

SITOP PSU3400 24 V/10 A
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 (32...54 V) Output: 24 V DC/10 A



Input	
Input	DC voltage
Supply voltage	
<ul style="list-style-type: none"> at DC Note 	48 ... 48 V Startup as of 36 V, derating necessary for 28 ... 36 V DC
Input voltage	
<ul style="list-style-type: none"> at DC 	28 ... 54 V
Wide-range input	No
Overvoltage resistance	-
Mains buffering at I _{out} rated, min.	5 ms; at V _{in} = 48 V
Input current	
<ul style="list-style-type: none"> at rated input voltage 48 V 	5.4 A
Switch-on current limiting (+25 °C), max.	15 A
I ² t, max.	0.5 A ² ·s
Built-in incoming fuse	15 A (not accessible), breaking capacity 100 A
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: 16 A characteristic B or C
Output	
Output	Controlled, isolated DC voltage

Rated voltage Vout DC	24 V
Total tolerance, static ±	1 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.3 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	50 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	250 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	70 mV
Adjustment range	24 ... 28 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for 24 V OK
Signaling	Relay contact (NO contact, contact rating 30 V AC/0.5 A; 60 V DC/0.3 A; 30 V DC/1 A) for 24 V O.K.
On/off behavior	No overshoot of Vout (soft start)
Startup delay, max.	0.5 s
Voltage rise, typ.	10 ms
Voltage increase time of the output voltage maximum	20 ms
Rated current value Iout rated	10 A
Current range	0 ... 12.5 A
• Note	12 A up to +40°C; +60 ... +70 °C: Derating 2%/K
Supplied active power typical	256 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

Efficiency

Efficiency at Vout rated, Iout rated, approx.	93.5 %
Power loss at Vout rated, Iout rated, approx.	17 W
Power loss [W] during no-load operation maximum	1.5 W

Closed-loop control

Dynamic mains compensation (Vin rated ±15 %), max.	0.3 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	2 %
Load step setting time 50 to 100%, typ.	1 ms
Load step setting time 100 to 50%, typ.	1 ms

Protection and monitoring

Output overvoltage protection	Ua < 35 V
Current limitation, typ.	13 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Overload/short-circuit indicator	Yellow LED overload

Safety	
Primary/secondary isolation	Yes
Galvanic isolation	Safety extra low output voltage V_{out} according to EN 60950-1
Protection class	Class III
CE mark	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
FM approval	-
CB approval	Yes
Marine approval	in process: DNV GL, ABS
Degree of protection (EN 60529)	IP20

EMC	
Emitted interference	EN 61000-6-3
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2

Operating data	
Ambient temperature	
<ul style="list-style-type: none"> • during operation — Note • during transport • during storage 	-25 ... +70 °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 	L, N, FE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded +, -: 2 screw terminals each for 0.5 ... 2.5 mm ² Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm ²
Connections signaling contact	2 screw terminals for 0.5 ... 2.5 mm ²
Width of the enclosure	42 mm
Height of the enclosure	125 mm
Depth of the enclosure	120 mm
Required spacing	
<ul style="list-style-type: none"> • top • bottom • left • right 	50 mm 50 mm 0 mm 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
Electrical accessories	Buffer module

