



SUNPOWER TECHNOLOGY CORP.

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SPS-N120-ITx Series

Triple Output



159 x 95 x 38 mm

6.26 x 3.74 x 1.50 inch



Features:

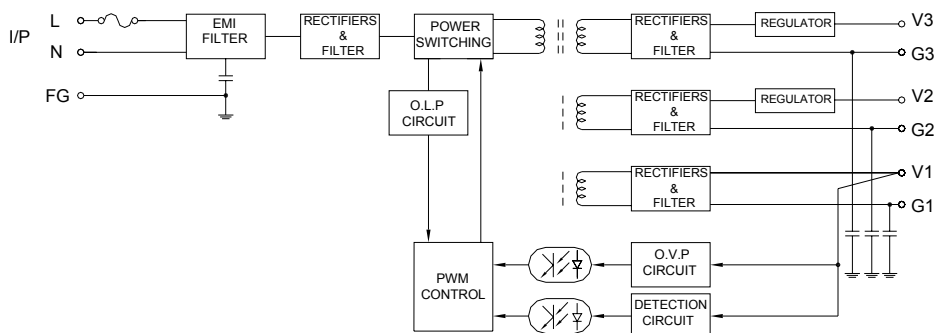
- * V1 & V2 & V3 output are isolated , V2 & V3 polarity option (+ or -)
- * Altitude during operation up to 9843ft (**3000m**)
- * Power ON with LED indicator
- * Built in EMI filter, low ripple noise
- * Over voltage 、 over load & short circuit protection
- * 100% full load burn-in test
- * -20℃~70℃ Operating temperature
- * UL, cUL, CB, CE approved
- * 3 years warranty

Specification:

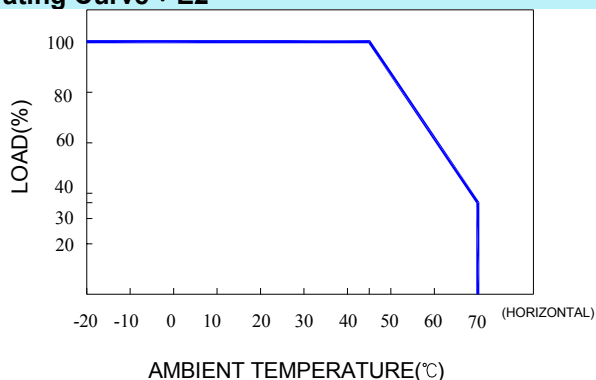
INPUT	Voltage	88V ~ 264VAC universal full range or 125V ~ 375VDC.								
	Frequency	47 ----- 63 Hz								
	Current	<4A@100V AC input, full load condition								
	Inrush Current (TYP.)	35A@115V , 70A@230V AC input, Cold start at 25℃ ambient								
	Leakage Current	<1.0mA @264V AC input								
OUTPUT	MODEL No.	SPS-N120-IT2			SPS-N120-IT3			SPS-N120-IT4		
	Output	V1	V2	V3	V1	V2	V3	V1	V2	V3
	Voltage	5V	±12V	±12V	5V	±15V	±15V	5V	±12V	±24V
	Min Load	0.5A	0A	0A	0.5A	0A	0A	0.5A	0A	0A
	Max Load	12A	5A	1.5A	12A	4A	1.5A	10A	4A	2A
	Output Tolerance ②	±3%	±6%	±5%	±3%	±6%	±5%	±3%	±6%	±6%
	Ripple Noise MAX. ③	80mV	120mV	150mV	80mV	150mV	200mV	80mV	120mV	240mV
	Efficiency (TYP.)	79%			80%			82%		
Output MAX.	115W			115W			115W			
PROTECTION	Over Voltage	V1 : 5.8 ~ 7.0V : Shutdown and latch off, recover after re-start up or Auto Recovery.								
	Over Load & Short Circuit	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.	Rise time	<30mS								
	Hold up time (TYP.)	>50mS@230V, >12mS@115V full load condition								
	Setup time	<1 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)								
	Altitude	9843 ft (≅ 3000 m) operating								
SAFETY	Withstand voltage	I/P-O/P:3KVAC, I/P-FG:1.8KVAC, O/P-FG:0.5KVAC, 1minute								
	Isolation resistance	I/P-O/P, I/P-FG, O/P-FG > 100MΩ/500VDC at 25℃ / 70% RH								
	Safety standard	UL 62368-1 2 nd Ed, 2014-12-01, CAN/CSA C22.2 No. 62368-1-14, 2 nd Ed, Issued: 2014-12-01, IEC 62368-1:2014								
EMC	EMI	Test Items			Standard			Test Level		
		Conducted			EN 55032			Class B		
		Radiated			EN 55032			Class B		
		Harmonic			EN 61000-3-2			Class A		
	EMS	Voltage Flicker			EN 61000-3-3			---		
		Test Items			Standard			Test Level		
		ESD			EN 61000-4-2			Level 3, 8KV air : Level 2, 4KV contact		
		Radiated			EN 61000-4-3			Level 2		
		EFT / Burst			EN 61000-4-4			Level 2		
		Surge			EN 61000-4-5			Level 3, 1KV/Line-Line , 2KV/Line-Earth		
		Conducted			EN 61000-4-6			Level 2		
		Magnetic Field			EN 61000-4-8			Level 2		
Voltage Dips and Interruptions			EN 61000-4-11			>95% dip 0.5 period, 30% dip 25 periods >95% interruptions 250 periods				
OTHERS	Cooling	Natural cooling.								
	M.T.B.F.	228K hours								
	Dimension	159 x 95 x 38 mm (L*W*H)								
	Packing	N.W.: 0.543Kg / 1pc ; 30pcs / 1.2 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 10~50℃ 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.									

SPS-N120-ITx Series

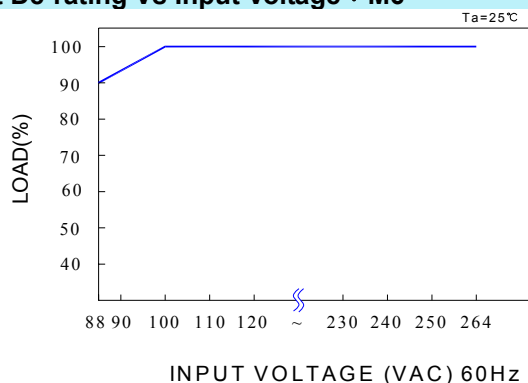
Block Diagram : UT5-1



De-rating Curve : E2

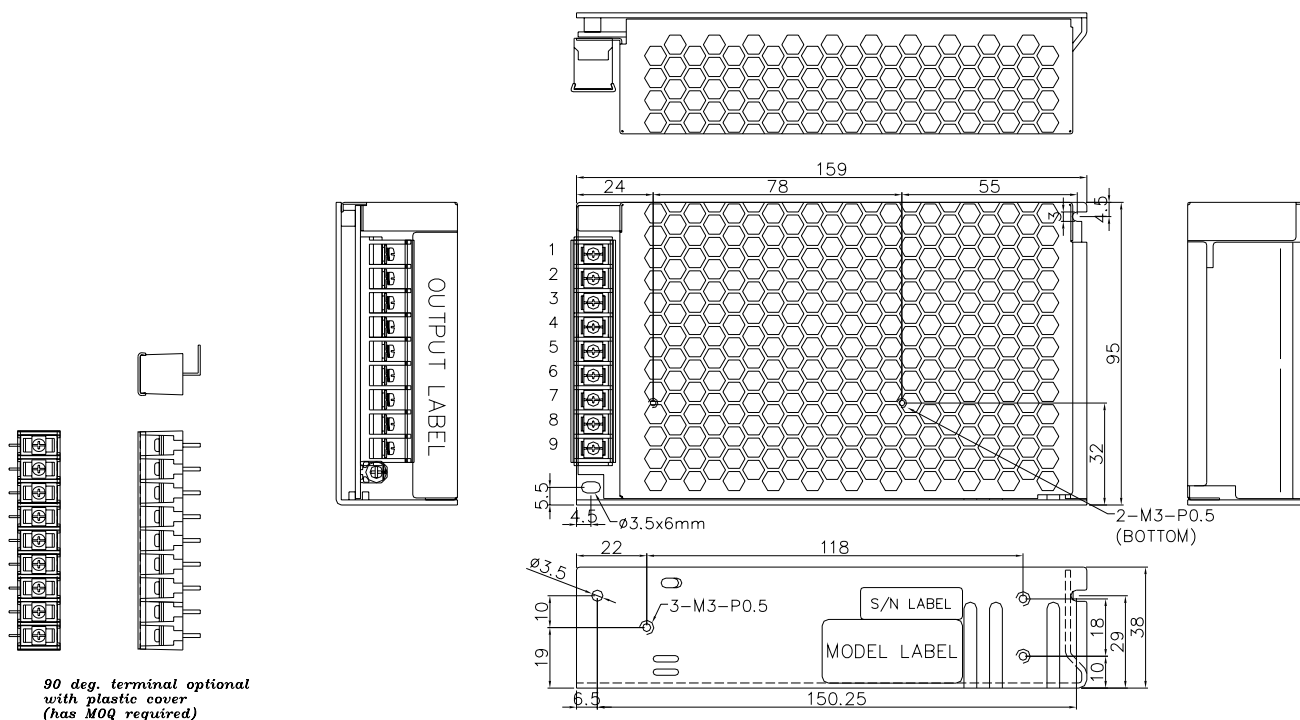


Output De-rating Vs Input Voltage : M6



Dimension:

(Unit: mm)



NOTES

TERMINAL BLOCK: 9P, PITCH 7.62 mm WITH PC COVER

Model No.	1	2	3	4	5	6	7	8	9
SPS-N120-IT2/IT3	L	N	FG	V3	G3	G1	V1	G2	V2
SPS-N120-IT4	L	N	FG	G3	V3	G1	V1	G2	V2