

SITOP POWER 24 V/10 A, FLAT DESIGN

SITOP power 10 A, special line stabilized power supply input:
120/230 V AC output: 24 V DC/10 A



Input	
Input	1-phase AC
Supply voltage	
<ul style="list-style-type: none"> • 1 at AC Rated value • 2 at 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 at AC • 2 at AC 	85 ... 132 V 170 ... 264 V
Wide-range input	No
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering at Iout rated, min.	20 ms; at Vin = 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 	4 A 2.5 A
Switch-on current limiting (+25 °C), max.	65 A

Duration of inrush current limiting at 25 °C	
• maximum	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 ±	1 %
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)	200 mV
Adjustment range	22 ... 29 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 V _{out} (soft start)
Startup delay, max.	2 s
Voltage rise, typ.	40 ms
Rated current value I _{out} rated	10 A
Current range	0 ... 10 A
Supplied active power typical	240 W
Short-term overload current	
• on short-circuiting during the start-up typical	35 A
• at short-circuit during operation typical	35 A
Duration of overloading capability for excess current	
• on short-circuiting during the start-up	700 ms
• at short-circuit during operation	700 ms
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.	30 W

Closed-loop control

Dynamic mains compensation (V _{in} rated ±15 %), max.	0.3 %
--	-------

Dynamic load smoothing (I _{out} : 50/100/50 %), U _{out} ± typ.	0.6 %
Load step setting time 50 to 100%, typ.	0.1 ms
Load step setting time 100 to 50%, typ.	0.2 ms

Protection and monitoring

Output overvoltage protection	Additional control loop, shutdown at approx. 33 V, automatic restart
Current limitation	11 ... 13 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current RMS value <ul style="list-style-type: none"> • maximum 	10 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 <ul style="list-style-type: none"> • maximum • typical 	3.5 mA 0.27 mA
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	No
Marine approval	-
Degree of protection (EN 60529)	IP20

EMC

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

Operating data

Ambient temperature <ul style="list-style-type: none"> • during operation — Note • during transport • during storage 	0 ... 60 °C with natural convection -40 ... +85 °C -40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation

Mechanics

Connection technology	screw-type terminals
-----------------------	----------------------

Connections	
<ul style="list-style-type: none"> • Supply input • Output • Auxiliary 	<p>L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded</p> <p>L+, M: 3 screw terminals each for 0.5 ... 2.5 mm²</p> <p>-</p>
Width of the enclosure	160 mm
Height of the enclosure	130 mm
Depth of the enclosure	60 mm
Required spacing	
<ul style="list-style-type: none"> • top • bottom • left • right 	<p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>0 mm</p>
Weight, approx.	0.72 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	1 176 471 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)