SIEMENS

## Data sheet 6EP1336-2BA10




SITOP PSU100S/1AC/24VDC/20A

SITOP PSU100S 20 A stabilized power supply input: 120/230 V AC output: 24 V DC/20 A *Ex approval no longer available*

| | |
|---|---|
| **Input** | |
| Input | 1-phase AC |
| ● Note | Automatic range selection |
| supply voltage | |
| ● 1 at AC rated value | 120 V |
| ● 2 at AC rated value | 230 V |
| input voltage | |
| ● 1 at AC | 85 ... 132 V |
| ● 2 at AC | 176 ... 264 V |
| Wide-range input | No |
| Overvoltage resistance | 2.3 × Vin rated, 1.3 ms |
| Mains buffering | at Vin = 120/230 V |
| Mains buffering at Iout rated, min. | 20 ms; at Vin = 120/230 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 | 7.5 A |
| ● at rated input voltage 230 V | 3.5 A |
| Switch-on current limiting (+25 °C), max. | 11 A |
| $I^2t$, max. | 10 $A^2 \cdot s$ |
| Built-in incoming fuse | T 10 A (not accessible) |
| Protection in the mains power input (IEC 898) | Recommended miniature circuit breaker: from 10 A characteristic C or circuit-breaker 3RV2411-1JA10 (120 V) or 3RV2411-1FA10 (230 V) |
| **Output** | |
| Output | Controlled, isolated DC voltage |
| Rated voltage Vout DC | 24 V |
| ● output voltage at output 1 at DC rated value | 24 V |
| Total tolerance, static ± | 3 % |
| Static mains compensation, approx. | 0.5 % |
| Static load balancing, approx. | 1 % |
| Residual ripple peak-peak, max. | 150 mV |
| Spikes peak-peak, max. (bandwidth: 20 MHz) | 240 mV |
| Adjustment range | 24 ... 28 V |
| product function output voltage adjustable | Yes |
| Output voltage setting | via potentiometer; max. 480 W |
| Status display | Green LED for 24 V OK |
| Signaling | Relay contact (NO contact, rating 50 V DC/ 0.3 A) for "24 V OK" |
| On/off behavior | No overshoot of Vout (soft start) |


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| | |
|---|---|
| Startup delay, max. | 1.5 s |
| Voltage rise, typ. | 50 ms |
| voltage increase time of the output voltage maximum | 500 ms |
| Rated current value Iout rated | 20 A |
| Current range | 0 ... 20 A |
| ● Note | 24 A up to +45°C; +60 ... +70 °C: Derating 5%/K |
| supplied active power typical | 480 W |
| short-term overload current | |
| ● on short-circuiting during the start-up typical | 35 A |
| ● at short-circuit during operation typical | 35 A |
| duration of overloading capability for excess current | |
| ● on short-circuiting during the start-up | 100 ms |
| ● at short-circuit during operation | 100 ms |
| Parallel switching for enhanced performance | Yes |
| Numbers of parallel switchable units for enhanced performance | 2 |
| **Efficiency** | |
| Efficiency at Vout rated, Iout rated, approx. | 90 % |
| Power loss at Vout rated, Iout rated, approx. | 53 W |
| **Closed-loop control** | |
| Dynamic mains compensation (Vin rated ±15 %), max. | 1 % |
| Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ. | 3 % |
| setting time maximum | 10 ms |
| **Protection and monitoring** | |
| Output overvoltage protection | Yes, according to EN 60950-1 |
| Current limitation, typ. | 21 A |
| property of the output short-circuit proof | Yes |
| Short-circuit protection | Electronic shutdown, automatic restart |
| enduring short circuit current RMS value | |
| ● maximum | 7 A |
| overcurrent overload capability in normal operation | overload capability 150 % Iout rated up to 5 s/min |
| Overload/short-circuit indicator | - |
| **Safety** | |
| Primary/secondary isolation | Yes |
| galvanic isolation | Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 |
| Protection class | Class I |
| leakage current | |
| ● maximum | 3.5 mA |
| ● typical | 1 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) |
| certificate of suitability NEC Class 2 | No |
| CB approval | Yes |
| certificate of suitability EAC approval | Yes |
| Marine approval | DNV GL |
| **EMC** | |
| Emitted interference | EN 55022 Class B |
| Supply harmonics limitation | EN 61000-3-2 |
| Noise immunity | EN 61000-6-2 |
| **environmental conditions** | |
| ambient temperature | |
| ● during operation | 0 ... 70 °C |
| — Note | with natural convection |
| ● during transport | -40 ... +85 °C |
| ● during storage | -40 ... +85 °C |
| Humidity class according to EN 60721 | Climate class 3K3, 5 … 95% no condensation |


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| Mechanics | |
|---|---|
| Connection technology | screw-type terminals |
| Connections | |
| ● Supply input | L1, N, PE: 1 screw terminal each for 0.2 ... 4 mm² single-core/finely stranded |
| ● Output | +, -: 2 screw terminals each for 0.2 ... 4 mm² |
| ● Auxiliary | 13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm² |
| width of the enclosure | 115 mm |
| height of the enclosure | 145 mm |
| depth of the enclosure | 150 mm |
| required spacing | |
| ● top | 50 mm |
| ● bottom | 50 mm |
| ● left | 0 mm |
| ● right | 0 mm |
| Weight, approx. | 2.4 kg |
| product feature of the enclosure housing can be lined up | Yes |
| Installation | Snaps onto DIN rail EN 60715 35x7.5/15 |
| electrical accessories | Buffer module |
| mechanical accessories | Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20 |
| MTBF at 40 °C | 1 778 916 h |
| other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |


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