



SITOP SMART 60 W STABILIZED POWER SUPPLY
INPUT: 120/230 V AC OUTPUT: 24 V DC/2.5 A

Technical specifications

Product	SITOP smart
Power supply, type	24 V/2.5 A
Input	
Input	1-phase AC
Supply voltage / 1 / at AC / nominal value	120 V
Supply voltage / 2 / at AC / nominal value	230 V
• Note	Set by means of selector switch on the device
Input voltage / 1 / at AC	85 V ... 132 V
Input voltage / 2 / at AC	170 V ... 264 V
Wide-range input	No
Overvoltage resistance	$2.3 \times V_{in}$ rated, 1.3 ms
Mains buffering at I _{out} rated, min.	20 ms
Mains buffering	at $V_{in} = 93/187$ V
Rated line frequency	50 Hz / 60 Hz
Rated line range	47 Hz ... 63 Hz
Input current / at nominal level of the input voltage 120 V	1.1 A
Input current / at nominal level of the input voltage 230 V	0.65 A
Switch-on current limiting (+25 °C), max.	27 A
Duration of current limiting / at 25 °C / typical	3 ms
I ² t, max.	0.3 A ² ·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 Vout 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.	10 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV
Adjustment range	22.8 V ... 28 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 Vout approx. 4 %
Startup delay, max.	0.1 s
Voltage rise, typ.	50 ms
Rated current value Iout rated	2.5 A
Current range	0 A ... 3 A
• Note	3 A up to +45 °C
delivered active power / typ.	60 W
short-term overload current / at short-circuit during run-up / typical	7 A
Duration of overloading ability for excess current / on short-circuiting during the start-up	100 ms
short-term overload current / at short-circuit during operation / typical	7 A
Duration of overloading ability for excess current / on short-circuiting during the operational phase	200 ms
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2
Efficiency	
Efficiency at Vout rated, Iout rated, approx.	85 %
Power loss at Vout rated, Iout rated, approx.	9 W
Closed-loop control	
Dynamic mains compensation (Vin rated ± 15 %), max.	0.3 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout $\pm$ typ.	1 %
Load step setting time 50 to 100%, typ.	0.2 ms
Load step setting time 100 to 50%, typ.	0.2 ms
Protection and monitoring	

Output overvoltage protection	< 33 V
Current limitation	3.2 A ... 3.4 A
Characteristic feature of the output / short-circuit protected	Yes
Short-circuit protection	Constant current characteristic
Enduring short circuit current / Effective level / typical	5 A
Overload/short-circuit indicator	-
Safety	
Primary/secondary isolation	Yes
Potential separation	Safety extra low output voltage V _{out} according 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, cCSAus (CSA C22.2 No. 60950-1, UL 60950-1, UL 1604)
Explosion protection	ATEX (EX) II 3G Ex nA II T4; UL 1604 Class I, Div. 2, Group ABCD
FM approval	-
CB approval	Yes
Marine approval	GL
Degree of protection (EN 60529)	IP20
EMC	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2
Operating data	
Ambient temperature / in operation	0 °C ... 60 °C
• Note	with natural convection
Ambient temperature / on transport	-40 °C ... 85 °C
Ambient temperature / in storage	-40 °C ... 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
Connections / Output	L+, M: 2 screw terminals each for 0.5 ... 2.5 mm ²
Connections / Auxiliary	-
Width / of the housing	32.5 mm
Height / of the housing	125 mm

