SIEMENS

Data sheet 3RW5248-2TC05



SIRIUS soft starter 200-600 V 570 A, 24 V AC/DC spring-type terminals Thermistor input

| product brand name | SIRIUS | | |
|---|--|--|--|
| 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 | 3VA2580-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10 | | |
| of circuit breaker usable at 500 V | 3VA2580-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10 | | |
| of circuit breaker usable at 400 V at inside-delta circuit | 3VA2510-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10 | | |
| of circuit breaker usable at 500 V at inside-delta circuit | 3VA2510-6HN32-0AA0; 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 | 3NE1437-2; Type of coordination 2, Iq = 65 kA | | |
| of back-up R fuse link for semiconductor protection usable up to 690 V | 3NE3340-8; Type of coordination 2, Iq = 65 kA | | |
| General technical data | | | |
| starting voltage [%] | 30 100 % | | |
| | | | |

| General technical data | |
|--|-----------|
| starting voltage [%] | 30 100 % |
| stopping voltage [%] | 50 50 % |
| 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 is supported | |
| HMI-Standard | Yes |
| HMI-High Feature | Yes |
| product feature integrated bypass contact system | Yes |

| number of controlled phases | 3 | | | |
|--|---|--|--|--|
| trip class | CLASS 10A (default) / 10E / 20E; acc. to IEC 60947-4-2 | | | |
| buffering time in the event of power failure | CLASS TOA (default) / TOE / 20E, acc. to IEG 00347-4-2 | | | |
| • for main current circuit | 100 mg | | | |
| for control circuit | 100 ms | | | |
| | 100 ms | | | |
| insulation voltage rated value | 600 V | | | |
| degree of pollution | 3, acc. to IEC 60947-4-2 | | | |
| impulse voltage rated value | 6 kV | | | |
| blocking voltage of the thyristor maximum | 1 600 V | | | |
| service factor | 1 | | | |
| surge voltage resistance rated value | 6 kV | | | |
| maximum permissible voltage for safe isolation | 600 \ | | | |
| between main and auxiliary circuit shock resistance | 600 V | | | |
| | 15 g / 11 ms, from 12 g / 11 ms with potential contact lifting | | | |
| vibration resistance | 15 mm to 6 Hz; 2g to 500 Hz | | | |
| utilization category acc. to IEC 60947-4-2 reference code acc. to IEC 81346-2 | AC 53a Q | | | |
| | | | | |
| Substance Prohibitance (Date) product function | 15.02.2018 00:00:00 | | | |
| ramp-up (soft starting) | Yes | | | |
| | | | | |
| • ramp-down (soft stop) | Yes | | | |
| Soft Torque adjustable current limitation | 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 | 570 A | | | |
| at 50 °C rated value | 504 A | | | |
| at 60 °C rated value | 460 A | | | |
| operational current at inside-delta circuit | | | | |
| at 40 °C rated value | 987 A | | | |
| at 50 °C rated value | 873 A | | | |
| at 60 °C rated value | 796 A | | | |
| operating voltage | | | | |
| rated value | 200 600 V | | | |
| at inside-delta circuit rated value | 200 600 V | | | |
| relative negative tolerance of the operating voltage | -15 % | | | |
| relative positive tolerance of the operating voltage | 10 % | | | |
| relative negative tolerance of the operating voltage at | -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 | 160 kW |
| • at 230 V at inside-delta circuit at 40 °C rated value | 315 kW |
| at 400 V at 40 °C rated value | 315 kW |
| • at 400 V at inside-delta circuit at 40 °C rated value | 560 kW |
| at 500 V at 40 °C rated value | 355 kW |
| • at 500 V at inside-delta circuit at 40 °C rated value | 630 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 | 240 A |
| at rotary coding switch on switch position 2 | 262 A |
| at rotary coding switch on switch position 3 | 284 A |
| at rotary coding switch on switch position 4 | 306 A |
| at rotary coding switch on switch position 5 | 328 A |
| at rotary coding switch on switch position 6 | 350 A |
| at rotary coding switch on switch position 7 | 372 A |
| at rotary coding switch on switch position 8 | 394 A |
| at rotary coding switch on switch position 9 | 416 A |
| at rotary coding switch on switch position 10 | 438 A |
| at rotary coding switch on switch position 11 | 460 A |
| at rotary coding switch on switch position 12 | 482 A |
| at rotary coding switch on switch position 13 | 504 A |
| at rotary coding switch on switch position 14 | 526 A |
| at rotary coding switch on switch position 15 | 548 A |
| at rotary coding switch on switch position 16 at rotary coding switch on switch position 16 | 570 A |
| minimum | 240 A |
| adjustable motor current | 270 / |
| for inside-delta circuit at rotary coding switch on switch position 1 | 416 A |
| for inside-delta circuit at rotary coding switch on switch position 2 | 454 A |
| for inside-delta circuit at rotary coding switch on switch position 3 | 492 A |
| for inside-delta circuit at rotary coding switch on switch position 4 | 530 A |
| for inside-delta circuit at rotary coding switch on switch position 5 | 568 A |
| for inside-delta circuit at rotary coding switch on switch position 6 | 606 A |
| for inside-delta circuit at rotary coding switch on switch position 7 | 644 A |
| for inside-delta circuit at rotary coding switch on switch position 8 | 682 A |
| for inside-delta circuit at rotary coding switch on switch position 9 | 721 A |
| for inside-delta circuit at rotary coding switch on switch position 10 | 759 A |
| for inside-delta circuit at rotary coding switch on switch position 11 | 797 A |
| for inside-delta circuit at rotary coding switch on switch position 12 for inside delta circuit at rotary coding switch on | 835 A |
| for inside-delta circuit at rotary coding switch on switch position 13 for inside delta circuit at rotary coding switch on | 873 A |
| for inside-delta circuit at rotary coding switch on switch position 14 for inside-delta circuit at rotary coding switch on | 911 A 949 A |
| switch position 15 | 979 A |

| for inside-delta circuit at rotary coding switch on | 987 A | | | |
|--|--|--|--|--|
| switch position 16 | | | | |
| at inside-delta circuit minimum | 416 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 | 183 W | | | |
| at 50 °C after startup | 163 W | | | |
| at 60 °C after startup | 153 W | | | |
| power loss [W] at AC at current limitation 350 % | | | | |
| at 40 °C during startup | 10 241 W | | | |
| at 50 °C during startup | 8 500 W | | | |
| at 60 °C during startup | 7 663 W | | | |
| Control circuit/ Control | | | | |
| type of voltage of the control supply voltage | AC/DC | | | |
| control supply voltage at AC | | | | |
| at 50 Hz rated value | 24 V | | | |
| at 60 Hz rated value | 24 V | | | |
| relative negative tolerance of the control supply voltage at AC at 50 Hz | -20 % | | | |
| relative positive tolerance of the control supply | 20 % | | | |
| voltage at AC at 50 Hz | | | | |
| relative negative tolerance of the control supply voltage at AC at 60 Hz | -20 % | | | |
| relative positive tolerance of the control supply voltage at AC at 60 Hz | 20 % | | | |
| control supply voltage frequency | 50 60 Hz | | | |
| relative negative tolerance of the control supply voltage frequency | -10 % | | | |
| relative positive tolerance of the control supply voltage frequency | 10 % | | | |
| control supply voltage | | | | |
| at DC rated value | 24 V | | | |
| relative negative tolerance of the control supply voltage at DC | -20 % | | | |
| relative positive tolerance of the control supply voltage at DC | 20 % | | | |
| control supply current in standby mode rated value | 160 mA | | | |
| holding current in bypass operation rated value | 470 mA | | | |
| locked-rotor current at close of bypass contact | 7.6 A | | | |
| maximum | | | | |
| inrush current peak at application of control supply voltage maximum | 3.3 A | | | |
| duration of inrush current peak at application of control supply voltage | 12.1 ms | | | |
| design of the overvoltage protection | Varistor | | | |
| design of short-circuit protection for control circuit | 4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply | | | |
| Inputs/ Outputs | | | | |
| number of digital inputs | 1 | | | |
| number of inputs for thermistor connection | 1; Type A PTC or Klixon / Thermoclick | | | |
| number of digital outputs | 3 | | | |
| not parameterizable | 2 | | | |
| digital output version | 2 normally-open contacts (NO) / 1 changeover contact (CO) | | | |
| number of analog outputs | 0 | | | |
| switching capacity current of the relay outputs | | | | |
| at AC-15 at 250 V rated value | 3 A | | | |
| at DC-13 at 24 V rated value | 1 A | | | |
| | 10 | | | |
| Installation/ mounting/ dimensions | with vertical requiring over-1/000t-t-t-t- | | | |
| mounting position | with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back | | | |
| fastening method | screw fixing | | | |

| depth | height | 393 mm | | |
|--|--|--|--|--|
| depth | - | | | |
| required spacing with side-by-side mounting • forwards • paywards • paywards • downwards • downwards • downwards • downwards • downwards • for main current circuit • for control circuit • for control circuit • for control circuit • for for him conductor cross-section = 0.5 mm² maximum • with conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts stranded • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for control circuit finely stranded with core end processing • for to control circuit finely stranded with core end processing • for for control circuit finely stranded with core end processing • for for control circuit finely stranded with core end processing • for for control circuit finely stranded with core end processing • for for control circuit finely stranded with core end processing • for for control circuit finely stranded with core end processing • for for control circuit finely stranded with core end processing • for for control circuit finely stranded with core end processing • for for control circuit finely stranded with core end processing • for for control circuit finely stranded with core end processing • for for main contacts with screw-type terminals • to for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for for main contacts with screw-type terminals • for formation approach contacts with screw-type terminals • for formation on the strander of the formation on the device of the formation of the formation on the device of the formation of the formation on the formation of the formation of the formation on the format | | | | |
| • forwards • backwards • backwards • downwards • downwards • of the side | • | 203 mm | | |
| backwards vowwards voe of electrical connection vor ontrol circuit vor control circuit vorth conductor cross-section vowth conductor cross-section = 0.5 mm² maximum vowth conductor cross-section = 1.5 mm² maximum vowth conductor cross-section = 0.5 mm² maximum vowth conductor cross-section = 0.5 mm² maximum vowth conductor cross-sections vor DIN cable lug for main contacts stranded vor Control circuit sold vor control circuit sold vor control circuit sold vor control circuit sold vor control circuit finely stranded with core end processing vor end processing wire length vor end processing wire length vor control circuit finely stranded with core end processing wire length vor control circuit finely stranded with core end processing wire length for thermistor connection vor control circuit sold vor control circuit sold vor control circuit sold vor control circuit finely stranded with core end processing wire length for thermistor vor control circuit finely stranded with core end processing wire length vor control circuit sold vor control circuit finely stranded with core end processing wire length vor control circuit sold vor control circuit finely stranded with core end processing wire length for thermistor connection vor control circuit sold vor control cir | | 10 mm | | |
| upwards other side othe | | | | |
| - downwards | | | | |
| a the side weight without packaging Connections Terminals type of electrical connection • for main current circuit • for control circuit width of connection a with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum • with conductor cross-sections • for DIN cable lug for main contacts transded • for DIN cable lug for main contacts transded • for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing • at the digital inputs at AC maximum • at maximal and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for auxillary and control | · | | | |
| Weight without packaging 10.6 kg | | | | |
| Connections Terminals type of electrical connection • for main current circuit busbar connection width of connection bar maximum 45 mm with conductor cross-section = 0.5 mm² maximum 45 mm with conductor cross-section = 2.5 mm² maximum 50 m with conductor cross-section = 2.5 mm² maximum 250 m with conductor cross-sections = 0.6 mm² maximum 45 mm with conductor cross-section = 2.5 mm² maximum 250 m with conductor cross-sections = 0.6 for DIN cable lug for main contacts finely stranded 2x (50 240 mm²) of for IDN cable lug for main contacts finely stranded 2x (20.25 1.5 mm²) type of connectable conductor cross-sections = 0.6 for control circuit finely stranded with core end processing 2x (0.25 1.5 mm²) a tary Cables for control circuit finely stranded with core end processing 2x (24 16) wire length 2x (24 16) between soft starter and motor maximum 800 m at the digital inputs at AC maximum 100 m at the digital inputs at AC maximum 100 m at the digital inputs at DC maximum 100 m of a vaxiliary and control contacts with screw-type terminals 6 for avaxiliary and control contac | | | | |
| type of electrical connection | | 10.0 kg | | |
| • for main current circuit • for control circuit width of connection bar maximum with 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 DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded vifus for control circuit solid • for control circuit solid • for control circuit solid • at AWG cables for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing • at the digital inputs at AC maximum • for main contacts with screw-type terminals • for avaxilary and control contacts with screw-type terminals • for maximary and control contacts with screw-type terminals • for maximary and control contacts with screw-type terminals • for maximary and control contacts with screw-type terminals • for maximary and control contacts with screw-type terminals • for maximary and control contacts with screw-type terminals • for maximary and control contacts with screw-type terminals • for maximary and control contacts with screw-type terminals • for maximary and control contacts with screw-type • during operation • during operation • during storage and transport • during threateners • d | | | | |
| in For control circuit width of connection bar maximum in with conductor cross-section = 0.5 mm² maximum in with conductor cross-section = 1.5 mm² maximum in with conductor cross-section = 1.5 mm² maximum in with conductor cross-section = 2.5 mm² maximum in for DIN cable lug for main contacts stranded in or DIN cable lug for main contacts stranded in or DIN cable lug for main contacts finely stranded in or control circuit finely stranded with core end processing in a AWG cables for control circuit finely stranded with core end processing in a AWG cables for control circuit finely stranded with core end processing wire length in between soft starter and motor maximum in at the digital inputs at AC maximum in at the digital inputs at AC maximum in at the digital inputs at DC maximum in at the digital inputs at DC maximum in tightening torque in or auxiliary and control contacts with screw-type terminals in or auxiliary and control contacts with screw-type terminals installation altitude at height above sea level maximum amblent conditions Installation altitude at height above sea level maximum amblent temperature during operation acc. to IEC 60721 in during storage and transport in during storage acc. to IEC 60721 in during storage acc. to IEC 60721 in during transport acc. to IEC 6072 | | busbar connection | | |
| with of connection bar maximum wire length for thermistor connection | | | | |
| 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 type of connectable conductor cross-sections of or DIN cable lug for main contacts stranded of or DIN cable lug for main contacts stranded of control circuit solid of control circuit solid at AWG cables for control circuit solid at AWG cables for control circuit solid at AWG cables for control circuit solid at the digital inputs at AC maximum at the digital inputs at AC maximum at the digital inputs at AC maximum of or main contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of a rauxiliary and control contacts with sc | | | | |
| 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 in or DiN cable lug for main contacts stranded the roll cable lug for main contacts finely stranded the processing in or control circuit solid | | 10 11111 | | |
| with conductor cross-section = 1.5 mm² maximum with conductor cross-sections = 2.5 mm² maximum type of connectable conductor cross-sections of cr DIN cable lug for main contacts stranded for DIN cable lug for main contacts stranded for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections of cr control circuit solid of cr control circuit finely stranded with core end processing of at AWG cables for control circuit finely stranded with core end processing of at AWG cables for control circuit finely stranded with core end processing wire length of the digital inputs at AC maximum of at the digital inputs at AC maximum of a time contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary an | _ | 50 m | | |
| with conductor cross-section = 2.5 mm² maximum type of connectable conductor cross-sections • for DIN cable lug for main contacts finely stranded for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections • for control circuit solid • for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing wire length • between soft starter and motor maximum • at the digital inputs at DC maximum • at the digital inputs at DC maximum • at the digital inputs at DC maximum • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for main contacts with screw-type terminals • for maxilian and control contacts with screw-type terminals • for maxilian and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxili | | | | |
| type of connectable conductor cross-sections | | | | |
| • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections • for control circuit solid • for control circuit solid • at AWG cables for control circuit solid • at AWG cables for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing wire length • between soft starter and motor maximum • at the digital inputs at DC maximum • at the digital inputs at DC maximum • at the digital inputs at DC maximum • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals tightening torque [lbf-in] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type • during operation • during storage and transport • during storage and transport • during storage ac. to IEC 60721 • during transport acc. to IEC 60721 • Communication module is supported 2x (20.25 1.5 mm²) 2x (0.25 1.5 mm²) 2x (24 16) 2x (| | 200 111 | | |
| • for DIN cable lug for main contacts finely stranded type of connectable conductor cross-sections • for control circuit solid • for control circuit solid • for control circuit solid • at AWG cables for control circuit solid • at AWG cables for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing wire length • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs at DC maximum • at the digital inputs at DC maximum • for amin contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for main contacts with screw-type terminals • for maximal control contacts with screw-type terminals • for maximal and control contacts with screw-type terminals ### The Control of the Contro | 21 | 2x (50 240 mm²) | | |
| type of connectable conductor cross-sections | | | | |
| • for control circuit solid • for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing • at AWG cables for control circuit finely stranded with core end processing wire length • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs at DC maximum • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals * for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals * for auxi | | 2A (10 270 Hilli) | | |
| • for control circuit finely stranded with core end processing • at AWG cables for control circuit solid • at AWG cables for control circuit finely stranded with core end processing wire length • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs at DC maximum • at the digital inputs at DC maximum • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for during torque [lbf-in] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 EMC emitted interference Communication Protocol communication module is supported | | 2v (0.25 1.5 mm²) | | |
| e at AWG cables for control circuit solid e at AWG cables for control circuit finely stranded with core end processing wire length • between soft starter and motor maximum e at the digital inputs at AC maximum 100 m e at the digital inputs at DC maximum for main contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals for main contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals of or auxiliary and control contacts with screw-type terminals 124 24 N·m 0.8 1.2 N·m 124 210 lbf-in 7 10.3 lbf-in 124 210 lbf-in 7 10.3 lbf-in 125 +60 °C; Please observe derating at temperatures of 40 °C or above of uring operation of uring storage and transport of uring operation acc. to IEC 60721 of uring storage acc. to IEC 60721 of uring transport acc. to IEC 60721 of uring transport acc. to IEC 60721 EMC emitted interference Communication/ Protocol communication module is supported | | | | |
| at AWG cables for control circuit finely stranded with core end processing wire length between soft starter and motor maximum at the digital inputs at AC maximum at the digital inputs at DC maximum if tightening torque for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage and transport during operation acc. to IEC 60721 during storage acc. to IEC 60721 during storage acc. to IEC 60721 during transport acc. to IEC 60721 during transport acc. to IEC 60721 EMC emitted interference Communication/ Protocol communication module is supported | • | 2x (0.25 1.5 IIIIIr) | | |
| wire length • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs at DC maximum • at the digital inputs at DC maximum 100 m • at the digital inputs at DC maximum 1000 m tightening torque • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals tightening torque [lbf-in] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals Amblent conditions installation altitude at height above sea level maximum • during operation • during operation • during storage and transport • during operation acc. to IEC 60721 during storage acc. to IEC 60721 street Good of the devices), 3M6 • during transport acc. to IEC 60721 eduring transport acc. to IEC 60721 EMC emitted interference Communication/ Protocol communication module is supported | at AWG cables for control circuit solid | 2x (24 16) | | |
| wire length • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs at DC maximum 100 m • at the digital inputs at DC maximum 1000 m • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for main contacts with screw-type terminals • for main contacts with screw-type terminals • for main contacts with screw-type terminals • for maxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for main contacts with screw-type terminals • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for main contacts with screw-type terminals • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for main contacts with screw-type terminals | | 2x (24 16) | | |
| between soft starter and motor maximum at the digital inputs at AC maximum at the digital inputs at DC maximum 100 m 1000 m tightening torque for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage and transport during operation acc. to IEC 60721 during operation acc. to IEC 60721 during storage acc. to IEC 60721 during storage acc. to IEC 60721 during transport acc. to IEC | | | | |
| at the digital inputs at AC maximum at the digital inputs at DC maximum 100 m tightening torque for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals tightening torque [lbf-in] for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals anbient conditions installation altitude at height above sea level maximum during operation during storage and transport during operation acc. to IEC 60721 during storage acc. to IEC 60721 during storage acc. to IEC 60721 during transport acc. to IEC 60721 EMC emitted interference communication/ Protocol communication module is supported | | | | |
| at the digital inputs at DC maximum tightening torque for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals tightening torque [lbf-in] for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage and transport during storage and transport during operation acc. to IEC 60721 during storage acc. to IEC 60721 during storage acc. to IEC 60721 during transport acc. to IEC 60721 during transport acc. to IEC 60721 during transport acc. to IEC 60721 eduring transport acc. to IEC 60721 EMC emitted interference communication/ Protocol communication module is supported | | | | |
| tightening torque • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals tightening torque [lbf-in] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport • during storage and transport • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 EMC emitted interference communication/ Protocol communication module is supported | | | | |
| for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals fightening torque [lbf·in] for main contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals for auxiliary and control contacts with screw-type terminals mostallation altitude at height above sea level maximum during operation during storage and transport during operation acc. to IEC 60721 during operation acc. to IEC 60721 during storage acc. to IEC 60721 during storage acc. to IEC 60721 during transport acc. to IEC 60721 during transport acc. to IEC 60721 during transport acc. to IEC 60721 EMC emitted interference communication module is supported | | 1 000 m | | |
| • for auxiliary and control contacts with screw-type terminals tightening torque [lbf-in] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 | | | | |
| terminals tightening torque [lbf-in] • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 EMC emitted interference communication module is supported 124 210 lbf-in 7 10.3 lbf-in 124 210 lbf-in 7 10.3 lbf-in 125 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C -40 +80 °C 1K6 (on ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 • during transport acc. to IEC 60721 EMC emitted interference communication module is supported | • • | | | |
| • for main contacts with screw-type terminals • for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 EMC emitted interference • for auxiliary and control contacts with screw-type 7 10.3 lbf-in | * | 0.8 1.2 N·m | | |
| for auxiliary and control contacts with screw-type terminals Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage and transport during operation acc. to IEC 60721 during storage acc. to IEC 60721 during transport acc. to IEC 60721 during acc acc. to IEC 60 | tightening torque [lbf·in] | | | |
| Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage and transport • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 • during t | for main contacts with screw-type terminals | 124 210 lbf·in | | |
| installation altitude at height above sea level maximum ambient temperature during operation during storage and transport during operation acc. to IEC 60721 during storage acc. to IEC 60721 EMC emitted interference acc. to IEC 60947-4-2: Class A Communication module is supported | for auxiliary and control contacts with screw-type | | | |
| installation altitude at height above sea level maximum ambient temperature during operation during storage and transport during operation acc. to IEC 60721 during storage acc. to IEC 60721 during storage acc. to IEC 60721 during storage acc. to IEC 60721 during transport acc. to IEC 60721 during transport acc. to IEC 60721 EMC emitted interference 5 000 m; Derating as of 1000 m, see catalog 25 +60 °C; Please observe derating at temperatures of 40 °C or above -40 +80 °C 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 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 | | | | |
| ambient temperature ● during operation -25 +60 °C; Please observe derating at temperatures of 40 °C or above ● during storage and transport ● during operation acc. to IEC 60721 ● during storage acc. to IEC 60721 ● during storage acc. to IEC 60721 ■ during transport acc. to IEC 60721 ■ during transport acc. to IEC 60721 EMC emitted interference Communication Protocol | | | | |
| during operation during storage and transport during storage and transport during operation acc. to IEC 60721 during storage acc. to IEC 60721 during storage acc. to IEC 60721 during transport acc. to IEC 60721 during transport acc. to IEC 60721 EMC emitted interference during transported | | 5 000 m; Derating as of 1000 m, see catalog | | |
| above during storage and transport environmental category during operation acc. to IEC 60721 during storage acc. to IEC 60721 during transport acc. to IEC 60721 EMC emitted interference communication/ Protocol communication module is supported | • | 07 00 00 Pt | | |
| environmental category • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 EMC emitted interference communication/ Protocol communication module is supported 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 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) acc. to IEC 60947-4-2: Class A | during operation | | | |
| during operation acc. to IEC 60721 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 during storage acc. to IEC 60721 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 during transport acc. to IEC 60721 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A Communication/ Protocol communication module is supported ACC Communication module is supported ACC Communication module is supported Communication module is supported ACC Communication module is supported Communication module is supported | during storage and transport | -40 +80 °C | | |
| mist), 3S2 (sand must not get into the devices), 3M6 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 EMC emitted interference Communication/ Protocol communication module is supported | environmental category | | | |
| during storage acc. to IEC 60721 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand munot get inside the devices), 1M4 during transport acc. to IEC 60721 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) acc. to IEC 60947-4-2: Class A Communication/ Protocol communication module is supported Acc. to IEC 60947-4-2: Class A Communication module is supported Acc. to IEC 60947-4-2: Class A Communication module is supported Acc. to IEC 60947-4-2: Class A Communication module is supported Communication module is supported | during operation acc. to IEC 60721 | | | |
| EMC emitted interference acc. to IEC 60947-4-2: Class A Communication/ Protocol communication module is supported | • during storage acc. to IEC 60721 | 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must | | |
| EMC emitted interference acc. to IEC 60947-4-2: Class A Communication/ Protocol communication module is supported | during transport acc. to IEC 60721 | | | |
| communication module is supported | EMC emitted interference | acc. to IEC 60947-4-2: Class A | | |
| | Communication/ Protocol | | | |
| PROFINET standard Ves | communication module is supported | | | |
| VI NOT INCLI Standard | PROFINET standard | Yes | | |
| • EtherNet/IP Yes | EtherNet/IP | Yes | | |
| Modbus RTU Yes | Modbus RTU | Yes | | |
| Modbus TCP 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. 1600 A; Iq = 30 kA | | | | |
| usable for High Faults up to 575/600 V according to UL | Type: Class J / L, max. 1200 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. 1600 |) A; Iq = 30 kA | | | |
| usable for High Faults at inside-delta circuit up to 575/600 V according to UL | Type: Class J / L, max. 1200 A; Iq = 100 kA | | | | |
| operating power [hp] for 3-phase motors | | | | | |
| at 200/208 V at 50 °C rated value | 150 hp | | | | |
| at 220/230 V at 50 °C rated value | 200 hp | | | | |
| at 460/480 V at 50 °C rated value | 400 hp | | | | |
| at 575/600 V at 50 °C rated value | 500 hp | | | | |
| at 200/208 V at inside-delta circuit at 50 °C rated value | 300 hp | | | | |
| at 220/230 V at inside-delta circuit at 50 °C rated value | 350 hp | | | | |
| at 460/480 V at inside-delta circuit at 50 °C rated value | 750 hp | | | | |
| at 575/600 V at inside-delta circuit at 50 °C rated value | 950 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; IP20 with cover | | | | |
| touch protection on the front acc. to IEC 60529 | finger-safe, for vertical contact from the front with cover | | | | |
| electromagnetic compatibility | in accordance with IEC 60947-4-2 | | | | |
| Certificates/ approvals | | | | | |
| General Product Approval | | EMC | Declaration of Conformity | | |













Conformity

Test Certificates

Marine / Shipping

Type Test Certificates/Test Report











other

Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5248-2TC05

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5248-2TC05

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5248-2TC05

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5248-2TC05&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

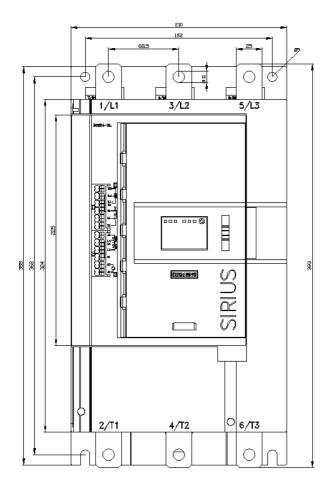
https://support.industry.siemens.com/cs/ww/en/ps/3RW5248-2TC05/char

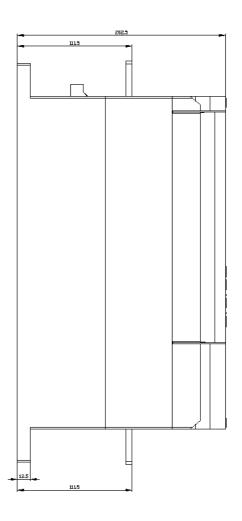
Characteristic: Installation altitude

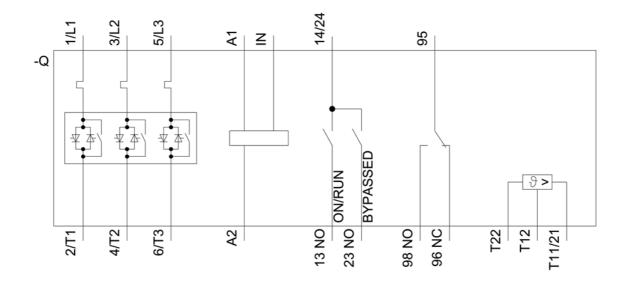
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5248-2TC05&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







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