



SUNPOWER TECHNOLOGY CORP.  
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# SPS-M070-xx Series

**72W , Single Output  
 For Medical**



127 x 82 x 36 mm  
 5 x 3.23 x 1.42 inch



## Features:

- \* Green-mode design, no load < 0.75W
- \* Low leakage current < 200µA
- \* Power ON with LED indicator
- \* Built-in EMI filter, low ripple noise
- \* Over voltage protection
- \* Over load & short circuit protection
- \* Output voltage ±10% adjustment
- \* 100% full load burn-in test
- \* UL, 60601-1 medical standard (pending)
- \* 3 years warranty

## Specification:

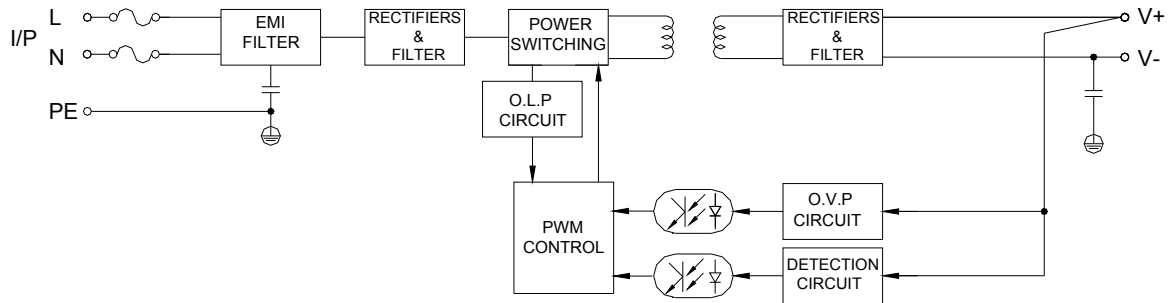
INPUT	Voltage	88V ~ 264VAC universal full range or 125V ~ 375VDC.					
	AC Frequency	47 ----- 63 Hz					
	Current	1.8A max at 100V AC input, full load condition					
	Inrush Current	<30A@115V / <60A@230V AC input, full load condition. Cold start at 25°C ambient					
	Leakage Current	<200µA @264V AC input					
OUTPUT	<b>MODEL</b>	<b>SPS-M070-05</b>	<b>SPS-M070-12</b>	<b>SPS-M070-15</b>	<b>SPS-M070-24</b>	<b>SPS-M070-30</b>	<b>SPS-M070-48</b>
	Voltage	5 V	12 V	15 V	24 V	30 V	48 V
	Max Load	12 A	6.0 A	4.8 A	3.0 A	2.4 A	1.5 A
	Output Tolerance ②	± 2 %	± 1 %	± 1 %	± 1 %	± 1 %	± 1 %
	Ripple Noise MAX. ③	70 mV	120 mV	150 mV	240 mV	300 mV	300 mV
	Efficiency (TYP.)	78 %	83 %	83 %	84 %	85 %	86 %
	Output Max.	60 W	72 W	72 W	72 W	72 W	72 W
PROTECTION	Over Voltage	5.8V~7.0V	13.8V~16.8V	17.3V~21.0V	27.6V~33.6V	34.5V~42.0V	55.2V~67.2V
		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 go into hiccup mode and recover automatically after the fault is removed.					
OTHERS	Rise time	<20mS					
	Hold up time	>16.7mS@115V; >60mS@230V					
	Setup time	800mS @115V, 300mS @230V					
	Green Mode Function	Power consumption at no load < 0.75W					
ENVIRONMENT	Temperature ④	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 > 100MΩ/500VDC at 25°C / 70% RH					
	Safety standard	UL 60601-1, CSA C22.2 No.601.1, TUV EN 60601-1, IEC 60601-1-1 2 <sup>nd</sup> , VDE DIN-EN 60601-1-4(1999) standard					
EMC	EMI	FCC Method 47 CFR Part 18 CLASS B, EN 55022, EN 55011, CNS 13803 CLASS B					
	EMS	Compliance to EN61000-3-2 CLASS A, EN61000-3-3 EN 55024 : EN 61000-4-2,3,4,5,6,8,11 ; ENV 50204 ; EN60601-1-2 ; EN61204-3					
OTHERS	Cooling	Natural cooling.					
	M.T.B.F.	408 K hours at 25°C					
	Dimension	127 x 82 x 36 mm (L*W*H)					
	Packing	N.W.: 0.5 Kg / 1pc; 30pcs / 1.24 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. 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.						



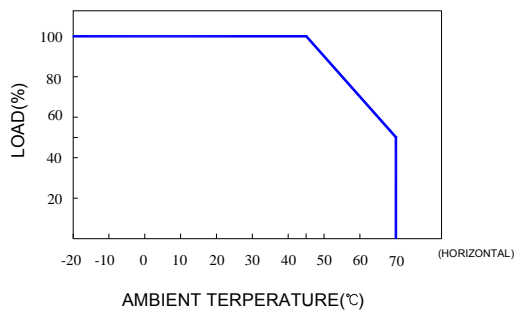
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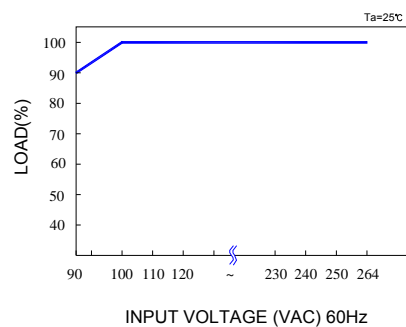
## Block Diagram : US7



## De-rating Curve :

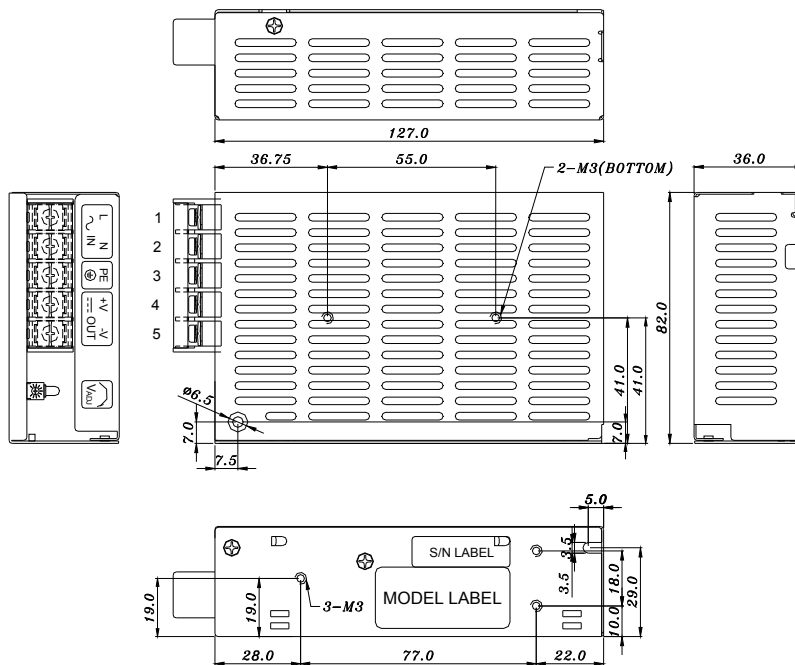


## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)



## NOTES:

Terminal Pin. No Assignment: 5P, 9.5mm with plastic cover

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT +V
2	AC/N	5	DC OUTPUT -V
3	PE		