



SITOP PSU100D/1AC/12VDC/8.5A

PSU100D 12 V/8.5 A stabilized power supply input: 100-240 V AC output: 12 V DC/8.5 A

Input	
type of the power supply network	1-phase AC
supply voltage at AC	
• minimum rated value	100 V
• maximum rated value	240 V
• initial value	90 V
• full-scale value	264 V
design of input wide range input	Yes
overvoltage overload capability	1.25 × Vin rated, 500 ms
operating condition of the mains buffering	at Vin = 115/230 V
buffering time for rated value of the output current in the event of power failure minimum	9 ms
operating condition of the mains buffering	at Vin = 115/230 V
line frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 100 V	2.2 A
• at rated input voltage 240 V	1.2 A
current limitation of inrush current at 25 °C maximum	55 A
I ² t value maximum	2.5 A ² ·s
fuse protection type	T4AL250V (internal)
• in the feeder	Recommended miniature circuit breaker: from 16 A characteristic B, from 20 A characteristic B (for North America)
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	12 V
output voltage	
• at output 1 at DC rated value	12 V
relative overall tolerance of the voltage	1 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.5 %
• on slow fluctuation of ohm loading	0.5 %
voltage peak	
• maximum	120 mV
adjustable output voltage	10.8 ... 13.2 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer
display version for normal operation	Green LED for 12 V OK
behavior of the output voltage when switching on	Overshoot of Vout < 10 %

response delay maximum	0.5 s
voltage increase time of the output voltage	
• maximum	30 ms
output current	
• rated value	8.5 A
• rated range	0 ... 8.5 A; +50 ... +70 °C: Derating 2.0%/K
supplied active power typical	100 W
product feature	
• bridging of equipment	No
Efficiency	
efficiency in percent	87.5 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	14.22 W
Closed-loop control	
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	10 %
setting time	
• load step 50 to 100% typical	4 ms
• load step 100 to 50% typical	4 ms
Protection and monitoring	
design of the overvoltage protection	< 17.4 V
response value current limitation	9.35 ... 14.88 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
enduring short circuit current RMS value	
• typical	9 A
display version for overload and short circuit	-
Safety	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra low output voltage V_{out} according to EN 62368-1
operating resource protection class	Class I
leakage current	
• maximum	0.5 mA
Approvals	
certificate of suitability	
• CE marking	Yes
• UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus (UL 62368-1, CSA C22.2 NO 62368-1-14), File E151273
• CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus (UL 62368-1, CSA C22.2 NO 62368-1-14), File E151273
• cCSAus, Class 1, Division 2	No
• ATEX	No
certificate of suitability	
• IECEx	No
• NEC Class 2	No
• ULhazloc approval	No
• FM registration	No
type of certification CB-certificate	Yes
certificate of suitability	
• EAC approval	No
• UKCA marking	Yes
type of certification BIS	Yes
certificate of suitability shipbuilding approval	No
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
EMC	
standard	
• for emitted interference	FN 55032 Class B

- for mains harmonics limitation
- for interference immunity

IEC 61000-6-3 Class A
EN 55035

environmental conditions

ambient temperature	-25 ... +70 °C; with natural convection; The device is not recommended to be placed on low thermal conductive surface (e. g. plastics).
<ul style="list-style-type: none"> • during operation 	
<ul style="list-style-type: none"> • during transport • during storage 	
relative humidity with condensation according to IEC 60068-2-38 maximum	20 ... 90% without condensation

Mechanics

type of electrical connection	screw-type terminals
<ul style="list-style-type: none"> • at input • at output • for auxiliary contacts 	L, N, PE: 1 screw terminal each for 0.75 ... 2 mm ² single-core/finely stranded +, -: 2 screw terminals each for 0.75 ... 2 mm ² -
width of the enclosure	97 mm
height of the enclosure	30 mm
depth of the enclosure	129 mm
net weight	0.29 kg
fastening method	Wall mounting
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

