



SITOP PSU100L 24 V/10 A
 SITOP PSU100L 24 V/10 A STABILIZED POWER SUPPLY INPUT:
 120/230 V AC OUTPUT: 24 V/10 A DC

Input	
Input	1-phase AC
Supply voltage	
<ul style="list-style-type: none"> • 1 with AC Rated value • 2 with AC Rated value • Note 	120 V 230 V Set by means of selector switch on the device
Input voltage	
<ul style="list-style-type: none"> • 1 with AC • 2 with AC 	93 ... 132 V 187 ... 264 V
Wide-range input	No
Overvoltage resistance	$2.3 \times V_{in \text{ rated}}$, 1.3 ms
Mains buffering at I _{out} rated, min.	20 ms; at $V_{in} = 93/187 \text{ V}$
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current	
<ul style="list-style-type: none"> • at rated input voltage 120 V • at rated input voltage 230 V 	4.1 A 2.4 A
Switch-on current limiting (+25 °C), max.	65 A
Duration of inrush current limiting at 25 °C	
<ul style="list-style-type: none"> • typical 	3 ms
I ² t, max.	3.3 A ² ·s
Built-in incoming fuse	T 6.3 A/250 V (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 10 A characteristic C
Output	

Output	Controlled, isolated DC voltage
Rated voltage V_{out} DC	24 V
Total tolerance, static \pm	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 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} approx. 4 %
Startup delay, max.	1.5 s
Voltage rise, typ.	170 ms
Rated current value I_{out} rated	10 A
Current range	0 ... 10 A
• Note	+45 ... +60 °C: Derating 2%/K
Active power supplied typical	240 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

Efficiency

Efficiency at V_{out} rated, I_{out} rated, approx.	89 %
Power loss at V_{out} rated, I_{out} rated, approx.	34 W

Closed-loop control

Dynamic mains compensation (V_{in} rated ± 15 %), max.	0.3 %
Dynamic load smoothing (I_{out} : 10/90/10 %), $U_{out} \pm$ 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.	10.5 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic
Enduring short circuit current RMS value	
• typical	16 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	
• maximum	3.5 mA
• typical	0.8 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	-
Certificate of suitability IECEx	No
Certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes
Marine approval	-
Degree of protection (EN 60529)	IP20

EMC

Emitted interference	EN 55022 Class A
Supply harmonics limitation	-
Noise immunity	EN 61000-6-2

Operating data

Ambient temperature	
• during operation	0 ... 60 °C
— Note	with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation

Mechanics

Connection technology	screw-type terminals
Connections	
• Supply input	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded
• Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm ²
• Auxiliary	-
Width of the enclosure	70 mm
Height of the enclosure	125 mm
Depth of the enclosure	120 mm
Weight, approx.	0.75 kg
Product property of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15

