



SITOP PSU100C 12 V/2 A
 SITOP PSU100C 12 V/2 A STABILIZED POWER SUPPLY INPUT:
 AC 100-230 V (DC 110-300 V) OUTPUT: DC 12 V/2 A

| Input | |
|---|---|
| Input | 1-phase AC or DC |
| Rated voltage value V_{in} rated | 100 ... 230 V |
| Voltage range AC | 85 ... 264 V |
| Input voltage | |
| • for DC | 110 ... 300 V |
| Wide-range input | Yes |
| Overvoltage resistance | $2.3 \times V_{in}$ rated, 1.3 ms |
| Mains buffering at I_{out} rated, min. | 20 ms; at $V_{in} = 230$ V |
| Rated line frequency | 50 ... 60 Hz |
| Rated line range | 47 ... 63 Hz |
| Input current | |
| • at rated input voltage 100 V | 0.63 A |
| • at rated input voltage 230 V | 0.31 A |
| Switch-on current limiting (+25 °C), max. | 33 A |
| I^2t , max. | 1.2 A ² ·s |
| Built-in incoming fuse | internal |
| Protection in the mains power input (IEC 898) | Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C |
| Output | |
| Output | Controlled, isolated DC voltage |
| Rated voltage V_{out} DC | 12 V |
| Total tolerance, static \pm | 3 % |
| Residual ripple peak-peak, max. | 200 mV |
| Residual ripple peak-peak, typ. | 40 mV |

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|---|---|
| Spikes peak-peak, max. (bandwidth: 20 MHz) | 300 mV |
| Spikes peak-peak, typ. (bandwidth: 20 MHz) | 50 mV |
| Adjustment range | 10.5 ... 12.9 V |
| Product function Output voltage adjustable | Yes |
| Output voltage setting | via potentiometer |
| Status display | Green LED for output voltage OK |
| On/off behavior | Overshoot of Vout approx. 5 % |
| Startup delay, max. | 0.6 s |
| Voltage rise, typ. | 10 ms |
| Rated current value Iout rated | 2 A |
| Current range | 0 ... 2 A |
| • Note | +55 ... +70 °C: Derating 3%/K |
| Active power supplied typical | 24 W |
| Parallel switching for enhanced performance | Yes; Start-up with single nominal load only |
| Numbers of parallel switchable units for enhanced performance | 2 |

| Efficiency | |
|--|--------|
| Efficiency at Vout rated, Iout rated, approx. | 82 % |
| Power loss at Vout rated, Iout rated, approx. | 5.8 W |
| Active power loss during no-load operation maximum | 0.75 W |

| Closed-loop control | |
|--|-------|
| Dynamic mains compensation (Vin rated ±15 %), max. | 0.1 % |
| Dynamic load smoothing (Iout: 10/90/10 %), Uout ± typ. | 3 % |
| Load step setting time 10 to 90%, typ. | 4 ms |
| Load step setting time 90 to 10%, typ. | 3 ms |

| Protection and monitoring | |
|--|--|
| Output overvoltage protection | Yes, according to EN 60950-1 |
| Current limitation, typ. | 2.4 A |
| Property of the output Short-circuit proof | Yes |
| Short-circuit protection | Electronic shutdown, automatic restart |
| Overload/short-circuit indicator | - |

| Safety | |
|-----------------------------|--|
| Primary/secondary isolation | Yes |
| Galvanic isolation | Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 |
| Protection class | Class I |
| Leakage current | |
| • maximum | 3.5 mA |
| • typical | 0.4 mA |
| CE mark | Yes |

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| UL/CSA approval | Yes |
| UL/cUL (CSA) approval | cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1) |
| Explosion protection | ATEX (EX) II 3G Ex nA IIC T4; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4 |
| Certificate of suitability IECEx | No |
| Certificate of suitability NEC Class 2 | No |
| FM approval | - |
| CB approval | Yes |
| Marine approval | GL, ABS |
| Degree of protection (EN 60529) | IP20 |

EMC

| | |
|-----------------------------|------------------|
| Emitted interference | EN 55022 Class B |
| Supply harmonics limitation | not applicable |
| Noise immunity | EN 61000-6-2 |

Operating data

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|--|---|
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation — Note • during transport • during storage | -20 ... +70 °C with natural convection -40 ... +85 °C -40 ... +85 °C |
| Humidity class according to EN 60721 | Climate class 3K3, no condensation |

Mechanics

| | |
|---|---|
| Connection technology | screw-type terminals |
| Connections | |
| <ul style="list-style-type: none"> • Supply input • Output • Auxiliary | L, N, PE: Removable screw terminal, each for 1 x 0.5 ... 2.5 mm ² +: 1 screw terminal for 0.5 ... 2.5 mm ² ; -: 2 screw terminals for 0.5 ... 2.5 mm ² - |
| Width of the enclosure | 30 mm |
| Height of the enclosure | 80 mm |
| Depth of the enclosure | 100 mm |
| Weight, approx. | 0.12 kg |
| Product property of the enclosure housing for side-by-side mounting | Yes |
| Installation | Snaps onto DIN rail EN 60715 35x7.5/15 |
| Electrical accessories | Removable spring-type terminal 6EP1971-5BA00 |
| Other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |