

SITOP PSU3400 12 V/8 A
 SITOP PSU3400 12 V/8 A Stabilized power supply Input: 24 V DC
 (14...32 V) Output: 12 V DC/8 A



| Input | |
|---|---|
| Input | DC voltage |
| <ul style="list-style-type: none"> Note | Startup as of 18 V, derating necessary for 14 ... 18 V DC |
| Supply voltage | |
| <ul style="list-style-type: none"> at DC | 24 ... 24 V |
| Input voltage | |
| <ul style="list-style-type: none"> at DC | 14 ... 32 V |
| Wide-range input | No |
| Overvoltage resistance | - |
| Mains buffering | at $V_{in} = 24\text{ V}$ |
| Mains buffering at lout rated, min. | 5 ms; at $V_{in} = 24\text{ V}$ |
| Input current | |
| <ul style="list-style-type: none"> at rated input voltage 24 V | 4.5 A |
| Switch-on current limiting (+25 °C), max. | 15 A |
| I^2t , max. | 0.18 A ² ·s |
| Built-in incoming fuse | 15 A (not accessible), breaking capacity 100 A |
| Protection in the mains power input (IEC 898) | Recommended miniature circuit breaker: 16 A characteristic B or C |
| Output | |

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| Output | Controlled, isolated DC voltage |
| Rated voltage V_{out} DC | 12 V |
| Total tolerance, static \pm | 2 % |
| Static mains compensation, approx. | 0.2 % |
| Static load balancing, approx. | 1.3 % |
| Residual ripple peak-peak, max. | 150 mV |
| Residual ripple peak-peak, typ. | 10 mV |
| Spikes peak-peak, max. (bandwidth: 20 MHz) | 250 mV |
| Spikes peak-peak, typ. (bandwidth: 20 MHz) | 30 mV |
| Adjustment range | 12 ... 15.5 V |
| Product function Output voltage adjustable | Yes |
| Output voltage setting | via potentiometer |
| Status display | Green LED for 12 V OK |
| On/off behavior | No overshoot of V_{out} (soft start) |
| Startup delay, max. | 0.5 s |
| Voltage rise, typ. | 10 ms |
| Voltage increase time of the output voltage maximum | 20 ms |
| Rated current value I_{out} rated | 8 A |
| Current range | 0 ... 8 A |
| • Note | +60 ... +70 °C: Derating 2%/K |
| Supplied active power typical | 107 W |
| Parallel switching for enhanced performance | Yes |
| Numbers of parallel switchable units for enhanced performance | 2 |

Efficiency

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|---|-------|
| Efficiency at V_{out} rated, I_{out} rated, approx. | 90 % |
| Power loss at V_{out} rated, I_{out} rated, approx. | 11 W |
| Power loss [W] during no-load operation maximum | 1.5 W |

Closed-loop control

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| Dynamic mains compensation (V_{in} rated ± 15 %), max. | 0.3 % |
| Dynamic load smoothing (I_{out} : 50/100/50 %), $U_{out} \pm$ typ. | 4 % |
| Load step setting time 50 to 100%, typ. | 2 ms |
| Load step setting time 100 to 50%, typ. | 2 ms |

Protection and monitoring

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| Output overvoltage protection | $U_a < 22$ V |
| Current limitation, typ. | 9 A |
| Property of the output Short-circuit proof | Yes |
| Short-circuit protection | Electronic shutdown, automatic restart |
| Overload/short-circuit indicator | Yellow LED overload |

Safety

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|---------------------------------|---|
| Primary/secondary isolation | Yes |
| Galvanic isolation | Safety extra low output voltage V_{out} according to EN 60950-1 |
| Protection class | Class III |
| Degree of protection (EN 60529) | IP20 |

Approvals

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|-----------------------|--|
| CE mark | Yes |
| UL/cUL (CSA) approval | cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 |
| Explosion protection | - |
| FM approval | - |
| CB approval | Yes |
| Marine approval | DNV GL; ABS in process |

EMC

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|-----------------------------|----------------|
| Emitted interference | EN 61000-6-3 |
| Supply harmonics limitation | not applicable |
| Noise immunity | EN 61000-6-2 |

environmental conditions

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|--|---|
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation — Note • during transport • during storage | <p>-25 ... +70 °C with natural convection</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p> |
| Humidity class according to EN 60721 | Climate class 3K3, no condensation |

Mechanics

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| Connection technology | screw-type terminals |
| Connections | |
| <ul style="list-style-type: none"> • Supply input • Output | <p>L, N, FE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded</p> <p>+, -: 2 screw terminals each for 0.5 ... 2.5 mm²</p> |
| Width of the enclosure | 32 mm |
| Height of the enclosure | 100 mm |
| Depth of the enclosure | 100 mm |
| Required spacing | |
| <ul style="list-style-type: none"> • top • bottom • left • right | <p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>0 mm</p> |
| Weight, approx. | 0.32 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 | Buffer module |
| MTBF at 40 °C | 1 934 648 h |

