SIEMENS

product brand name

Data sheet 3RW5077-2AB04

SIRIUS



SIRIUS soft starter 200-480 V 570 A, 24 V AC/DC Spring-loaded terminals Analog output

| product brand name | SIKIUS |
|---|---|
| product category | Hybrid switching devices |
| product designation | Soft starter |
| product type designation | 3RW50 |
| manufacturer's article number | |
| of standard HMI module usable | <u>3RW5980-0HS01</u> |
| 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 assignment 1, Iq = 65 kA |
| of circuit breaker usable at 500 V | 3VA2580-6HN32-0AA0; Type of assignment 1, Iq = 65 kA |
| of the gG fuse usable up to 690 V | 2x3NA3365-6; Type of coordination 1, Iq = 65 kA |
| of full range R fuse link for semiconductor protection usable up to 690 V | 3NE1 437-2; Type of coordination 2, Iq = 65 kA |
| of back-up R fuse link for semiconductor protection usable up to 690 V | 3NE3 340-8; Type of coordination 2, Iq = 65 kA |
| of line contactor usable up to 480 V | 3TF68 |
| of line contactor usable up to 690 V | 3TF68 |
| General technical data | |
| starting voltage [%] | 30 100 % |
| stopping voltage [%] | 50 %; non-adjustable |
| start-up ramp time of soft starter | 0 20 s |
| ramp-down time of soft starter | 0 20 s |
| current limiting value [%] adjustable | 130 700 % |
| accuracy class according to IEC 61557-12 | 5 % |
| certificate of suitability | |
| CE marking | Yes |
| UL approval | Yes |
| CSA approval | Yes |
| product component | |
| HMI-High Feature | No |
| is supported HMI-Standard | Yes |
| is supported HMI-High Feature | Yes |
| product feature integrated bypass contact system | Yes |
| number of controlled phases | 2 |
| trip class | CLASS 10A / 10E (preset) / 20E; acc. to IEC 60947-4-2 |
| | |

| • for main current circuit • for control circuit • for pollution • for pollutio | | |
|--|--|---|
| | buffering time in the event of power failure | |
| Insulation voltage rated value 600 V 3, acc. to IEC 60947.4-2 impulse voltage rated value 68 V 600 | | |
| degree of pollution S SeV | | |
| Impulse voltage rated value blocking voltage of the thyristor maximum 1600 V service factor 1 | | |
| | | · |
| Service factor | | |
| surge voltage resistance rated value maximum permissible voltage for safe isolation between main and audiling crount shock resistance thitization category according to IEC 6094774-2 reference code according to IEC 61346-2 Q Substance Prohibitance (Dato) ramp-down (soft stop) reduct function pump ramp down intrinsic device protection revaluation of thermister motor protection revaluation function revaluation function revaluation function reperting measured value display reror logbook refore protection reperting measured value display response protection reperting measured value display response protection reperting measured value display response protection reperting protection reperting protection reperting protection reperting requery response protection reperting reperting requery response reperting voltage retror logbook response reperting requery response reperting voltage retror reperting voltage retror reperting voltage retror reperting voltage retative positive tolerance of the operating voltage retative positive tolerance of the operating frequency relative positive tolerance of the operating frequency relative prostive tolerance of the operating frequency relative positive tolerance of the operating frequency relative prostiv | | |
| maximum permissible voltage for safe isolation | | |
| Seleween main and auxiliary circuit 59 / 11 ms, from 12 g / 11 ms with potential contact lifting vibration resistance 15 g / 11 ms, from 12 g / 11 ms with potential contact lifting vibration resistance 15 mm to 6 Hz; 2g to 500 Hz | | 6 kV |
| shock resistance 15 g / 11 ms with potential contact lifting vibration resistance 15 mm to 6 Hz; 2g to 500 Hz vibration category according to IEC 60947-4-2 AC-53a reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Yes • ramp-down (soft starting) Yes • ramp-down (soft starting) Yes • soft Torque Yes • adjustable current limitation Yes • pump ramp down Yes • intrinsic device protection Yes • intrinsic device protection Yes • valuation of thermistor motor protection Yes • availuation of thermistor motor protection Yes • remote reset Yes • remote reset Yes • remote reset Yes • communication function Yes • perform reasured value display Yes • remote reset Yes | | |
| vibration resistance 45 mm to 6 Hz; 2g to 500 Hz utilization category according to IEC 81946-2 Q Substance Prohibitance (Date) 6923/2019 product function Yes • ramp-up (soft starting) Yes • Soft Torque Yes • Soft Torque Yes • pump ramp down Yes • intrinsic device protection Yes • intrinsic device protection Yes • evaluation of thermistor motor protection No • 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 • remote reset Yes; Only in conjunction with special accessories • via software configurable Yes • via software configurable Yes • torque control No • torque control No • torque control No • torque control Yes • at 60 °C rated value | | |
| utilization category according to IEC 81947-4.2 reference code according to IEC 81948-2 Substance Prohibitance (Date) ramp-up (soft starting) - ramp-up (soft starting) - ramp-up (soft starting) - ramp-down (soft stop) - Soft Torque - Pes - adjustable current limitation - pump ramp down - intrinsic device protection - evaluation of themistor motor protection - evaluation of themistor motor protection - auto-RESET - remote reset - remote r | | |
| reference code according to IEC 81346-2 Substance Prohibitance (Date) product function * ramp-up (soft starting) * ramp-up (soft starting) * ramp-down (soft stop) * Soft Torque * adjustable current limitation * pump ramp down * intrinsic device protection * evaluation of thermistor motor protection * auto-RESET * remote reset * remote reset * communication function * operating measured value display * via software parameterizable * via software parameterizable * via software parameterizable * voltage ramp * voltage ramp * voltage control * analog output * voltage control * analog output * voltage ramp * voltage ramp * voltage control * analog output * voltage control * analog output * voltage ramp * voltage r | | |
| Substance Prohibitance (Date) Ogi/23/2019 Product function Framp-up (soft starting) Yes Amp-down (soft stop) Yes Yes Soft Torque Yes Amp-down (soft stop) Yes Yes Amp-down (soft stop) Yes Yes Amp-down (soft stop) Yes | | |
| ramp-up (soft starting) responsible (soft starting) responsible (soft starting) responsible (soft starting) ramp-up (soft starting) responsible (s | - | |
| ramp-up (soft starting) ramp-down (soft stop) ramp-down (soft stop) Soft Torque adjustable current limitation pump ramp down pump ramp down residustable current limitation residustable current limitation remotor overload protection remotor overload protection remotor overload protection vesiguation of thermistor motor protection remotor erest | . , | 09/23/2019 |
| Framp-down (soft stop) Soft Torque | • | |
| Soft Torque adjustable current limitation pump ramp down intrinsic device protection motor overload protection auto-RESET manual RESET manual Reset manual Reset manual Reset manual Reset manual Reset manual Reset manual Reset manual Reset manu | | |
| adjustable current limitation pump ramp down pramp down pramp down pramp down pramp down pramp down pramp down protection protectio | | |
| pump ramp down intrinsic device protection roteror overload protection vest Electronic motor overload protection vest Electronic vest vest Vest Electronic motor overload protection vest Electronic vest vest Electronic motor overload protection vest Electronic vest Vest Electronic motor overload protection vest Electronic vest E | • | |
| intrinsic device protection motor overload protection motor overload protection vest Electronic motor overload protection auto-RESET manual RESET ves remote reset communication function operating measured value display error logbook via software parameterizable via software configurable via software configurable voltage ramp torque control analog output ves torque control analog output ves; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) poperating over Electronics poperating voltage at 60 °C rated value at 60 °C rated | • | |
| • motor overload protection • evaluation of themistor motor protection • evaluation of themistor motor protection • auto-RESET • manual RESET • remote reset • communication function • operating measured value display • error logbook • via software parameterizable • via software configurable • voltage ramp • voltage ramp • voltage ramp • voltage ramp • remote control • analog output • reset to "Yes" • remote reset • communication function • operating resoured value • voltage ramp • voltage ramp • voltage ramp • voltage ramp • voltage control • analog output • reset to "Yes", in connection with the PROFINET Standard communication module • remote reset • remove reset • remove remove | pump ramp down | Yes |
| evaluation of thermistor motor protection auto-RESET emanual RESET ermote reset communication function operating measured value display error logbook via software parameterizable via software parameterizable voltage ramp voltage ramp voltage ramp voltage ramp voltage ramp vorting output voltage ramp voltage ramp vorting output voltage ramp | | |
| • auto-RESET • manual RESET • remote reset • remote reset • communication function • operating measured value display • remote reset • communication function • operating measured value display • remote reset • communication function • operating measured value display • relative negative tolerance of the operating frequency • relative positive tolerance of the operating frequency relative negative tolerance of the operating frequency relative negat | motor overload protection | Yes; Electronic motor overload protection |
| • manual RESET • remote reset • communication function • operating measured value display • risk software parameterizable • via software configurable • voltage ramp • torque control • analog output • at 40 °C rated value • at 40 °C rated value • relative negative tolerance of the operating voltage • rated value • at 230 V at 40 °C rated value • at 400 V c rated value • relative negative tolerance of the operating frequency • al 230 V at 70 °C rated value • at 300 v c rated value • at 400 °C rated value • rated value • rated value • at 400 °C rated value • at 400 °C rated value • relative negative tolerance of the operating voltage • rated value • at 400 °C rated value • at 400 °C rated value • rated value • relative negative tolerance of the operating voltage • rated value • at 400 °C rated value • at 400 °C rated value • at 400 °C rated value • relative negative tolerance of the operating voltage • rated value • at 400 °C rated value • at 700 °C rated value • at 400 °C rated | evaluation of thermistor motor protection | No |
| remote reset | auto-RESET | Yes |
| communication function operating measured value display error logbook via software parameterizable via software parameterizable via software configurable via software configurable PROFlenergy Yes; Only in conjunction with special accessories Yes PROFlenergy Yes; In connection with the PROFINET Standard communication module voltage ramp ves; In connection with the PROFINET Standard communication module voltage ramp ves; In connection with the PROFINET Standard communication module voltage ramp ves; In connection with the PROFINET Standard communication module voltage ramp ves; In connection with the PROFINET Standard communication module voltage ramp ves; In connection with the PROFINET Standard communication module voltage ramp ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication module ves; In connection with the PROFINET Standard communication position module ves; In connection with the PROFINET Standard communication position module ves; In connect | manual RESET | Yes |
| operating measured value display error logbook via software parameterizable via software configurable via software configurable via voltage ramp voltage ramp voltage ramp vorque control analog output Power Electronics Operating voltage rated value or ated value or ated value operating power for 3-phase motors | remote reset | Yes; By turning off the control supply voltage |
| via software parameterizable via software configurable via software configurable via software configurable PROFlenergy Yes; in connection with the PROFINET Standard communication module voltage ramp torque control voltage ramp torque control vanialog output ves; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) **Power Electronics **Operational current* at 40 °C rated value at 50 °C rated value at 50 °C rated value at 60 °C rated value value relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage at 230 V at 40 °C rated value at 400 °C rated value at 700 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value Operating frequency 2 rated value outpead to tolerance of the operating frequency relative negative tolerance of the operating frequency relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency relative positive tolerance of the operating frequency relative positive tolerance of the operating frequency at rotary coding switch on switch position 1 at rotary coding switch on switch position 2 at rotary coding switch on switch position 2 | communication function | Yes |
| via software parameterizable via software configurable via software configurable PROFlenergy Yes; in connection with the PROFINET Standard communication module voltage ramp Yes torque control No analog output Yes, 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) Power Electronics poperational current at 40 °C rated value at 50 °C rated value at 60 °C rated value at 60 °C rated value are devalue orated value are devalue perating voltage arated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at 230 V at 40 °C rated value at 400 V at 40 °C rated value 315 kW Operating frequency 1 rated value 315 kW Operating frequency 2 rated value 315 kW Operating frequency 3 rated value 315 kW Operating frequency 4 rated value 315 kW Operating frequency 5 rated value 315 kW Operating frequency 6 rated value 315 kW Operating frequency 9 rated value 316 kW Operating frequency 9 rated value 317 kW | operating measured value display | Yes; Only in conjunction with special accessories |
| via software configurable PROFlenergy Yes; in connection with the PROFINET Standard communication module voltage ramp torque control No analog output Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) Power Electronics Power Electronics Operational current at 40 °C rated value at 50 °C rated value at 60 °C rated value at 60 °C rated value are at 60 °C rated value are at 40 was a constant of the operating voltage relative negative tolerance of the operating voltage altago value at 230 V at 40 °C rated value at 400 °C rated value at 400 °C rated value 315 kW Operating frequency 1 rated value operating frequency 2 rated value at 400 °C rated value operating frequency 2 rated value relative negative tolerance of the operating frequency relative negative tolerance of the operating frequency relative negative tolerance of the operating frequency are tolerance of the operating frequency relative negative tolerance of the operating frequency relative negative tolerance of the operating frequency are totary coding switch on switch position 1 at rotary coding switch on switch position 2 262 A | error logbook | Yes; Only in conjunction with special accessories |
| PROFlenergy voltage ramp torque control analog output Pes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMI) Power Electronics operational current at 40 °C rated value at 60 °C rated value at 80 °C rated value breative negative tolerance of the operating voltage at 40 °C rated value at 40 °C rated value at 40 °C rated value breative positive tolerance of the operating voltage at 40 °C rated value at 40 °C rated value breative positive tolerance of the operating voltage at 40 °C rated value at 40 °C rated value at 40 °C rated value breative positive tolerance of the operating voltage at 200 480 V 160 kW breating power for 3-phase motors at 400 V at 40 °C rated value breative regative tolerance of the operating voltage at 400 V at 40 °C rated value breative regative tolerance of the operating frequency at 400 V at 40 °C rated value breative negative tolerance of the operating frequency relative positive tolerance of the operating frequency at rotary coding switch on switch position 1 at rotary coding switch on switch position 2 262 A | via software parameterizable | No |
| o voltage ramp o torque control o analog output Power Electronics Operational current o at 40 °C rated value o at 60 °C rated value o relative positive tolerance of the operating voltage o at 40 °C rated value o at 40 °C rated value o for 3-phase motors operating power for 3-phase motors outparting power for 3-phase motors outparting frequency 1 rated value o at 40 °C rated value o for 3-phase motors outparting power for 4-phase motors outparting power for | via software configurable | Yes |
| • torque control • analog output Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMII) Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value • at 60 °C rated value • rated value • rated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value operating frequency 1 rated value operating frequency 2 rated value folk W operating frequency 2 rated value operating frequency 2 rated value folk W operating frequency 2 rated value operating frequency 10 % relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 262 A | | module |
| • analog output Yes; 4 20 mA (default) / 0 10 V (parameterizable with High Feature HMII) Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value • rated value • rated value • rated value relative negative tolerance of the operating voltage • at 230 V at 40 °C rated value • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value Operating frequency 2 rated value Operating frequency 2 rated value operating negative tolerance of the operating frequency relative negative tolerance of the operating frequency 10 % Operating frequency 1 rated value Operating frequency 2 rated value operating frequency 2 rated value operating negative tolerance of the operating frequency relative negative tolerance of the operating frequency adjustable motor current • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 262 A | | Yes |
| Power Electronics operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value • at 60 °C rated value • at 60 °C rated value • at 60 °C rated value • rated value • rated value • rated value • relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value operating frequency 1 rated value Operating frequency 2 rated value felative negative tolerance of the operating frequency relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 262 A | torque control | |
| operational current • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value • at 60 °C rated value • at 60 °C rated value • rated value • rated value • rated value • rated value relative negative tolerance of the operating voltage • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating voltage • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value output frequency 2 rated value output at 700 % relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 262 A | analog output | |
| at 40 °C rated value at 50 °C rated value 504 A at 60 °C rated value 460 A Operating voltage rated value 200 480 V relative negative tolerance of the operating voltage -15 % relative positive tolerance of the operating voltage 10 % Operating power for 3-phase motors at 230 V at 40 °C rated value at 400 V at 40 °C rated value 50 Hz Operating frequency 1 rated value 50 Hz relative negative tolerance of the operating frequency relative negative tolerance of the operating frequency 10 % relative positive tolerance of the operating frequency adjustable motor current at rotary coding switch on switch position 1 at rotary coding switch on switch position 2 262 A | Power Electronics | |
| at 50 °C rated value at 60 °C rated value be rated value creative negative tolerance of the operating voltage enating power for 3-phase motors at 230 V at 40 °C rated value at 400 V at 40 °C rated value be rated value creative positive tolerance of the operating voltage operating power for 3-phase motors at 230 V at 40 °C rated value for at 400 V at 40 °C rated value for at 400 V at 40 °C rated value for at 400 V at 40 °C rated value for at 400 V at 40 °C rated value for at 400 V at 40 °C rated value for at 700 W feative negative tolerance of the operating frequency relative negative tolerance of the operating frequency adjustable motor current at rotary coding switch on switch position 1 at rotary coding switch on switch position 2 at 700 W at 70 | • | |
| at 60 °C rated value operating voltage rated value 200 480 V relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage 0 % operating power for 3-phase motors at 230 V at 40 °C rated value at 400 V at 40 °C rated value 50 Hz Operating frequency 1 rated value 50 Hz Operating frequency 2 rated value 60 Hz relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency at rotary coding switch on switch position 1 at rotary coding switch on switch position 2 262 A | | 570 A |
| operating voltage | | |
| e rated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage operating power for 3-phase motors e at 230 V at 40 °C rated value ot at 400 V at 40 °C rated value operating frequency 1 rated value Operating frequency 2 rated value folkw objective negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current e at rotary coding switch on switch position 1 e at rotary coding switch on switch position 2 200 480 V -15 % 10 % 160 kW 50 Hz 60 Hz -10 % 10 % 240 A 262 A | at 60 °C rated value | 460 A |
| relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage operating power for 3-phase motors • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value felative negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 -15 % 10 % 160 kW 315 kW 50 Hz 60 Hz -10 % 10 % | operating voltage | |
| relative positive tolerance of the operating voltage operating power for 3-phase motors • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value Operating frequency 1 rated value 50 Hz Operating frequency 2 rated value 60 Hz relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 10 % | | |
| operating power for 3-phase motors • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value 50 Hz Operating frequency 1 rated value 60 Hz relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 262 A | | |
| at 230 V at 40 °C rated value at 400 V at 40 °C rated value 315 kW Operating frequency 1 rated value 50 Hz Operating frequency 2 rated value 60 Hz relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current at rotary coding switch on switch position 1 at rotary coding switch on switch position 2 262 A | | 10 % |
| at 400 V at 40 °C rated value Operating frequency 1 rated value Operating frequency 2 rated value 60 Hz relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current at rotary coding switch on switch position 1 at rotary coding switch on switch position 2 262 A | | |
| Operating frequency 1 rated value Operating frequency 2 rated value felative negative tolerance of the operating frequency relative positive tolerance of the operating frequency 10 % adjustable motor current • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 240 A • at rotary coding switch on switch position 2 | | |
| Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 60 Hz -10 % 10 % 240 A 240 A | | |
| relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency adjustable motor current • at rotary coding switch on switch position 1 • at rotary coding switch on switch position 2 240 A • at rotary coding switch on switch position 2 | | |
| relative positive tolerance of the operating frequency adjustable motor current • at rotary coding switch on switch position 1 240 A • at rotary coding switch on switch position 2 262 A | | |
| 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 1 at rotary coding switch on switch position 2 240 A 262 A | | 10 % |
| • at rotary coding switch on switch position 2 262 A | - | |
| | | |
| at actions and the provided and with the continue of the conti | | |
| | 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 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 |
| , | 460 A |
| at rotary coding switch on switch position 11 | |
| 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 | 570 A |
| • minimum | 240 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 | 73 W |
| • at 50 °C after startup | 57 W |
| · | |
| • at 60 °C after startup | 47 W |
| power loss [W] at AC at current limitation 350 % | |
| at 40 °C during startup | 7 019 W |
| at 50 °C during startup | 5 801 W |
| at 60 °C during startup | 5 048 W |
| type of the motor protection | Electronic, tripping in the event of thermal overload of the motor |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | AC/DC |
| | AOIDO |
| control supply voltage at AC | 041/ |
| 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 voltage at AC at 50 Hz | 20 % |
| 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 | -10 % |
| voltage frequency | |
| 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 | -20 % |
| voltage at DC | |
| 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 | 490 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 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 |
| fastening method | screw fixing |
| height | 230 mm |
| width | 160 mm |
| depth | 282 mm |
| required spacing with side-by-side mounting | |
| forwards | 10 mm |
| backwards | 0 mm |
| • upwards | 100 mm |
| downwards | 75 mm |
| at the side | 5 mm |
| weight without packaging | 7.3 kg |
| Connections/ Terminals | |
| type of electrical connection | |
| for main current circuit | busbar connection |
| • for control circuit | spring-loaded terminals |
| width of connection bar maximum | 35 mm; with connection cover 3RT1966-4EA1 maximum length 45 mm |
| type of connectable conductor cross-sections | , |
| for main contacts for box terminal using the front clamping point solid | 95 300 mm² |
| for main contacts for box terminal using the front clamping point finely stranded with core end processing | 70 240 mm² |
| for main contacts for box terminal using the front clamping point finely stranded without core end processing | 70 240 mm² |
| for main contacts for box terminal using the front clamping point stranded | 95 300 mm² |
| at AWG cables for main contacts for box terminal using the front clamping point | 3/0 600 kcmil |
| for main contacts for box terminal using the back clamping point solid | 120 240 mm² |
| at AWG cables for main contacts for box terminal using the back clamping point | 250 500 kcmil |
| for main contacts for box terminal using both clamping points solid | min. 2x 70 mm², max. 2x 240 mm² |
| for main contacts for box terminal using both clamping points finely stranded with core end processing | min. 2x 50 mm², max. 2x 185 mm² |
| for main contacts for box terminal using both clamping points finely stranded without core end processing | min. 2x 50 mm², max. 2x 185 mm² |
| for main contacts for box terminal using both clamping points stranded | min. 2x 70 mm², max. 2x 240 mm² |
| for main contacts for box terminal using the back clamping point finely stranded with core end processing | 120 185 mm² |
| for main contacts for box terminal using the back clamping point finely stranded without core end processing | 120 185 mm² |
| for main contacts for box terminal using the back clamping point stranded | 120 240 mm² |
| type of connectable conductor cross-sections | |
| at AWG cables for main current circuit solid | 2/0 500 kcmil |
| for DIN cable lug for main contacts stranded | 50 240 mm² |
| for DIN cable lug for main contacts finely stranded | 70 240 mm² |
| type of connectable conductor cross-sections | |
| 7, | |

| | 0 (0.05 4.5 2) |
|--|---|
| for control circuit finely stranded with core end processing. | 2x (0.25 1.5 mm²) |
| processing ● at AWG cables for control circuit solid | 2x (24 16) |
| at AWG cables for control circuit finely stranded with | 2x (24 16) 2x (24 16) |
| core end processing | 24 (24 10) |
| wire length | |
| between soft starter and motor maximum | 800 m |
| at the digital inputs at AC maximum | 1 000 m |
| tightening torque | |
| for main contacts with screw-type terminals | 14 24 N·m |
| for auxiliary and control contacts with screw-type | 0.8 1.2 N·m |
| terminals | 5.5 1.2 IVIII |
| tightening torque [lbf·in] | |
| for main contacts with screw-type terminals | 124 210 lbf·in |
| for auxiliary and control contacts with screw-type | 7 10.3 lbf·in |
| terminals | |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 5 000 m; derating as of 1000 m, see Manual |
| ambient temperature | |
| during operation | -25 +60 °C; Please observe derating at temperatures of 40 °C or |
| | above |
| during storage and transport | -40 +80 °C |
| environmental category | |
| during operation according to IEC 60721 | 3K6 (no ice formation, only occasional condensation), 3C3 (no salt |
| | mist), 3S2 (sand must not get into the devices), 3M6 |
| during storage according to IEC 60721 | 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4 |
| during transport according to IEC 60721 | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m) |
| EMC emitted interference | acc. to IEC 60947-4-2: Class A |
| Communication/ Protocol | acc. to IEC 00947-4-2. Class A |
| | |
| communication module is supported | V |
| PROFINET standard Fite and let UP | Yes |
| • EtherNet/IP | Yes |
| Modbus RTU | Yes |
| Modbus TCP PROFINIA | 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 L, max. 1600 A; lq = 30 kA |
| usable for High Faults up to 575/600 V according to UL | Type: Class L, max. 1200 A; lq = 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 |
| Safety related data | |
| protection class IP on the front according to IEC 60529 | IP00; IP20 with cover |
| touch protection on the front according to IEC 60529 | finger-safe, for vertical contact from the front with cover |
| ATEX | |
| certificate of suitability | |
| • ATEX | Yes |
| • IECEx | Yes |
| hardware fault tolerance according to IEC 61508 relating to ATEX | 0 |
| PFDavg with low demand rate according to IEC 61508 relating to ATEX | 0.09 |
| PFHD with high demand rate according to EN 62061 relating to ATEX | 9E-6 1/h |
| Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX | SIL1 |
| - | |

3 y

Certificates/ approvals

General Product Approval

For use in hazardous locations





Confirmation







For use in hazardous locations

Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report







other

Confirmation

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=3RW5077-2AB04

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5077-2AB04

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5077-2AB04

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW5077-2AB04&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RW5077-2AB04/char

Characteristic: Installation altitude

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5077-2AB04&objecttype=14&gridview=view1

Simulation Tool for Soft Starters (STS)

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

4/11/2022 last modified: