



SITOP PSU100L/1AC/24VDC/20A

SITOP PSU100L 24 V/20 A Stabilized power supply input: 100-240 V AC
output: 24 V DC/20 A

Input	
Input	1-phase AC or DC
Rated voltage value V_{in} rated supply voltage	100 ... 240 V
<ul style="list-style-type: none"> at DC 	100 ... 240 V
input voltage	
<ul style="list-style-type: none"> 1 at AC at DC 	85 ... 264 V 88 ... 370 V
Wide-range input	Yes
Mains buffering	at $V_{in} = 93/187$ V
Mains buffering at I_{out} rated, min.	20 ms; at $V_{in} = 93/187$ 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"> at rated input voltage 120 V at rated input voltage 230 V 	5.55 A 2.35 A
Switch-on current limiting (+25 °C), max.	45 A
duration of inrush current limiting at 25 °C	
<ul style="list-style-type: none"> typical 	15 ms
I^2t , max.	3.3 A ² ·s
Built-in incoming fuse	T 10 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
<ul style="list-style-type: none"> output voltage at output 1 at DC rated value 	24 V
Total tolerance, static \pm	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	1 %
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)	100 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	No overshoot of Vout (soft start)
Startup delay, max.	1.5 s
Voltage rise, typ.	20 ms
Rated current value Iout rated	20 A
Current range	0 ... 20 A
• Note	+45 ... +70 °C: Derating 2.5%/K
supplied active power typical	480 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2
Efficiency	
Efficiency at Vout rated, Iout rated, approx.	92 %
Power loss at Vout rated, Iout rated, approx.	45 W
Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.5 %
Dynamic load smoothing (Iout: 10/90/10 %), Uout ± typ.	3 %
Load step setting time 10 to 90%, typ.	0.7 ms
Load step setting time 90 to 10%, typ.	6 ms
Protection and monitoring	
Output overvoltage protection	< 33 V
Current limitation, typ.	24 A
property of the output short-circuit proof	Yes
Short-circuit protection	Constant current characteristic
enduring short circuit current RMS value	
• typical	24 A
Overload/short-circuit indicator	-
Safety	
Primary/secondary isolation	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
Protection class	Class I
leakage current	
• maximum	3.5 mA
• typical	0.8 mA
Degree of protection (EN 60529)	IP20
Approvals	
CE mark	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
Explosion protection	-
certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes
certificate of suitability EAC approval	Yes
Marine approval	-
EMC	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
• during operation	-25 ... +70 °C
— Note	with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, 5 ... 95% no condensation
Mechanics	
Connection technology	screw-type terminals

Connections	
<ul style="list-style-type: none"> • Supply input • Output • Auxiliary 	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded +, -: 2 screw terminals each for 0.5 ... 2.5 mm ² -
width of the enclosure	110 mm
height of the enclosure	125 mm
depth of the enclosure	125 mm
required spacing	
<ul style="list-style-type: none"> • top • bottom • left • right 	50 mm 50 mm 0 mm 0 mm
Weight, approx.	1.8 kg
product feature of the enclosure housing can be lined up	Yes
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)

