with conductor cross-section = 0.5 mm ² maximum 45 mm with conductor cross-section = 0.5 mm ² maximum 50 m with conductor cross-section = 0.5 mm ² maximum 50 m with conductor cross-section = 2.5 mm ³ maximum 50 m with conductor cross-sections 2x (x0 240 mm ³) • for DIN cable lug for main contacts stranded 2x (x0 240 mm ³) • for Control circuit finely stranded with core end processing 2x (0.25 1.5 mm ³) • for DIN cable lug for main contacts linely stranded with core end processing <th></th> <th>3 A</th>		3 A
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core end processing wire length	 for AWG cables for control circuit solid 	2x (24 16)
-		2x (24 16)
between soft starter and motor maximum 800 m	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 	14 24 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 	124 210 lbf·in
 for auxiliary and control contacts with screw-type terminals 	7 10.3 lbf·in
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)
Environmental footprint	
Siemens Eco Profile (SEP)	Siemens EcoTech
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 circuit breaker usable for Standard Faults	
- at 460/480 V according to UL	Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; Iq = 18 kA
— 60/480 V according to UL	Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; lq max = 65 kA
— at 460/480 V at inside-delta circuit according to UL	Siemens type: 3VA54, max. 600 A; Iq = 18 kA
 — 60/480 V at inside-delta circuit according to UL 	Siemens type: 3VA54, max. 600 A; lq max = 65 kA
— at 575/600 V according to UL	Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; Iq = 18 kA
 — 75/600 V at inside-delta circuit according to UL 	
	Siemens type: 3VA54, max. 600 A; Iq max = 65 kA
— at 575/600 V at inside-delta circuit according to UL	Siemens type: 3VA54, max. 600 A; lq max = 65 kA Siemens type: 3VA54, max. 600 A; lq = 18 kA
5	
 at 575/600 V at inside-delta circuit according to UL of the fuse usable for Standard Faults up to 575/600 V according to UL 	Siemens type: 3VA54, max. 600 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 18 kA
 at 575/600 V at inside-delta circuit according to UL of the fuse usable for Standard Faults up to 575/600 V according to UL usable for High Faults up to 575/600 V according to UL 	Siemens type: 3VA54, max. 600 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 100 kA
 at 575/600 V at inside-delta circuit according to UL of the fuse usable for Standard Faults up to 575/600 V according to UL usable for High Faults up to 575/600 V according to UL usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL 	Siemens type: 3VA54, max. 600 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 100 kA Type: Class J / L, max. 1000 A; lq = 18 kA
 at 575/600 V at inside-delta circuit according to UL of the fuse usable for Standard Faults up to 575/600 V according to UL usable for High Faults up to 575/600 V according to UL usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL usable for High Faults at inside-delta circuit up to 575/600 V according to UL usable for High Faults at inside-delta circuit up to 575/600 V according to UL 	Siemens type: 3VA54, max. 600 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 100 kA
 at 575/600 V at inside-delta circuit according to UL of the fuse usable for Standard Faults up to 575/600 V according to UL usable for High Faults up to 575/600 V according to UL usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL usable for High Faults at inside-delta circuit up to 575/600 V according to UL usable for High Faults at inside-delta circuit up to 575/600 V according to UL operating power [hp] for 3-phase motors 	Siemens type: 3VA54, max. 600 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 100 kA Type: Class J / L, max. 1000 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 100 kA
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 at 575/600 V at inside-delta circuit according to UL of the fuse usable for Standard Faults up to 575/600 V according to UL usable for High Faults up to 575/600 V according to UL usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL usable for High Faults at inside-delta circuit up to 575/600 V according to UL 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 200/208 V at 50 °C rated value at 220/230 V at inside-delta circuit at 50 °C rated value at 220/230 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value at 460/480 V at inside-delta circuit at 50 °C rated value 	Siemens type: 3VA54, max. 600 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 100 kA Type: Class J / L, max. 1000 A; lq = 18 kA Type: Class J / L, max. 1000 A; lq = 100 kA 75 hp 100 hp 200 hp 150 hp 200 hp 400 hp R300-B300
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to ATEX						
PFHD with high dema relating to ATEX	nd rate according to IEC 6	61508	5E-7 ⁻	1/h		
PFDavg with low dem relating to ATEX	and rate according to IEC	61508	0.008			
hardware fault toleran	nce according to IEC 6150	8 relating to	0			
T1 value for proof test IEC 61508 relating to a	t interval or service life ac ATEX	cording to	3 a			
certificate of suitabilit	ty					
 ATEX 			Yes			
• IECEx			Yes			
 according to ATE 	according to ATEX directive 2014/34/EU BVS 18 ATEX F 003 X					
type of protection acc	cording to ATEX directive	2014/34/EU	II (2)G [Ex db	6 [Ex eb Gb] [Ex db Gb] [8 0 Mb]	Ex pxb Gb], II (2)D [Ex tb	Db] [Ex pxb Db], I (M2)
pprovals Certificates						
General Product App	roval					
SP M	UK CA	CE EG-Konf.		() CCC	<u>Confirmation</u>	
General Product Approval	EMV			For use in hazardous	locations	Test Certificates
EHC	RCM	<u>KC</u>		KEX ATEX	IECEx	<u>Type Test Certific-</u> ates/Test Report
Marine / Shipping					other	Environment
ABS	BUREAU VERITAS	Llovds Kegister urs		PRS	<u>Confirmation</u>	Siemens EcoTech
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EPD	Environmental Con- firmations					
urther information						
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Simulation Tool for Soft Starters (STS) https://support.industry.siemens.com/cs/ww/en/view/101494917





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