

SITOP PSU100D/1AC/24VDC/4.1A



PSU100D 24 V/4.1 A Stabilized  
power supply input: 100-240 V  
AC output: 24 V DC/4.1 A

Input	
Input	1-phase AC
Rated voltage value $V_{in}$ rated	100 ... 240 V
Voltage range AC	85 ... 264 V
Wide-range input	Yes
Mains buffering	at $V_{in} = 115/230$ V
Mains buffering at $I_{out}$ rated, min.	15 ms; at $V_{in} = 115/230$ 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 100 V	2 A
• at rated input voltage 240 V	1.1 A
Switch-on current limiting (+25 °C), max.	75 A
$I^2t$ , max.	4 A <sup>2</sup> ·s
Built-in incoming fuse	internal
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 10 A characteristic C or from 16 A characteristic B
Output	
Output	Controlled, isolated DC voltage
Rated voltage $V_{out}$ DC	24 V
• output voltage at output 1 at DC rated value	24 V
Total tolerance, static $\pm$	2 %
Static mains compensation, approx.	0.5 %
Static load balancing, approx.	1 %
Residual ripple peak-peak, max.	100 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	100 mV
Adjustment range	22 ... 28 V
product function output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for 24 V OK
On/off behavior	Overshoot of $V_{out} < 2$ %
Startup delay, max.	1 s
voltage increase time of the output voltage maximum	30 ms
Rated current value $I_{out}$ rated	4.1 A

Current range	0 ... 4.1 A
<ul style="list-style-type: none"> <li>Note</li> </ul>	+50 ... +70 °C: Derating 2.5%/K
supplied active power typical	100 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2
<b>Efficiency</b>	
Efficiency at Vout rated, Iout rated, approx.	86 %
Power loss at Vout rated, Iout rated, approx.	16 W
<b>Closed-loop control</b>	
Dynamic mains compensation (Vin rated ±15 %), max.	0.5 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	5 %
<b>Protection and monitoring</b>	
Output overvoltage protection	< 35 V
Current limitation, typ.	4.9 A
property of the output short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
enduring short circuit current RMS value	
<ul style="list-style-type: none"> <li>typical</li> </ul>	10 A
Overload/short-circuit indicator	-
<b>Safety</b>	
Primary/secondary isolation	Yes
galvanic isolation	Safety extra low output voltage Vout according to EN 60950-1
Protection class	Class I
leakage current	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	3.5 mA
<ul style="list-style-type: none"> <li>typical</li> </ul>	1 mA
Degree of protection (EN 60529)	IP20
<b>Approvals</b>	
CE mark	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus (UL 60950-1, CSA C22.2 No. 60950-1), File E151273
Explosion protection	-
certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes
certificate of suitability EAC approval	Yes
Marine approval	-
<b>EMC</b>	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2
<b>environmental conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>during operation</li> </ul>	-10 ... +70 °C
<ul style="list-style-type: none"> <li>— Note</li> </ul>	with natural convection
<ul style="list-style-type: none"> <li>during transport</li> </ul>	-40 ... +85 °C
<ul style="list-style-type: none"> <li>during storage</li> </ul>	-40 ... +85 °C
<b>Mechanics</b>	
Connection technology	screw-type terminals
Connections	
<ul style="list-style-type: none"> <li>Supply input</li> </ul>	L, N, PE: 1 screw terminal each for 0.3 ... 1.3 mm <sup>2</sup> single-core/finely stranded
<ul style="list-style-type: none"> <li>Output</li> </ul>	+, -: 2 screw terminals each for 0.3 ... 1.3 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>Auxiliary</li> </ul>	-
width of the enclosure	97 mm
height of the enclosure	158 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>	<p>20 mm</p> <p>0 mm</p> <p>20 mm</p> <p>20 mm</p>
Weight, approx.	0.5 kg
Installation	Wall mounting
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

