

SITOP PSU100C 24 V/1.3 A
 SITOP PSU100C 24 V/1.3 A stabilized power supply input: 120/230 V AC (DC 110-300 V) output: 24 V DC/1.3 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 | |
| • at 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 1 | 50 Hz |
| Rated line frequency 2 | 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. | 34 A |
| I^2t , max. | 1.2 A ² ·s |
| Built-in incoming fuse | internal |

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| Protection in the mains power input (IEC 898) | Recommended miniature circuit breaker: from 6 A characteristic B or from 3 A characteristic C |
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Output

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| Output | Controlled, isolated DC voltage |
| Rated voltage Vout 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. | 200 mV |
| Residual ripple peak-peak, typ. | 25 mV |
| Spikes peak-peak, max. (bandwidth: 20 MHz) | 300 mV |
| Spikes peak-peak, typ. (bandwidth: 20 MHz) | 20 mV |
| Adjustment range | 22.2 ... 26.4 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. | 90 ms |
| Rated current value Iout rated | 1.3 A |
| Current range | 0 ... 1.3 A |
| • Note | +60 ... +70 °C: Derating 0.8%/K; at +70 °C Iout rated 1.2 A |
| Supplied active power typical | 30 W |
| Short-term overload current | |
| • at short-circuit during operation typical | 3.1 A |
| Parallel switching for enhanced performance | Yes; Start-up with single nominal load only |
| Numbers of parallel switchable units for enhanced performance | 2 |

Efficiency

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| Efficiency at Vout rated, Iout rated, approx. | 86 % |
| Power loss at Vout rated, Iout rated, approx. | 4.5 W |
| Power loss [W] during no-load operation maximum | 0.75 W |

Closed-loop control

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| Dynamic mains compensation (Vin rated \pm 15 %), max. | 0.1 % |
| Dynamic load smoothing (Iout: 10/90/10 %), Uout \pm typ. | 3 % |
| Load step setting time 10 to 90%, typ. | 5 ms |
| Load step setting time 90 to 10%, typ. | 5 ms |

Protection and monitoring

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| Output overvoltage protection | Yes, according to EN 60950-1 |
| Current limitation, typ. | 1.4 A |

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| Property of the output Short-circuit proof | Yes |
| Short-circuit protection | Electronic shutdown, automatic restart |
| Overload/short-circuit indicator | - |

Safety

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| 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 | 0.4 mA |
| CE mark | Yes |
| UL/cUL (CSA) approval | cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) |
| 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 |
| FM approval | - |
| CB approval | Yes |
| Marine approval | GL, ABS |
| Degree of protection (EN 60529) | IP20 |

EMC

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| 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 | |
| • during operation | -20 ... +70 °C |
| — Note | with natural convection |
| • during transport | -40 ... +85 °C |
| • during storage | -40 ... +85 °C |
| Humidity class according to EN 60721 | Climate class 3K3, no condensation |

Mechanics

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| Connection technology | screw-type terminals |
| Connections | |
| • Supply input | L, N, PE: Removable screw terminal, each for 1 x 0.5 ... 2.5 mm ² |
| • Output | +: 1 screw terminal for 0.5 ... 2.5 mm ² ; -: 2 screw terminals for 0.5 ... 2.5 mm ² |
| • Auxiliary | - |
| Width of the enclosure | 30 mm |
| Height of the enclosure | 80 mm |

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| Depth of the enclosure | 100 mm |
| Required spacing | |
| • top | 50 mm |
| • bottom | 50 mm |
| • left | 25 mm |
| • right | 25 mm |
| Weight, approx. | 0.17 kg |
| Product feature 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 |
| MTBF at 40 °C | 3 838 624 h |
| Other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |