

SITOP PSU3400 24 V/3.5 A

SITOP PSU3400 24 V/3.5 A Stabilized power supply Input: 48 V DC (28...60 V) Output: 24 V DC/3.5 A NEC CLASS2



Input	
Input	DC voltage
<ul style="list-style-type: none"> Note 	Startup as of 36 V, derating necessary for 28 ... 36 V DC
Supply voltage	
<ul style="list-style-type: none"> at DC 	48 ... 48 V
Input voltage	
<ul style="list-style-type: none"> at DC 	28 ... 60 V
Wide-range input	No
Overvoltage resistance	-
Mains buffering	at $V_{in} = 48\text{ V}$
Mains buffering at lout rated, min.	5 ms; at $V_{in} = 48\text{ V}$
Input current	
<ul style="list-style-type: none"> at rated input voltage 48 V 	1.9 A
Switch-on current limiting (+25 °C), max.	15 A
I^2t , max.	0.09 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 V_{out} DC	24 V
Total tolerance, static \pm	1 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.2 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	30 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
On/off behavior	No overshoot of V_{out} (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 I_{out} rated	3.5 A
Current range	0 ... 3.5 A
• Note	+60 to +70 °C: without derating
Supplied active power typical	91 W
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.	90 %
Power loss at V_{out} rated, I_{out} rated, approx.	7 W
Power loss [W] during no-load operation maximum	1.5 W

Closed-loop control

Dynamic mains compensation (V_{in} rated ± 15 %), max.	0.3 %
Dynamic load smoothing (I_{out} : 50/100/50 %), $U_{out} \pm$ 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	$U_a < 35$ V
Current limitation, typ.	3.8 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
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	DNV GL; ABS in process

EMC

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

environmental conditions

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 	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
Width of the enclosure	32 mm
Height of the enclosure	100 mm
Depth of the enclosure	100 mm
Required spacing	
<ul style="list-style-type: none"> • top • bottom • left • right 	50 mm 50 mm 0 mm 0 mm
Weight, approx.	0.32 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
MTBF at 40 °C	1 934 648 h

