



SUNPOWER TECHNOLOGY CORP.  
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# SPS-G100-Qx Series

## Quad Output



159 x 95 x 38 mm  
 6.26 x 3.74 x 1.50 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>	<2.5A@100V AC input, full load condition											
	<b>Inrush Current</b>	<35A@115V , <70A@230V AC input, Cold start at 25°C ambient											
	<b>Leakage Current</b>	<1.0mA @264V AC input											
OUTPUT	<b>MODEL No.</b>	SPS-G100-Q1				SPS-G100-Q3				SPS-G100-Q4			
	<b>Output</b>	V1	V2	V3	V4	V1	V2	V3	V4	V1	V2	V3	V4
	<b>Voltage</b>	5V	12V	-12V	-5V	5V	12V	24V	-12V	5V	15V	24V	-15V
	<b>Min Load</b>	2A	0.3A	0A	0A	2A	0.3A	0.3A	0A	2A	0.3A	0.3A	0A
	<b>Max Load</b>	10A	4A	1A	1A	10A	4A	2A	1A	10A	4A	2A	1A
	<b>Output Tolerance</b> ②	±2%	±7%	±7%	±5%	±2%	±7%	±7%	±5%	±2%	±7%	±7%	±5%
	<b>Ripple Noise MAX.</b> ③	80mV	120mV	100mV	100mV	80mV	120mV	200mV	100mV	80mV	150mV	200mV	100mV
	<b>Efficiency (TYP.)</b>	76%				77%				78%			
	<b>Output MAX.</b>	85W				88W				88W			
	<b>Note</b>	* SPS-G100-TxA without V4 or SPS-G100-TxB without V3											
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)											
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 > 100MQ/500VDC at 25°C/ 70% RH											
	<b>Safety standard</b>	UL 60950-1 2 <sup>nd</sup> , CSA C22.2 No. 60950-1-07 1 <sup>st</sup> , TUV EN 60950-1:2006, IEC 60950-1:2005, approved.											
EMC	<b>EMI</b>	EN 55022 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											
OTHERS	<b>Cooling</b>	Natural cooling.											
	<b>M.T.B.F.</b>	240K hours											
	<b>Terminal pitch</b>	8P / 8.25mm with plastic cover, 90 deg terminal optional (with MOQ)											
	<b>Packing</b>	N.W.:0.57Kg / 1pc ; 30pcs / 1.2 CUFT / 1 CTN											

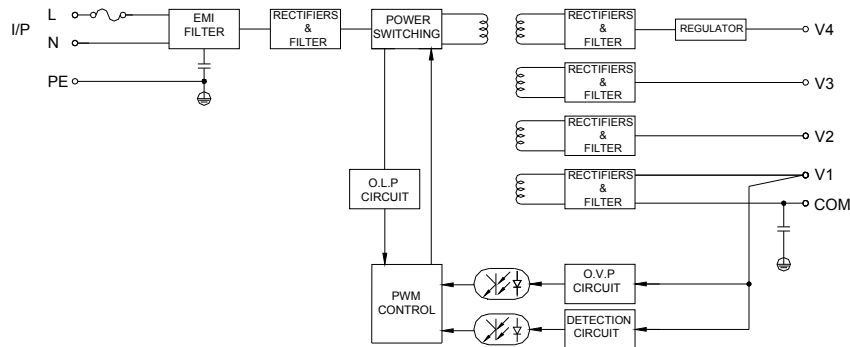
NOTE	① All measurements which not mentioned are based on 230VAC input, <b>output Max</b> at ambient 25°C / 70%RH
	② Output tolerance included set up voltage, line regulation and load regulation. The regulation is measured at the condition : when any of output is with 20% ~ 100% <b>max load</b> and the 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 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.



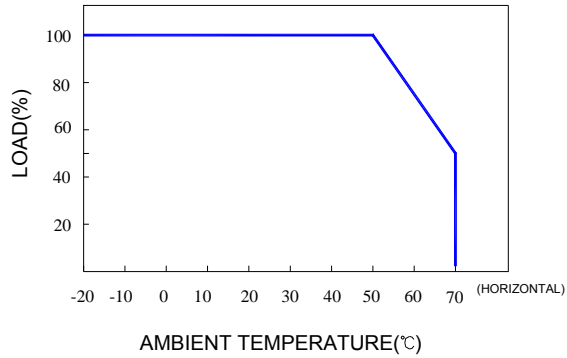
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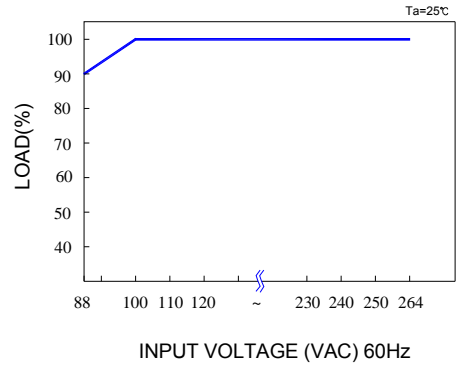
## Block Diagram : UQ2



## De-rating Curve :

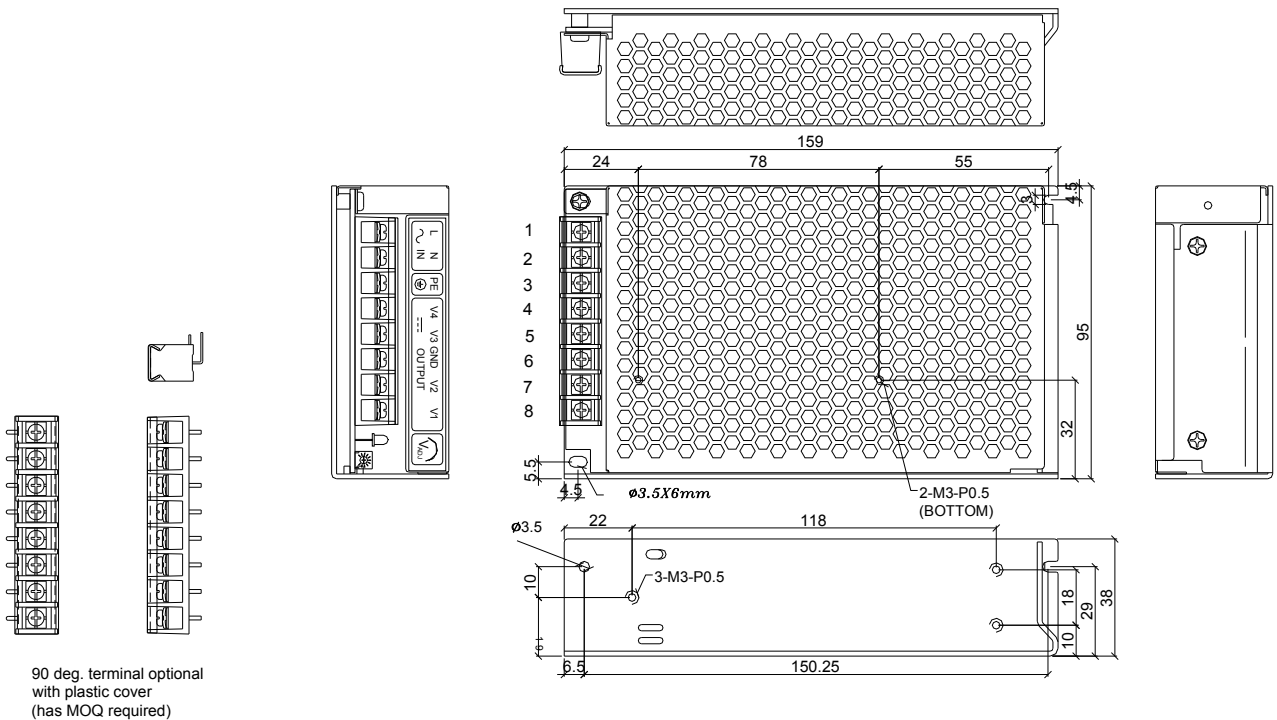


## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)



Terminal Pin. No Assignment :

8P, PITCH 8.25mm WITH PC COVER								
MODEL No.	1	2	3	4	5	6	7	8
SPS-G100-Qx	L	N	PE	V4	V3	V2	GND	V1