



## 300W Single Output with PFC Function

# SPV-300 series

Authorized Distributor: Total Power International, Inc. Toll Free: 877-646-0900(US) PH# (978)453-7272 www.total-power.com



### ■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC Fan
- Built-in fan speed control
- Fixed switching frequency at 100KHz
- Output voltage programmable from 20~110% by 1~5.5VDC external control signal
- 3 years warranty

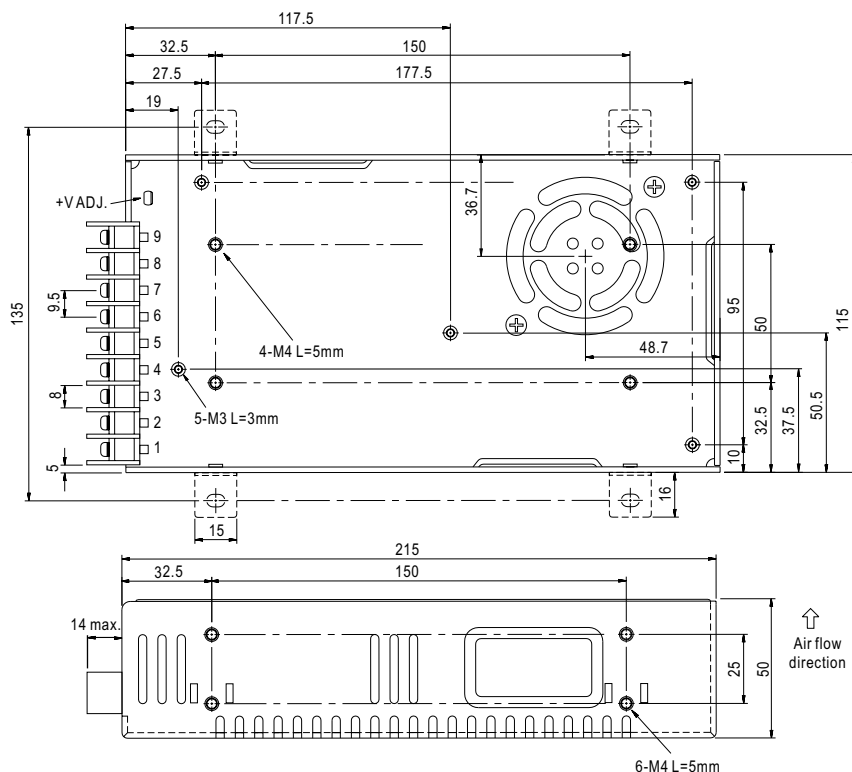


### SPECIFICATION

MODEL	SPV-300-12		SPV-300-24	SPV-300-48	
OUTPUT	DC VOLTAGE	12V	24V	48V	
	RATED CURRENT	25A	12.5A	6.25A	
	CURRENT RANGE	0 ~ 25A	0 ~ 12.5A	0 ~ 6.25A	
	RATED POWER	300W	300W	300W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	240mVp-p	
	VOLTAGE ADJ. RANGE	10 ~ 13.2V	20 ~ 26.4V	41 ~ 52.8V	
	VOLTAGE TOLERANCE Note.3	±1.0%	±1.0%	±1.0%	
	LINE REGULATION	±0.3%	±0.2%	±0.2%	
	LOAD REGULATION	±0.5%	±0.5%	±0.5%	
	SETUP, RISE TIME	800ms, 50ms/230VAC	2500ms, 50ms/115VAC at full load		
HOLD UP TIME (Typ.)	16ms/230VAC	16ms/115VAC at full load			
INPUT	VOLTAGE RANGE Note.5	88 ~ 264VAC	124 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR (Typ.)	PF>0.95/230VAC	PF>0.98/115VAC at full load		
	EFFICIENCY (Typ.)	83.5%	85%	86.5%	
	AC CURRENT (Typ.)	115VAC	5A		
		230VAC	2.5A		
	INRUSH CURRENT (Typ.)	20A/115VAC	40A/230VAC		
LEAKAGE CURRENT	<1mA/ 240VAC				
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed			
	OVER VOLTAGE	13.8 ~ 16.2V	27.6 ~ 32.4V	57.6 ~ 67.2V	
	OVER TEMPERATURE	80°C ±5°C (TSW1 : detect on heatsink of power transistor) Protection type : Shut down o/p voltage, recovers automatically after temperature goes down			
FUNCTION	REMOTE CONTROL	4~6VDC power off, <0~0.8VDC power on			
	OUTPUT VOLTAGE TRIM	2.4 ~ 13.2V	4.8 ~ 26.4V	9.6 ~ 52.8V	
ENVIRONMENT	WORKING TEMP.	-20 ~ +65°C (Refer to output load derating curve)			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)			
SAFETY EMC (Note 4)	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH			
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B			
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3			
OTHERS	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC			
	MTBF	207K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	215*115*50mm (L*W*H)			
	PACKING	1.1Kg; 12pcs/14Kg/0.92CUFT			
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.                  2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.                  3. Tolerance : includes set up tolerance, line regulation and load regulation.                  4. Mean Well reserves the right to adjust this spec when deemed appropriate.                  5. Derating may be needed under low input voltages. Please check the derating curve for more details.</p>				

### Mechanical Specification

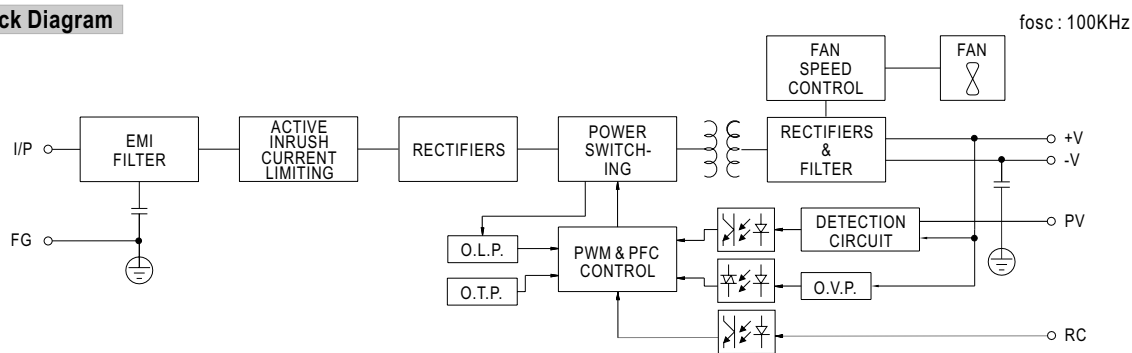
Case No. 912G Unit:mm



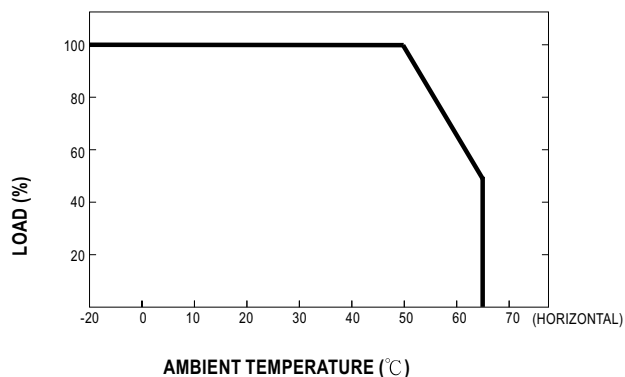
Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	PV
2	AC/N	6-7	DC OUTPUT -V
3	FG $\perp$	8-9	DC OUTPUT +V
4	RC		

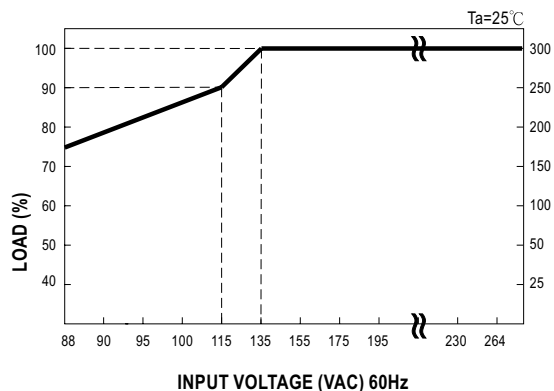
### Block Diagram



### Derating Curve



### Static Characteristics



■ Function Manual

1.External Voltage Control

