SIEMENS

## Data sheet 6EP1433-0AA00


SITOP PSU300E/3AC/24VDC/5A

SITOP PSU300E 24 V/5 A Stabilized power supply input: 3 AC 400-500 V output: 24 V DC/5 A

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| **Input** | |
| type of the power supply network | 3-phase AC |
| supply voltage at AC | |
| ● minimum rated value | 400 V |
| ● maximum rated value | 500 V |
| ● initial value | 320 V |
| ● full-scale value | 550 V |
| design of input wide range input | Yes |
| operating condition of the mains buffering | at Vin = 400 V |
| buffering time for rated value of the output current in the event of power failure minimum | 50 ms |
| operating condition of the mains buffering | at Vin = 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 400 V | 0.36 A |
| ● at rated input voltage 500 V | 0.29 A |
| current limitation of inrush current at 25 °C maximum | 15 A |
| I2t value maximum | 0.9 $A^2 \cdot s$ |
| fuse protection type | none |
| ● in the feeder | Required: 3-pole connected miniature circuit breaker 6 A characteristic B or C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489) |
| **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 | 3 % |
| ● on slow fluctuation of ohm loading | 3 % |
| residual ripple | |
| ● maximum | 150 mV |
| ● typical | 35 mV |
| voltage peak | |
| ● maximum | 240 mV |
| ● typical | 70 mV |
| adjustable output voltage | 24 ... 29 V |
| product function output voltage adjustable | Yes |

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| type of output voltage setting | via potentiometer; max. 120 W |
| 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 Vout approx. 3 % |
| response delay maximum | 0.5 s |
| voltage increase time of the output voltage | |
| ● typical | 10 ms |
| ● maximum | 100 ms |
| output current | |
| ● rated value | 5 A |
| ● rated range | 0 ... 5 A |
| supplied active power typical | 120 W |
| short-term overload current | |
| ● on short-circuiting during the start-up typical | 33 A |
| ● at short-circuit during operation typical | 28 A |
| duration of overloading capability for excess current | |
| ● on short-circuiting during the start-up | 140 ms |
| ● at short-circuit during operation | 135 ms |
| product feature | |
| ● bridging of equipment | No |
| **Efficiency** | |
| efficiency in percent | 90 % |
| power loss [W] | |
| ● at rated output voltage for rated value of the output current typical | 13 W |
| **Closed-loop control** | |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 3 % |
| relative control precision of the output voltage load step of resistive load 50/100/50 % typical | 5 % |
| setting time | |
| ● load step 50 to 100% typical | 1 ms |
| ● load step 100 to 50% typical | 1 ms |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical | 1 % |
| setting time | |
| ● load step 10 to 90% typical | 1 ms |
| ● load step 90 to 10% typical | 1 ms |
| ● maximum | 30 ms |
| **Protection and monitoring** | |
| design of the overvoltage protection | Yes, according to EN 60950-1 |
| ● typical | 11 A |
| property of the output short-circuit proof | Yes |
| design of short-circuit protection | Electronic shutdown, automatic restart |
| enduring short circuit current RMS value | |
| ● maximum | 7.5 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 |
| protection class IP | IP20 |
| **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 |
| ● cCSAus, Class 1, Division 2 | No |
| ● ATEX | No |
| certificate of suitability | |
| ● IECEx | No |
| ● NEC Class 2 | No |
| ● ULhazloc approval | No |

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|---|---|
| ● FM registration | No |
| type of certification CB-certificate | No |
| certificate of suitability | |
| ● EAC approval | Yes |
| certificate of suitability shipbuilding approval | No |
| shipbuilding approval | - |
| Marine classification association | |
| ● American Bureau of Shipping Europe Ltd. (ABS) | No |
| ● French marine classification society (BV) | No |
| ● DNV GL | No |
| ● Lloyds Register of Shipping (LRS) | No |
| ● Nippon Kaiji Kyokai (NK) | No |
| **EMC** | |
| standard | |
| ● for emitted interference | EN 55022 Class A |
| ● for mains harmonics limitation | EN 61000-3-2 |
| ● for interference immunity | EN 61000-6-2 |
| **environmental 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 |
| **Mechanics** | |
| type of electrical connection | screw-type terminals |
| ● at input | L1, L2, L3, PE: Removable screw terminal for 0.5 ... 2.5 mm² single-core/finely stranded |
| ● at output | +, -: 2 screw terminals each for 0.5 ... 2.5 mm² |
| ● for auxiliary contacts | 13, 14 (alarm signal): 1 screw terminal each for 0.5 ... 2.5 mm² |
| product function | |
| ● removable terminal at input | Yes |
| ● removable terminal at output | Yes |
| width of the enclosure | 42 mm |
| height of the enclosure | 125 mm |
| depth of the enclosure | 125 mm |
| required spacing | |
| ● top | 50 mm |
| ● bottom | 50 mm |
| ● left | 0 mm |
| ● right | 0 mm |
| net weight | 0.6 kg |
| product feature of the enclosure housing can be lined up | Yes |
| fastening method | Snaps onto DIN rail EN 60715 35x7.5/15 |
| MTBF at 40 °C | 2 389 441 h |
| other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |