SIEMENS

Data sheet 3RW5246-6AC14

SIRIUS soft starter 200-480 V 370 A, 110-250 V AC Screw terminals Analog output



| Product brand name | SIRIUS |
|--|--|
| Product category | Hybrid switching devices |
| Product designation | Soft starter |
| Manufacturer's article number | |
| of HMI module usable | 3RW5980-0HS00 |
| of HMI-Modul high-feature 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 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

• of back-up R fuse link for semiconductor protection usable up to 690 V

3NE1334-2; Type of coordination 2, Iq = 65 kA

3NE3336; Type of coordination 2, Iq = 65 kA

| General technical data | | |
|---|--|--|
| Starting voltage [%] | 30 100 % | |
| Start-up ramp time of soft starter | 0 20 s | |
| Current limiting value [%] adjustable | 130 700 % | |
| Product component | | |
| • is supported HMI-Standard | Yes | |
| • is supported 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 | |
| Insulation voltage | | |
| • rated value | 600 V | |
| 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 | | |
| between main and auxiliary circuit | 600 V | |
| Protection class IP | IP00 | |
| Usage category acc. to IEC 60947-4-2 | AC 53a | |
| Shock resistance | 15 g / 11 ms, from 12 g / 11 ms with potential contact lifting | |
| Reference code acc. to DIN EN 81346-2 | Q | |
| Product function | Yes | |
| • ramp-up (soft starting) | | |
| • ramp-down (soft stop) | Yes | |
| Soft Torque | Yes | |
| Adjustable current limitation | Yes | |
| • pump ramp down | Yes | |
| Intrinsic device protection | Yes | |
| motor overload protection | Yes; Electronic motor overload protection | |
| Evaluation of thermistor motor protection | No | |
| • inside-delta circuit | Yes | |
| Auto-reset | Yes | |
| Manual RESET | Yes | |
| • remote reset | Yes; By turning off the control supply voltage | |
| • communication function | Yes | |
| • via software configurable | Yes | |

| PROFlenergy | Yes; in connection with the PROFINET Standard communication module |
|--|---|
| • firmware update | Yes |
| • removable terminal for control circuit | Yes |
| analog output | Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) |

| Power Electronics | |
|---|--|
| Operating current | |
| ● at 40 °C rated value | 370 A |
| • at 50 °C rated value | 328 A |
| • at 60 °C rated value | 300 A |
| Operating current at inside-delta circuit | |
| • at 40 °C rated value | 641 A |
| ● at 50 °C rated value | 568 A |
| • at 60 °C rated value | 519 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 | -15 % |
| at inside-delta circuit | |
| Relative positive tolerance of the operating voltage at inside-delta circuit | 10 % |
| Operating power for three-phase motors | |
| • at 230 V at 40 °C rated value | 110 kW |
| at 230 V at inside-delta circuit at 40 °C rated value | 200 kW |
| • at 400 V at 40 °C rated value | 200 kW |
| at 400 V at inside-delta circuit at 40 °C rated value | 355 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 | |
| • minimum | 160 A |
| at inside-delta circuit minimum | 277 A |
| Minimum load [%] | 15 %; Relative to smallest settable le |
| Power loss [W] for rated value of the current at AC | |
| ● at 40 °C to power-up | 123 W |
| at 50 °C to power-up | 110 W |
| | |

| • | at | 60 | °C | to | power-ur |
|---|----|----|------------|----|----------|
| • | aι | UU | $^{\circ}$ | ιU | DOWEI-UL |

102 W

| Type of voltage of the control supply voltage Control supply voltage at AC at 50 Hz to Hz to Hz to Hz Relative negative tolerance of the control supply voltage at AC at 50 Hz Relative positive tolerance of the control supply voltage at AC at 50 Hz Relative positive tolerance of the control supply voltage at AC at 50 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Control supply voltage frequency Relative negative tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency 10 % 10 % 20 mA Holding current in the by-pass mode operating rated value Holding current at close of by-pass contact maximum Lirush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection Design of short-circuit protection for control circuit A A G fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 | Control circuit/ Control | | |
|---|--|--|--|
| at 50 Hz at 60 Hz Relative negative tolerance of the control supply voltage at AC at 50 Hz Relative positive tolerance of the control supply voltage at AC at 50 Hz Relative negative tolerance of the control supply voltage at AC at 50 Hz Relative negative tolerance of the control supply voltage at AC at 60 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Control supply voltage frequency Relative negative tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency 10 % To make tolerance of the control supply voltage frequency 20 make tolerance of the control supply voltage frequency 21 make tolerance of the control supply voltage maximum 22 A Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection Varistor | Type of voltage of the control supply voltage | AC | |
| e at 60 Hz Relative negative tolerance of the control supply voltage at AC at 50 Hz Relative positive tolerance of the control supply voltage at AC at 50 Hz Relative negative tolerance of the control supply voltage at AC at 50 Hz Relative negative tolerance of the control supply voltage at AC at 60 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Control supply voltage frequency Relative negative tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Control supply current in standby mode rated value Holding current in the by-pass mode operating rated value Starting current at close of by-pass contact maximum Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection Varistor | Control supply voltage at AC | | |
| Relative negative tolerance of the control supply voltage at AC at 50 Hz Relative positive tolerance of the control supply voltage at AC at 50 Hz Relative negative tolerance of the control supply voltage at AC at 60 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Control supply voltage frequency 50 60 Hz Relative negative tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Control supply current in standby mode rated value 30 mA Holding current in the by-pass mode operating rated value Starting current at close of by-pass contact maximum 2.2 A Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection Varistor | ● at 50 Hz | 110 250 V | |
| Relative positive tolerance of the control supply voltage at AC at 50 Hz Relative negative tolerance of the control supply voltage at AC at 60 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Relative negative tolerance of the control supply voltage at AC at 60 Hz Control supply voltage frequency 50 60 Hz Relative negative tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Control supply current in standby mode rated value 30 mA Holding current in the by-pass mode operating rated value Starting current at close of by-pass contact maximum 2.2 A Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection Varistor | ● at 60 Hz | 110 250 V | |
| relative negative tolerance of the control supply voltage at AC at 60 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Relative positive tolerance of the control supply voltage at AC at 60 Hz Control supply voltage frequency Relative negative tolerance of the control supply voltage frequency of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Control supply current in standby mode rated value of the control supply current in the by-pass mode operating rated value Starting current at close of by-pass contact maximum of the current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection variety of the control supply voltage | | -15 % | |
| Relative positive tolerance of the control supply voltage at AC at 60 Hz Control supply voltage frequency Relative negative tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Control supply current in standby mode rated value Holding current in the by-pass mode operating rated value Starting current at close of by-pass contact maximum Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection 10 % 10 % 10 % 10 % 2.2 A 12.2 A Varistor | • | 10 % | |
| Control supply voltage frequency Relative negative tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Control supply current in standby mode rated value Holding current in the by-pass mode operating rated value Starting current at close of by-pass contact maximum Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection 50 60 Hz -10 % -10 % 0 mA 10 mA 2.2 A 12.2 A 2.2 M 2.2 M 2.2 ms | - | -15 % | |
| Relative negative tolerance of the control supply voltage frequency Relative positive tolerance of the control supply voltage frequency Control supply current in standby mode rated value Holding current in the by-pass mode operating rated value Starting current at close of by-pass contact maximum Starting current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection -10 % | | 10 % | |
| Relative positive tolerance of the control supply voltage frequency Control supply current in standby mode rated value Holding current in the by-pass mode operating rated value Starting current at close of by-pass contact maximum Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection 10 % 100 mA 12.2 A 12.2 A 2.2 ms | Control supply voltage frequency | 50 60 Hz | |
| Voltage frequency Control supply current in standby mode rated value Holding current in the by-pass mode operating rated value Starting current at close of by-pass contact maximum Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection Varistor | | -10 % | |
| Holding current in the by-pass mode operating rated value Starting current at close of by-pass contact maximum Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection 100 mA 2.2 A 12.2 A 2.2 ms 2.2 ms | | 10 % | |
| Value Starting current at close of by-pass contact maximum 2.2 A Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection Varistor | Control supply current in standby mode rated value | 30 mA | |
| Inrush current peak at connect of control supply voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection 12.2 A 2.2 ms Varistor | | 100 mA | |
| voltage maximum Duration of inrush current peak at connect of control supply voltage Design of the overvoltage protection 2.2 ms Varistor | Starting current at close of by-pass contact maximum | 2.2 A | |
| supply voltage Design of the overvoltage protection Varistor | | 12.2 A | |
| <u> </u> | · | 2.2 ms | |
| Design of short-circuit protection for control circuit 4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 | Design of the overvoltage protection | Varistor | |
| | Design of short-circuit protection for control circuit | miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker | |

| Inputs/ Outputs | |
|---|---|
| Number of digital inputs | 1 |
| Number of inputs for thermistor connection | 0 |
| Number of digital outputs | 3 |
| not parameterizable | 2 |
| Digital output version | 2 normally-open contacts (NO) / 1 changeover contact (CO) |
| Number of analog outputs | 1 |
| Switching capacity current of the relay outputs | |
| • at AC-15 at 250 V rated value | 3 A |
| • at DC-13 at 24 V rated value | 1 A |

| Installation/ mounting/ dimensions | |
|------------------------------------|--|
| Mounting position | with vertical mounting surface +/-90° rotatable, with vertical |
| | mounting surface +/- 22.5° tiltable to the front and back |

| Height 393 mm | (mounting type) | screw fixing |
|--|--|---|
| Depth 203 mm Required spacing with side-by-side mounting 6 forwards 10 mm 0 mm | Height | 393 mm |
| Required spacing with side-by-side mounting • forwards • Backwards • upwards • at the side Installation altitude at height above sea level maximum Weight without packaging 9.9 kg Connections/Terminals Type of electrical connection • for control circuit Type of connectable conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts stranded • for control circuit stranded Type of connectable conductor cross-sections • for control circuit solid • for control circuit sol | Width | 210 mm |
| • forwards • Backwards • Omm • Backwards • Omm • downwards • of mm • at the side Installation altitude at height above sea level maximum Weight without packaging Connections/Terminals Type of electrical connection • for control circuit • for control circuit • for control circuit • for control circuit • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded • for control circuit solid • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid • between soft starter and motor maximum • at the digital inputs at AC maximum Armbient conditions Armbient conditions Armbient conditions Armbient conditions Armbient conditions • during storage and transport • during storage acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 • Communication/ Protocol 100 mm 100 | Depth | 203 mm |
| Backwards Ownwards Odownwards 100 mm Odownwards 100 mm From Ownwards 100 mm From From Ownwards 100 mm From Ownwards 100 mm From From Ownwards 100 mm From From From Ownwards 100 mm From From From From From From From F | Required spacing with side-by-side mounting | |
| • upwards • downwards • at the side Installation altitude at helight above sea level maximum Weight without packaging 9.9 kg Connections/Terminals Type of electrical connection • for main current circuit • for control circuit • for control circuit 5 crew-type terminals Type of onnectable conductor cross-sections • for 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 • for control circuit solid • for control circuit solid • for control circuit solid 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 12), 2x (20 14) Wire length • between soft starter and motor maximum • at the digital inputs at AC maximum Ambient conditions Ambient conditions Ambient conditions Ambient conditions Ambient conditions Ambient conditions Another conditions Another conditions Another conditions Another conditions Ambient conditions Another conditions Another conditions Are for control circuit solid on the devices), 3M6 • during storage and transport • during storage acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 Accommunication/ Protocol | • forwards | 10 mm |
| • downwards • at the side Installation altitude at height above sea level maximum Weight without packaging 9.9 kg Connections/Terminals Type of lectrical connection • for DIN cable lug for main contacts finely stranded • for control circuit solid • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid Wire length • between soft starter and motor maximum • at the digital inputs at AC maximum Ambient conditions Ambient temperature • during storage and transport • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 Communication / Protocol | Backwards | 0 mm |
| • at the side Installation altitude at height above sea level maximum Weight without packaging 9.9 kg Connections/Terminals Type of electrical connection • for main current circuit • for control circuit 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 Type of connectable conductor cross-sections • for control circuit solid Type of connectable conductor cross-sections • for control circuit solid • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid Wire length • between soft starter and motor maximum • at the digital inputs at AC maximum Ambient conditions Ambient temperature • during operation • during storage and transport • during storage and transport • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 • during transport acc. to IEC 60721 | • upwards | 100 mm |
| Installation altitude at height above sea level maximum Weight without packaging Connections/Terminals Type of electrical connection • for main current circuit screw-type terminals • for control circuit screw-type terminals • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded • for control circuit solid 1x (0.5 240 mm²) • for control circuit solid 1x (0.5 2.5 mm²), 2x (0.5 2.5 mm²) • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid 1x (20 12), 2x (20 14) Wire length • between soft starter and motor maximum at the digital inputs at AC maximum 100 m Ambient temperature • during operation • during storage and transport 4.0 +80 °C Environmental category • during storage acc. to IEC 60721 3K6 (on ice formation, 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) Communication/ Protocol | downwards | 75 mm |
| Meight without packaging Connections/Terminals Type of electrical connection • for main current circuit screw-type terminals • for control circuit screw-type terminals • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded • for control circuit solid 2x (70 240 mm²) • for control circuit solid 1x (0.5 2.40 mm²) • for control circuit solid 1x (0.5 2.5 mm²), 2x (0.5 2.5 mm²) • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid 1x (20 12), 2x (20 14) Wire length • between soft starter and motor maximum 800 m • at the digital inputs at AC maximum 100 m Ambient temperature • during operation • during storage and transport -40 +80 °C Environmental category • during storage acc. to IEC 60721 3K6 (on ice formation, only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 3M6 • during transport acc. to IEC 60721 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) | • at the side | 5 mm |
| Type of electrical connection • for main current circuit • for control circuit Screw-type terminals Type of connectable conductor cross-sections • for DIN cable lug for main contacts stranded • 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 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid 1x (20 12), 2x (20 14) Wire length • between soft starter and motor maximum • at the digital inputs at AC maximum 100 m Ambient conditions Ambient conditions Ambient conditions Ambient gaperation • during storage and transport Environmental category • 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 transport acc. to IEC 60721 | - | 5 000 m; Derating as of 1000 m, see catalog |
| Type of electrical connection • for main current circuit • for control circuit Type of connectable conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded • for control circuit solid • for control circuit solid • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid • between soft starter and motor maximum • at the digital inputs at AC maximum Ambient conditions 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 • for control circuit screw-type terminals 2x (50 240 mm²) 2x (70 240 mm²) 2x (20 12) parally 2x (20 12) | Weight without packaging | 9.9 kg |
| • for main current circuit • for control circuit • for control circuit 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 Type of connectable conductor cross-sections • for control circuit solid 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 12), 2x (20 14) Wire length • between soft starter and motor maximum • at the digital inputs at AC maximum Ambient conditions Ambient temperature • during operation • during storage and transport Environmental category • 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 transport acc. to IEC 60721 | Connections/Terminals | |
| • for control circuit Type of connectable conductor cross-sections • for DIN cable lug for main contacts stranded • for DIN cable lug for main contacts finely stranded • 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 solid • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid 1x (0.5 2.5 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 12), 2x (20 14) Wire length • between soft starter and motor maximum • at the digital inputs at AC maximum 800 m • at the digital inputs at AC maximum 100 m Ambient conditions Ambient emperature • during operation • during storage and transport Environmental category • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 Communication/ Protocol | Type of electrical connection | |
| 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 • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid Wire length • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs at AC maximum • during operation • during storage and transport Environmental category • during operation acc. to IEC 60721 • during transport acc. to IEC 60721 Communication/ Protocol | for main current circuit | screw-type terminals |
| • 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 • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs at AC maximum Ambient conditions Ambient temperature • during operation • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 | • for control circuit | screw-type terminals |
| • 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 conductors for control circuit solid 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (0.5 2.5 mm²) 1x (| Type of connectable conductor cross-sections | |
| Type of connectable conductor cross-sections • for control circuit solid • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid • between soft starter and motor maximum • at the digital inputs at AC maximum • at the digital inputs at AC maximum • during operation • during storage and transport • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 | for DIN cable lug for main contacts stranded | 2x (50 240 mm²) |
| • for control circuit solid • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid Ix (0.5 2.5 mm²), 2x (0.5 1.5 mm²) Ix (0.5 2. | | 2x (70 240 mm²) |
| • for control circuit finely stranded with core end processing • at AWG conductors for control circuit solid 1x (20 12), 2x (20 14) Wire length • between soft starter and motor maximum • at the digital inputs at AC maximum 100 m Ambient conditions Ambient temperature • during operation • during storage and transport -25 +60 °C; Please observe derating at temperatures of 40 °C or above • during operation acc. to IEC 60721 SK6 (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 • during transport acc. to IEC 60721 | Type of connectable conductor cross-sections | |
| processing | • for control circuit solid | 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) |
| Wire length ● between soft starter and motor maximum | | 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) |
| between soft starter and motor maximum at the digital inputs at AC maximum Ambient conditions Ambient temperature during operation during storage and transport eduring 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 Exercise 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 4K6 (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) | at AWG conductors for control circuit solid | 1x (20 12), 2x (20 14) |
| at the digital inputs at AC maximum Ambient conditions 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 storage acc. to IEC 60721 fon ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 during transport acc. to IEC 60721 during transport acc. to IEC 60721 Communication/ Protocol | Wire length | |
| 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 • during transport acc. to IEC 60721 • Communication/ Protocol | between soft starter and motor maximum | 800 m |
| Ambient temperature • during operation -25 +60 °C; Please observe derating at temperatures of 40 °C or above • during storage and transport -40 +80 °C Environmental category • during operation 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) | at the digital inputs at AC maximum | 100 m |
| during operation -25 +60 °C; Please observe derating at temperatures of 40 °C or above during storage and transport -40 +80 °C Environmental category during operation 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) | Ambient conditions | |
| or above • during storage and transport -40 +80 °C 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 • during transport acc. to IEC 60721 • communication/ Protocol | Ambient temperature | |
| 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 • Communication/ Protocol 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) | 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) | during storage and transport | -40 +80 °C |
| salt mist), 3S2 (sand must not get into the devices), 3M6 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 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) Communication/ Protocol | Environmental category | |
| must not get inside the devices), 1M4 • during transport acc. to IEC 60721 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) Communication/ Protocol | during operation acc. to IEC 60721 | |
| Communication/ Protocol | • during storage acc. to IEC 60721 | |
| | during transport acc. to IEC 60721 | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) |
| Communication module is supported | Communication/ Protocol | |
| | Communication module is supported | |

 PROFINET standard Yes Yes Modbus TCP PROFIBUS Yes

UL/CSA ratings

Manufacturer's article number

of fuse

— at Standard Faults usable up to 575/600 V according to UL

- at High Faults usable up to 575/600 V according to UL

- at Standard Faults usable at inside-delta circuit up to 575/600 V according to UL

- at High Faults usable at inside-delta circuit up to 575/600 V according to UL

Type: Class J / L, max. 1200 A; Iq = 18 kA

Type: Class J / L, max. 1200 A; Iq = 100 kA

Type: Class J / L, max. 1200 A; Iq = 18 kA

Type: Class J / L, max. 1200 A; Iq = 100 kA

Operating power [hp] for three-phase motors

• at 200/208 V at 50 °C rated value • at 220/230 V at 50 °C rated value

• at 460/480 V at 50 °C rated value

 at 200/208 V at inside-delta circuit at 50 °C rated value

• at 220/230 V at inside-delta circuit at 50 °C rated value

• at 460/480 V at inside-delta circuit at 50 °C rated value

100 hp

125 hp

250 hp

200 hp

200 hp

450 hp

Contact rating of auxiliary contacts according to UL

R300-B300

General Product Approval











Declaration of Conformity

Miscellaneous

| Test Certific- | Marine / Shipping | other |
|----------------|-------------------|-------|
| atee | | |

Type Test Certificates/Test Report





Confirmation

Further information

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW5246-6AC14

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5246-6AC14

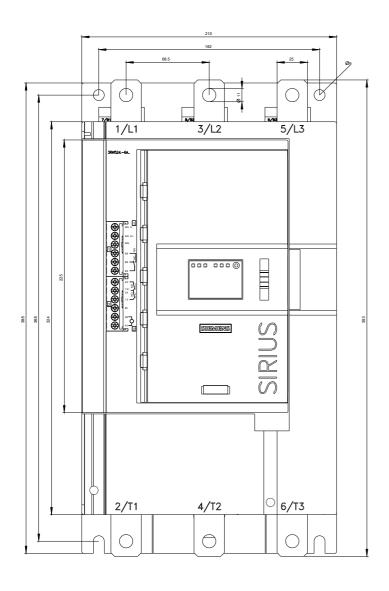
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RW5246-6AC14

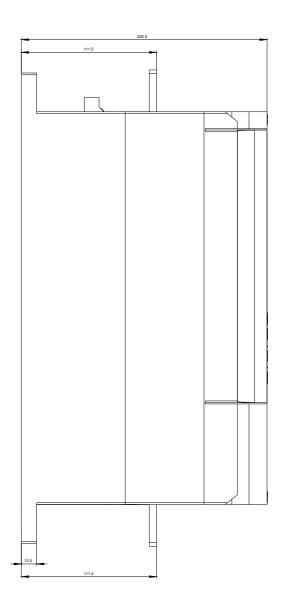
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5246-6AC14&lang=en

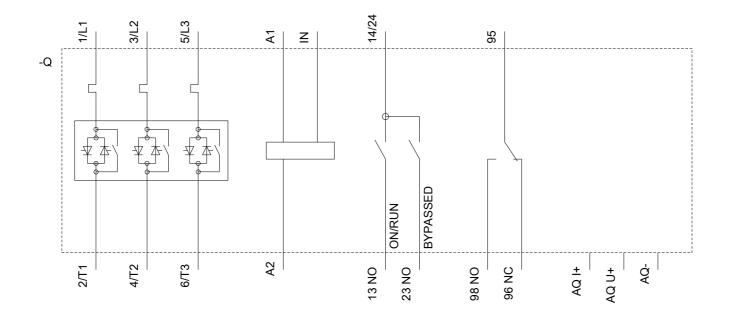
Characteristic: Tripping characteristics, I2t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RW5246-6AC14/char

Characteristic: Installation altitude

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5246-6AC14&objecttype=14&gridview=view1







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