SIEMENS

Data sheet 6EP3344-0SB00-0AY0

SITOP PSU100E 48 V/5 A
SITOP PSU100E 48 V/5 A Stabilized power supply Input: 120 / 230 V AC Output: 48 V DC/5 A

Input	
Input	1-phase AC
Supply voltage	
• 1 at AC Rated value	100 V
• 2 at AC Rated value	230 V
Input voltage	
• 1 at AC	85 ... 132 V
• 2 at AC	170 ... 264 V
Wide-range input	No
Mains buffering	at Vin = 120/230 V
Mains buffering at Iout rated, min.	30 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	4.4 A
• at rated input voltage 230 V	2 A
Switch-on current limiting (+25 °C), max.	58 A
I^2t, max.	1.5 $A^2 \cdot s$

Built-in incoming fuse	T 6.3 A (not accessible), soldered
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 10 A characteristic C

Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	48 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.2 %
Static load balancing, approx.	0.5 %
Residual ripple peak-peak, max.	50 mV
Residual ripple peak-peak, typ.	30 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	150 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	100 mV
Adjustment range	48 ... 54 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer; max. 240 W
Status display	Green LED for 48 V OK
Signaling	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for 48 V OK
On/off behavior	Overshoot of Vout approx. 2 %
Startup delay, max.	1.5 s
Voltage rise, typ.	15 ms
Voltage increase time of the output voltage maximum	500 ms
Rated current value Iout rated	5 A
Current range	0 ... 5 A
• Note	+60 ... +70 °C: Derating 5%/K
Supplied active power typical	240 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

Efficiency	
Efficiency at Vout rated, Iout rated, approx.	92 %
Power loss at Vout rated, Iout rated, approx.	12 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.3 %
Dynamic load smoothing (Iout: 10/90/10 %), Uout ± typ.	1 %
Load step setting time 10 to 90%, typ.	0.5 ms
Load step setting time 90 to 10%, typ.	0.5 ms
Setting time maximum	1 ms

Protection and monitoring	
Output overvoltage protection	< 60 V

Current limitation, typ.	5.3 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current RMS value	
• typical	8.7 A

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
Explosion protection	-
FM approval	-
CB approval	No
Marine approval	-

EMC	
Emitted interference	EN 61000-6-4
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2

environmental conditions	
Ambient temperature	
• during operation	-25 ... +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

Mechanics	
Connection technology	screw-type terminals
Connections	
• Supply input	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded
• Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm²
• Auxiliary	13, 14 (alarm signal): 1 screw terminal each for 0.5 ... 2.5 mm²
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
Weight, approx.	0.5 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
MTBF at 40 °C	1 050 000 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)