



SITOP PSU100L/1AC/24VDC/5A

SITOP PSU100L 24 V/5 A Stabilized power supply input: 120/230 V AC, output: 24 V DC/5 A

| input | |
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| type of the power supply network | 1-phase AC |
| supply voltage at AC | Set by means of selector switch on the device |
| supply voltage | 120 V/230 V |
| input voltage 1 at AC | 93 ... 132 V |
| input voltage 2 at AC | 187 ... 264 V |
| wide range input | No |
| overvoltage overload capability | $2.3 \times V_{in}$ rated, 1.3 ms |
| buffering time for rated value of the output current in the event of power failure minimum | 20 ms |
| operating condition of the mains buffering | at $V_{in} = 93/187$ V |
| line frequency | 50/60 Hz |
| line frequency | 47 ... 63 Hz |
| input current | |
| • at rated input voltage 120 V | 2.1 A |
| • at rated input voltage 230 V | 1.15 A |
| current limitation of inrush current at 25 °C maximum | 32 A |
| duration of inrush current limiting at 25 °C | |
| • typical | 3 ms |
| I ² t value maximum | 0.8 A ² s |
| fuse protection type | T 3,15 A/250 V (not accessible) |
| fuse protection type in the feeder | Recommended miniature circuit breaker: from 6 A characteristic C |
| 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 |
| output voltage adjustable | Yes; via potentiometer |
| adjustable output voltage | 22.8 ... 26.4 V |
| relative control precision of the output voltage | |
| • on slow fluctuation of input voltage | 0.1 % |
| • on slow fluctuation of ohm loading | 0.5 % |
| residual ripple | |
| • maximum | 150 mV |
| • typical | 50 mV |
| voltage peak | |
| • maximum | 240 mV |
| • typical | 150 mV |
| display version for normal operation | Green LED for 24 V OK |
| behavior of the output voltage when switching on | Overshoot of V_{out} approx. 4 % |

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| response delay maximum | 1.5 s |
| voltage increase time of the output voltage | |
| • typical | 130 ms |
| output current | |
| • rated value | 5 A |
| • rated range | 0 ... 5 A; +45 ... +60 °C: Derating 2%/K |
| supplied active power typical | 120 W |
| bridging of equipment | Yes |
| number of parallel-switched equipment resources for increasing the power | 2 |
| efficiency | |
| efficiency in percent | 86 % |
| power loss [W] | |
| • at rated output voltage for rated value of the output current typical | 17 W |
| closed-loop control | |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 0.3 % |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical | 2 % |
| setting time | |
| • load step 10 to 90% typical | 0.4 ms |
| • load step 90 to 10% typical | 0.4 ms |
| protection and monitoring | |
| design of the overvoltage protection | < 33 V |
| property of the output short-circuit proof | Yes |
| design of short-circuit protection | Constant current characteristic |
| • typical | 5.25 A |
| enduring short circuit current RMS value | |
| • typical | 8 A |
| safety | |
| galvanic isolation between input and output | Yes |
| galvanic isolation | Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 |
| operating resource protection class | Class I |
| leakage current | |
| • maximum | 3.5 mA |
| • typical | 0.4 mA |
| protection class IP | IP20 |
| standard | |
| • for emitted interference | EN 55022 Class A |
| • for mains harmonics limitation | - |
| • for interference immunity | EN 61000-6-2 |
| standards, specifications, approvals | |
| certificate of suitability | |
| • CE marking | Yes |
| • UL approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 |
| • CSA approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 |
| • EAC approval | Yes |
| • NEC Class 2 | No |
| type of certification | |
| • BIS | Yes; R-41183539 |
| • CB-certificate | Yes |
| MTBF at 40 °C | 3 076 166 h |
| standards, specifications, approvals hazardous environments | |
| certificate of suitability | |
| • IECEx | No |
| • ATEX | No |
| • ULhazloc approval | No |
| • cCSAus, Class 1, Division 2 | No |
| • FM registration | No |
| standards, specifications, approvals marine classification | |

| | |
|---|---|
| shipbuilding approval | No |
| Marine classification association | |
| • American Bureau of Shipping Europe Ltd. (ABS) | No |
| • French marine classification society (BV) | No |
| • Det Norske Veritas (DNV) | No |
| • Lloyds Register of Shipping (LRS) | No |
| standards, specifications, approvals Environmental Product Declaration | |
| Environmental Product Declaration | Yes |
| Global Warming Potential [CO2 eq] | |
| • total | 545 kg |
| • during manufacturing | 12.9 kg |
| • during operation | 531.6 kg |
| • after end of life | 0.35 kg |
| ambient conditions | |
| ambient temperature | |
| • during operation | 0 ... 60 °C; with natural convection |
| • during transport | -40 ... +85 °C |
| • during storage | -40 ... +85 °C |
| environmental category according to IEC 60721 | Climate class 3K3, 5 ... 95% no condensation |
| connection method | |
| type of electrical connection | screw terminal |
| • at input | L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded |
| • at output | +, -: 2 screw terminals each for 0.5 ... 2.5 mm ² |
| • for auxiliary contacts | - |
| mechanical data | |
| width × height × depth of the enclosure | 50 × 120 |
| installation width × mounting height | 50 mm |
| required spacing | |
| • top | 50 mm |
| • bottom | 50 mm |
| • left | 0 mm |
| • right | 0 mm |
| fastening method | Snaps onto DIN rail EN 60715 35x7.5/15 |
| • standard rail mounting | Yes |
| • S7 rail mounting | No |
| • wall mounting | No |
| housing can be lined up | Yes |
| net weight | 0.5 kg |
| further information internet links | |
| internet link | |
| • to web page: selection aid TIA Selection Tool | https://siemens.com/tst |
| • to website: Industrial communication | http://www.siemens.com/simatic-net |
| • to website: CAX-Download-Manager | http://www.siemens.com/cax |
| additional information | |
| other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |
| security information | |
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Classifications

| | Version | Classification |
|--------|---------|----------------|
| eClass | 14 | 27-04-07-01 |
| eClass | 12 | 27-04-07-01 |
| eClass | 9.1 | 27-04-07-01 |
| eClass | 9 | 27-04-07-01 |
| eClass | 8 | 27-04-90-02 |
| eClass | 7.1 | 27-04-90-02 |
| eClass | 6 | 27-04-90-02 |
| ETIM | 9 | EC002540 |
| ETIM | 8 | EC002540 |
| ETIM | 7 | EC002540 |
| IDEA | 4 | 4130 |
| UNSPSC | 15 | 39-12-10-04 |

Approvals Certificates

General Product Approval



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



[BIS CRS](#)

Environment



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