

SITOP PSU100D/1AC/24VDC/12.5A

***** spare part ***** PSU100D 24 V/12.5 A stabilized power supply
input: 100-240 V AC output: 24 V DC/12.5 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 	4 A 2 A
current limitation of inrush current at 25 °C maximum	60 A
I _{2t} value maximum	1.1 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	24 V
output voltage	
<ul style="list-style-type: none"> • at output 1 at DC rated value 	24 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 % 0.5 %
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	22 ... 28 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer
display version for normal operation	Green LED for 24 V OK
type of signal at output	-

behavior of the output voltage when switching on	Overshoot of Vout < 2 %
response delay maximum	1 s
voltage increase time of the output voltage	
• maximum	30 ms
output current	
• rated value	12.5 A
• rated range	0 ... 12.5 A; +50 ... +70 °C: Derating 2.5%/K
supplied active power typical	300 W
product feature	
• bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
Efficiency	
efficiency in percent	86 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	48 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	< 35 V
• typical	15 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	15 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	
• maximum	3.5 mA
• typical	1 mA
protection class IP	IP20
Approvals	
certificate of suitability	
• CE marking	Yes
• UL approval	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
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• 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	Yes
certificate of suitability shipbuilding approval	No
shipbuilding approval	-
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
• Nippon Kaiji Kyokai (NK)	No

EMC	
standard	
<ul style="list-style-type: none"> • for emitted interference • for mains harmonics limitation • for interference immunity 	EN 55022 Class B EN 61000-3-2 EN 61000-6-2
environmental conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation • during transport • during storage 	-10 ... +70 °C; with forced convection (ventilator) -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 0.5 ... 1.3 mm ² single-core/finely stranded +, -: 2 screw terminals each for 0.5 ... 1.3 mm ² -
width of the enclosure	105 mm
height of the enclosure	199 mm
depth of the enclosure	41 mm
required spacing	
<ul style="list-style-type: none"> • top • bottom • left • right 	20 mm 0 mm 20 mm 20 mm
net weight	0.81 kg
fastening method	Wall mounting
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

