



SITOP PSU100S 12 V/14 A
 SITOP PSU100S 12 V/14 A STABILIZED POWER SUPPLY INPUT:
 120/230 V AC OUTPUT: 12 V/14 A DC

Input	
Input	1-phase AC
Supply voltage	
• 1 with AC Rated value	120 V
• 2 with AC Rated value	230 V
• Note	Automatic range selection
Input voltage	
• 1 with AC	85 ... 132 V
• 2 with AC	170 ... 264 V
Wide-range input	No
Oversoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering at Iout rated, min.	20 ms; at Vin = 93/187 V
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current	
• at rated input voltage 120 V	3.24 A
• at rated input voltage 230 V	1.41 A
Switch-on current limiting (+25 °C), max.	60 A
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 Vout DC	12 V
Total tolerance, static ±	3 %

Static mains compensation, approx.	0.1 %
Static load balancing, approx.	1 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	20 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	100 mV
Adjustment range	11.5 ... 15.5 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for 12 V OK
Signaling	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for 12 V OK
On/off behavior	Overshoot of Vout < 3 %
Startup delay, max.	0.3 s
Voltage rise, typ.	10 ms
Rated current value Iout rated	14 A
Current range	0 ... 14 A
• Note	+50 ... +70 °C: Derating 3.5%/K
Active power supplied typical	168 W
Short-term overload current	
• on short-circuiting during the start-up typical	40 A
• at short-circuit during operation typical	40 A
Duration of overloading capability for excess current	
• on short-circuiting during the start-up	800 ms
• at short-circuit during operation	800 ms
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

Efficiency

Efficiency at Vout rated, Iout rated, approx.	87 %
Power loss at Vout rated, Iout rated, approx.	24 W

Closed-loop control

Dynamic load smoothing (Iout: 10/90/10 %), Uout ± typ.	5 %
Load step setting time 10 to 90%, typ.	1 ms
Load step setting time 90 to 10%, typ.	1 ms

Protection and monitoring

Output overvoltage protection	< 20 V
Current limitation	14 ... 16.4 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic
Enduring short circuit current RMS value	
• typical	16.4 A

Overcurrent overload capability in normal operation	overload capability 150 % I _{out} rated up to 5 s/min
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, cCSAus (CSA C22.2 No. 60950-1, UL 60950-1, UL 1604)
Explosion protection	ATEX (EX) II 3G Ex nA nC IIC T4 Gc; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4
Certificate of suitability IECEx	No
Certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes
Marine approval	GL
Degree of protection (EN 60529)	IP20

EMC

Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2

Operating data

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, 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	Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm ²
Width of the enclosure	70 mm

Height of the enclosure	125 mm
Depth of the enclosure	120 mm
Weight, approx.	0.7 kg
Product property of the enclosure housing for side-by-side mounting	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)