SUNPOWER TECHNOLOGY CORP.
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SPU-150P-Qx Series

150W, Quad Output
Active P.F.C Function

133.5 x 84 x 38 mm
5.26 x 3.30 x 1.50 inch

Features:

- ∗ Universal AC input with active power factor correction, P.F.>0.95
- ∗ Built-in EMI filter, low ripple noise
- ∗ Over voltage protection
- ∗ Over load ＆ short circuit protection
- ∗ 100% full load burn-in test
- ∗ Built-in cooling DC Fan 12V base
- ∗ UL, cUL, TUV, CB, CE standard
- ∗ 2 years warranty

Specification:

INPUT	**Voltage**	88V ~ 264VAC universal full range or 125V ~ 375VDC.							
	Frequency	47 ----- 63 Hz							
	Current	<2.3A@100VAC input, full load condition							
	Inrush Current	<35A@115V , <70A@230V AC input. Cold start at 25℃ ambient							
	Leakage Current	<1.0mA@264V AC input							
	Power Factor	PF ＞ 0.95							
OUTPUT	**MODEL No.**	**SPU-150P-Q1**				**SPU-150P-Q3**			
	Voltage	V1	V2	V3	V4	V1	V2	V3	V4
		5V	12V	-12V	-5V	5V	12V	24V	-12V
	Min Load	3A	0.3A	0A	0A	3A	0.3A	0.3A	0A
	Max Load	15A	6A	1A	1A	15A	6A	2.5A	1A
	Output Tolerance ②	±3%	±6%	±6%	±5%	±3%	±6%	±6%	±5%
	Ripple Noise MAX. ③	70mV	120mV	150mV	100mV	70mV	120mV	200mV	150mV
	Efficiency (TYP.)	76%				78%			
	Output MAX.	150W				150W			
	MODEL No.	**SPU-150P-Q5**				**SPU-150P-Q7**			
	Voltage	V1	V2	V3	V4	V1	V2	V3	V4
		5V	3.3V	12V	-12V	5V	3.3V	24V	-12V
	Min Load	3A	0.5A	0.5A	0A	3A	0.5A	0.3A	0A
	Max Load	15A	12A	6A	1A	15A	12A	2.5A	1A
	Output Tolerance ②	±3%	±3%	±6%	±5%	±3%	±3%	±6%	±5%
	Ripple Noise MAX. ③	70mV	100mV	120mV	150mV	70mV	100mV	200mV	150mV
	Efficiency (TYP.)	75%				76%			
	Output MAX.	150W				150W			
	Note	*** SPU-150P-TxA is with V3, TxB is with V4**							
PROTECTION	**Over Voltage**	V1：5.8 ~ 7.0V：Shutdown and latch off, recover after re-start up.							
	Over Load & Short Circuit	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.							
ELEC. CHAR.	**Rise time**	<20mS							
	Hold up time	>20mS@230V							
	Setup time	<2 Sec@100 ～ 240V AC							
ENVIRONMENT	**Temperature** ④	Operating: -20 ~ +70℃ ; De-rating: 45 ~ 70℃: 2.5%/℃ ; Storage: -40 ~ +85℃							
	Humidity	Operating: 20% ~ 90% RH (non condensing) ; Storage: 10% ~ 95% RH (non condensing)							
SAFETY	**Withstand voltage**	I/P-O/P:3KVAC, I/P-PE:1.5KVAC, O/P-PE:0.5KVAC, 1minute							
	Isolation resistance	I/P-O/P, I/P-PE, O/P-PE ＞100MΩ/500VDC at 25℃/ 70% RH							
	Safety standard	UL 60950-1 2nd,CSA C22.2 No. 60950-1- 07 2nd,TUV EN 60950-1:2006,IEC 60950-1:2005, standard.							
EMC	**EMI**	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							
	EMS	EN 55024：EN 61000-4-2,3,4,5,6,8,11							
OTHERS	**Cooling**	Natural cooling, when output exceed 120W, a 16 CFM(min) DC fan is required							
	M.T.B.F.	___ K hours							
	Packing	N.W.:___ Kg / 1pc; 18 pcs / 1.38 CUFT / 1 CTN							

NOTE

① All measurements which not mentioned are based on 230VAC input, **output max** at ambient 25℃ / 70%RH
② Output tolerance included set up voltage, line regulation and load regulation.
The regulation is measured at the condition：when any of output is with 20% ~ 100% **max load** and the rest of each outputs are with 60% **max load,** Each output could work within **max load** but must under total **output max**.
③ Ripple & noise are measured at 100～254VAC input with 0～50℃ 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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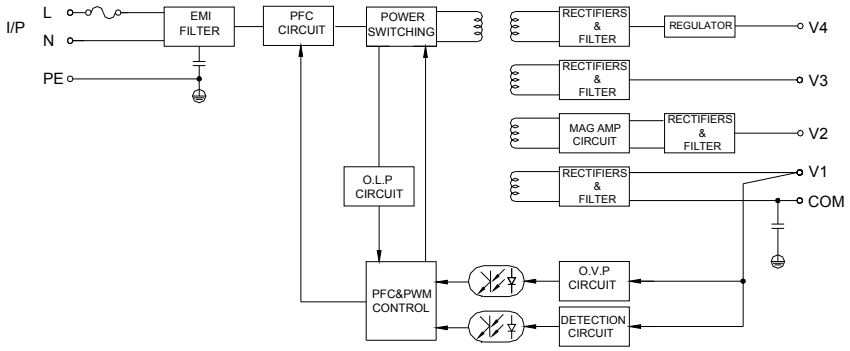
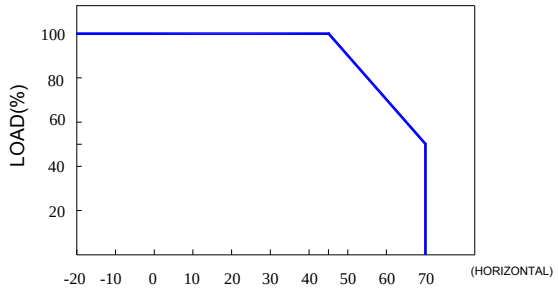
Block Diagram：PQ5

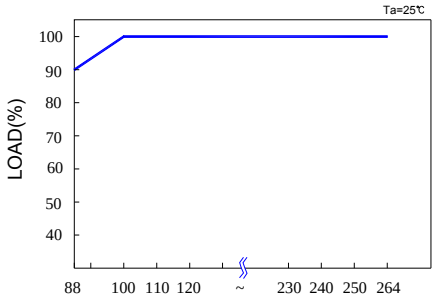


De-rating Curve：



AMBIENT TERPERATURE(℃)

Output De-rating Vs Input Voltage：



INPUT VOLTAGE (VAC) 60Hz

Dimension:

(Unit: mm)

NOTES:

TERMINAL BLOCK: I/P:3P P=3.96mm(Pin 2 CUT)

MODEL No.	1	2	3
SPU-150P-Qx	L	N/A	N

TERMINAL BLOCK: O/P:12P, P=3.96mm

MODEL No.	1	2	3	4	5	6	7	8	9	10	11	12
SPU-150P- Qx												