

SITOP POWER 24 V/5 A, FLAT DESIGN

SITOP power 5 A, special line stabilized power supply input: 120/230 V AC output: 24 V DC/5 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 lout 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 	2.2 A 1.2 A
Switch-on current limiting (+25 °C), max.	32 A

Duration of inrush current limiting at 25 °C	
• maximum	3 ms
I ² t, max.	0.8 A ² ·s
Built-in incoming fuse	T 3,15 A/250 V (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 6 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.	40 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	100 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	5 A
Current range	0 ... 5 A
Supplied active power typical	120 W
Short-term overload current	
• on short-circuiting during the start-up typical	20 A
• at short-circuit during operation typical	20 A
Duration of overloading capability for excess current	
• on short-circuiting during the start-up	500 ms
• at short-circuit during operation	500 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.	88 %
Power loss at V _{out} rated, I _{out} rated, approx.	17 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.	0.5 %

Load step setting time 50 to 100%, typ.	0.1 ms
Load step setting time 100 to 50%, typ.	0.1 ms
Protection and monitoring	
Output overvoltage protection	Additional control loop, shutdown at approx. 33 V, automatic restart
Current limitation	5.5 ... 6.5 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current RMS value	
• maximum	5 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	
• maximum	3.5 mA
• typical	0.26 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	
• during operation	0 ... 60 °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	

<ul style="list-style-type: none"> • Supply input 	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded
<ul style="list-style-type: none"> • Output 	L+, M: 3 screw terminals each for 0.5 ... 2.5 mm ²
<ul style="list-style-type: none"> • Auxiliary 	-
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 	50 mm
<ul style="list-style-type: none"> • bottom 	50 mm
<ul style="list-style-type: none"> • left 	0 mm
<ul style="list-style-type: none"> • right 	0 mm
Weight, approx.	0.6 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	1 250 000 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)