

SITOP PSU100D/1AC/12VDC/3A

PSU100D 12 V/3 A Stabilized power supply input: 100-240 V AC output: 12 V DC/3 A



Input	
type of the power supply network	1-phase AC
supply voltage at AC	
<ul style="list-style-type: none"> • minimum rated value • maximum rated value • initial value • full-scale value 	100 V 240 V 85 V 264 V
design of input wide range input	Yes
operating condition of the mains buffering	at $V_{in} = 115/230\text{ V}$
buffering time for rated value of the output current in the event of power failure minimum	15 ms
operating condition of the mains buffering	at $V_{in} = 115/230\text{ V}$
line frequency	
<ul style="list-style-type: none"> • 1 rated value • 2 rated value 	50 Hz 60 Hz
line frequency	47 ... 63 Hz
input current	
<ul style="list-style-type: none"> • at rated input voltage 100 V • at rated input voltage 240 V 	0.75 A 0.5 A
current limitation of inrush current at 25 °C maximum	60 A
I ² t value maximum	1.2 A ² ·s
fuse protection type	internal
<ul style="list-style-type: none"> • in the feeder 	Recommended miniature circuit breaker: from 10 A characteristic C or from 16 A characteristic B
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	12 V
output voltage	
<ul style="list-style-type: none"> • at output 1 at DC rated value 	12 V
relative overall tolerance of the voltage	2 %
relative control precision of the output voltage	
<ul style="list-style-type: none"> • on slow fluctuation of input voltage • on slow fluctuation of ohm loading 	0.5 % 1 %
residual ripple	
<ul style="list-style-type: none"> • maximum 	100 mV
voltage peak	
<ul style="list-style-type: none"> • maximum 	100 mV
adjustable output voltage	11 ... 14 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 < 2 %
response delay maximum	2.5 s
voltage increase time of the output voltage <ul style="list-style-type: none"> • maximum 	30 ms
output current <ul style="list-style-type: none"> • rated value • rated range 	3 A 0 ... 3 A; +50 ... +70 °C: Derating 2.5%/K
supplied active power typical	36 W
product feature <ul style="list-style-type: none"> • bridging of equipment 	Yes
number of parallel-switched equipment resources for increasing the power	2
Efficiency	
efficiency in percent	84 %
power loss [W] <ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical 	6.5 W
Closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.5 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	5 %
Protection and monitoring	
design of the overvoltage protection	< 17.6 V
response value current limitation typical	3.6 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
enduring short circuit current RMS value <ul style="list-style-type: none"> • typical 	6 A
display version for overload and short circuit	-
Safety	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra low output voltage Vout according to EN 60950-1
operating resource protection class	Class I
leakage current <ul style="list-style-type: none"> • maximum • typical 	3.5 mA 1 mA
protection class IP	IP20
Approvals	
certificate of suitability <ul style="list-style-type: none"> • CE marking • UL approval • CSA approval • cCSAus, Class 1, Division 2 • ATEX 	Yes Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus (UL 60950-1, CSA C22.2 No. 60950-1), File E151273 Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus (UL 60950-1, CSA C22.2 No. 60950-1), File E151273 No No
certificate of suitability <ul style="list-style-type: none"> • IECEX • NEC Class 2 • ULhazloc approval • FM registration 	No No No No
type of certification CB-certificate	Yes
certificate of suitability <ul style="list-style-type: none"> • EAC approval 	Yes
certificate of suitability shipbuilding approval	No
shipbuilding approval	-
Marine classification association <ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) 	No No

<ul style="list-style-type: none"> • DNV GL • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) 	No
	No
	No
EMC	
standard	
<ul style="list-style-type: none"> • for emitted interference • for mains harmonics limitation • for interference immunity 	EN 55022 Class B not applicable EN 61000-6-2
environmental conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation • during transport • during storage 	-10 ... +70 °C; with natural convection -40 ... +85 °C -40 ... +85 °C
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 0.3 ... 1.3 mm ² single-core/finely stranded +, -: 1 screw terminal each for 0.3 ... 1.3 mm ² -
width of the enclosure	97 mm
height of the enclosure	98 mm
depth of the enclosure	38 mm
required spacing	
<ul style="list-style-type: none"> • top • bottom • left • right 	20 mm 0 mm 20 mm 20 mm
net weight	0.37 kg
fastening method	Wall mounting
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

