

SITOP PSU3400 24 V/5 A  
 SITOP PSU3400 24 V/5 A Stabilized power supply Input: 24 V DC  
 (14...32 V) Output: 24 V DC/5 A



Input	
Input	DC voltage
<ul style="list-style-type: none"> <li>Note</li> </ul>	Startup as of 18 V, derating necessary for 14 ... 18 V DC
Supply voltage	
<ul style="list-style-type: none"> <li>at DC</li> </ul>	24 ... 24 V
Input voltage	
<ul style="list-style-type: none"> <li>at DC</li> </ul>	14 ... 32 V
Wide-range input	No
Overvoltage resistance	-
Mains buffering	at $V_{in} = 24\text{ V}$
Mains buffering at lout rated, min.	5 ms; at $V_{in} = 24\text{ V}$
Input current	
<ul style="list-style-type: none"> <li>at rated input voltage 24 V</li> </ul>	5.5 A
Switch-on current limiting (+25 °C), max.	15 A
$I^2t$ , max.	0.18 A <sup>2</sup> ·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 $V_{out}$ 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.	15 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	250 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	40 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.	93 %
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"> <li>• during operation</li> <li>— Note</li> <li>• during transport</li> <li>• during storage</li> </ul>	<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"> <li>• Supply input</li> <li>• Output</li> </ul>	<p>L, N, FE: 1 screw terminal each for 0.5 ... 2.5 mm<sup>2</sup> single-core/finely stranded</p> <p>+, -: 2 screw terminals each for 0.5 ... 2.5 mm<sup>2</sup></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"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	<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	1 953 545 h

