



SITOP PSU100P/1AC/24VDC/5A/IP67

SITOP PSU100P IP67 Stabilized power supply input: 120/230 V AC, output: 24 V DC/5 A

| Input | |
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| type of the power supply network | 1-phase AC |
| supply voltage at AC | |
| • initial value | Automatic range selection |
| supply voltage | |
| • 1 at AC rated value | 120 V |
| • 2 at AC rated value | 230 V |
| input voltage | |
| • 1 at AC | 85 ... 132 V |
| • 2 at AC | 170 ... 264 V |
| design of input wide range input | No |
| overvoltage overload capability | Implemented internally with varistor |
| operating condition of the mains buffering | at $V_{in} = 120/230 \text{ V}$ |
| buffering time for rated value of the output current in the event of power failure minimum | 40 ms |
| operating condition of the mains buffering | at $V_{in} = 120/230 \text{ V}$ |
| line frequency | |
| • 1 rated value | 50 Hz |
| • 2 rated value | 60 Hz |
| line frequency | 47 ... 63 Hz |
| input current | |
| • at rated input voltage 120 V | 2.25 A |
| • at rated input voltage 230 V | 1.24 A |
| current limitation of inrush current at 25 °C maximum | 15 A |
| I ² t value maximum | 0.6 A ² ·s |
| fuse protection type | T 3.15 A |
| • in the feeder | Recommended miniature circuit breaker: from 6 A characteristic C/B |
| Output | |
| voltage curve at output | Controlled, isolated DC voltage |
| output voltage at DC rated value | 24 V |
| output voltage | |
| • at output 1 at DC rated value | 24 V |
| relative overall tolerance of the voltage | 3 % |
| relative control precision of the output voltage | |
| • on slow fluctuation of input voltage | 0.1 % |
| • on slow fluctuation of ohm loading | 0.2 % |
| residual ripple | |
| • maximum | 50 mV |
| voltage peak | |
| • maximum | 100 mV |

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| product function output voltage adjustable | No |
| display version for normal operation | Green LED: 24 V OK; red LED flashing: "overload/short-circuit" |
| type of signal at output | Relay contact (NO contact, rating 30 V AC/ 0.5 A; 30 V DC/1 A) for 24 V OK |
| behavior of the output voltage when switching on | Overshoot of $V_{out} < 3 \%$ |
| response delay maximum | 1.5 s |
| voltage increase time of the output voltage | |
| • typical | 22 ms |
| • maximum | 100 ms |
| output current | |
| • rated value | 5 A |
| • rated range | 0 ... 5 A |
| supplied active power typical | 133 W |
| short-term overload current | |
| • on short-circuiting during the start-up typical | 20 A |
| • at short-circuit during operation typical | 20 A |
| duration of overloading capability for excess current | |
| • on short-circuiting during the start-up | 50 ms |
| • at short-circuit during operation | 50 ms |
| product feature | |
| • bridging of equipment | Yes; Symmetric wiring required |
| number of parallel-switched equipment resources for increasing the power | 2 |
| Efficiency | |
| efficiency in percent | 90 % |
| power loss [W] | |
| • at rated output voltage for rated value of the output current typical | 12.9 W |
| Closed-loop control | |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 0.2 % |
| relative control precision of the output voltage load step of resistive load 50/100/50 % typical | 1 % |
| setting time | |
| • maximum | 2 ms |
| Protection and monitoring | |
| design of the overvoltage protection | < 29 V |
| • typical | 5.5 A |
| property of the output short-circuit proof | Yes |
| design of short-circuit protection | Electronic shutdown, automatic restart |
| enduring short circuit current RMS value | |
| • maximum | 6 A |
| • typical | 5 A |
| display version for overload and short circuit | Red LED flashing for "overload/short-circuit" |
| Safety | |
| galvanic isolation between input and output | Yes |
| galvanic isolation | Safety extra-low output voltage U_{out} acc. to EN 60950-1 and EN 50178 |
| operating resource protection class | Class I |
| leakage current | |
| • maximum | 3.5 mA |
| • typical | 1 mA |
| protection class IP | IP67, enclosure type 5 indoor |
| Approvals | |
| certificate of suitability | |
| • CE marking | Yes |
| • UL approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1) |
| • CSA approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1) |
| • cCSAus, Class 1, Division 2 | No |
| • ATEX | No |
| certificate of suitability | |
| • IECEx | No |
| • NEC Class 2 | No |
| • ULhazloc approval | No |

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| • FM registration | No |
| type of certification CB-certificate | No |
| certificate of suitability | |
| • EAC approval | Yes |
| certificate of suitability shipbuilding approval | No |
| shipbuilding approval | - |
| Marine classification association | |
| • American Bureau of Shipping Europe Ltd. (ABS) | No |
| • French marine classification society (BV) | No |
| • DNV GL | No |
| • Lloyds Register of Shipping (LRS) | No |
| • Nippon Kaiji Kyokai (NK) | No |
| EMC | |
| standard | |
| • for emitted interference | EN 55022 Class B |
| • for mains harmonics limitation | EN 61000-3-2 |
| • for interference immunity | EN 61000-6-2 |
| environmental conditions | |
| ambient temperature | |
| • during operation | -25 ... +60 °C; with natural convection |
| • during transport | -40 ... +85 °C |
| • during storage | -40 ... +85 °C |
| environmental category according to IEC 60721 | 3K6 without direct sunlight |
| Mechanics | |
| type of electrical connection | screw-type terminals |
| • at input | L1, N, PE: Plug connector 7/8" (counterpart see "Operating Instructions (compact)") |
| • at output | +, -: Plug connector 7/8" (counterpart see "Operating Instructions (compact)") |
| • for auxiliary contacts | Alarm signals: M12 plug-in connector 4-pin |
| product function | |
| • removable terminal at input | Yes |
| • removable terminal at output | Yes |
| width of the enclosure | 120 mm |
| height of the enclosure | 181 mm |
| depth of the enclosure | 60.5 mm |
| required spacing | |
| • top | 50 mm |
| • bottom | 0 mm |
| • left | 0 mm |
| • right | 0 mm |
| net weight | 1.1 kg |
| product feature of the enclosure housing can be lined up | Yes |
| fastening method | Wall mounting |
| MTBF at 40 °C | 1 500 000 h |
| other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |

