



**SUNPOWER TECHNOLOGY CORP.**  
 16F-1, No.150, Jian 1st Rd., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.).  
 TEL: 886-2-8226-3100 FAX: 886-2-8226-3111  
 http://www.sunpower.com.tw  
 E-mail: sunpower@sunpower.com.tw

# SPB-100-xx Series

## 100W, Single Output



129 x 95 x 30 mm  
 5.08 x 3.74 x 1.18 inch



### Features:

- \* Green mode design , no load < 0.3W
- \* 1U low profile 30mm
- \* Altitude during operation up to 16404ft ( 5000m )
- \* High efficiency and high reliability
- \* Power ON with LED indicator
- \* Built in EMI filter, low ripple noise
- \* Over voltage , over load & short circuit protection
- \* Output voltage  $\pm 10\%$  adjustment
- \* 100% full load burn-in test
- \* UL, cUL, CB, CE approved
- \* 3 years warranty

### Specification:

INPUT	<b>Voltage</b>	85V ~ 264VAC universal full range or 120V ~ 375VDC.					
	<b>Frequency</b>	47 ---- 63 Hz					
	<b>Current</b>	<2.2A @100V AC input, full load condition					
	<b>Inrush Current(TYP.)</b>	50A@230V AC input. Cold start at 25 ambient					
	<b>Leakage Current</b>	<0.75mA@264V AC input					
OUTPUT	<b>MODEL No.</b>	<b>SPB-100-05</b>	<b>SPB-100-7.5</b>	<b>SPB-100-12</b>	<b>SPB-100-15</b>	<b>SPB-100-24</b>	<b>SPB-100-48</b>
	<b>Voltage</b>	5V	7.5V	12V	15V	24V	48V
	<b>Min Load</b>	0A	0A	0A	0A	0A	0A
	<b>Max Load</b>	18A	13.6A	8.5A	7A	4.5A	2.3A
	<b>Output Tolerance</b> ②	$\pm 2\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$
	<b>Ripple Noise MAX.</b> ③	100mV	100mV	120mV	120mV	150mV	200mV
	<b>Efficiency (TYP.)</b>	84.5%	85.5%	86.5%	87%	88.5%	89.5%
PROTECTION	<b>Output MAX.</b>	90W	102W	102W	105W	108W	110.4W
	<b>Over Voltage</b>	5.75V~6.75V	8.63V~10.13V	13.8V~16.2V	17.25V~20.25V	27.6V~32.4V	55.2V~64.8V
	<b>OverLoad &amp; Short Circuit</b>	Shutdown and latch off, recover after re-start up.					
	<b>Over Temperature</b>	When power supply over 105% ~ 150%max load or short circuit acted, power supply will go into hiccup mode and recover automatically after the fault is removed.					
ELEC. CHAR.	<b>Rise time</b>	<30mS					
	<b>Hold up time</b>	>16mS@230V, full load condition					
	<b>Setup time</b>	<0.5S@100 ~ 240V AC					
ENVIRONMENT	<b>Temperature</b> ④	Operating: -30 ~ +70°C ; De-rating: 50 ~ 70°C: 2.5%/°C ; Storage: -40 ~ +85°C					
	<b>Humidity</b>	Operating: 20% ~ 90% RH (non condensing) ; Storage: 10% ~ 95% RH (non condensing)					
SAFETY	<b>Withstand voltage</b>	I/P-O/P:3KVAC, I/P-PE:1.5KVAC, O/P-PE:0.5KVAC, 1minute					
	<b>Isolation resistance</b>	I/P-O/P, I/P-PE, O/P-PE > 100MΩ/500VDC at 25°C/ 70% RH					
	<b>Safety standard</b>	UL 62368-1 2 <sup>nd</sup> Edition, 2014-12-01, CSA C22.2 No.62368-1-14 2 <sup>nd</sup> Edition, 2014-12 IEC60950-1:2005/AMD2 : 2013, IEC 62368-1:2014, approved					
EMC	<b>EMI</b>	EN 55032 CLASS B, FCC CFR 47 PART 15 CLASS B, CNS 13438 CLASS B.					
	<b>EMS</b>	Compliance to EN61000-3-2 CLASS A, EN61000-3-3					
OTHERS	<b>Cooling</b>	Natural cooling					
	<b>M.T.B.F.</b>	396 K hours					
	<b>Dimension</b>	129 x 95 x 30 mm (L*W*H)					
	<b>Packing</b>	N.W.: 0.33 Kg / 1pc; 40 pcs / 1.22 CUFT / 1 CTN					

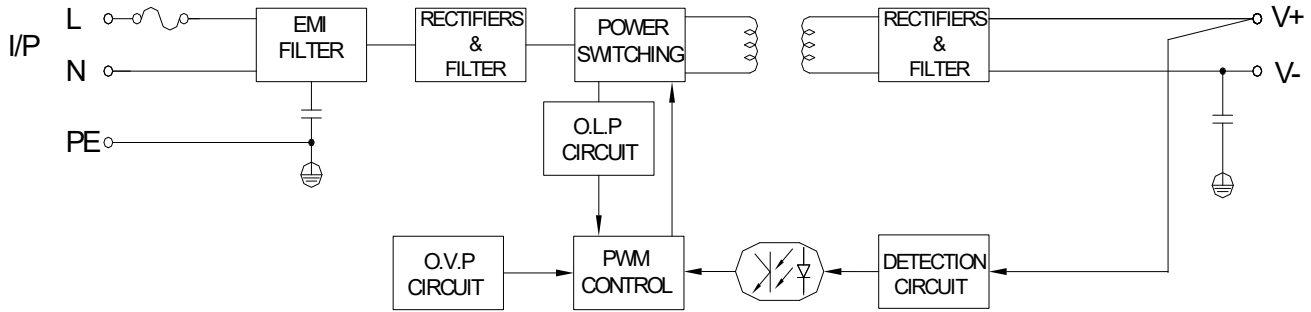
NOTE	① All measurements which not mentioned are based on 230VAC input, <b>output Max</b> at ambient 25 / 70%RH
	② Output tolerance included set up voltage, line regulation and load regulation.
	③ Ripple & noise are measured at 100~254VAC input with 10~50°C condition and 20MHz of bandwidth by using a 10" ~15" twisted pair-wire terminated with a 0.1uF & a 47uF parallel capacitor.
	④ The operating temperature shall follow the de-rating curve in spec The output load may be requested for decreasing as de-rating curve in spec when low input voltage is under 100VAC.
	⑤ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.



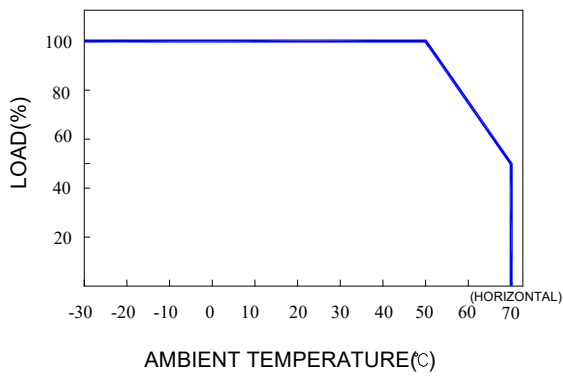
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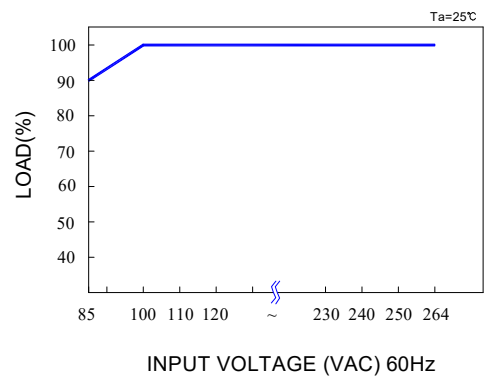
## Block Diagram : US14



## De-rating Curve :

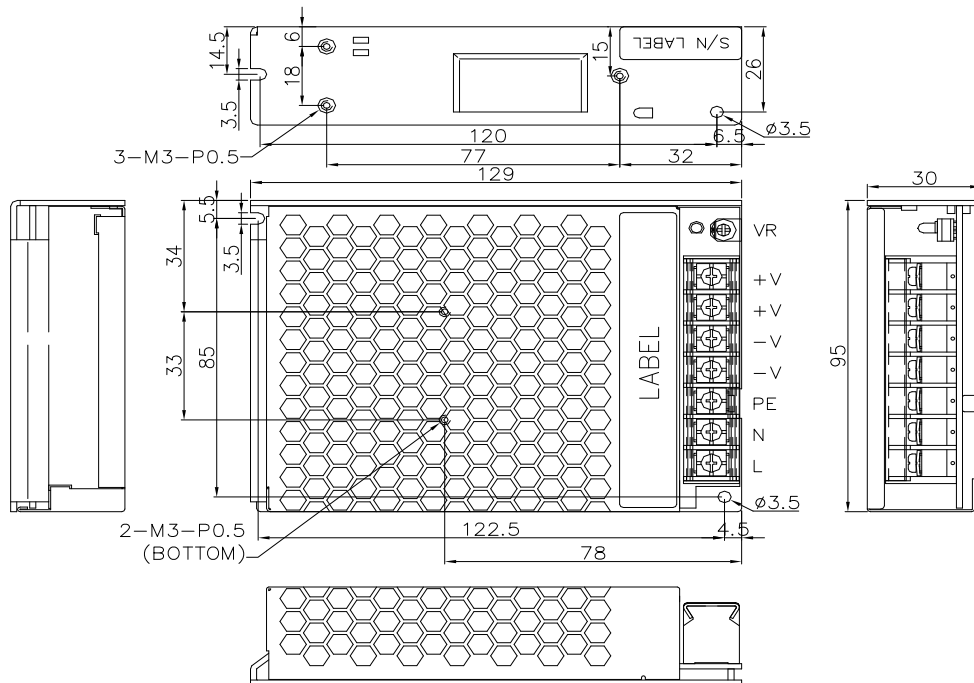


## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)



### NOTES:

TERMINAL BLOCK: 7P, PITCH 9.5mm WITH PC COVER.

MODEL No.	1	2	3	4	5	6	7
SPB-100-xx	L	N	PE	-V	-V	+V	+V