

**SUNPOWER TECHNOLOGY CORP.**

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SPS-100 -Qx Series

SPS-100P-Qx Series

100W, Quad Output
P.F.C Function Optional



198 x 95 x 38 mm

7.80 x 3.74 x 1.50 inch

**Features:**

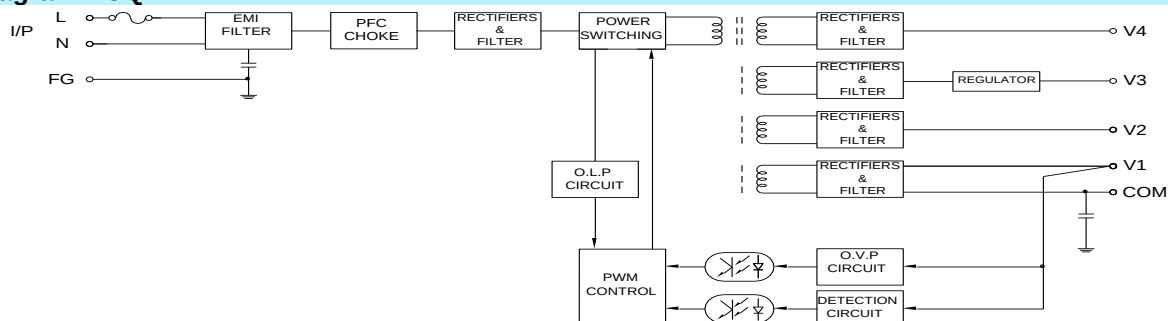
- * Power ON with LED indicator
- * Built-in EMI filter, low ripple noise
- * Over voltage protection
- * Over load & short circuit protection
- * 100% full load burn-in test
- * -20°C to 70°C operating temperature
- * UL, cUL, CB, CE approved
- * 3 years warranty

Specification:

INPUT	Voltage	88V ~ 264VAC universal full range or 125V ~ 375VDC.											
	Frequency	47 ---- 63 Hz											
	Current	<2.8A @100V AC input, full load condition											
	Inrush Current(TYP.)	35A@115V , 70A@230V AC input. Cold start at 25℃ ambient											
	Leakage Current	<1.0mA@264V AC input											
OUTPUT	MODEL No.	SPS-100-Q1 SPS-100P-Q1				SPS-100-Q2 SPS-100P-Q2				SPS-100-Q3 SPS-100P-Q3			
	Output	V1	V2	V3	V4	V1	V2	V3	V4	V1	V2	V3	V4
	Voltage	5V	12V	-5V	-12V	5V	15V	-5V	-15V	5V	12V	-12V	24V
	Min Load	1A	0.5A	0A	0A	1A	0.5A	0A	0A	1A	0.5A	0A	0A
	Max Load	12A	5A	1A	1A	12A	5A	1A	1A	12A	5A	1A	2A
	Output Tolerance ②	± 3%	± 6%	± 5%	± 8%	± 3%	± 6%	± 5%	± 8%	± 3%	± 6%	± 5%	± 8%
	Ripple Noise MAX. ③	70mV	120mV	100mV	150mV	70mV	150mV	100mV	200mV	70mV	120mV	150mV	240mV
	Efficiency (TYP.)	78%				78%				79%			
	Output MAX.	100W				100W				100W			
PROTECTION	Over Voltage	V1 : 5.8 ~ 7.0V : 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.											
ELEC. CHAR.	Rise time	<20mS											
	Hold up time	>60mS@230V, full load condition											
	Setup time	<1 Sec@100 ~ 240V AC											
ENVIRONMENT	Temperature ④	Operating: -20 ~ +70℃ ; De-rating: 45 ~ 70℃ : 2.5%/℃ ; Storage: -40 ~ +85℃											
	Humidity	Operating: 20% ~ 90% RH (non condensing) ; Storage: 10% ~ 95% RH (non condensing)											
	Altitude	6562 ft (≒ 2000 m) operating											
SAFETY	Withstand voltage	I/P-O/P:3KVAC, I/P-FG:1.5KVAC, O/P-FG:0.5KVAC, 1minute											
	Isolation resistance	I/P-O/P, I/P-FG, O/P-FG > 100MΩ/500VDC at 25℃ / 70% RH											
	Safety standard	UL 60950-1 2 nd ,CSA C22.2 No. 60950-1- 07 2 nd , IEC 60950-1:2005+A1+A2, approved											
EMC	EMI	EN 55032 CLASS B 、 FCC CFR 47 PART 15 CLASS B											
		Compliance to EN61000-3-2 CLASS A, EN61000-3-3, SPS-100P-Qx models are built-in PFC choke to lower 25% THD (Total Harmonic Distortion) performance,											
	EMS	EN 55024 : EN 61000-4-2,3,4,5,6,8,11											
OTHERS	Cooling	Natural cooling.											
	M.T.B.F.	240K hours at 25℃											
	Terminal pitch	8P / 8.25mm with plastic cover, 90 deg terminal optional (with MOQ)											
	Packing	N.W.:0.7Kg / 1pc; 24pcs / 1.22 CUFT / 1 CTN											
NOTE	① All measurements which not mentioned are based on 230VAC input, output max at ambient 25℃ / 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% max load and the rest of each outputs are with 60% max load , Each output could work within max load but must under total output max .												
	③ Ripple & noise are measured at 10~50℃ 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.												

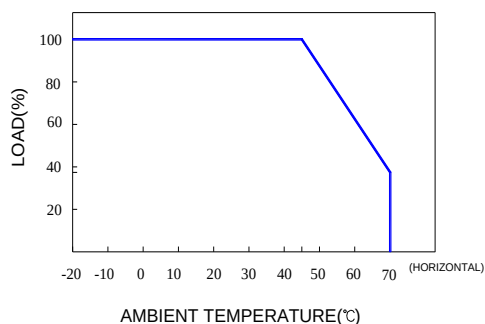
SPS-100 -Qx Series
SPS-100P-Qx Series

Block Diagram : UQ7-1

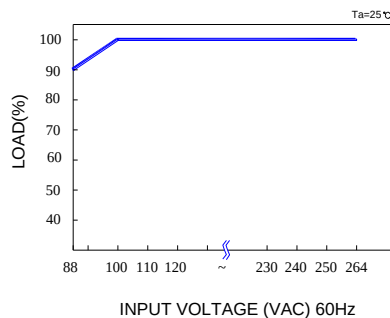


SPS-100 –Qx series without PFC choke

De-rating Curve :

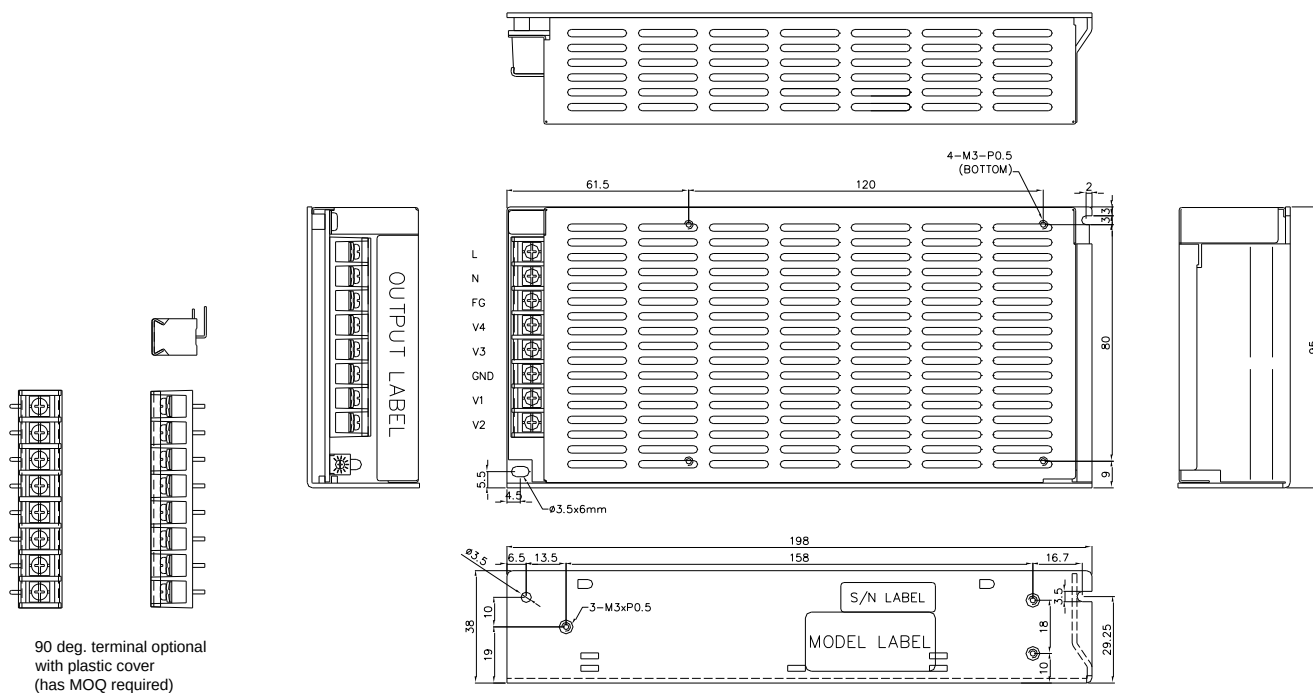


Output De-rating Vs Input Voltage :



Dimension:

(Unit: mm)



NOTES:

TERMINAL BLOCK: 8P, PITCH 8.25mm WITH PLASTIC COVER.

MODEL No.	1	2	3	4	5	6	7	8
SPS-100 -Qx	L	N	FG	V4	V3	GND	V1	V2
SPS-100P-Qx	L	N	FG	V4	V3	GND	V1	V2