

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	
• minimum rated value	100 V
• maximum rated value	240 V
• initial value	85 V
• full-scale value	264 V
design of input wide range input	Yes
operating condition of the mains buffering	at $V_{in} = 115/230$ 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 $V_{in} = 115/230$ 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	0.75 A
• at rated input voltage 240 V	0.5 A
current limitation of inrush current at 25 °C maximum	60 A
I <sup>2</sup> t value maximum	1.2 A <sup>2</sup> ·s
fuse protection type	internal
• 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	
• at output 1 at DC rated value	12 V
relative overall tolerance of the voltage	2 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.5 %
• on slow fluctuation of ohm loading	1 %
residual ripple	
• maximum	100 mV
voltage peak	
• 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"> <li>• maximum</li> </ul>	30 ms
output current <ul style="list-style-type: none"> <li>• rated value</li> <li>• rated range</li> </ul>	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"> <li>• bridging of equipment</li> </ul>	Yes
number of parallel-switched equipment resources for increasing the power	2
<b>Efficiency</b>	
efficiency in percent	84 %
power loss [W] <ul style="list-style-type: none"> <li>• at rated output voltage for rated value of the output current typical</li> </ul>	6.5 W
<b>Closed-loop control</b>	
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 %
<b>Protection and monitoring</b>	
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"> <li>• typical</li> </ul>	6 A
display version for overload and short circuit	-
<b>Safety</b>	
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"> <li>• maximum</li> <li>• typical</li> </ul>	3.5 mA 1 mA
protection class IP	IP20
<b>Approvals</b>	
certificate of suitability <ul style="list-style-type: none"> <li>• CE marking</li> <li>• UL approval</li> <li>• CSA approval</li> <li>• cCSAus, Class 1, Division 2</li> <li>• ATEX</li> </ul>	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"> <li>• IECEX</li> <li>• NEC Class 2</li> <li>• ULhazloc approval</li> <li>• FM registration</li> </ul>	No No No No
type of certification CB-certificate	Yes
certificate of suitability <ul style="list-style-type: none"> <li>• EAC approval</li> </ul>	Yes
certificate of suitability shipbuilding approval	No
shipbuilding approval	-
Marine classification association <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> </ul>	No No

<ul style="list-style-type: none"> <li>• DNV GL</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> </ul>	No No No
<b>EMC</b>	
standard	
<ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for mains harmonics limitation</li> <li>• for interference immunity</li> </ul>	EN 55022 Class B not applicable EN 61000-6-2
<b>environmental conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during transport</li> <li>• during storage</li> </ul>	-10 ... +70 °C; with natural convection -40 ... +85 °C -40 ... +85 °C
<b>Mechanics</b>	
type of electrical connection	screw-type terminals
<ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> <li>• for auxiliary contacts</li> </ul>	L, N, PE: 1 screw terminal each for 0.3 ... 1.3 mm <sup>2</sup> single-core/finely stranded +, -: 1 screw terminal each for 0.3 ... 1.3 mm <sup>2</sup> -
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"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	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)

