

# SPS-G050-xx Series

50W, Single Output

Green mode function



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

## Features:

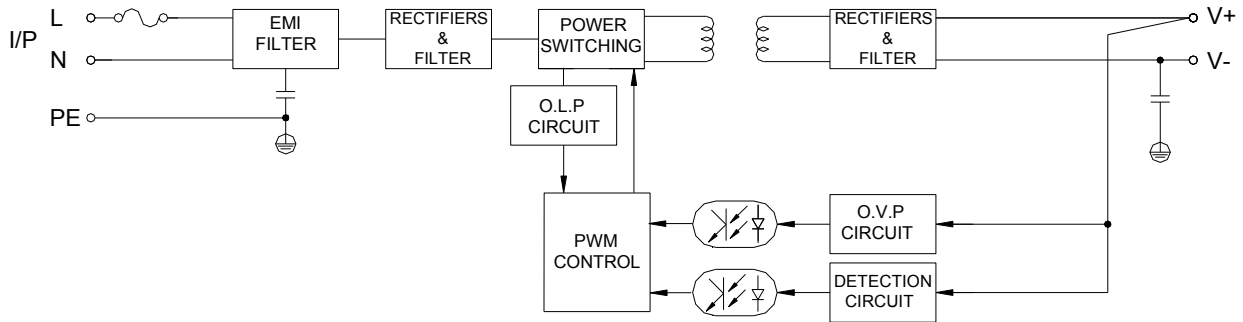
- \* Green mode design, no load < 0.5W
- \* High efficiency and high reliability
- \* Built in EMI filter, low ripple noise
- \* Over voltage protection : Shutdown and latch off
- \* Over load & short circuit protection : Hiccup mode
- \* Output voltage  $\pm 10\%$  adjustment
- \* 100% full load burn-in test
- \*  $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$  Operating temperature
- \* UL, cUL, TUV, CB, CE approved
- \* 3 years warranty

## Specification:

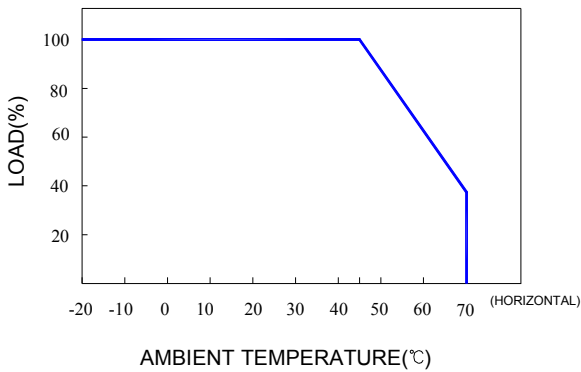
INPUT	Voltage	88V ~ 264VAC universal full range or 125V ~ 375VDC.								
	Frequency	47 ----- 63 Hz								
	Current	<1.3A@100V AC input, full load condition								
	Inrush Current	<30A@115V , <50A@230V AC input, Cold start at 25°C ambient								
	Leakage Current	<0.75mA@264V AC input								
OUTPUT	MODEL No.	SPS-G050-3.3	SPS-G050-05	SPS-G050-7.5	SPS-G050-12	SPS-G050-15	SPS-G050-24	SPS-G050-30	SPS-G050-48	
	Voltage	3.3V	5V	7.5V	12V	15V	24V	30V	48V	
	Min Load	0A	0A	0A	0A	0A	0A	0A	0A	
	Max Load	10A	9A	6.5A	4.2A	3.4A	2.2A	1.7A	1.1A	
	Output Tolerance ②	$\pm 3\%$	$\pm 2\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	
	Ripple Noise MAX. ③	70mV	70mV	80mV	120mV	150mV	150mV	200mV	200mV	
	Efficiency (TYP.)	72%	79%	79%	83%	84%	85%	86%	87%	
PROTECTION	Output MAX.	33W	45W	49W	50W	51W	53W	51W	53W	
	Over Voltage	3.8~4.6V	5.8~7.0V	8.6~10.5V	13.8~16.8V	17.3~21.0V	27.6~33.6V	34.5~42.0V	55.2~67.2V	
	Over Load & Short Circuit	Shutdown and latch off, recover after re-start up. 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	>60mS@230V, full load condition								
	Setup time	<1 Sec@100 ~ 240V AC								
	Green mode function	Power consumption at no load < 0.5W at 240VAC input								
ENVIRONMENT	Temperature ④	Operating: $-20 \sim +70^{\circ}\text{C}$ ; De-rating: $45 \sim 70^{\circ}\text{C}$ : 2.5%/°C ; Storage: $-40 \sim +85^{\circ}\text{C}$								
	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 60950-1 2 <sup>nd</sup> , CSA C22.2 No. 60950-1-07 2 <sup>nd</sup> TUV EN 60950-1:2006+A11, IEC 60950-1:2005, approved.								
EMC	EMI	EN 55022 CLASS B, FCC CFR 47 PART 15 CLASS B, CNS 13438 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								
OTHERS	Cooling	Natural cooling.								
	M.T.B.F.	335K hours								
	Terminal pitch	5P / 9.5mm with plastic cover, 90 deg terminal optional (with MOQ)								
	Packing	N.W.:0.34Kg / 1pc; 46pcs / 1.22 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 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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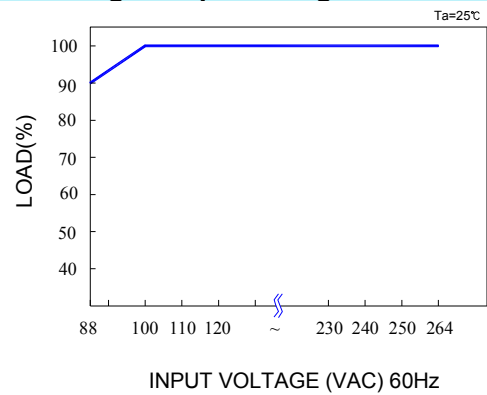
## Block Diagram : US2



## De-rating Curve :

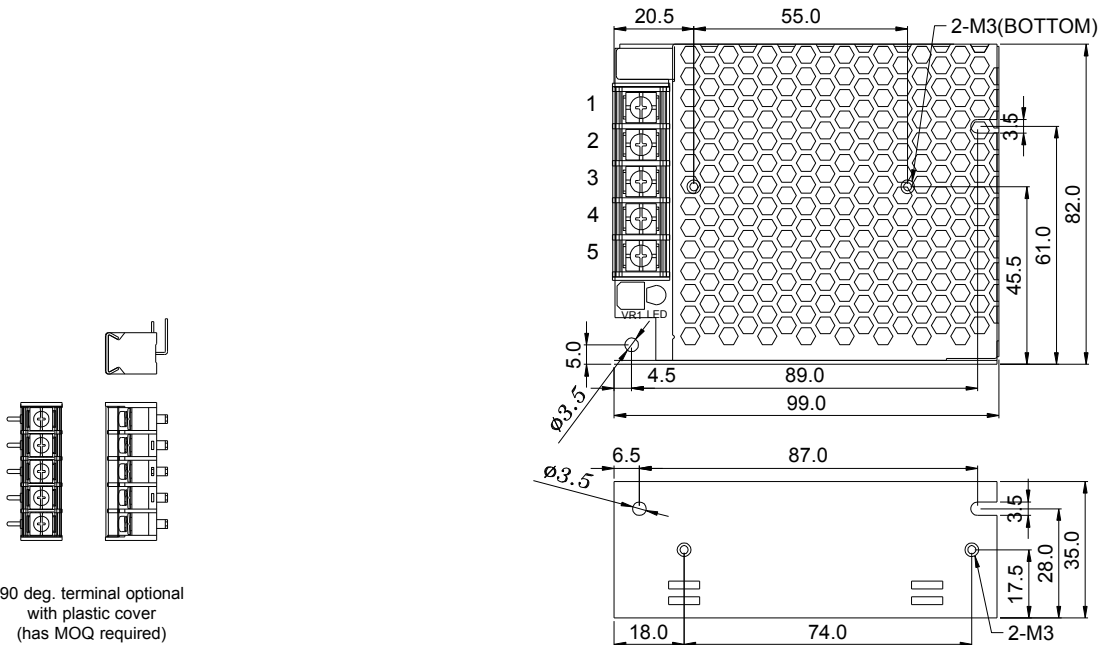


## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)



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

Terminal Pin. No Assignment: 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		