



SUNPOWER TECHNOLOGY CORP.
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SPN-600-xx Series

600W, Single Output

High efficiency power supply



239 x 125 x 63.5 mm
 9.4 x 4.92 x 2.5 inch

Features:

- * AC input range selected by 115/230 SW.
- * AC input active inrush current limiting
- * Compact size and high efficiency up to 88%
- * Forced airflow cooling with DC fan
- * Over voltage, over load & short circuit, over temperature protection
- * Output voltage $\pm 10\%$ adjustment
- * Output voltage remote sense
- * Remote control ON/OFF function
- * With DC OK signal output
- * EN 55022 conduction classB pass, Meet EN61000-4-5 LEVEL III
- * 2 years warranty

Specification:

INPUT	Voltage ②	AC 90V ~ 132V or 180V ~ 264V selected by SW or 254V ~ 375VDC							
	Frequency	47 ----- 63 Hz							
	Current	<12A@115V , <7.5A@230V AC input, full load condition							
	Inrush Current	<35A@115V , <60A@230V AC input, Cold start at 25°C ambient							
	Leakage Current	<2.0mA@264V AC input							
OUTPUT	MODEL No.	SPN-600-05	SPN-600-12	SPN-600-15	SPN-600-24	SPN-600-30	SPN-600-36	SPN-600-48	
	Voltage	5V	12V	15V	24V	30V	36V	48V	
	Min Load	0A	0A	0A	0A	0A	0A	0A	
	Max Load	100A	50A	40A	25A	20A	16.7A	12.5A	
	Output Tolerance ③	$\pm 2\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	
	Ripple Noise MAX. ④	120mV	120mV	150mV	200mV	200mV	200mV	200mV	
	Efficiency (TYP.)	77%	83%	84%	87%	87%	87%	88%	
Output MAX.	500W	600W	600W	600W	601W	601W	600W		
PROTECTION	Over Voltage	5.8~7.0V	13.8~16.8V	17.3~21.0V	27.6 ~ 33.6V	34.5V~42V	41.4 ~ 50.4V	55.2~67.2V	
		Shutdown and latch off, recover after re-start up.							
	Over Load & Short Circuit	When power supply over 105%~ 135% max load or short circuit acted, power supply will be shutdown and latch off, recover after re-start up.							
	Over Temperature	Over 85°C $\pm 5^\circ$ C Shutdown, recovers automatically after fault condition has been removed.							
ELEC. CHAR.	Rise time	<50mS							
	Hold up time	>20mS@230V, full load condition							
	Setup time	<2.0 S@115V , <1.0 S@230V							
	Remote sensing	(RS+, RS-).							
	Remote Control	RC+/RC-: 0~0.7V= Power On; 3~5V= Power Off. Sink Current: 3~10 mA Power ON : conned between RC+ and RC-, Power OFF : open between RC+ and RC-, on CN3							
	DC OK signal	TTL signal output status : 0~1V=Power OFF, 3.3~5.6V=Power ON							
ENVIRONMENT	Temperature ⑤	Operating: -20 ~ +70°C ; De-rating: 45 ~ 70°C : 2.5%/°C ; Storage: -40 ~ +85°C							
	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 > 100M Ω /500VDC at 25°C / 70% RH							
	Safety standard	UL 60950-1 2 nd , CSA C22.2 No. 60950-1- 07 2 nd , standard.							
OTHERS	Cooling	Forced airflow cooling with DC fan.							
	M.T.B.F.	141.7 K hours							
	Dimension	239 x 125 x 63.5 mm (L*W*H)							
	Packing	N.W.: Kg / 1pc ; 3pcs / 1.22 CUFT / 1 CTN							

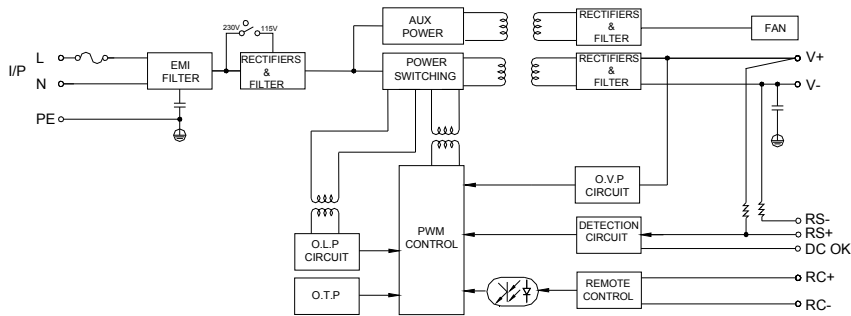
- NOTE
- ① All measurements which not mentioned are based on 230VAC input, **output Max** at ambient 25°C / 70%RH
 - ② If the input voltage is DC 254~375V, **the AC slide switch must stay at 230V range.**
 - ③ Output tolerance included set up voltage, line regulation and load regulation.
 - ④ Ripple & noise are measured at 115/230VAC 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.
 - ⑤ 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 100/200VAC..
 - ⑥ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.



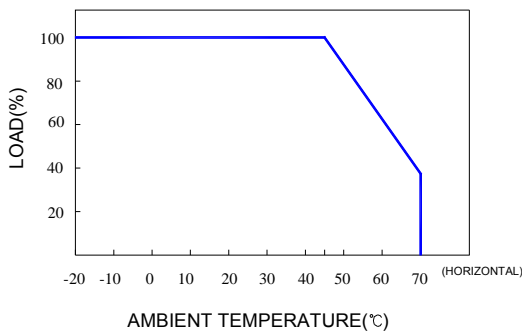
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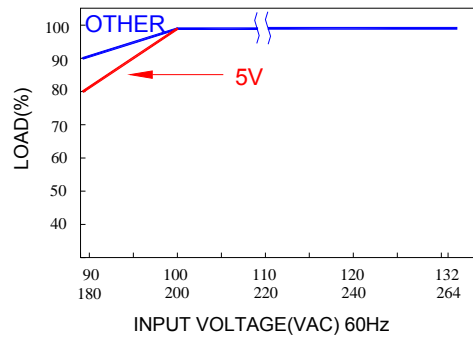
Block Diagram : SS10



De-rating Curve :

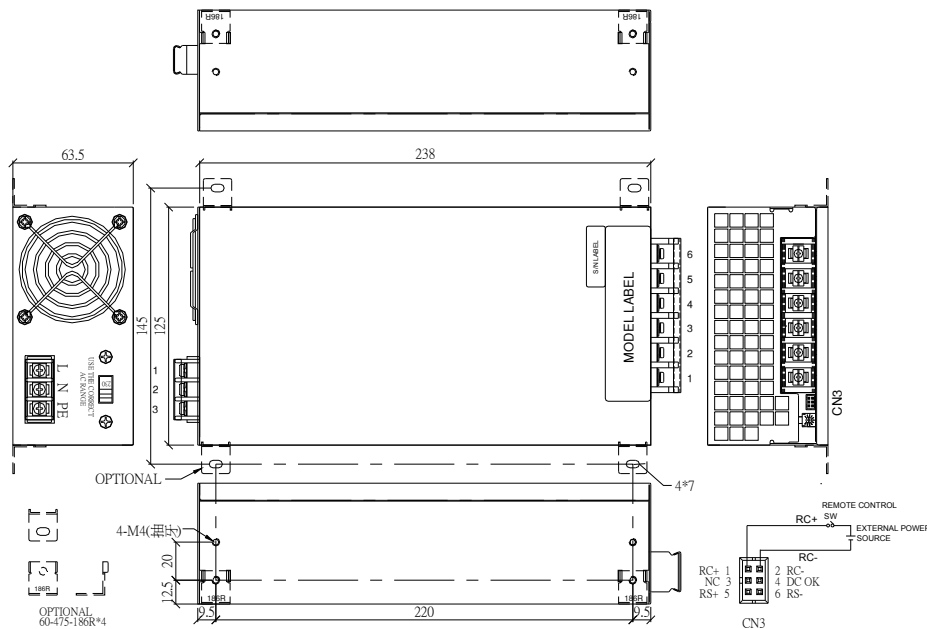


Output De-rating Vs Input Voltage :



Dimension:

(Unit: mm)



Remote control CN3

RC+ and RC-	Output
SW OPEN 0~0.7V	Power ON
SW SHORT 3~5V	Power OFF

NOTES:

AC INPUT CN1 TERMINAL :

IP3P, PITCH 9.5mm WITH PC COVER			
Pin No.	1	2	3
Assignment	L	N	PE

DC OUTPUT CN2 TERMINAL :

O/P 6P, PITCH 13 mm	
Pin No.	Assignment
1 - 2 - 3	-V
4 - 5 - 6	+V

Signal connector CN3 :

HRS DF11-06DP-2DSA or equivalent					
Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	RC+	4	DC OK	HRS	HRS
2	RC-	5	RS+	DF11-060DS-2C	DF11-EP22SCB
3	NC	6	RS-	or equivalent	or equivalent