



Figure similar

SITOP PSU200M/1-2AC/24VDC/10A/CO

SITOP PSU200M plus 10 A Stabilized power supply input: AC 120-230/230-500 V
output: DC 24 V/10 A Option for with protective varnish

| Input | |
|--|---|
| type of the power supply network | 1-phase and 2-phase AC |
| supply voltage at AC | |
| • initial value | 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 |
| design of input wide range input | Yes |
| overvoltage overload capability | 1300 V _{peak} , 1.3 ms |
| operating condition of the mains buffering | at V _{in} = 120/230 V, typ. 150 ms at V _{in} = 400 V |
| buffering time for rated value of the output current in the event of power failure minimum | 25 ms |
| operating condition of the mains buffering | at V _{in} = 120/230 V, typ. 150 ms at V _{in} = 400 V |
| line frequency | |
| • 1 rated value | 50 Hz |
| • 2 rated value | 60 Hz |
| line frequency | 47 ... 63 Hz |
| input current | |
| • at rated input voltage 120 V | 4.4 A |
| • at rated input voltage 230 V | 2.4 A |
| • at rated input voltage 500 V | 1.1 A |
| current limitation of inrush current at 25 °C maximum | 35 A |
| I ² t value maximum | 4 A ² ·s |
| fuse protection type | T 6.3 A (not accessible) |
| • in the feeder | 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 | |
| voltage curve at output | Controlled, isolated DC voltage |
| output voltage at DC rated value | 24 V |
| output voltage | |
| • at output 1 at DC rated value | 24 V |
| relative overall tolerance of the voltage | 3 % |
| relative control precision of the output voltage | |
| • on slow fluctuation of input voltage | 0.1 % |
| • on slow fluctuation of ohm loading | 0.1 % |

| | |
|---|--|
| residual ripple | |
| • maximum | 50 mV |
| voltage peak | |
| • maximum | 200 mV |
| adjustable output voltage | 24 ... 28.8 V |
| product function output voltage adjustable | Yes |
| type of output voltage setting | via potentiometer |
| display version for normal operation | Green LED for 24 V OK |
| type of signal at output | Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK" |
| behavior of the output voltage when switching on | Overshoot of V_{out} approx. 3 % |
| response delay maximum | 1 s |
| voltage increase time of the output voltage | |
| • typical | 50 ms |
| output current | |
| • rated value | 10 A |
| • rated range | 0 ... 10 A; +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 |
| product feature | |
| • bridging of equipment | Yes; switchable characteristic |
| number of parallel-switched equipment resources for increasing the power | 2 |
| Efficiency | |
| efficiency in percent | 91 % |
| power loss [W] | |
| • at rated output voltage for rated value of the output current typical | 24 W |
| • during no-load operation maximum | 6 W |
| Closed-loop control | |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 0.1 % |
| relative control precision of the output voltage load step of resistive load 50/100/50 % typical | 3 % |
| setting time | |
| • load step 50 to 100% typical | 2 ms |
| • load step 100 to 50% typical | 2 ms |
| setting time | |
| • maximum | 5 ms |
| Protection and monitoring | |
| design of the overvoltage protection | < 35 V |
| • typical | 12 A |
| property of the output short-circuit proof | Yes |
| design of short-circuit protection | Alternatively, constant current characteristic approx. 12 A or latching shutdown |
| enduring short circuit current RMS value | |
| • typical | 12 A |
| display version for overload and short circuit | LED yellow for "overload", LED red for "latching shutdown" |
| Safety | |
| galvanic isolation between input and output | Yes |
| galvanic isolation | Safety extra-low output voltage U_{out} acc. to EN 60950-1 and EN 50178 |
| operating resource protection class | Class I |
| leakage current | |
| • maximum | 3.5 mA |
| • typical | 0.32 mA |
| protection class IP | IP20 |
| Approvals | |
| certificate of suitability | |
| • CE marking | Yes |

| | |
|---|--|
| <ul style="list-style-type: none"> • UL approval • CSA approval • cCSAus, Class 1, Division 2 • ATEX | <p>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259</p> <p>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259</p> <p>No</p> <p>No</p> |
| <p>certificate of suitability</p> <ul style="list-style-type: none"> • IECEx • NEC Class 2 • ULhazloc approval • FM registration | <p>No</p> <p>No</p> <p>No</p> <p>No</p> |
| type of certification CB-certificate | No |
| certificate of suitability | Yes |
| <ul style="list-style-type: none"> • EAC approval | Yes |
| certificate of suitability shipbuilding approval | Yes |
| shipbuilding approval | ABS, DNV GL |
| Marine classification association | |
| <ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • DNV GL • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) | <p>Yes</p> <p>No</p> <p>Yes</p> <p>No</p> <p>No</p> |
| EMC | |
| standard | |
| <ul style="list-style-type: none"> • for emitted interference • for mains harmonics limitation • for interference immunity | <p>EN 55022 Class B</p> <p>EN 61000-3-2</p> <p>EN 61000-6-2</p> |
| environmental conditions | |
| ambient temperature | |
| <ul style="list-style-type: none"> • during operation • during transport • during storage | <p>-25 ... +70 °C; with natural convection</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p> |
| environmental category according to IEC 60721 | Climate class 3K3, 5 ... 95% no condensation |
| Mechanics | |
| type of electrical connection | screw-type terminals |
| <ul style="list-style-type: none"> • at input • at output • for auxiliary contacts | <p>L, N, PE: 1 screw terminal each for 0.2 ... 2.5 mm² single-core/finely stranded</p> <p>+, -: 2 screw terminals each for 0.2 ... 2.5 mm²</p> <p>13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm²</p> |
| 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 • bottom • left • right | <p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>0 mm</p> |
| net weight | 0.8 kg |
| product feature of the enclosure housing can be lined up | Yes |
| fastening method | 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) |

