SIEMENS

Data sheet 6EP1233-1AA00

SITOP PSA100E, 150 W
SITOP PSA100E STABILIZED POWER SUPPLY 150 W INPUT: 230 V AC OUTPUT: 24 V DC/6 A



Input	
Input	1-phase AC
Supply voltage	
• 1 at AC Rated value	230 V
Voltage range AC	187 ... 264 V
Wide-range input	No
Overvoltage resistance	-
Mains buffering at Iout rated, min.	10 ms
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current	
• at rated input voltage 230 V	1.4 A
Switch-on current limiting (+25 °C), max.	35 A
I^2t, max.	1.2 $A^2 \cdot s$
Built-in incoming fuse	internal
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 10 A characteristic C

Output	
Output	Controlled, isolated DC voltage

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Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.5 %
Residual ripple peak-peak, max.	150 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	250 mV
Adjustment range	23 ... 26 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for 24 V OK
On/off behavior	Overshoot of Vout < 5 %
Startup delay, max.	0.3 s
Voltage increase time of the output voltage maximum	500 ms
Rated current value Iout rated	6 A
Current range	0 ... 6 A
• Note	6 A up to +45 °C, 3 A up to +70 °C
Active power supplied typical	144 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

Efficiency	
Efficiency at Vout rated, Iout rated, approx.	87 %
Power loss at Vout rated, Iout rated, approx.	22 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.3 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	2 %
Load step setting time 50 to 100%, typ.	0.1 ms
Load step setting time 100 to 50%, typ.	0.1 ms

Protection and monitoring	
Output overvoltage protection	< 35 V
Current limitation, typ.	6.6 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current RMS value	
• maximum	3.6 A
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

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Protection class	Class I
Leakage current	
• maximum	3.5 mA
• typical	0.8 mA
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
Explosion protection	-
Certificate of suitability IECEx	No
Certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes
Marine approval	-
Degree of protection (EN 60529)	IP20

EMC

Emitted interference	EN 55022 Class B
Supply harmonics limitation	-
Noise immunity	EN 61000-6-2

Operating data

Ambient temperature	
• during operation	-10 ... +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, no condensation

Mechanics

Connection technology	screw-type terminals
Connections	
• Supply input	L, N, PE: Removable screw terminal, each for 1 x 0.5 ... 2.5 mm²
• Output	+, -: Removable screw terminal each for 1 x 0.5 ... 2.5 mm²
• Auxiliary	-
Width of the enclosure	52 mm
Height of the enclosure	170 mm
Depth of the enclosure	110 mm
Weight, approx.	0.9 kg
Product property of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15, wall mounting
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

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