

SITOP PSU3600 FLEXI
SITOP PSU3600 flexi Stabilized power supply Input: 120-230 V AC
Output: 3-52 V DC/10 A, 120 W



Input	
Input	1-phase AC or DC
Rated voltage value Vin rated	120 ... 230 V
Voltage range AC	85 ... 264 V
• Note	Derating at < 110 V AC/DC: output power max. 100 W
Supply voltage	
• at DC	110 ... 220 V
Input voltage	
• at DC	88 ... 250 V
Wide-range input	Yes
Mains buffering	With Pa = 120 W and Ue = 230 V AC
Mains buffering at Iout rated, min.	80 ms; With Pa = 120 W and Ue = 230 V AC
Rated line frequency 1	50 Hz
Rated line frequency 2	60 Hz
Rated line range	47 ... 63 Hz
Input current	
• at rated input voltage 120 V	2.6 A
• at rated input voltage 230 V	1.3 A
• at rated input voltage 110 V	1.3 A

• at rated input voltage 220 V	0.7 A
Switch-on current limiting (+25 °C), max.	35 A
I^2t , max.	1 A ² ·s
Built-in incoming fuse	T 3.15 A (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: 6-10 A characteristic C

Output

Output	Controlled, isolated DC voltage
Rated voltage V_{out} DC	24 V
Output voltage	3-52 V DC
Total tolerance, static $\pm$	1 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	1 %
Sense line connection max. voltage control per line	0.5 V
Residual ripple peak-peak, max.	50 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	100 mV
Adjustment range	0 ... 52 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer (setting range 3 to 52 V) or analog control voltage signal 0 to 2.5 V (setting range 0 to 52 V)
Status display	Two-color LED: green for 24 V o.k., red for overload
Signaling	DC OK via relay contact, current monitor signal (0 to 2.5 V correspond to 0 to 10 A)
On/off behavior	No overshoot of V_{out} (soft start)
Startup delay, max.	0.5 s
Voltage rise, typ.	20 ms
Rated current value I_{out} rated	10 A
Current range	0 ... 10 A
• Note	Output power max. 120 W
Supplied active power typical	120 W
Constant overload current	
• on short-circuiting during the start-up typical	12 A
• at short-circuit during operation typical	12 A
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.	88 %
Power loss at V_{out} rated, I_{out} rated, approx.	16 W
Power loss [W] during no-load operation maximum	3 W

Closed-loop control

Dynamic mains compensation (V_{in} rated ± 15 %), max.	0.3 %
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Dynamic load smoothing (I _{out} : 50/100/50 %), U _{out} ± typ.	5 %
Setting time maximum	0.2 ms

Protection and monitoring

Output overvoltage protection	≤ 60 V according to EN 60950-1
Current limitation	2 ... 10 A
Current limitation	Can be set with potentiometer or analog control voltage signal 0.5 ... 2.5 V
Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic current limiting (2 ... 10 A) in the range 3 ... 12 V or power limiting (120 W) in the range 12 ... 52 V
Enduring short circuit current RMS value • maximum	12 A

Safety

Primary/secondary isolation	Yes
Galvanic isolation	Safety extra low output voltage V _{out} according to EN 60950-1
Protection class	Class I
Leakage current • maximum	3.5 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	-
FM approval	-
CB 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 — Note • during transport • during storage	-25 ... +70 °C Derating > 60°C: 2%/°K -40 ... +85 °C -40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, 5 ... 95% no condensation

Mechanics

Connection technology	screw-type terminals
Connections	

• Supply input	L1, 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 single-core/finely stranded
• Auxiliary	Alarm signals, control inputs: screw-type terminals for 0.14 ... 1.5 mm ² single-core/finely stranded
Width of the enclosure	42 mm
Height of the enclosure	125 mm
Depth of the enclosure	125 mm
Required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
Weight, approx.	0.55 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
MTBF at 40 °C	1 200 000 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)