



SITOP PSU3400/DC/DC/48V/24V/3.5A

SITOP PSU3400 24 V/3.5 A Stabilized power supply Input: 48 V DC (28...60 V)  
Output: 24 V DC/3.5 A NEC CLASS2

Input	
type of the power supply network	DC voltage
supply voltage at AC	
• initial value	Startup as of 36 V, derating necessary for 28 ... 36 V DC
supply voltage	
• at DC	48 ... 48 V
input voltage	
• at DC	28 ... 60 V
design of input wide range input	No
overvoltage overload capability	-
operating condition of the mains buffering	at $V_{in} = 48 \text{ V}$
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 $V_{in} = 48 \text{ V}$
input current	
• at rated input voltage 48 V	1.9 A
current limitation of inrush current at 25 °C maximum	15 A
$I^2t$ value maximum	0.09 A <sup>2</sup> ·s
fuse protection type	15 A (not accessible), breaking capacity 100 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	1 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.1 %
• on slow fluctuation of ohm loading	0.2 %
residual ripple	
• maximum	150 mV
• typical	30 mV
voltage peak	
• maximum	250 mV
• typical	70 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	
• typical	10 ms
• maximum	20 ms
output current	
• rated value	3.5 A
• rated range	0 ... 3.5 A; +60 to +70 °C: without derating
supplied active power typical	91 W
product feature	
• bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
<b>Efficiency</b>	
efficiency in percent	90 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	7 W
• during no-load operation maximum	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	
• load step 50 to 100% typical	1 ms
• load step 100 to 50% typical	1 ms
<b>Protection and monitoring</b>	
design of the overvoltage protection	Ua < 35 V
• typical	3.8 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	
• CE marking	Yes
• UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
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• cCSAus, Class 1, Division 2	No
• ATEX	No
certificate of suitability	
• IECEx	No
• NEC Class 2	No
• ULhazloc approval	No
• FM registration	No
type of certification CB-certificate	Yes
certificate of suitability	
• EAC approval	Yes
• Regulatory Compliance Mark (RCM)	Yes
certificate of suitability shipbuilding approval	Yes
shipbuilding approval	ABS, DNV GL
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	Yes
• French marine classification society (BV)	No
• DNV GL	Yes
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (NK)	No

EMC	
standard	
• for emitted interference	EN 61000-6-3
• for mains harmonics limitation	not applicable
• for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
• during operation	-25 ... +70 °C; with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
Mechanics	
type of electrical connection	screw-type terminals
• at input	L, N, FE: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded
• at output	+, -: 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	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
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)

