



SUNPOWER TECHNOLOGY CORP.  
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# SPS-G050-Tx Series

50W, Triple Output



99 x 82 x 35 mm  
 3.90 x 3.23 x 1.38 inch

## Features:

- \* Power ON with LED indicator
- \* Built in EMI filter, low ripple noise
- \* Over voltage protection : Shutdown and latch off
- \* Over load & short circuit protection : Hiccup mode
- \* 100% full load burn-in test
- \* -20°C~70°C Operating temperature
- \* UL, cUL, TUV, CB, CE approved
- \* 3 years warranty

## Specification:

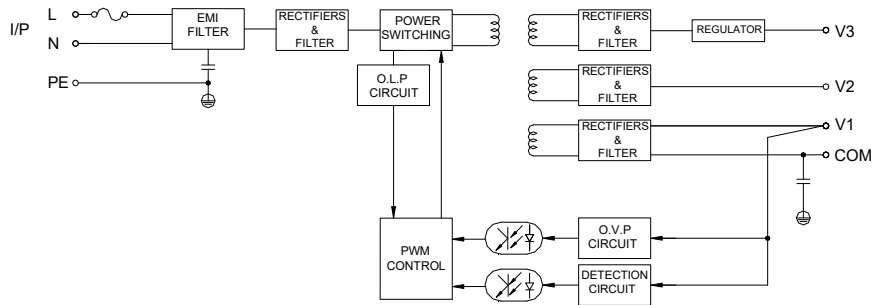
INPUT	<b>Voltage</b>	88V ~ 264VAC universal full range or 125V ~ 375VDC.								
	<b>Frequency</b>	47 ----- 63 Hz								
	<b>Current</b>	<1.3A@100V AC input, full load condition								
	<b>Inrush Current (TYP.)</b>	30A@115V , 50A@230V AC input, Cold start at 25°C ambient								
	<b>Leakage Current</b>	<0.75mA@264V AC input								
OUTPUT	<b>MODEL No.</b>	SPS-G050-T1			SPS-G050-T2			SPS-G050-T3		
	<b>Output</b>	V1	V2	V3	V1	V2	V3	V1	V2	V3
	<b>Voltage</b>	5V	12V	-12V	5V	12V	-5V	5V	12V	24V
	<b>Min Load</b>	0.5A	0.2A	0A	0.5A	0.2A	0A	0.5A	0.2A	0A
	<b>Max Load</b>	6A	2.5A	1A	6A	2.5A	1A	6A	2.5A	1.5A
	<b>Output Tolerance</b> ②	±3%	±6%	±5%	±3%	±6%	±5%	±3%	±6%	±8%
	<b>Ripple Noise MAX.</b> ③	70mV	120mV	150mV	70mV	120mV	120mV	70mV	120mV	200mV
	<b>Efficiency (TYP.)</b>	75%			75%			78%		
	<b>Output MAX.</b>	50W			50W			51W		
PROTECTION	<b>Over Voltage</b>	V1 : 5.8 ~ 7.0V : Shutdown and latch off, recover after re-start up.								
	<b>Over Load &amp; Short Circuit</b>	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.	<b>Rise time</b>	<30mS								
	<b>Hold up time</b>	>60mS@230V, full load condition								
	<b>Setup time</b>	<1 Sec@100 ~ 240V AC								
ENVIRONMENT	<b>Temperature</b> ④	Operating: -20 ~ +70°C ; De-rating: 50 ~ 70°C : 2.5%/°C ; Storage: -40 ~ +85°C								
	<b>Humidity</b>	Operating: 20% ~ 90% RH (non condensing) ; Storage: 10% ~ 95% RH (non condensing)								
	<b>Altitude</b>	6562 ft ( ≒ 2000 m) operating								
SAFETY	<b>Withstand voltage</b>	I/P-O/P:3KVAC, I/P-PE:1.5KVAC, O/P-PE:0.5KVAC, 1minute								
	<b>Isolation resistance</b>	I/P-O/P, I/P-PE, O/P-PE > 100MΩ/500VDC at 25°C / 70% RH								
	<b>Safety standard</b>	UL 60950-1 2 <sup>nd</sup> , CSA C22.2 No. 60950-1-07 2 <sup>nd</sup> , TUV EN 60950-1:2006+A11+A12+A2, IEC 60950-1:2005+A1+A2, approved								
EMC	<b>EMI</b>	EN 55032 CLASS B, FCC CFR 47 PART 15 CLASS B, CNS 13438 CLASS B. Compliance to EN61000-3-2 CLASS A, EN61000-3-3								
	<b>EMS</b>	EN 55024 : EN 61000-4-2,3,4,5,6,8,11								
	<b>Cooling</b>	Natural cooling.								
OTHERS	<b>M.T.B.F.</b>	270K hours								
	<b>Terminal pitch</b>	7P / 8.25mm with plastic cover, 90 deg terminal optional (with MOQ)								
	<b>Packing</b>	N.W.: 0.4Kg / 1pc; 46pcs / 1.22 CUFT / 1 CTN								
	<b>NOTE</b>	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. The regulation is measured at the condition : when any of output is with 20% ~ 100% <b>max load</b> and the rest of each outputs are with 60% <b>max load</b> , Each output could work within <b>max load</b> but must under total <b>output max</b> . ③ Ripple & noise are measured at 100~254VAC 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. 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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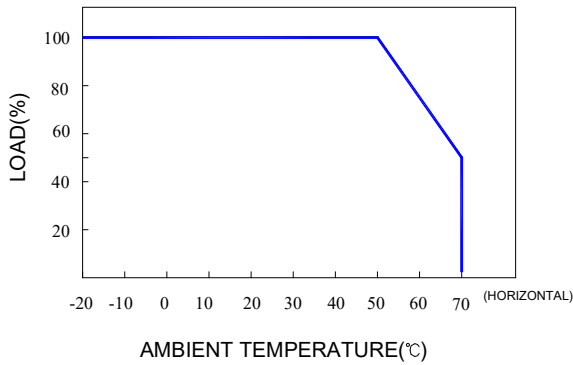
# SPS-G050-Tx Series

## Block Diagram : UT2

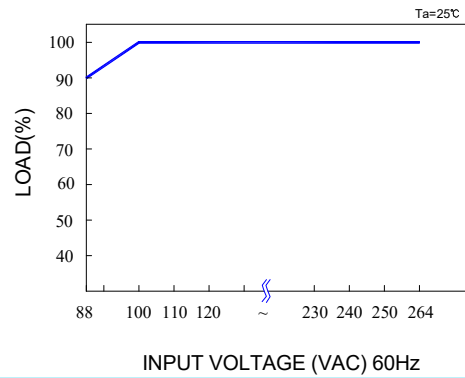


## SPS-G050-T3 V3 without regulator

### De-rating Curve :

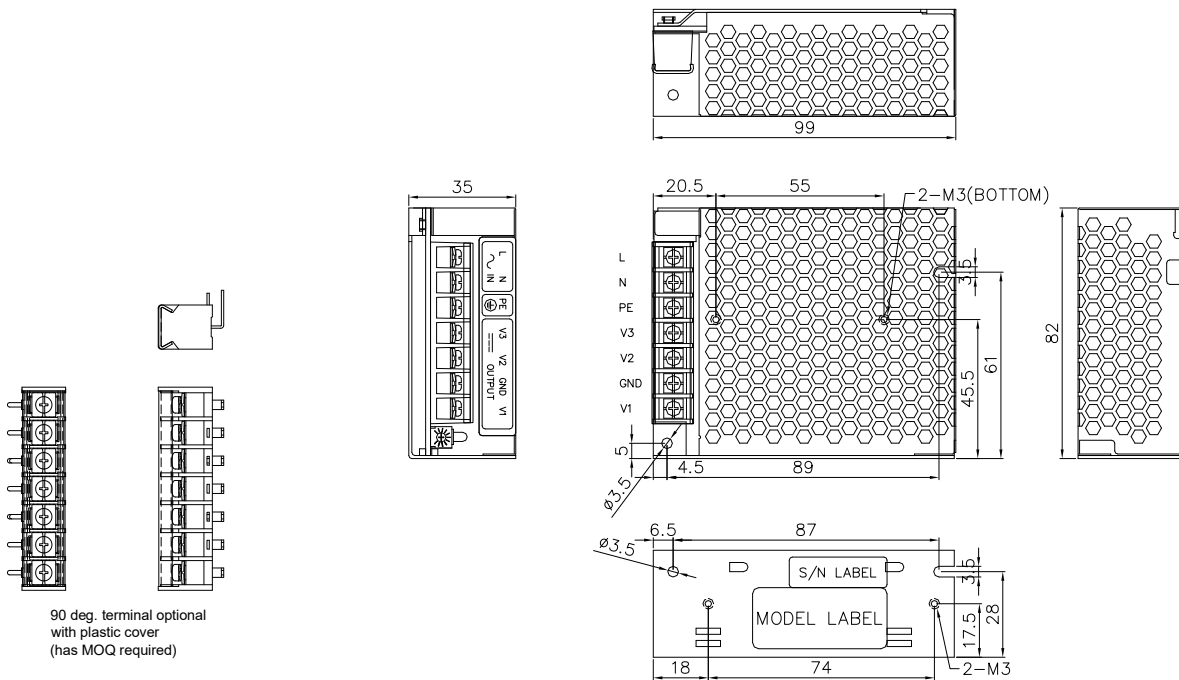


### Output De-rating Vs Input Voltage :



### Dimension:

(Unit: mm)



90 deg. terminal optional  
 with plastic cover  
 (has MOQ required)

### Terminal Pin. No Assignment :

7P, PITCH 8.25mm WITH PC COVER							
MODEL No.	1	2	3	4	5	6	7
SPS-G050-Tx	L	N	PE	V3	V2	GND	V1