

SITOP PSU200M 24 V/10 A
SITOP PSU200M 10 A Stabilized power supply input: 120/230-500 V
AC output: DC 24 V/10 A



| Input | |
|-------------------------------------|---|
| Input | 1-phase and 2-phase AC |
| • Note | Set by means of selector switch on the device |
| Supply voltage | |
| • 1 at AC | 120 ... 230 V |
| • 2 at AC | 230 ... 500 V |
| Input voltage | |
| • 1 at AC | 85 ... 264 V |
| • 2 at AC | 176 ... 550 V |
| Wide-range input | Yes |
| Overvoltage resistance | 1300 Vpeak, 1.3 ms |
| Mains buffering | at Vin = 120/230 V, typ. 150 ms at Vin = 400 V |
| Mains buffering at lout rated, min. | 25 ms; at Vin = 120/230 V, typ. 150 ms at Vin = 400 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 | 4.4 A |
| • at rated input voltage 230 V | 2.4 A |

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| • at rated input voltage 500 V | 1.1 A |
| Switch-on current limiting (+25 °C), max. | 35 A |
| I^2t , max. | 4 A ² ·s |
| Built-in incoming fuse | T 6.3 A (not accessible) |
| Protection in the mains power input (IEC 898) | Recommended miniature circuit breaker at 1-phase operation: from 6 A (10 A) characteristic C (B); required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2011-1EA10 (setting 3.8 A) or 3RV2711-1ED10 (UL 489) at 230 V; 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489) at 400/500 V |

| Output | |
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| 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. | 0.1 % |
| Residual ripple peak-peak, max. | 50 mV |
| Spikes peak-peak, max. (bandwidth: 20 MHz) | 200 mV |
| Adjustment range | 24 ... 28.8 V |
| Product function Output voltage adjustable | Yes |
| Output voltage setting | via potentiometer |
| Status display | Green LED for 24 V OK |
| Signaling | Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK" |
| On/off behavior | Overshoot of V_{out} approx. 3 % |
| Startup delay, max. | 1 s |
| Voltage rise, typ. | 50 ms |
| Rated current value I_{out} rated | 10 A |
| Current range | 0 ... 10 A |
| • Note | +60 ... +70 °C: Derating 2%/K (at 120 V, 230 V) or 3.5%/K (at 400 V) |
| Supplied active power typical | 240 W |
| Short-term overload current | |
| • at short-circuit during operation typical | 30 A |
| Duration of overloading capability for excess current | |
| • at short-circuit during operation | 25 ms |
| Constant overload current | |
| • on short-circuiting during the start-up typical | 12 A |
| Parallel switching for enhanced performance | Yes; switchable characteristic |
| Numbers of parallel switchable units for enhanced performance | 2 |

| Efficiency | |
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| Efficiency at V_{out} rated, I_{out} rated, approx. | 91 % |
| Power loss at V_{out} rated, I_{out} rated, approx. | 24 W |

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| Power loss [W] during no-load operation maximum | 6 W |
| Closed-loop control | |
| Dynamic mains compensation (V_{in} rated $\pm 15\%$), max. | 0.1 % |
| Dynamic load smoothing (I_{out} : 50/100/50 %), $U_{out} \pm$ typ. | 3 % |
| Load step setting time 50 to 100%, typ. | 2 ms |
| Load step setting time 100 to 50%, typ. | 2 ms |
| Setting time maximum | 5 ms |
| Protection and monitoring | |
| Output overvoltage protection | < 35 V |
| Current limitation, typ. | 12 A |
| Property of the output Short-circuit proof | Yes |
| Short-circuit protection | Alternatively, constant current characteristic approx. 12 A or latching shutdown |
| Enduring short circuit current RMS value <ul style="list-style-type: none"> • typical | 12 A |
| Overload/short-circuit indicator | LED yellow for "overload", LED red for "latching shutdown" |
| 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 <ul style="list-style-type: none"> • maximum • typical | 3.5 mA 0.32 mA |
| Degree of protection (EN 60529) | IP20 |
| Approvals | |
| CE mark | 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 | IECEx Ex nA nC IIC T4 Gc; ATEX (EX) II 3G Ex nA nC IIC T4 Gc; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T3 |
| FM approval | - |
| CB approval | Yes |
| Marine approval | ABS, DNV GL |
| EMC | |
| Emitted interference | EN 55022 Class B |
| Supply harmonics limitation | EN 61000-3-2 |
| Noise immunity | EN 61000-6-2 |
| environmental conditions | |

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| Ambient temperature | |
| <ul style="list-style-type: none"> during operation | -25 ... +70 °C |
| — Note | With natural convection; startup tested starting from -40 °C nominal voltage |
| <ul style="list-style-type: none"> during transport | -40 ... +85 °C |
| <ul style="list-style-type: none"> during storage | -40 ... +85 °C |
| Humidity class according to EN 60721 | Climate class 3K3, 5 ... 95% no condensation |

Mechanics

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| Connection technology | screw-type terminals |
| Connections | |
| <ul style="list-style-type: none"> Supply input | L, N, PE: 1 screw terminal each for 0.2 ... 2.5 mm ² single-core/finely stranded |
| <ul style="list-style-type: none"> Output | +, -: 2 screw terminals each for 0.2 ... 2.5 mm ² |
| <ul style="list-style-type: none"> Auxiliary | 13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm ² |
| Width of the enclosure | 70 mm |
| Height of the enclosure | 125 mm |
| Depth of the enclosure | 121 mm |
| Required spacing | |
| <ul style="list-style-type: none"> top | 50 mm |
| <ul style="list-style-type: none"> bottom | 50 mm |
| <ul style="list-style-type: none"> left | 0 mm |
| <ul style="list-style-type: none"> right | 0 mm |
| Weight, approx. | 0.8 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 | 1 055 408 h |
| Other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |