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 | 3RW5980-0HF00 |
| of communication module PROFINET standard usable | 3RW5980-0CS00 |
| of communication module PROFINET high-feature usable | 3RW5950-0CH00 |
| of communication module PROFIBUS usable | 3RW5980-0CP00 |
| of communication module Modbus TCP usable | 3RW5980-0CT00 |
| of communication module Modbus RTU usable | 3RW5980-0CR00 |
| of communication module Ethernet/IP | 3RW5980-0CE00 |
| of circuit breaker usable at 400 V | 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 | 3NE1334-2; Type of coordination 2, Iq = 65 kA |

| General technical data | |
|---------------------------------------|-----------|
| starting voltage [%] | 20 100 % |
| stopping voltage [%] | 50 50 % |
| start-up ramp time of soft starter | 0 360 s |
| ramp-down time of soft starter | 0 360 s |
| start torque [%] | 10 100 % |
| stopping torque [%] | 10 100 % |
| torque limitation [%] | 20 200 % |
| current limiting value [%] adjustable | 125 800 % |
| breakaway voltage [%] adjustable | 40 100 % |
| breakaway time adjustable | 0 2 s |
| number of parameter sets | 3 |
| accuracy class acc. to IEC 61557-12 | 5 % |
| certificate of suitability | |

| • CE marking | Yes |
|---|--|
| • CE marking | |
| UL approval CSA approval | Yes |
| CSA approval | Yes |
| product component | V |
| HMI-High Feature The state of the s | Yes |
| is supported HMI-High Feature | Yes |
| product feature integrated bypass contact system | Yes |
| number of controlled phases | 3 |
| trip class | CLASS 10A / 10E (default) / 20E / 30E; acc. to IEC 60947-4-2 |
| current unbalance limiting value [%] | 10 60 % |
| ground-fault monitoring limiting value [%] | 10 95 % |
| recovery time after overload trip adjustable | 60 1 800 s |
| buffering time in the event of power failure | 400 |
| 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 safe isolation | 400.1/ |
| between main and auxiliary circuit | 480 V; does not apply for thermistor connection |
| utilization category acc. to IEC 60947-4-2 | AC 53a |
| shock resistance | 15 g / 11 ms, from 6 g / 11 ms with potential contact lifting |
| vibration resistance | 15 mm up to 6 Hz; 2 g up to 500 Hz |
| reference code acc. to IEC 81346-2 | _ Q |
| Substance Prohibitance (Date) | 15.02.2018 00:00:00 |
| 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 |
| slave pointer function | Yes |
| trace function | Yes |
| intrinsic device protection | Yes |
| motor overload protection | Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. |
| evaluation of thermistor motor protection | Yes; Type A PTC or Klixon / Thermoclick |
| • inside-delta circuit | Yes |
| • auto-RESET | Yes |
| • manual RESET | Yes |
| • remote reset | Yes |
| communication function | Yes |
| operating measured value display | Yes |
| • event list | Yes |
| error logbook | Yes |
| via software parameterizable | Yes |
| via software configurable | Yes |
| screw terminal | No |
| spring-type terminal | Yes |
| PROFlenergy | Yes; in connection with the PROFINET Standard and PROFINET High- |
| | , |

| | Feature communication modules |
|--|--|
| • firmware update | Yes |
| removable terminal for control circuit | Yes |
| voltage ramp | Yes |
| torque control | Yes |
| combined braking | Yes |
| analog output | Yes; 4 20 mA (default) / 0 10 V |
| programmable control inputs/outputs | Yes |
| condition monitoring | Yes |
| automatic parameterisation | Yes |
| application wizards | Yes |
| alternative run-down | Yes |
| emergency operation mode | Yes |
| reversing operation | Yes |
| soft starting at heavy starting conditions | Yes |
| Power Electronics | |
| operational current | |
| at 40 °C rated value | 315 A |
| • at 40 °C rated value minimum | 63 A |
| at 50 °C rated value | 279 A |
| • at 60 °C rated value | 255 A |
| operational current at inside-delta circuit | |
| at 40 °C rated value | 546 A |
| • at 50 °C rated value | 483 A |
| • at 60 °C rated value | 442 A |
| operating voltage | |
| rated value | 200 480 V |
| at inside-delta circuit rated value | 200 480 V |
| relative negative tolerance of the operating voltage | -15 % |
| relative positive tolerance of the operating voltage | 10 % |
| relative negative tolerance of the operating voltage at inside-delta circuit | -15 % |
| relative positive tolerance of the operating voltage at inside-delta circuit | 10 % |
| | |
| operating power for 3-phase motors | |
| operating power for 3-phase motors • at 230 V at 40 °C rated value | 90 kW |
| | 90 kW 160 kW |
| • at 230 V at 40 °C rated value | |
| at 230 V at 40 °C rated valueat 230 V at inside-delta circuit at 40 °C rated value | 160 kW |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value | 160 kW 160 kW |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value | 160 kW 160 kW 315 kW 50 Hz |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 %; Relative to set le |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 60 °C after startup at 60 °C after startup | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup power loss [W] at AC at current limitation 350 % | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 95 W 84 W 77 W |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup power loss [W] at AC at current limitation 350 % at 40 °C during startup | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 95 W 84 W 77 W |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 50 °C during startup | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 95 W 84 W 77 W 4 966 W 4 153 W |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup power loss [W] at AC at current limitation 350 % at 40 °C during startup at 50 °C during startup at 60 °C during startup at 60 °C during startup | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 95 W 84 W 77 W 4 966 W 4 153 W 3 646 W |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 60 °C during startup at 60 °C during startup type of the motor protection | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 95 W 84 W 77 W 4 966 W 4 153 W |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 60 °C during startup | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 95 W 84 W 77 W 4 966 W 4 153 W 3 646 W Electronic, tripping in the event of thermal overload of the motor |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 50 °C during startup at 60 °C during startup at 60 °C during startup ot 60 °C during startup | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 95 W 84 W 77 W 4 966 W 4 153 W 3 646 W |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 60 °C during startup at 60 °C during startup type of the motor protection Control circuit/ Control type of voltage of the control supply voltage control supply voltage at AC | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 95 W 84 W 77 W 4 966 W 4 153 W 3 646 W Electronic, tripping in the event of thermal overload of the motor |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 60 °C during startup at 60 °C during startup type of the motor protection Control circuit/ Control type of voltage of the control supply voltage control supply voltage at AC at 50 Hz | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 95 W 84 W 77 W 4 966 W 4 153 W 3 646 W Electronic, tripping in the event of thermal overload of the motor |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%] power loss [W] for rated value of the current at AC at 40 °C after startup at 50 °C after startup at 60 °C after startup at 40 °C during startup at 50 °C during startup at 60 °C during startup at 60 °C during startup type of the motor protection Control circuit/ Control type of voltage of the control supply voltage control supply voltage at AC | 160 kW 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % 10 %; Relative to set le 95 W 84 W 77 W 4 966 W 4 153 W 3 646 W Electronic, tripping in the event of thermal overload of the motor |

| voltage at AC at 50 Hz | |
|--|--|
| 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 tolerance of the control supply voltage at AC at 60 Hz | 10 % |
| control supply voltage frequency | 50 60 Hz |
| relative negative tolerance of the control supply voltage frequency | -10 % |
| relative positive tolerance of the control supply voltage frequency | 10 % |
| control supply current in standby mode rated value | 100 mA |
| holding current in bypass operation rated value | 150 mA |
| locked-rotor current at close of bypass contact maximum | 0.87 A |
| inrush current peak at application of control supply voltage maximum | 43 A |
| duration of inrush 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 | 4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply |
| Inputs/ Outputs | |
| number of digital inputs | 4 |
| parameterizable | 4 |
| number of inputs for thermistor connection | 1; Type A PTC or Klixon / Thermoclick |
| number of digital outputs | 4 |
| number of digital outputs parameterizable | 3 |
| number of digital outputs not parameterizable | 1 |
| digital output version | 3 normally-open contacts (NO) / 1 changeover contact (CO) |
| number of analog outputs | 1 |
| switching capacity current of the relay outputs | |
| • at AC-15 at 250 V rated value | 3 A |
| at DC-13 at 24 V rated value | 1 A |
| Installation/ mounting/ dimensions | |
| | |
| | Vertical (can be rotated ±/- 90° and tilted forward or backward ±/- 22.5°) |
| mounting position | Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°) |
| mounting position fastening method | screw fixing |
| mounting position fastening method height | screw fixing 393 mm |
| mounting position fastening method height width | screw fixing 393 mm 210 mm |
| mounting position fastening method height width depth | screw fixing 393 mm |
| mounting position fastening method height width | screw fixing 393 mm 210 mm |
| mounting position fastening method height width depth required spacing with side-by-side mounting | screw fixing 393 mm 210 mm 203 mm |
| mounting position fastening method height width depth required spacing with side-by-side mounting • forwards | screw fixing 393 mm 210 mm 203 mm |
| mounting position fastening method height width depth required spacing with side-by-side mounting • forwards • backwards | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm |
| mounting position fastening method height width depth required spacing with side-by-side mounting • forwards • backwards • upwards | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm |
| mounting position fastening method height width depth required spacing with side-by-side mounting • forwards • backwards • upwards • downwards | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm |
| mounting position fastening method height width depth required spacing with side-by-side mounting • forwards • backwards • upwards • downwards • at the side | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm |
| mounting position fastening method height width depth required spacing with side-by-side mounting | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 10.2 kg |
| mounting position fastening method height width depth required spacing with side-by-side mounting | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 10.2 kg |
| mounting position fastening method height width depth required spacing with side-by-side mounting | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 10.2 kg busbar connection spring-loaded terminals |
| mounting position fastening method height width depth required spacing with side-by-side mounting | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 10.2 kg |
| mounting position fastening method height width depth required spacing with side-by-side mounting | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 10.2 kg busbar connection spring-loaded terminals 45 mm |
| mounting position fastening method height width depth required spacing with side-by-side mounting | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 10.2 kg busbar connection spring-loaded terminals 45 mm 50 m |
| mounting position fastening method height width depth required spacing with side-by-side mounting | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 10.2 kg busbar connection spring-loaded terminals 45 mm 50 m 150 m |
| mounting position fastening method height width depth required spacing with side-by-side mounting | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 10.2 kg busbar connection spring-loaded terminals 45 mm 50 m |
| mounting position fastening method height width depth required spacing with side-by-side mounting | screw fixing 393 mm 210 mm 203 mm 10 mm 0 mm 100 mm 75 mm 5 mm 10.2 kg busbar connection spring-loaded terminals 45 mm 50 m 150 m |

| * for DN cable lug for main contacts finely stranded Vppe of connectable conductor ross-sections * for control circuit solid * for control circuit solid * of control circuit solid * of AVKC cables for control circuit solid * all AVKC cables for control contacts with screw-type terminals * for auxiliary and control contacts with screw- | | |
|--|--|---|
| • for control diroutl skell • all AWG cables for control circuit skell • all AWG cables for control cortacts with screw-type terminals • bro auxiliary and control contacts with screw-type terminals • for auxiliary and control contacts with screw-type ter | for DIN cable lug for main contacts finely stranded | 2x (70 240 mm²) |
| or control circuit finely stranded with core end processing or al AWG cables for control circuit solid or al AWG cables for control circuit finely stranded with core end processing wire length or available for control circuit finely stranded with core end processing wire length or available and the state and motor maximum or the digital inputs at DC maximum or the digital inputs at DC maximum or available and state and motor maximum or available and state and sta | type of connectable conductor cross-sections | |
| processing | for control circuit solid | 2x (0.25 1.5 mm²) |
| a core end processing wire length between soft starter and motor maximum at the digital inputs at DC maximum tightening torque be for main contacts with screw-type terminals be for auxiliary and control contacts with screw-type terminals be for auxiliar | | 2x (0.25 1.5 mm²) |
| core end processing wire length • between soft stafer and motor maximum • at the digital inputs at DC maximum • for main contacts with screw-type terminals • during peraltic maximum • during peraltic maxi | at AWG cables for control circuit solid | 2x (24 16) |
| wire length • between soft starter and motor maximum • of the digital inputs at DC maximum 1000 m 10 | at AWG cables for control circuit finely stranded with | 2x (24 16) |
| ebeween soft stater and motor maximum e at the digital inputs at DC maximum for are monotracts with screw-type terminals e for suiting and control contacts with screw-type terminals eligible proque [Ibf-in] e for main contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for auxilizing and control contacts with screw-type terminals e for main contacts and seal over a maximum e for for perature or terminals e for main contacts and transport e for | | |
| • 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 • 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 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 • during operation acc. to lec 60721 • during operation acc. to lec 60721 • during storage acc. to lec 60721 • Row Crew Crew Crew Crew Crew Crew Crew Cre | | |
| Ughtening torque • 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 framinalizing and control contacts with screw-type terminals • for framinalizing 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 storage acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 EMC emitted interference Communication module is supported • PROFINET standard • PROF | | |
| • for main contacts with screw-type terminals • for auxillary and control contacts with screw-type terminals • for main 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 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 cavillary and control contacts with screw-type terminals • for cavillary and control contacts with screw-type terminals • for cavillary and control contacts with screw-type terminals • for cavillary and control contacts with screw-type terminals | | 1 000 m |
| • for auxiliary and control contacts with screw-type terminals • for framinals for the property of the prope | | |
| terminals if or main contacts with screw-type terminals for suxiliary and control contacts with screw-type terminals for suxiliary and control contacts with screw-type terminals for suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if or suxiliary and control contacts with screw-type terminals if on suxiliary and control contacts with screw-type terminals if on suxiliary and control contacts with screw-type terminals if on suxiliary and control contacts with screw-type terminals if on suxiliary and control contacts with screw-type terminals if on suxiliary and control contacts with screw-type terminals if on suxiliary and control contacts with screw-type terminals installation altitude at height above sea level maximum installation altitude at heigh | 2. | |
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| manufacturer's article number of circuit breaker usable for Standard Faults at 460/480 V according to UL usable for High Faults at 460/480 V according to UL usable for Standard Faults at 460/480 V at inside-delta circuit according to UL usable for High Faults at 460/480 V at inside-delta circuit according to UL usable for Standard Faults at 575/600 V according to UL usable for High Faults at 575/600 V at inside-delta circuit according to UL usable for Standard Faults at 575/600 V at inside-delta circuit according to UL usable for Standard Faults at 575/600 V at inside-delta circuit according to UL usable for Standard Faults at 575/600 V at inside-delta circuit according to UL usable for Standard Faults at 575/600 V at 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 vertically a 460/480 V according to UL Siemens type: 3VA54, max. 600 A; Iq max = 65 kA Siemens type: 3VA54, max. 600 A; Iq max = 65 kA Siemens type: 3VA54, max. 600 A; Iq max = 65 kA Siemens type: 3VA54, max. 600 A; Iq max = 65 kA Type: Class J / L, max. 1000 A; Iq = 18 kA Type: Class J / L, max. 1000 A; Iq = 18 kA | • PROFIBUS | Yes |
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| — usable for Standard Faults at 460/480 V according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V — usable for Standard Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for Standard Faults up to 575/600 V — usable for High Faults up to 575/600 V — usable for Standard Faults up to 575/600 V — usable for Standard Faults up to 575/600 V — usable | manufacturer's article number | |
| according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at insidedelta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at insidedelta circuit according to UL — usable for Standard Faults at 575/600 V at insidedelta circuit according to UL — usable for Standard Faults at 575/600 V at insidedelta circuit according to UL — usable for Standard Faults at 575/600 V at insidedelta circuit according to UL — usable for Standard Faults at 575/600 V at insidedelta circuit according to UL — usable for Standard Faults up to 575/600 V at insidedelta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V at insidedelta circuit according to UL • of the fuse — usable for High Faults up to 575/600 V Type: Class J / L, max. 1000 A; Iq = 18 kA Type: Class J / L, max. 1000 A; Iq = 100 kA | of circuit breaker | |
| to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at 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 • of the fuse — usable for High Faults up to 575/600 V according to UL • of the fuse — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults at 575/600 V according to UL — usable for High Faults at 575/600 V according to UL — usable for High Faults at 575/600 V according to UL — usable for High Faults at 575/600 V according to UL — usable for High Faults at 575/600 V according to UL — usab | usable for Standard Equite at 460/400 \/ | Ciamana tuna: 2)/AE2 may 400 A at 2)/AE4 may 600 A la = 40 kA |
| inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at 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 Type: Class J / L, max. 1000 A; Iq = 100 kA Type: Class J / L, max. 1000 A; Iq = 100 kA | | Siemens type. 3VA53, max. 400 A or 3VA54, max. 600 A, rq = 16 kA |
| — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL — of the fuse — usable for Standard Faults up to 575/600 V according to UL • of the fuse — usable for High Faults up to 575/600 V according to UL Type: Class J / L, max. 1000 A; Iq = 18 kA Type: Class J / L, max. 1000 A; Iq = 100 kA | according to UL — usable for High Faults at 460/480 V according | Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; Iq max = 65 |
| — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at insidedelta circuit according to UL — usable for Standard Faults at 575/600 V at insidedelta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL • of the fuse — usable for Standard Faults up to 575/600 V according to UL Type: Class J / L, max. 1000 A; Iq = 18 kA Type: Class J / L, max. 1000 A; Iq = 100 kA | according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at | Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; Iq max = 65 kA |
| — usable for High Faults at 575/600 V at insidedelta circuit according to UL — usable for Standard Faults 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 — usable for High Faults up to 575/600 V — Usable for High Faults up to 575/600 V — Usable for High Faults up to 575/600 V — Usable for High Faults up to 575/600 V — Usable for High Faults up to 575/600 V — Usable for High Faults up to 575/600 V | according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside- | Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; Iq max = 65 kA Siemens type: 3VA54, max. 600 A; Iq = 18 kA |
| usable for Standard Faults 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 Type: Class J / L, max. 1000 A; Iq = 18 kA Type: Class J / L, max. 1000 A; Iq = 100 kA | according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V | Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; Iq max = 65 kA Siemens type: 3VA54, max. 600 A; Iq = 18 kA Siemens type: 3VA54, max. 600 A; Iq max = 65 kA |
| of the fuse usable for Standard Faults up to 575/600 V usable for High Faults up to 575/600 V Type: Class J / L, max. 1000 A; Iq = 18 kA Type: Class J / L, max. 1000 A; Iq = 100 kA | according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at inside- | Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; lq max = 65 kA Siemens type: 3VA54, max. 600 A; lq = 18 kA Siemens type: 3VA54, max. 600 A; lq max = 65 kA Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; lq = 18 kA |
| — usable for Standard Faults up to 575/600 V according to UL — usable for High Faults up to 575/600 V Type: Class J / L, max. 1000 A; Iq = 18 kA Type: Class J / L, max. 1000 A; Iq = 100 kA | according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at | Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; lq max = 65 kA Siemens type: 3VA54, max. 600 A; lq = 18 kA Siemens type: 3VA54, max. 600 A; lq max = 65 kA Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; lq = 18 kA Siemens type: 3VA54, max. 600 A; lq max = 65 kA |
| — usable for High Faults up to 575/600 V Type: Class J / L, max. 1000 A; Iq = 100 kA | according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL | Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; Iq max = 65 kA Siemens type: 3VA54, max. 600 A; Iq = 18 kA Siemens type: 3VA54, max. 600 A; Iq max = 65 kA Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; Iq = 18 kA Siemens type: 3VA54, max. 600 A; Iq max = 65 kA |
| | according to UL — usable for High Faults at 460/480 V according to UL — usable for Standard Faults at 460/480 V at inside-delta circuit according to UL — usable for High Faults at 460/480 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V according to UL — usable for High Faults at 575/600 V at inside-delta circuit according to UL — usable for Standard Faults at 575/600 V at inside-delta circuit according to UL • of the fuse — usable for Standard Faults up to 575/600 V | Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; Iq max = 65 kA Siemens type: 3VA54, max. 600 A; Iq = 18 kA Siemens type: 3VA54, max. 600 A; Iq max = 65 kA Siemens type: 3VA53, max. 400 A or 3VA54, max. 600 A; Iq = 18 kA Siemens type: 3VA54, max. 600 A; Iq max = 65 kA Siemens type: 3VA54, max. 600 A; Iq max = 65 kA |

- usable for Standard Faults at inside-delta Type: Class J / L, max. 1000 A; Iq = 18 kA circuit up to 575/600 V according to UL — usable for High Faults at inside-delta circuit up Type: Class J / L, max. 1000 A; Iq = 100 kA to 575/600 V according to UL operating power [hp] for 3-phase motors • at 200/208 V at 50 °C rated value 75 hp at 220/230 V at 50 °C rated value 100 hp • at 460/480 V at 50 °C rated value 200 hp • at 200/208 V at inside-delta circuit at 50 °C rated 150 hp value • at 220/230 V at inside-delta circuit at 50 °C rated 200 hp value • at 460/480 V at inside-delta circuit at 50 °C rated 400 hp value 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 acc. to IEC 60947-4-2 electromagnetic compatibility certificate of suitability ATEX Yes IECEx Yes • according to ATEX directive 2014/34/EU BVS 18 ATEX F 003 X II (2)G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb], II (2)D [Ex tb Db] [Ex pxb Db], type of protection according to ATEX directive 2014/34/EU I (M2) [Ex db Mb] hardware fault tolerance acc. to IEC 61508 relating to **ATEX** PFDavg with low demand rate acc. to IEC 61508 0.008 relating to ATEX PFHD with high demand rate acc. to EN 62061 relating 0.0000005 1/h to ATEX Safety Integrity Level (SIL) acc. to IEC 61508 relating SIL₁ to ATEX T1 value for proof test interval or service life acc. to 3 y IEC 61508 relating to ATEX Certificates/ approvals

General Product Approval

EMC

For use in hazardous locations













For use in hazardous locations Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report







Marine / Shipping

other





Confirmation

Further information

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5545-2HA14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5545-2HA14

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5545-2HA14

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5545-2HA14&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

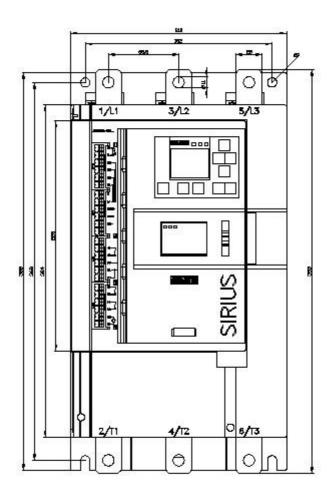
https://support.industry.siemens.com/cs/ww/en/ps/3RW5545-2HA14/char

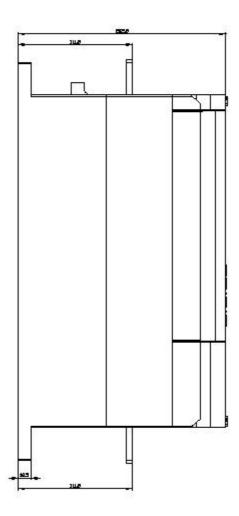
Characteristic: Installation altitude

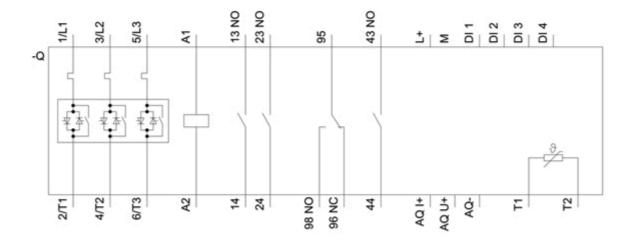
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5545-2HA14&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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







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