

SITOP PSU100L 24 V/2.5 A  
 SITOP PSU100L 24 V/2.5 A Stabilized power supply input: 120/230 V AC, output: DC 24 V/2,5 A



Input	
Input	1-phase AC
Supply voltage	
<ul style="list-style-type: none"> <li>• 1 at AC Rated value</li> <li>• 2 at AC Rated value</li> <li>• Note</li> </ul>	120 V 230 V Set by means of selector switch on the device
Input voltage	
<ul style="list-style-type: none"> <li>• 1 at AC</li> <li>• 2 at AC</li> </ul>	93 ... 132 V 187 ... 264 V
Wide-range input	No
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering at Iout rated, min.	20 ms; at Vin = 93/187 V
Rated line frequency 1	50 Hz
Rated line frequency 2	60 Hz
Rated line range	47 ... 63 Hz
Input current	
<ul style="list-style-type: none"> <li>• at rated input voltage 120 V</li> <li>• at rated input voltage 230 V</li> </ul>	1.1 A 0.65 A
Switch-on current limiting (+25 °C), max.	27 A

Duration of inrush current limiting at 25 °C	
• typical	3 ms
I <sup>2</sup> t, max.	0.3 A <sup>2</sup> ·s
Built-in incoming fuse	T 2 A/250 V (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 3 A characteristic C

### Output

Output	Controlled, isolated DC voltage
Rated voltage V <sub>out</sub> DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.5 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	10 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV
Adjustment range	22.8 ... 26.4 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 <sub>out</sub> approx. 4 %
Startup delay, max.	1.5 s
Voltage rise, typ.	150 ms
Rated current value I <sub>out</sub> rated	2.5 A
Current range	0 ... 2.5 A
• Note	+45 ... +60 °C: Derating 2%/K
Supplied active power typical	60 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

### Efficiency

Efficiency at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	85 %
Power loss at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	9 W

### Closed-loop control

Dynamic mains compensation (V <sub>in</sub> rated ±15 %), max.	0.3 %
Dynamic load smoothing (I <sub>out</sub> : 10/90/10 %), U <sub>out</sub> ± typ.	2 %
Load step setting time 10 to 90%, typ.	0.5 ms
Load step setting time 90 to 10%, typ.	0.7 ms

### Protection and monitoring

Output overvoltage protection	< 33 V
Current limitation, typ.	2.6 A

Property of the output Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic
Enduring short circuit current RMS value <ul style="list-style-type: none"> <li>• typical</li> </ul>	4 A
Overload/short-circuit indicator	-

### Safety

Primary/secondary isolation	Yes
Galvanic isolation	Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178
Protection class	Class I
Leakage current <ul style="list-style-type: none"> <li>• maximum</li> <li>• typical</li> </ul>	3.5 mA 0.4 mA
CE mark	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
Explosion protection	-
FM approval	-
CB approval	Yes
Marine approval	-
Degree of protection (EN 60529)	IP20

### EMC

Emitted interference	EN 55022 Class A
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2

### Operating data

Ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>— Note</li> <li>• during transport</li> <li>• during storage</li> </ul>	0 ... 60 °C with natural convection -40 ... +85 °C -40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation

### Mechanics

Connection technology	screw-type terminals
Connections <ul style="list-style-type: none"> <li>• Supply input</li> <li>• Output</li> <li>• Auxiliary</li> </ul>	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded +, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup> -
Width of the enclosure	32.5 mm
Height of the enclosure	125 mm
Depth of the enclosure	120 mm
Required spacing	

<ul style="list-style-type: none"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	<p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>0 mm</p>
Weight, approx.	0.3 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
MTBF at 40 °C	3 153 082 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)