

SITOP PSU3400 24 V/10 A
SITOP PSU3400 24 V/10 A Stabilized power supplies Input: DC 24 V (18...32 V) Output: DC 24 V/10 A



Input	
Input	DC voltage
Supply voltage	
• at DC	24 ... 24 V
• Note	Startup as of 18 V, derating necessary for 14 ... 18 V DC
Input voltage	
• at DC	14 ... 32 V
Wide-range input	No
Overvoltage resistance	-
Mains buffering at I _{out} rated, min.	5 ms; at V _{in} = 24 V
Input current	
• at rated input voltage 24 V	10.8 A
Switch-on current limiting (+25 °C), max.	15 A
I ² t, max.	0.6 A ² ·s
Built-in incoming fuse	25 A (not accessible), breaking capacity 300 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.	30 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	250 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 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	260 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 %
Power loss at Vout rated, Iout rated, approx.	20 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 Vout 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	
during operation	-25 ... +70 °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	
Supply input	L, N, FE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded
Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm²
Auxiliary	Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm²
Connections signaling contact	2 screw terminals for 0.5 ... 2.5 mm²
Width of the enclosure	42 mm
Height of the enclosure	125 mm
Depth of the enclosure	120 mm
Required spacing	
top	50 mm
bottom	50 mm
left	0 mm
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
Electrical accessories	Buffer module

