



**SUNPOWER TECHNOLOGY CORP.**  
 16F.-1, No.150, Jian 1st Rd., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.).  
 TEL: 886-2-8226-3100 FAX: 886-2-8226-3111  
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# SPE-200-xx Series

## 200W, Single Output

### Active P.F.C Function



212 x 115 x 30 mm  
 8.35 x 4.53 x 1.18 inch

#### Features:

- \* Universal AC input with active PFC circuit, P.F.>0.95
- \* 1U low profile 30mm
- \* Altitude during operation up to 16404ft ( 5000m )
- \* Power ON with LED indicator
- \* Built in EMI filter, low ripple noise
- \* Over voltage 、 over load & short circuit protection
- \* Over temperature protection
- \* Output voltage  $\pm 10\%$  adjustment
- \* 100% full load burn-in test
- \* UL, cUL, TUV, CB, CE approved
- \* 3 years warranty

#### Specification:

INPUT	<b>Voltage</b>	85V ~ 264VAC universal full range or 120V ~ 375VDC.				
	<b>Frequency</b>	47 ---- 63 Hz				
	<b>Current</b>	2.6A @100V AC input, full load condition				
	<b>Inrush Current(TYP)</b>	20A@115V , 40A@230V AC input. Cold start at 25°C ambient				
	<b>Leakage Current</b>	<1.5mA@264V AC input				
	<b>Power Factor</b>	PF > 0.95				
OUTPUT	<b>MODEL No.</b>	<b>SPE-200-05</b>	<b>SPE-200-12</b>	<b>SPE-200-24</b>	<b>SPE-200-36</b>	<b>SPE-200-48</b>
	<b>Voltage</b>	5V	12V	24V	36V	48V
	<b>Min Load</b>	0A	0A	0A	0A	0A
	<b>Max Load</b>	40A	16.7A	8.4A	5.6A	4.2A
	<b>Output Tolerance</b> ②	$\pm 2\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$
	<b>Ripple Noise MAX.</b> ③	150mV	150mV	150mV	220mV	240mV
	<b>Efficiency (TYP.)</b>	85.5%	89%	89.5%	90%	90%
<b>Output MAX.</b>	200W	200.4W	201.6W	201.6W	201.6W	
PROTECTION	<b>Over Voltage</b>	5.75V~7.0V	13.8V~16.8V	27.6V~33.6V	41.4V~50.4V	55.2V~67.2V
		Shutdown and latch off, recover after re-start up.				
	<b>OverLoad &amp; ShortCircuit</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.				
	<b>Over Temperature</b>	Shutdown o/p voltage, recovers automatically after temperature goes down				
ELEC. CHAR.	<b>Rise time</b>	<20mS				
	<b>Hold up time</b>	>8mS@230V, full load condition				
	<b>Setup time</b>	<3.0S@100 ~ 240V AC				
ENVIRONMENT	<b>Temperature</b> ④	Operating: -30 ~ +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-FG:1.8KVAC, O/P-FG:0.5KVAC, 1minute				
	<b>Isolation resistance</b>	I/P-O/P, I/P-FG, O/P-FG > 100MΩ/500VDC at 25°C / 70% RH				
	<b>Safety standard</b>	UL 60950-1 2 <sup>nd</sup> ,CAN/CSA C22.2 No. 60950-1- 07 2 <sup>nd</sup> ,UL 62368-1 2 <sup>nd</sup> (edition dated 2014-12-01) , IEC60950-1:2005+A1+A2, IEC 62368-1:2014 (2 <sup>nd</sup> .Edition),TUV EN 62368-1:2014 approved				
EMC	<b>EMI</b>	EN 55032 CLASS B, FCC 47 CFR PART 15 CLASS B				
	<b>EMS</b>	Compliance to EN61000-3-2 CLASS D, EN61000-3-3 EN 55024 : EN 61000-4-2,3,4,5,6,8,11				
OTHERS	<b>Cooling</b>	Natural cooling				
	<b>M.T.B.F.</b>	177.3 K hours				
	<b>Dimension</b>	212 x 115 x 30 mm (L*W*H)				
	<b>Packing</b>	N.W.:0.77Kg / 1pc; 20pcs / 1.01 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.				
	⑥	The ambient temperature should be de-rating by 5°C/1000m, when operating altitude higher than 2000m (6500 ft)				

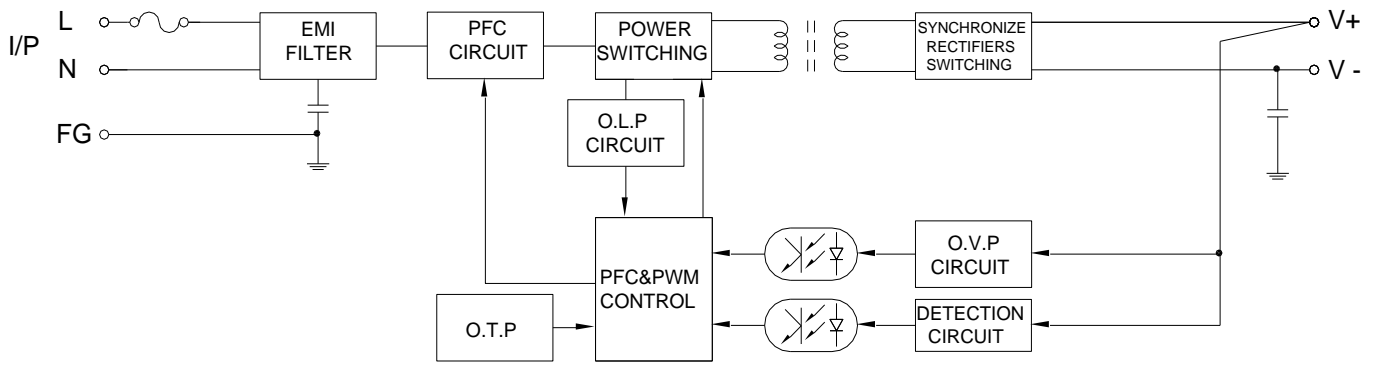


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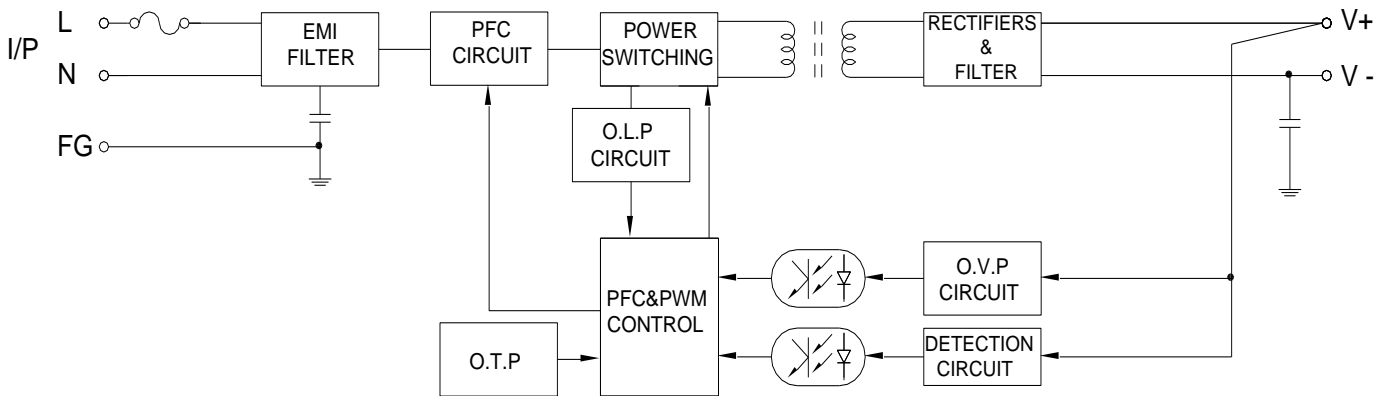
# SPE-200-xx Series

Block Diagram : PS45-1、PS46-1

SPE-200-05~12

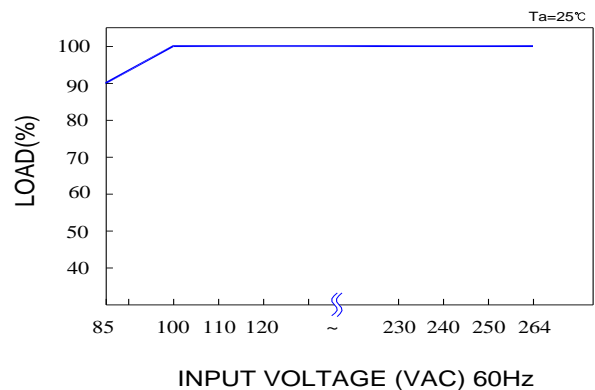
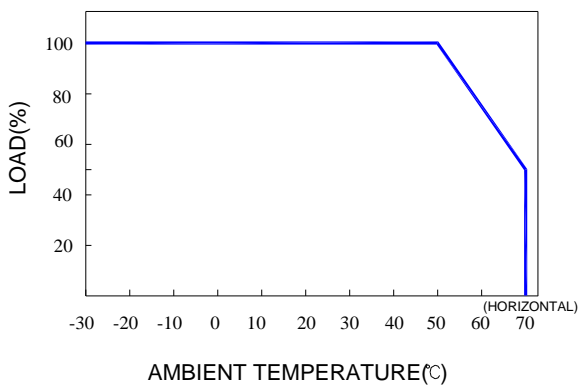


SPE-200-24~48



## De-rating Curve :

## Output De-rating Vs Input Voltage :



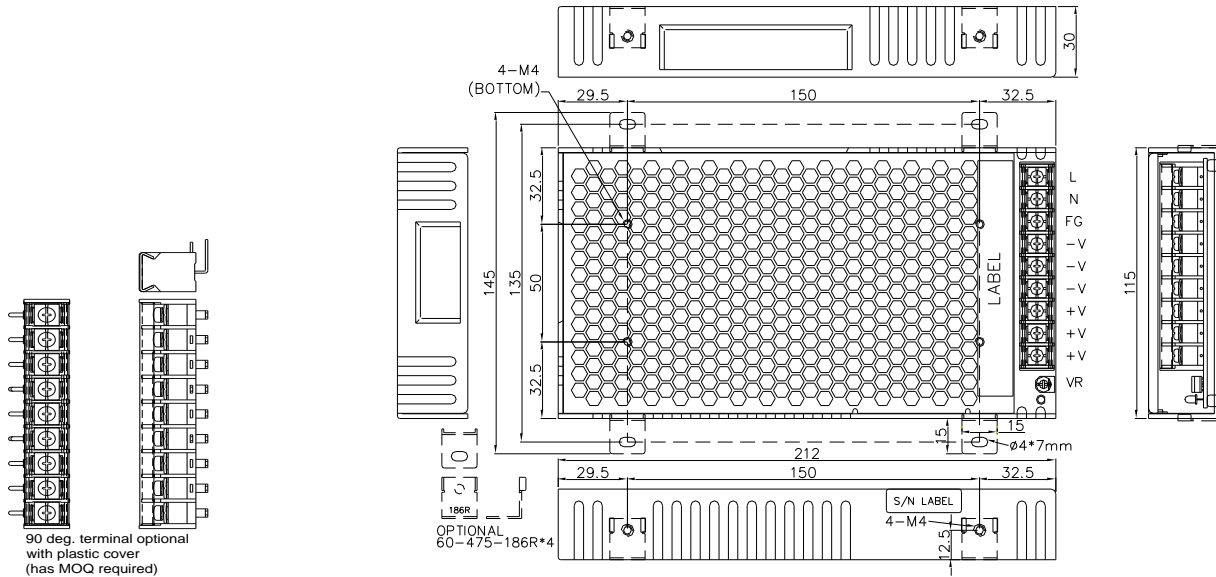


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# SPE-200-xx Series

**Dimension:**

**(Unit: mm)**



**NOTES:**

**TERMINAL BLOCK: 9P, PITCH 9.5mm WITH PC COVER.**

MODEL No.	1	2	3	4	5	6	7	8	9
SPE-200-xx	L	N	FG	-V	-V	-V	+V	+V	+V