



## 300W Single Output with PFC Function

# SPV-300 series



### ■ 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
- Output voltage programmable from 20~110% by 1~5.5VDC external control signal
- Built-in remote ON-OFF control
- Built-in fan speed control
- Fixed switching frequency at 100KHz
- 3 years warranty

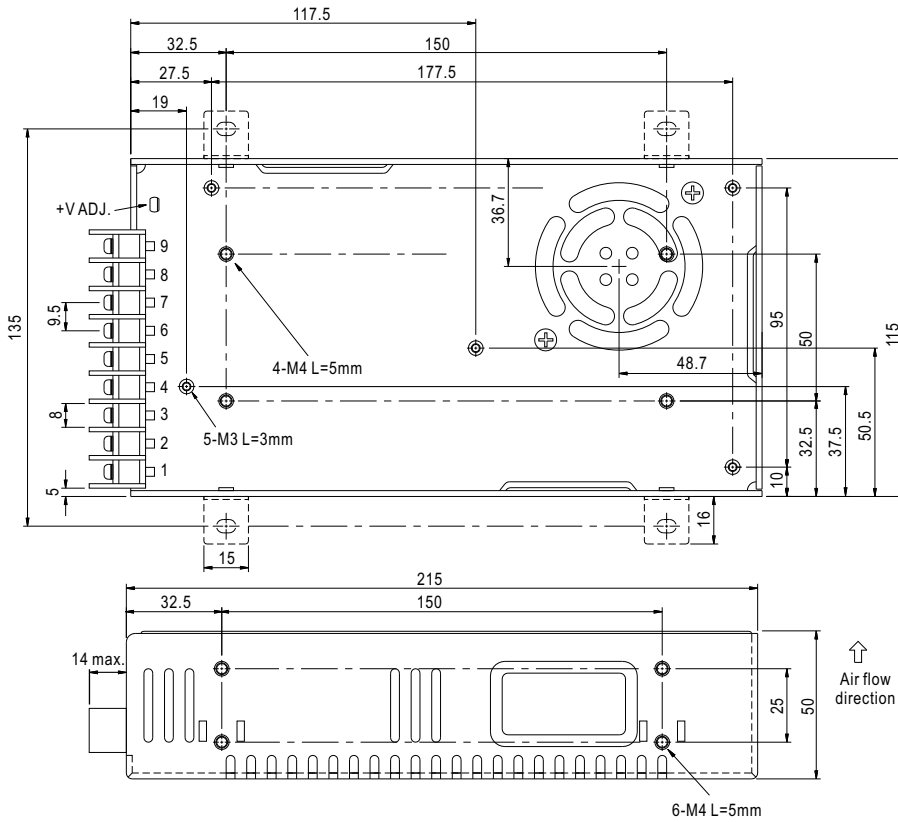


### SPECIFICATION

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	10.8 ~ 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.)	5A/115VAC    2.5A/230VAC		
	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, re-power on to recover		
FUNCTION	REMOTE CONTROL	4 ~ 10VDC 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 "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		
	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3		
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A		
	MTBF	207K hrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	215*115*50mm (L*W*H)		
	PACKING	1.1Kg, 12pcs/14Kg/0.92CUFT		
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>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.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> <li>5. Derating may be needed under low input voltages. Please check the derating curve for more details.</li> </ol>			

**Mechanical Specification**

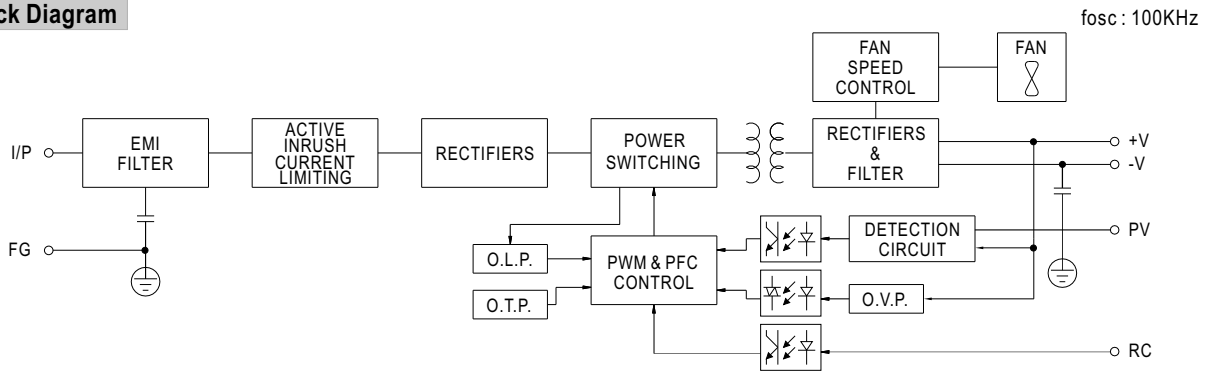
Case No. 912G Unit:mm



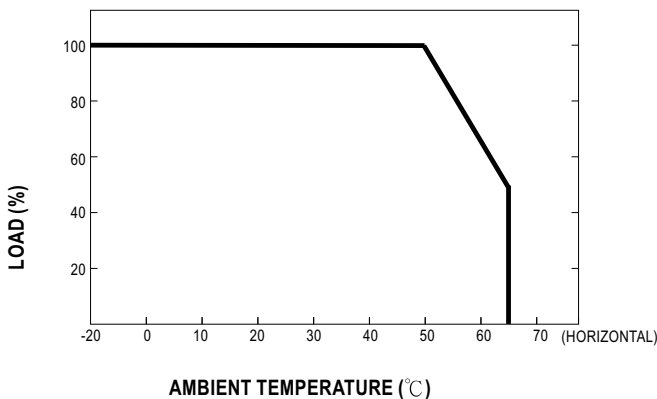
Terminal Pin No. Assignment :

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		

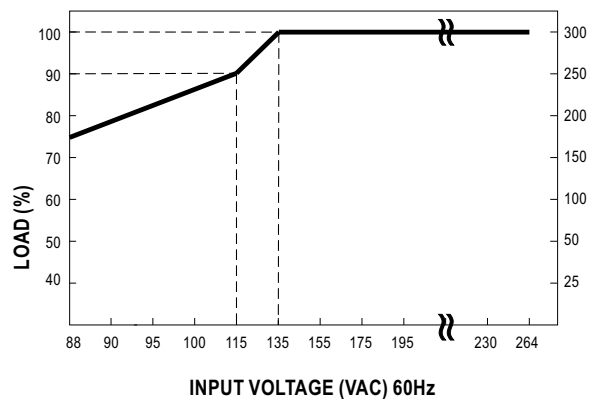
**Block Diagram**



**Derating Curve**



**Static Characteristics**



■ Function Manual

1.External Voltage Control

