



SITOP PSU100E/1AC/48VDC/5A

SITOP PSU100E 48 V/5 A Stabilized power supply Input: 120 / 230 V AC
Output: 48 V DC/5 A

| Input | |
|--|---|
| type of the power supply network | 1-phase AC |
| supply voltage | |
| • 1 at AC rated value | 100 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 |
| 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 | 30 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 | 4.4 A |
| • at rated input voltage 230 V | 2 A |
| current limitation of inrush current at 25 °C maximum | 58 A |
| I ² t value maximum | 1.5 A ² ·s |
| fuse protection type | T 6.3 A (not accessible), soldered |
| • in the feeder | Recommended miniature circuit breaker: from 10 A characteristic C |
| Output | |
| voltage curve at output | Controlled, isolated DC voltage |
| output voltage at DC rated value | 48 V |
| output voltage | |
| • at output 1 at DC rated value | 48 V |
| relative overall tolerance of the voltage | 3 % |
| relative control precision of the output voltage | |
| • on slow fluctuation of input voltage | 0.2 % |
| • on slow fluctuation of ohm loading | 0.5 % |
| residual ripple | |
| • maximum | 50 mV |
| • typical | 30 mV |
| voltage peak | |
| • maximum | 150 mV |
| • typical | 100 mV |
| adjustable output voltage | 48 ... 54 V |

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| product function output voltage adjustable | Yes |
| type of output voltage setting | via potentiometer; max. 240 W |
| display version for normal operation | Green LED for 48 V OK |
| type of signal at output | Relay contact (NO contact, rating 60 V DC/ 0.3 A) for 48 V OK |
| behavior of the output voltage when switching on | Overshoot of Vout approx. 2 % |
| response delay maximum | 1.5 s |
| voltage increase time of the output voltage | |
| • typical | 15 ms |
| • maximum | 500 ms |
| output current | |
| • rated value | 5 A |
| • rated range | 0 ... 5 A; +60 ... +70 °C: Derating 5%/K |
| supplied active power typical | 240 W |
| product feature | |
| • bridging of equipment | Yes |
| number of parallel-switched equipment resources for increasing the power | 2 |
| Efficiency | |
| efficiency in percent | 92 % |
| power loss [W] | |
| • at rated output voltage for rated value of the output current typical | 12 W |
| Closed-loop control | |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 0.3 % |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical | 1 % |
| setting time | |
| • load step 10 to 90% typical | 0.5 ms |
| • load step 90 to 10% typical | 0.5 ms |
| • maximum | 1 ms |
| Protection and monitoring | |
| design of the overvoltage protection | < 60 V |
| response value current limitation typical | 5.3 A |
| property of the output short-circuit proof | Yes |
| design of short-circuit protection | Electronic shutdown, automatic restart |
| enduring short circuit current RMS value | |
| • typical | 8.7 A |
| Safety | |
| galvanic isolation between input and output | Yes |
| galvanic isolation | Safety extra-low output voltage Uout 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 | IP20 |
| Approvals | |
| certificate of suitability | |
| • CE marking | Yes |
| • UL approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 |
| • CSA approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 |
| • cCSAus, Class 1, Division 2 | No |
| • ATEX | No |
| certificate of suitability | |
| • IECEX | No |
| • NEC Class 2 | No |
| • ULhazloc approval | No |
| • FM registration | No |
| type of certification CB-certificate | No |
| certificate of suitability | |

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| • 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 61000-6-4 |
| • for mains harmonics limitation | EN 61000-3-2 |
| • for interference immunity | EN 61000-6-2 |
| environmental conditions | |
| ambient temperature | |
| • during operation | -25 ... +70 °C; with natural convection |
| • during transport | -40 ... +85 °C |
| • during storage | -40 ... +85 °C |
| environmental category acc. to IEC 60721 | Climate class 3K3, 5 ... 95% no condensation |
| Mechanics | |
| type of electrical connection | screw-type terminals |
| • at input | L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded |
| • at output | +, -: 2 screw terminals each for 0.5 ... 2.5 mm ² |
| • for auxiliary contacts | 13, 14 (alarm signal): 1 screw terminal each for 0.5 ... 2.5 mm ² |
| width of the enclosure | 42 mm |
| height of the enclosure | 125 mm |
| depth of the enclosure | 125 mm |
| required spacing | |
| • top | 50 mm |
| • bottom | 50 mm |
| • left | 0 mm |
| • right | 0 mm |
| net weight | 0.5 kg |
| product feature of the enclosure housing can be lined up | Yes |
| fastening method | Snaps onto DIN rail EN 60715 35x7.5/15 |
| MTBF at 40 °C | 1 050 000 h |
| other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |

