



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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| Input | 1-phase AC |
| • Note | 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 |
| Wide-range input | No |
| Overvoltage resistance | Implemented internally with varistor |
| Mains buffering | at $V_{in} = 120/230\text{ V}$ |
| Mains buffering at I_{out} rated, min. | 40 ms; at $V_{in} = 120/230\text{ V}$ |
| Rated line frequency 1 | 50 Hz |
| Rated line frequency 2 | 60 Hz |
| Rated line range | 47 ... 63 Hz |
| input current | |
| • at rated input voltage 120 V | 2.25 A |
| • at rated input voltage 230 V | 1.24 A |
| Switch-on current limiting (+25 °C), max. | 15 A |
| I^2t , max. | 0.6 A ² ·s |
| Built-in incoming fuse | T 3.15 A |
| Protection in the mains power input (IEC 898) | Recommended miniature circuit breaker: from 6 A characteristic C/B |
| Output | |
| Output | Controlled, isolated DC voltage |
| Rated voltage V_{out} DC | 24 V |
| Total tolerance, static \pm | 3 % |
| Static mains compensation, approx. | 0.1 % |
| Static load balancing, approx. | 0.2 % |
| Residual ripple peak-peak, max. | 50 mV |
| Spikes peak-peak, max. (bandwidth: 20 MHz) | 100 mV |
| product function output voltage adjustable | No |
| Status display | Green LED: 24 V OK; red LED flashing: "overload/short-circuit" |
| Signaling | Relay contact (NO contact, rating 30 V AC/ 0.5 A; 30 V DC/1 A) for 24 V OK |

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| On/off behavior | Overshoot of $V_{out} < 3\%$ |
| Startup delay, max. | 1.5 s |
| Voltage rise, typ. | 22 ms |
| voltage increase time of the output voltage maximum | 100 ms |
| Rated current value $I_{out\ rated}$ | 5 A |
| Current 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 |
| Parallel switching for enhanced performance | Yes; Symmetric wiring required |
| Numbers of parallel switchable units for enhanced performance | 2 |
| Efficiency | |
| Efficiency at $V_{out\ rated}$, $I_{out\ rated}$, approx. | 90 % |
| Power loss at $V_{out\ rated}$, $I_{out\ rated}$, approx. | 12.9 W |
| Closed-loop control | |
| Dynamic mains compensation ($V_{in\ rated} \pm 15\%$), max. | 0.2 % |
| Dynamic load smoothing (I_{out} : 50/100/50 %), $U_{out} \pm$ typ. | 1 % |
| setting time maximum | 2 ms |
| Protection and monitoring | |
| Output overvoltage protection | < 29 V |
| Current limitation, typ. | 5.5 A |
| property of the output short-circuit proof | Yes |
| Short-circuit protection | Electronic shutdown, automatic restart |
| enduring short circuit current RMS value | |
| • maximum | 6 A |
| • typical | 5 A |
| Overload/short-circuit indicator | Red LED flashing for "overload/short-circuit" |
| Safety | |
| Primary/secondary isolation | Yes |
| galvanic isolation | Safety extra-low output voltage U_{out} acc. to EN 60950-1 and EN 50178 |
| Protection class | Class I |
| leakage current | |
| • maximum | 3.5 mA |
| • typical | 1 mA |
| Degree of protection (EN 60529) | IP67, enclosure type 5 indoor |
| Approvals | |
| CE mark | Yes |
| UL/cUL (CSA) approval | cULus-Listed (UL 508, CSA C22.2 No. 107.1) |
| Explosion protection | - |
| certificate of suitability NEC Class 2 | No |
| FM approval | - |
| CB approval | No |
| Marine approval | - |
| EMC | |
| Emitted interference | EN 55022 Class B |
| Supply harmonics limitation | EN 61000-3-2 |
| Noise immunity | EN 61000-6-2 |
| environmental conditions | |
| ambient temperature | |
| • during operation | -25 ... +60 °C |
| — Note | with natural convection |
| • during transport | -40 ... +85 °C |
| • during storage | -40 ... +85 °C |

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| Humidity class according to EN 60721 | 3K6 without direct sunlight |
| Mechanics | |
| Connection technology | screw-type terminals |
| Connections | |
| • Supply input | L1, N, PE: Plug connector 7/8" (counterpart see "Operating Instructions (compact)") |
| • Output | +, -: Plug connector 7/8" (counterpart see "Operating Instructions (compact)") |
| • Auxiliary | 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 |
| Weight, approx. | 1.1 kg |
| product feature of the enclosure housing can be lined up | Yes |
| Installation | 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) |

