

SITOP PSU100B-C/1AC/12VDC/10A

SITOP PSU100B 12 V/10 A Stabilized power supply input: 120/230 V AC, output: 12 V DC/10 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	$2.3 \times V_{in}$ rated, 1.3 ms
operating condition of the mains buffering	at $V_{in} = 93/187$ V
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at $V_{in} = 93/187$ 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	2.42 A
• at rated input voltage 230 V	1.03 A
current limitation of inrush current at 25 °C maximum	60 A
fuse protection type	T 6.3 A/250 V (not accessible)
• in the feeder	Recommended miniature circuit breaker: 6 A/10 A characteristic C
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	12 V
output voltage	
• at output 1 at DC rated value	12 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	1 %
residual ripple	
• maximum	150 mV
• typical	20 mV
voltage peak	
• maximum	240 mV
• typical	100 mV
adjustable output voltage	11.5 ... 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
type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for 12 V OK
behavior of the output voltage when switching on	Overshoot of $V_{out} < 3$ %
response delay maximum	0.3 s
voltage increase time of the output voltage	
• typical	10 ms

output current	
• rated value	10 A
• rated range	0 ... 10 A; +55 ... +60 °C: Derating 5%/K
supplied active power typical	168 W
short-term overload current	
• on short-circuiting during the start-up typical	40 A
• at short-circuit during operation typical	40 A
duration of overloading capability for excess current	
• on short-circuiting during the start-up	800 ms
• at short-circuit during operation	800 ms
product feature	
• bridging of equipment	No
number of parallel-switched equipment resources for increasing the power	0
Efficiency	
efficiency in percent	87 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	24 W
Closed-loop control	
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	5 %
setting time	
• load step 10 to 90% typical	1 ms
• load step 90 to 10% typical	1 ms
Protection and monitoring	
design of the overvoltage protection	< 20 V
response value current limitation	10 ... 12 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic
enduring short circuit current RMS value	
• typical	12 A
display version for overload and short circuit	-
Safety	
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	0.8 mA
protection class IP	IP20
Approvals	
certificate of suitability	
• CE marking	Yes
• UL approval	No; -
• CSA approval	No; -
• NEC Class 2	No
• EAC approval	Yes
type of certification	
• CB-certificate	No
certificate of suitability	
• IECEx	No
• ATEX	No
• ULhazloc approval	No
• cCSAus, Class 1, Division 2	No
• FM registration	No
certificate of suitability shipbuilding approval	Yes
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (BV)	No
• Lloyds Register of Shipping (LRS)	No

EMC	
standard	
• for emitted interference	EN 55022 Class B
• for mains harmonics limitation	EN 61000-3-2
• for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
• during operation	-10 ... +60 °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, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded
• at output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm ²
• for auxiliary contacts	Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm ²
• for signaling contact	3 screw terminals for 0.5 ... 2.5 mm ²
width of the enclosure	70 mm
height of the enclosure	125 mm
depth of the enclosure	120 mm
net weight	0.7 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

