



SITOP PSU100L 24 V/5 A STABILIZED POWER SUPPLY  
 INPUT: 120/230 V AC OUTPUT: 24 V/5 A DC

### Technical specifications

Product	SITOP PSU100L
Power supply, type	24 V/5 A
<b>Input</b>	
Input	1-phase AC
Supply voltage / 1 / at AC / nominal value	120 V
Supply voltage / 2 / at AC / nominal value	230 V
Voltage range	
• Note	Set by means of selector switch on the device
Input voltage / 1 / at AC	93 ... 132 V
Input voltage / 2 / at AC	187 ... 264 V
Wide-range input	No
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering at lout rated, min.	20 ms
Mains buffering	at Vin = 93/187 V
Rated line frequency	50 / 60 Hz
Rated line range	47 ... 63 Hz
Input current / at nominal level of the input voltage 120 V	2.1 A
Input current / at nominal level of the input voltage 230 V	1.15 A
Switch-on current limiting (+25 °C), max.	32 A
Duration of current limiting / at 25 °C / typical	3 ms

I <sup>2</sup> t, max.	0.8 A <sup>2</sup> ·s
Built-in incoming fuse	T 3,15 A/250 V (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 6 A characteristic C
<b>Output</b>	
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.	50 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	150 mV
Adjustment range	22.8 ... 26.4 V
Product feature / 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.	130 ms
Rated current value I <sub>out</sub> rated	5 A
Current range	0 ... 5 A
• Note	+45 ... +60 °C: Derating 2%/K
delivered active power / typ.	120 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2
<b>Efficiency</b>	
Efficiency at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	86 %
Power loss at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	17 W
<b>Closed-loop control</b>	
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.	0.4 ms
Load step setting time 90 to 10%, typ.	0.4 ms
<b>Protection and monitoring</b>	
Output overvoltage protection	< 33 V
Current limitation, typ.	5.25 A
Characteristic feature of the output / short-circuit protected	Yes
Short-circuit protection	Constant current characteristic

Enduring short circuit current / Effective level / typical	8 A
Overload/short-circuit indicator	-
<b>Safety</b>	
Primary/secondary isolation	Yes
Potential separation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
Protection class	Class I
stray current / maximum	3.5 mA
stray current / typical	0.4 mA
CE mark	Yes
UL/CSA approval	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
<b>EMC</b>	
Emitted interference	EN 55022 Class A
Supply harmonics limitation	-
Noise immunity	EN 61000-6-2
<b>Operating data</b>	
Ambient temperature / in operation	0 ... 60 °C
• Note	with natural convection
Ambient temperature / on transport	-40 ... +85 °C
Ambient temperature / in storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation
<b>Mechanics</b>	
Connection technology	screw-type terminals
Connections / Supply input	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded
Connections / Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>
Connections / Auxiliary	-
Width / of the housing	50 mm
Height / of the housing	125 mm
Depth / of the housing	120 mm
Installation width	50 mm
Mounting height	225 mm
Weight, approx.	0.5 kg
Product feature / of the housing / housing for side-by-side mounting	Yes

Mounting type / wall mounting	No
Type of mounting / standard rail mounting	Yes
Mounting type / S7-300 rail mounting	No
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

**letzte Änderung:**

Apr 16, 2014