



SITOP PSU3400/DC/DC/24V/12V/8A

SITOP PSU3400 12 V/8 A Stabilized power supply Input: 24 V DC (14...32 V) Output: 12 V DC/8 A

### Input

type of the power supply network	DC voltage
supply voltage at AC	Startup as of 18 V, derating necessary for 14 ... 18 V DC
<ul style="list-style-type: none"> <li>initial value</li> </ul>	
supply voltage	24 ... 24 V
<ul style="list-style-type: none"> <li>at DC</li> </ul>	
input voltage	14 ... 32 V
<ul style="list-style-type: none"> <li>at DC</li> </ul>	
design of input wide range input	No
overvoltage overload capability	-
operating condition of the mains buffering	at $V_{in} = 24 V$
buffering time for rated value of the output current in the event of power failure minimum	5 ms
operating condition of the mains buffering	at $V_{in} = 24 V$
input current	4.5 A
<ul style="list-style-type: none"> <li>at rated input voltage 24 V</li> </ul>	
current limitation of inrush current at 25 °C maximum	15 A
I <sup>2</sup> t value maximum	0.18 A <sup>2</sup> ·s
fuse protection type	15 A (not accessible), breaking capacity 100 A
<ul style="list-style-type: none"> <li>in the feeder</li> </ul>	Recommended miniature circuit breaker: 16 A characteristic B or C

### Output

voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	12 V
output voltage	12 V
<ul style="list-style-type: none"> <li>at output 1 at DC rated value</li> </ul>	2 %
relative overall tolerance of the voltage	
relative control precision of the output voltage	0.2 %
<ul style="list-style-type: none"> <li>on slow fluctuation of input voltage</li> <li>on slow fluctuation of ohm loading</li> </ul>	1.3 %
residual ripple	
<ul style="list-style-type: none"> <li>maximum</li> <li>typical</li> </ul>	150 mV 10 mV
voltage peak	
<ul style="list-style-type: none"> <li>maximum</li> <li>typical</li> </ul>	250 mV 30 mV
adjustable output voltage	12 ... 15.5 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer
display version for normal operation	Green LED for 12 V OK
behavior of the output voltage when switching on	No overshoot of $V_{out}$ (soft start)
response delay maximum	0.5 s
voltage increase time of the output voltage	

<ul style="list-style-type: none"> <li>• typical</li> <li>• maximum</li> </ul>	10 ms 20 ms
output current	8 A
<ul style="list-style-type: none"> <li>• rated value</li> <li>• rated range</li> </ul>	0 ... 8 A; +60 ... +70 °C: Derating 2%/K
supplied active power typical	107 W
product feature	
<ul style="list-style-type: none"> <li>• bridging of equipment</li> </ul>	Yes
number of parallel-switched equipment resources for increasing the power	2
<b>Efficiency</b>	
efficiency in percent	90 %
power loss [W]	
<ul style="list-style-type: none"> <li>• at rated output voltage for rated value of the output current typical</li> <li>• during no-load operation maximum</li> </ul>	11 W 1.5 W
<b>Closed-loop control</b>	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.3 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	4 %
setting time	
<ul style="list-style-type: none"> <li>• load step 50 to 100% typical</li> <li>• load step 100 to 50% typical</li> </ul>	2 ms 2 ms
<b>Protection and monitoring</b>	
design of the overvoltage protection	Ua < 22 V
<ul style="list-style-type: none"> <li>• typical</li> </ul>	9 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
display version for overload and short circuit	LED yellow for "overload"
<b>Safety</b>	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra low output voltage Vout according to EN 60950-1
operating resource protection class	Class III
protection class IP	IP20
<b>Approvals</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• CE marking</li> <li>• UL approval</li> <li>• CSA approval</li> <li>• cCSAus, Class 1, Division 2</li> <li>• ATEX</li> </ul>	Yes Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 No No
certificate of suitability	
<ul style="list-style-type: none"> <li>• IECEx</li> <li>• NEC Class 2</li> <li>• ULhazloc approval</li> <li>• FM registration</li> </ul>	No No No No
type of certification CB-certificate	Yes
certificate of suitability	
<ul style="list-style-type: none"> <li>• EAC approval</li> <li>• Regulatory Compliance Mark (RCM)</li> </ul>	Yes Yes
certificate of suitability shipbuilding approval	Yes
shipbuilding approval	ABS, DNV GL
Marine classification association	
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• DNV GL</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> </ul>	Yes No Yes No No
<b>EMC</b>	
standard	
<ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for mains harmonics limitation</li> </ul>	EN 61000-6-3 not applicable

- for interference immunity

EN 61000-6-2

### environmental conditions

ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</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>
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation

### Mechanics

type of electrical connection	screw-type terminals
<ul style="list-style-type: none"> <li>• at input</li> </ul>	L, N, FE: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded
<ul style="list-style-type: none"> <li>• at output</li> </ul>	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>
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>
net weight	0.32 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
electrical accessories	Buffer module
MTBF at 40 °C	1 934 648 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

