



SUNPOWER TECHNOLOGY CORP.

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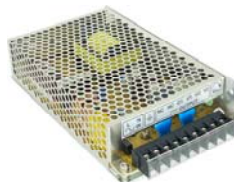
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SPS-N120-Dx Series

Dual Output



159 x 95 x 38 mm

6.26 x 3.74 x 1.50 inch



Features:

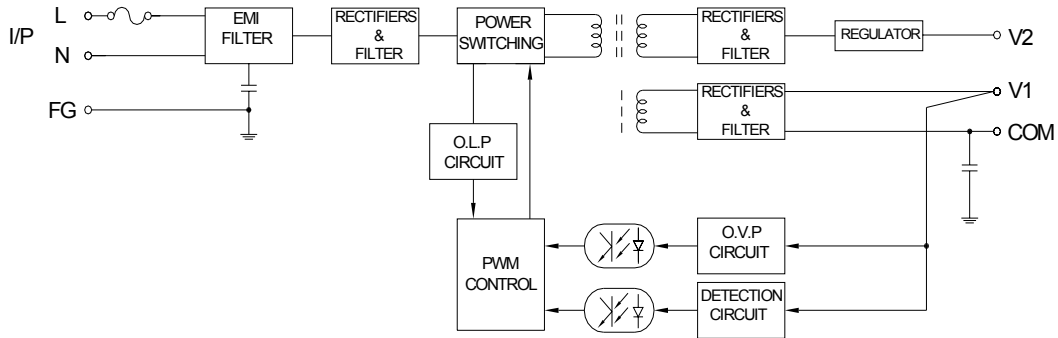
- * Altitude during operation up to 9843ft (3000m)
- * Power ON with LED indicator
- * Built in EMI filter, low ripple noise
- * Over voltage 、 over load & short circuit protection
- * 100% full load burn-in test
- * -20℃~70℃ Operating temperature
- * UL, cUL, CB, CE approved
- * 3 years warranty

Specification:

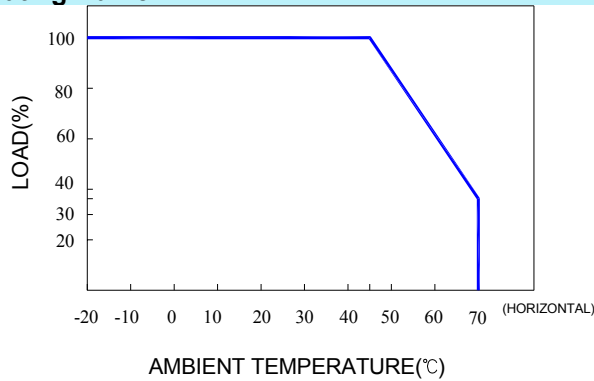
INPUT	Voltage	88V ~ 264VAC universal full range or 125V ~ 375VDC.									
	Frequency	47 ----- 63 Hz									
	Current	<4A@100V AC input, full load condition									
	Inrush Current (TYP.)	35A@115V , 70A@230V AC input, Cold start at 25℃ ambient									
	Leakage Current	<1.0mA @264V AC input									
OUTPUT	MODEL No.	SPS-N120-D1		SPS-N120-D2		SPS-N120-D3		SPS-N120-D4		SPS-N120-D8	
	Output	V1	V2	V1	V2	V1	V2	V1	V2	V1	V2
	Voltage	5V	12V	5V	24V	12V	-12V	15V	-15V	12V	24V
	Min Load	0.5A	0A	0.5A	0A	0.3A	0A	0.3A	0A	0.3A	0A
	Max Load	12A	5A	12A	3A	9.6A	4A	7.8A	3.2A	9.6A	3A
	Output Tolerance ②	±3%	±5%	±3%	±5%	±3%	±5%	±3%	±5%	±3%	±5%
	Ripple Noise MAX. ③	80mV	120mV	80mV	200mV	120mV	120mV	150mV	150mV	120mV	200mV
	Efficiency (TYP.)	80%		81%		80%		81%		84%	
	Output MAX.	115W		115W		116W		117W		120W	
PROTECTION	Over Voltage	5.8~7V	-----	5.8~7V	-----	13.8~16.8V	-----	17.3~21.0V	-----	13.8~16.8V	-----
	Over Load & Short Circuit	Shutdown and latch off, recover after re-start up or Auto Recovery.									
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	
		Voltage Flicker				EN 61000-3-3				---	
	EMS	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.	248.8K hours									
	Dimension	159 x 95 x 38 mm (L*W*H)									
	Packing	N.W.: 0.536Kg / 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-Dx Series

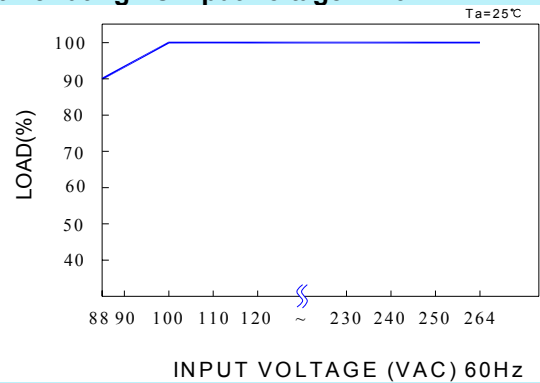
Block Diagram : UD3-1



De-rating Curve : E2

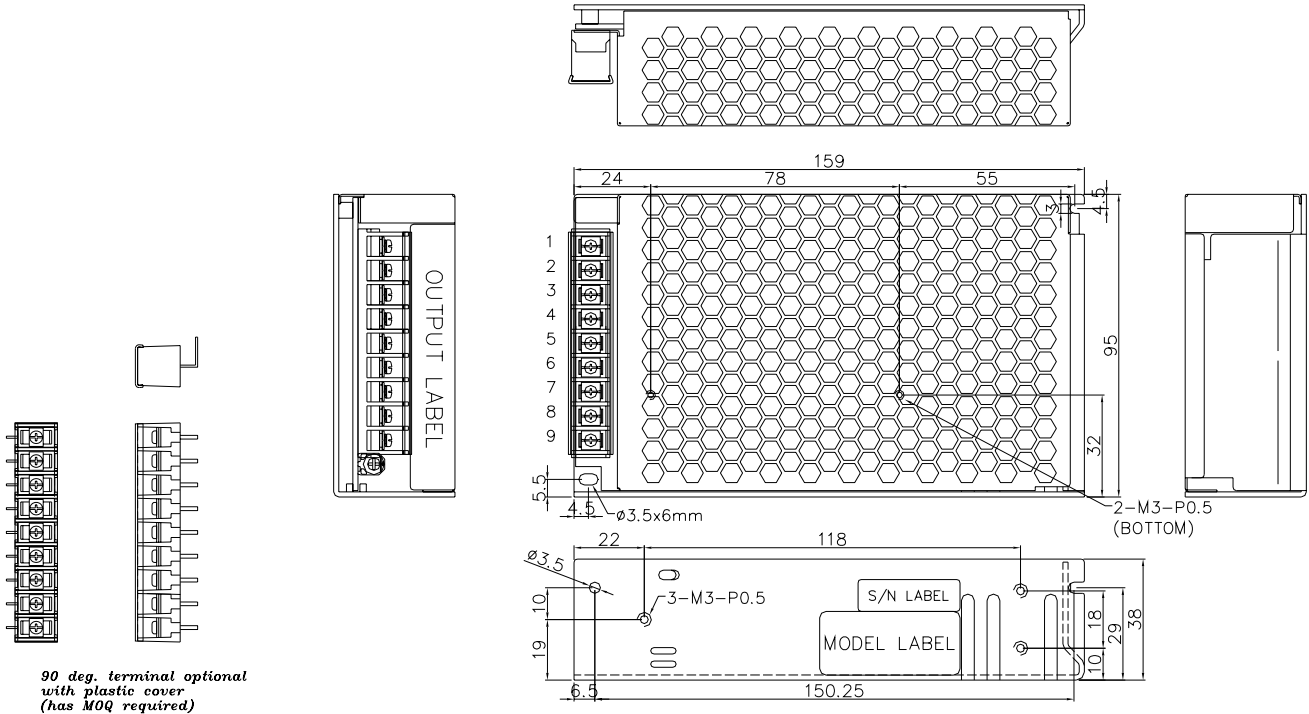


Output De-rating Vs Input Voltage : M6



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-D1/D2/D8	L	N	FG	N/C	N/C	GND	V1	GND	V2
SPS-N120-D3/D4	L	N	FG	N/C	N/C	GND	V1	V2	GND