

SITOP PSU3400 24 V/5 A
 SITOP PSU3400 24 V/5 A Stabilized power supply Input: 48 V DC
 (28...60 V) Output: 24 V DC/5 A



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 	2.7 A
Switch-on current limiting (+25 °C), max.	15 A
I^2t , max.	0.12 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.	0.3 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	70 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	250 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	220 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 $I_{out\ rated}$	5 A
Current range	0 ... 6 A
• Note	6 A up to +40°C; +60 ... +70 °C: Derating 2%/K
Supplied active power typical	130 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.	92 %
Power loss at $V_{out\ rated}$, $I_{out\ rated}$, approx.	10 W
Power loss [W] during no-load operation maximum	1.5 W

Closed-loop control

Dynamic mains compensation ($V_{in\ rated} \pm 15\%$), 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.	6.5 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 	<p>-25 ... +70 °C with natural convection</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p>
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 	<p>L, N, FE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded</p> <p>+, -: 2 screw terminals each for 0.5 ... 2.5 mm²</p>
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 	<p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>0 mm</p>
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	1 965 061 h

