



SITOP PSU100C 24 V/2.5 A STABILIZED POWER SUPPLY  
 INPUT: AC 120-230 V (DC 110-300 V) OUTPUT: DC 24 V/2.5 A

### Technical specifications

Product	SITOP PSU100C
Power supply, type	24 V/2.5 A
<b>Input</b>	
Input	1-phase AC or DC
Rated voltage value $V_{in}$ rated	100 ... 230 V
Voltage range	85 ... 264 V
Input voltage / at DC	110 ... 300 V
Wide-range input	Yes
Overvoltage resistance	$2.3 \times V_{in}$ rated, 1.3 ms
Mains buffering at $I_{out}$ rated, min.	20 ms
Mains buffering	at $V_{in} = 230$ V
Rated line frequency	50 / 60 Hz
Rated line range	47 ... 63 Hz
Input current / at nominal level of the input voltage 100 V / nominal value	1.21 A
Input current / at nominal level of the input voltage 230 V	0.67 A
Switch-on current limiting (+25 °C), max.	31 A
$I^2t$ , max.	2.4 A <sup>2</sup> ·s
Built-in incoming fuse	internal

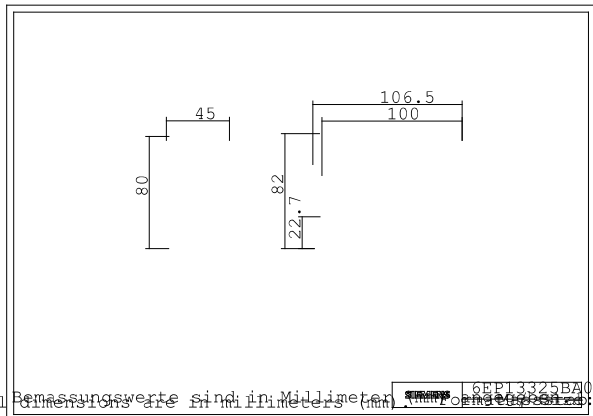
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 16 A, characteristic B or from 10 A, characteristic C
<b>Output</b>	
Output	Controlled, isolated DC voltage
Rated voltage $V_{out}$ DC	24 V
Total tolerance, static $\pm$	3 %
Residual ripple peak-peak, max.	200 mV
Residual ripple peak-peak, typ.	55 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	300 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV
Adjustment range	22.2 ... 26.4 V
Product feature / output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for output voltage OK
On/off behavior	Overshoot of $V_{out}$ approx. 1 %
Startup delay, max.	0.7 s
Voltage rise, typ.	100 ms
Rated current value $I_{out}$ rated	2.5 A
Current range	0 ... 2.5 A
• Note	2.5 A up to +50 °C, 0.75 A up to +70 °C
delivered active power / typ.	60 W
Parallel switching for enhanced performance	Yes
• Note	Start-up with single nominal load only
Numbers of parallel switchable units for enhanced performance	2
<b>Efficiency</b>	
Efficiency at $V_{out}$ rated, $I_{out}$ rated, approx.	87 %
Power loss at $V_{out}$ rated, $I_{out}$ rated, approx.	9 W
<b>Closed-loop control</b>	
Dynamic mains compensation ( $V_{in}$ rated $\pm 15$ %), max.	0.1 %
Dynamic load smoothing ( $I_{out}$ : 10/90/10 %), $U_{out} \pm$ typ.	3 %
Load step setting time 10 to 90%, typ.	4 ms
Load step setting time 90 to 10%, typ.	4 ms
<b>Protection and monitoring</b>	
Output overvoltage protection	Yes, according to EN 60950
Current limitation, typ.	3 A
Characteristic feature of the output / short-circuit protected	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Overload/short-circuit indicator	-
<b>Safety</b>	

Primary/secondary isolation	Yes
Potential separation	Safety extra-low output voltage U <sub>out</sub> acc. to EN 60950-1 and EN 50178
Protection class	Class I
stray current / maximum	3.5 mA
stray current / typical	0.4 mA
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
Explosion protection	ATEX (EX) II 3G Ex nA IIC T4; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4
FM approval	-
CB approval	Yes
Marine approval	GL and ABS in process
Degree of protection (EN 60529)	IP20
<b>EMC</b>	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2
<b>Operating data</b>	
Ambient temperature / in operation	-20 ... +70 °C
• Note	with natural convection
Ambient temperature / on transport	-40 ... +85 °C
Ambient temperature / in storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation
<b>Mechanics</b>	
Connection technology	screw-type terminals
Connections / Supply input	L, N, PE: Removable screw terminal, each for 1 x 0.5 ... 2.5 mm <sup>2</sup>
Connections / Output	+: 1 screw terminal for 0.5 ... 2.5 mm <sup>2</sup> ; -: 2 screw terminals for 0.5 ... 2.5 mm <sup>2</sup>
Connections / Auxiliary	-
Width / of the housing	45 mm
Height / of the housing	80 mm
Depth / of the housing	100 mm
Installation width	45 mm
Mounting height	180 mm
Weight, approx.	0.22 kg
Product feature / of the housing / housing for side-by-side mounting	Yes
Type of mounting / wall mounting	No

Type of fixing / cap rail mounting	Yes
Type of mounting / S7-300 rail mounting	No
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Removable spring-type terminal 6EP1971-5BA00

Other information

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)



letzte Änderung:

Sep 10, 2012