



SITOP PSU100P/1AC/24VDC/5A/IP67

SITOP PSU100P IP67 Stabilized power supply input: 120/230 V AC, output: 24 V DC/5 A

Input	
type of the power supply network	1-phase AC
supply voltage at AC	
• initial value	Automatic range selection
supply voltage	
• 1 at AC rated value	120 V
• 2 at AC rated value	230 V
input voltage	
• 1 at AC	85 ... 132 V
• 2 at AC	170 ... 264 V
design of input wide range input	No
overvoltage overload capability	Implemented internally with varistor
operating condition of the mains buffering	at $V_{in} = 120/230\text{ V}$
buffering time for rated value of the output current in the event of power failure minimum	40 ms
operating condition of the mains buffering	at $V_{in} = 120/230\text{ V}$
line frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 120 V	2.25 A
• at rated input voltage 230 V	1.24 A
current limitation of inrush current at 25 °C maximum	15 A
I <sup>2</sup> t value maximum	0.6 A <sup>2</sup> ·s
fuse protection type	T 3.15 A
• in the feeder	Recommended miniature circuit breaker: from 6 A characteristic C/B
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	3 %
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	50 mV
voltage peak	
• maximum	100 mV

product function output voltage adjustable	No
display version for normal operation	Green LED: 24 V OK; red LED flashing: "overload/short-circuit"
type of signal at output	Relay contact (NO contact, rating 30 V AC/ 0.5 A; 30 V DC/1 A) for 24 V OK
behavior of the output voltage when switching on	Overshoot of Vout < 3 %
response delay maximum	1.5 s
voltage increase time of the output voltage	
• typical	22 ms
• maximum	100 ms
output current	
• rated value	5 A
• rated range	0 ... 5 A
supplied active power typical	133 W
short-term overload current	
• on short-circuiting during the start-up typical	20 A
• at short-circuit during operation typical	20 A
duration of overloading capability for excess current	
• on short-circuiting during the start-up	50 ms
• at short-circuit during operation	50 ms
product feature	
• bridging of equipment	Yes; Symmetric wiring required
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	12.9 W
<b>Closed-loop control</b>	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.2 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	1 %
setting time	
• maximum	2 ms
<b>Protection and monitoring</b>	
design of the overvoltage protection	< 29 V
response value current limitation typical	5.5 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
enduring short circuit current RMS value	
• maximum	6 A
• typical	5 A
display version for overload and short circuit	Red LED flashing for "overload/short-circuit"
<b>Safety</b>	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current	
• maximum	3.5 mA
• typical	1 mA
protection class IP	IP67, enclosure type 5 indoor
<b>Approvals</b>	
certificate of suitability	
• CE marking	Yes
• UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1)
• CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1)
• cCSAus, Class 1, Division 2	No
• ATEX	No
certificate of suitability	
• IECEx	No

<ul style="list-style-type: none"> <li>• NEC Class 2</li> <li>• ULhazloc approval</li> <li>• FM registration</li> </ul>	No
type of certification CB-certificate	No
certificate of suitability <ul style="list-style-type: none"> <li>• EAC approval</li> </ul>	Yes
certificate of suitability shipbuilding approval	No
shipbuilding approval	-
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>	No No No No No
<b>EMC</b>	
standard <ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for mains harmonics limitation</li> <li>• for interference immunity</li> </ul>	EN 55022 Class B EN 61000-3-2 EN 61000-6-2
<b>environmental conditions</b>	
ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during transport</li> <li>• during storage</li> </ul>	-25 ... +60 °C; with natural convection -40 ... +85 °C -40 ... +85 °C
environmental category according to IEC 60721	3K6 without direct sunlight
<b>Mechanics</b>	
type of electrical connection <ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> <li>• for auxiliary contacts</li> </ul>	screw-type terminals L1, N, PE: Plug connector 7/8" (counterpart see "Operating Instructions (compact)") +, -: Plug connector 7/8" (counterpart see "Operating Instructions (compact)") Alarm signals: M12 plug-in connector 4-pin
product function <ul style="list-style-type: none"> <li>• removable terminal at input</li> <li>• removable terminal at output</li> </ul>	Yes Yes
width of the enclosure	120 mm
height of the enclosure	181 mm
depth of the enclosure	60.5 mm
required spacing <ul style="list-style-type: none"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	50 mm 0 mm 0 mm 0 mm
net weight	1.1 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Wall mounting
MTBF at 40 °C	1 500 000 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

