



SITOP PSU3400/DC/DC/12V/24V/4A

SITOP PSU3400 24 V/4 A Stabilized power supply Input: DC 12 V (9...18 V)  
Output: DC 24 V/4 A

Input	
type of the power supply network	DC voltage
supply voltage	
• at DC	12 ... 12 V
input voltage	
• at DC	9 ... 18 V
design of input wide range input	No
overvoltage overload capability	-
operating condition of the mains buffering	at $V_{in} = 12\text{ V}$
buffering time for rated value of the output current in the event of power failure minimum	2 ms
operating condition of the mains buffering	at $V_{in} = 12\text{ V}$
input current	
• at rated input voltage 24 V	9 A
current limitation of inrush current at 25 °C maximum	15 A
I <sup>2</sup> t value maximum	0.08 A <sup>2</sup> ·s
fuse protection type	25 A (not accessible), breaking capacity 300 A
• in the feeder	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	24 V
output voltage	
• at output 1 at DC rated value	24 V
relative overall tolerance of the voltage	2 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.1 %
• on slow fluctuation of ohm loading	0.6 %
residual ripple	
• maximum	150 mV
• typical	20 mV
voltage peak	
• maximum	250 mV
• typical	40 mV
adjustable output voltage	24 ... 28 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer
display version for normal operation	Green LED for 24 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> </ul>	10 ms
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	20 ms
output current	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	4 A
<ul style="list-style-type: none"> <li>• rated range</li> </ul>	0 ... 4 A; +60 ... +70 °C: Derating 2%/K
supplied active power typical	108 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	89 %
power loss [W]	
<ul style="list-style-type: none"> <li>• at rated output voltage for rated value of the output current typical</li> </ul>	12 W
<ul style="list-style-type: none"> <li>• during no-load operation maximum</li> </ul>	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	2 %
setting time	
<ul style="list-style-type: none"> <li>• load step 50 to 100% typical</li> </ul>	1 ms
<ul style="list-style-type: none"> <li>• load step 100 to 50% typical</li> </ul>	1 ms
<b>Protection and monitoring</b>	
design of the overvoltage protection	Ua < 35 V
<ul style="list-style-type: none"> <li>• typical</li> </ul>	4.5 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> </ul>	Yes
<ul style="list-style-type: none"> <li>• UL approval</li> </ul>	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
<ul style="list-style-type: none"> <li>• CSA approval</li> </ul>	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
<ul style="list-style-type: none"> <li>• cCSAus, Class 1, Division 2</li> </ul>	No
<ul style="list-style-type: none"> <li>• ATEX</li> </ul>	No
certificate of suitability	
<ul style="list-style-type: none"> <li>• IECEx</li> </ul>	No
<ul style="list-style-type: none"> <li>• NEC Class 2</li> </ul>	No
<ul style="list-style-type: none"> <li>• ULhazloc approval</li> </ul>	No
<ul style="list-style-type: none"> <li>• FM registration</li> </ul>	No
type of certification CB-certificate	Yes
certificate of suitability	
<ul style="list-style-type: none"> <li>• EAC approval</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Regulatory Compliance Mark (RCM)</li> </ul>	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> </ul>	Yes
<ul style="list-style-type: none"> <li>• French marine classification society (BV)</li> </ul>	No
<ul style="list-style-type: none"> <li>• DNV GL</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Nippon Kaiji Kyokai (NK)</li> </ul>	No
<b>EMC</b>	
standard	
<ul style="list-style-type: none"> <li>• for emitted interference</li> </ul>	FN 61000-6-3

<ul style="list-style-type: none"> <li>• for mains harmonics limitation</li> <li>• for interference immunity</li> </ul>	<p>not applicable</p> <p>EN 61000-6-2</p>
<b>environmental conditions</b>	
<p>ambient temperature</p> <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
<b>Mechanics</b>	
<p>type of electrical connection</p> <ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> </ul>	<p>screw-type terminals</p> <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
<p>required spacing</p> <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	1 868 914 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

