



SITOP PSU100L/1AC/24VDC/2.5A

SITOP PSU100L 24 V/2.5 A Stabilized power supply input: 120/230 V AC, output: DC 24 V/2,5 A

| Input | |
|--|--|
| type of the power supply network | 1-phase AC |
| supply voltage at AC | Set by means of selector switch on the device |
| <ul style="list-style-type: none"> initial value | |
| supply voltage | 120 V 230 V |
| <ul style="list-style-type: none"> 1 at AC rated value 2 at AC rated value | |
| input voltage | 93 ... 132 V 187 ... 264 V |
| <ul style="list-style-type: none"> 1 at AC 2 at AC | |
| design of input wide range input | No |
| overvoltage overload capability | 2.3 × Vin rated, 1.3 ms |
| operating condition of the mains buffering | at Vin = 93/187 V |
| buffering time for rated value of the output current in the event of power failure minimum | 20 ms |
| operating condition of the mains buffering | at Vin = 93/187 V |
| line frequency | 50 Hz 60 Hz |
| <ul style="list-style-type: none"> 1 rated value 2 rated value | |
| line frequency | 47 ... 63 Hz |
| input current | 1.1 A 0.65 A |
| <ul style="list-style-type: none"> at rated input voltage 120 V at rated input voltage 230 V | |
| current limitation of inrush current at 25 °C maximum | 27 A |
| duration of inrush current limiting at 25 °C | 3 ms |
| <ul style="list-style-type: none"> typical | |
| I2t value maximum | 0.3 A ² ·s |
| fuse protection type | T 2 A/250 V (not accessible) |
| <ul style="list-style-type: none"> in the feeder | Recommended miniature circuit breaker: from 3 A characteristic C |
| Output | |
| voltage curve at output | Controlled, isolated DC voltage |
| output voltage at DC rated value | 24 V |
| output voltage | 24 V |
| <ul style="list-style-type: none"> at output 1 at DC rated value | |
| relative overall tolerance of the voltage | 3 % |
| relative control precision of the output voltage | 0.1 % 0.5 % |
| <ul style="list-style-type: none"> on slow fluctuation of input voltage on slow fluctuation of ohm loading | |
| residual ripple | 150 mV |
| <ul style="list-style-type: none"> maximum | |

| | |
|---|--|
| <ul style="list-style-type: none"> • typical | 10 mV |
| voltage peak | |
| <ul style="list-style-type: none"> • maximum | 240 mV |
| <ul style="list-style-type: none"> • typical | 50 mV |
| adjustable output voltage | 22.8 ... 26.4 V |
| product function output voltage adjustable | Yes |
| type of output voltage setting | via potentiometer |
| display version for normal operation | Green LED for 24 V OK |
| behavior of the output voltage when switching on | Overshoot of Vout approx. 4 % |
| response delay maximum | 1.5 s |
| voltage increase time of the output voltage | |
| <ul style="list-style-type: none"> • typical | 150 ms |
| output current | |
| <ul style="list-style-type: none"> • rated value | 2.5 A |
| <ul style="list-style-type: none"> • rated range | 0 ... 2.5 A; +45 ... +60 °C: Derating 2%/K |
| supplied active power typical | 60 W |
| product feature | |
| <ul style="list-style-type: none"> • bridging of equipment | Yes |
| number of parallel-switched equipment resources for increasing the power | 2 |
| Efficiency | |
| efficiency in percent | 85 % |
| power loss [W] | |
| <ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical | 9 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 | 2 % |
| setting time | |
| <ul style="list-style-type: none"> • load step 10 to 90% typical | 0.5 ms |
| <ul style="list-style-type: none"> • load step 90 to 10% typical | 0.7 ms |
| Protection and monitoring | |
| design of the overvoltage protection | < 33 V |
| response value current limitation typical | 2.6 A |
| property of the output short-circuit proof | Yes |
| design of short-circuit protection | Constant current characteristic |
| enduring short circuit current RMS value | |
| <ul style="list-style-type: none"> • typical | 4 A |
| display version for overload and short circuit | - |
| 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 | |
| <ul style="list-style-type: none"> • maximum | 3.5 mA |
| <ul style="list-style-type: none"> • typical | 0.4 mA |
| protection class IP | IP20 |
| Approvals | |
| certificate of suitability | |
| <ul style="list-style-type: none"> • CE marking | Yes |
| <ul style="list-style-type: none"> • UL approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 |
| <ul style="list-style-type: none"> • CSA approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 |
| <ul style="list-style-type: none"> • cCSAus, Class 1, Division 2 | No |
| <ul style="list-style-type: none"> • ATEX | No |
| certificate of suitability | |
| <ul style="list-style-type: none"> • IECEx | No |
| <ul style="list-style-type: none"> • NEC Class 2 | No |
| <ul style="list-style-type: none"> • ULhazloc approval | No |

| | |
|--|---|
| • FM registration | No |
| type of certification CB-certificate | Yes |
| 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 A |
| • for mains harmonics limitation | not applicable |
| • for interference immunity | EN 61000-6-2 |
| environmental conditions | |
| ambient temperature | |
| • during operation | 0 ... 60 °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 | - |
| width of the enclosure | 32.5 mm |
| height of the enclosure | 125 mm |
| depth of the enclosure | 120 mm |
| required spacing | |
| • top | 50 mm |
| • bottom | 50 mm |
| • left | 0 mm |
| • right | 0 mm |
| net weight | 0.3 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 | 3 153 082 h |
| other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |

