



SUNPOWER TECHNOLOGY CORP.  
 33485 Western Ave., Union City, CA 94587, United States of America  
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 http://www.sunpower-usa.com  
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# SPU-200P-IDx Series

**200W, Dual Output**  
**Active P.F.C Function**

198 x 97 x 38 mm



## Features:

- \* Universal AC input with active power factor correction, P.F.>0.95
- \* V1、V2 outputs are isolated
- \* Power ON with LED indicator
- \* Built-in EMI filter, low ripple noise
- \* Over voltage protection
- \* Over load & short circuit protection
- \* V1 output voltage  $\pm 10\%$  adjustment
- \* Output voltage remote sense
- \* Over temperature protection (Optional)
- \* 100% full load burn-in test
- \* UL, cUL, TUV, CB, CE standard
- \* 2 years warranty

## Specification:

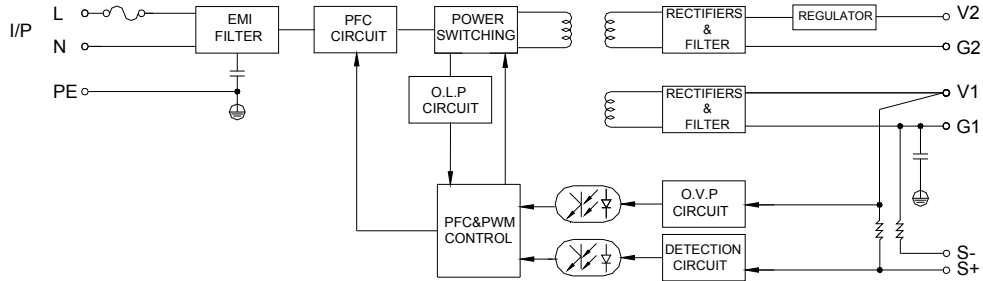
INPUT	<b>Voltage</b>	88V ~ 264VAC universal full range or 125V ~ 375VDC.					
	<b>Frequency</b>	47 ---- 63 Hz					
	<b>Current</b>	<3.0A@100VAC input, full load condition					
	<b>Inrush Current</b>	<35A@115V, <70A@230V AC input. Cold start at 25°C ambient					
	<b>Leakage Current</b>	<1.0mA@264V AC input					
	<b>Power Factor</b>	PF > 0.95					
OUTPUT	<b>MODEL No.</b>	SPU-200P-ID5		SPU-200P-ID6		SPU-200 P-ID7	
	<b>Voltage</b>	V1	V2	V1	V2	V1	V2
		12V	5V	24V	5V	48V	5V
	<b>Min Load</b>	1A	0A	0.5A	0A	0.3A	0A
	<b>Max Load</b>	16A	4A	8A	4A	4A	4A
	<b>Output Tolerance</b> ②	$\pm 1\%$	$\pm 5\%$	$\pm 1\%$	$\pm 5\%$	$\pm 1\%$	$\pm 5\%$
	<b>Ripple Noise MAX.</b> ③	120mV	70mV	200mV	70mV	240mV	70mV
<b>Efficiency (TYP.)</b>	81%		83%		84%		
<b>Output MAX.</b>	200W		200W		200W		
PROTECTION	<b>Over Voltage</b>	13.8 ~ 16.8V	---	27.6 ~ 33.6V	---	55.2 ~ 67.2V	---
		Shutdown and latch off, recover after re-start up.					
	<b>Over Load &amp; Short Circuit</b>	When power supply over 105%~ 150 max load or short circuit acted, power supply will be shutdown and recover automatically after the fault is removed.					
	<b>Over Temperature</b>	Optional, Over 95°C $\pm 5^\circ\text{C}$ Shutdown, recovers automatically after fault condition has been removed.					
ELEC. CHAR.	<b>Rise time</b>	<20mS					
	<b>Hold up time</b>	>20mS@230V, full load condition					
	<b>Setup time</b>	<2 Sec@100 ~ 240V AC					
	<b>Remote sensing</b>	(RS+, RS-).					
ENVIRONMENT	<b>Temperature</b> ④	Operating: -20 ~ +70°C ; De-rating: 45 ~ 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 > 100M $\Omega$ /500VDC at 25°C / 70% RH					
	<b>Safety standard</b>	UL 60950-1 2 <sup>nd</sup> , CSA C22.2 No. 60950-1- 07 1 <sup>st</sup> , TUV EN 60950-1:2006, IEC 60950-1:2005, standard.					
EMC	<b>EMI</b>	EN 55022 CLASS B、FCC CFR 47 PART 15 CLASS B、CNS 13438 CLASS B.					
		Compliance to EN61000-3-2 CLASS D, EN61000-3-3					
	<b>EMS</b>	EN 55024 : EN 61000-4-2,3,4,5,6,8,11					
OTHERS	<b>Cooling</b>	Natural cooling, when output exceed 150W, a 18 CFM(min) DC fan is required					
	<b>M.T.B.F.</b>	___ K hours					
	<b>Dimension</b>	198*97*38 mm (L*W*H)					
	<b>Packing</b>	N.W.:___ Kg / 1pc; 18 pcs / 1.38 CUFT / 1 CTN					
NOTE	①	All measurements which not mentioned are based on 230VAC input, <b>output Max</b> at ambient 25°C / 70%RH					
	②	Output tolerance included set up voltage, line regulation and load regulation. The regulation is measured between 20%-100% <b>max load</b> of each output, Total output t must under <b>output Max</b> .					
	③	Ripple & noise are measured at 100~254VAC input with 0~50°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.					



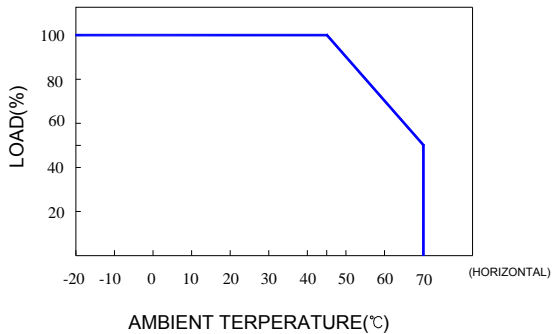
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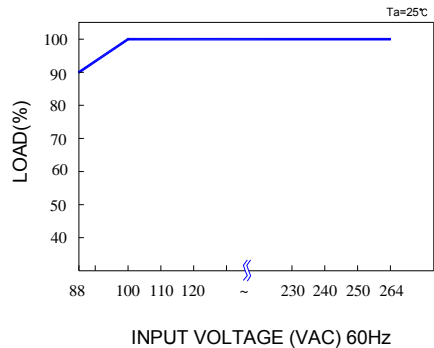
## Block Diagram : PD4



## De-rating Curve :

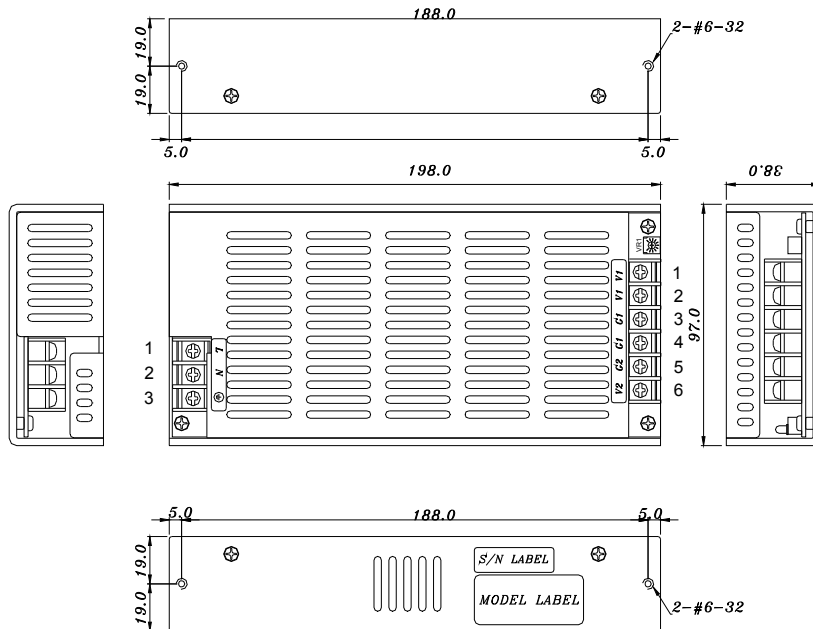


## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)



### NOTES:

TERMINAL BLOCK: I/P=3P, P=9.5mm

MODEL No.	1	2	3
SPU-200P-IDx	L	N	PE

TERMINAL BLOCK: O/P:6P, P=9.5mm

MODEL No.	1	2	3	4	5	6
SPU-200P-IDx	V1	V1	G1	G1	G2	V2