

# 250W Single Output Switching Power Supply

**AIPUPOWER®**

LS-250-R0 series



## Features:

- AC input range selectable by switch
- Protections : Short circuit / Overload / Over voltage / Over temperature
- Withstand 300VAC surge input for 5 second
- Cooling by free air convection
- 100% full load burn-in test
- LED indicator for power on
- Fixed switch frequency 90KHz
- High reliability
- 3 years warranty
- Compliance to IEC/EN/UL 62368-1

## Specification

MODEL		LS-250-5	LS-250-7.5	LS-250-12	LS-250-15	LS-250-24	LS-250-36	LS-250-48
INPUT	VOLTAGE RANGE	90~132Vac/180~264Vac(by switch) 240~370Vdc(Switch on 230Vac) (refer to 'static characteristic')						
	FREQUENCY RANGE	47~63Hz						
	EFFICIENCY(Typ.)	87%	87%	87%	88%	89%	88%	90%
	AC CURRENT(Typ.)	6A/115Vac 3A/230Vac						
	INRUSH CURRENT(Typ.)	60A/115Vac 60A/230Vac (cold start)						
	LEAKAGE CURRENT	<2mA/240Vac						
OUTPUT	DC VOLTAGE	5V	7.5V	12V	15V	24V	36V	48V
	RATED CURRENT	40A	30A	21A	16.7A	10.5A	7A	5.3A
	CURRENT RANGE	0~40A	0~30A	0~21A	0~16.7A	0~10.5A	0~7A	0~5.3A
	RATED POWER	200W	225W	252W	250.5W	252W	252W	254.4W
	RIPPLE&NOISE (max.)	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ.RANGE	4.5~5.5V	6.75~8.25V	10.2~13.8V	13.5~18V	21.6~28.8V	32.4~39.6V	43.2~52.8V
	VOLTAGE TOLERANCE	±3%	±2%	±1.5%	±1%	±1%	±1%	±1%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±2%	±2%	±1%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1500ms,50ms/230Vac 1500ms,50ms/115Vac						
	HOLD UP TIME(Typ.)	16ms/230Vac 12ms/115Vac						
PROTECTION	OVER LOAD	110%~140% rated output power						
		Protection type : Constant current limiting>3s, then hiccup, recovers automatically after fault condition is removed						
	OVER VOLTAGE	5.75~6.75V	10.4~12.5V	13.8~16.2V	18.2~22.5V	28.8~33.6V	41.4~46.8V	57.6~67.2V
		Protection type : Hiccup mode , recovers automatically after fault condition is removed						
ENVIRONMENT	OVER TEMPERATURE	Protection type : output voltage shutdown , recovers automatically after fault condition is removed						
	WORKING TEMP., HUMIDITY	-25~+70℃ (Refer to "Derating curve") , 20~90%RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40~+85℃ , 10~95%RH						
	TEMP. COEFFICIENT	±0.03%/℃ (0~50℃)						
	VIBRATION	10~500Hz , 5G 10min./1 cycle , each along X 、 Y 、 Z axes						

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Safety and electromagnetic compatibility	Safety standards	Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1		
	Withstand voltage and isolation resistance	I/P-O/P: 3KVac; 100MΩ / 500Vdc / 25°C / 70%RH		
		I/P-FG: 2KVac; 100MΩ / 500Vdc / 25°C / 70%RH		
		O/P-FG: 0.5KVac; 100MΩ / 500Vdc / 25°C / 70%RH		
	Electromagnetic	Parameter	Standard	Test Level / Note
		Conducted emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1	Class A
		Radiated emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1	Class A
		Harmonic current	BS EN/EN61000-3-2,GB17625.1	Dos not meet
		Voltage flicker	BS EN/EN61000-3-3	----
	Electromagnetic compatibility immunity	BS EN/EN55035		
		Parameter	Standard	Test Level /Note
		ESD	BS EN/EN61000-4-2	Level 4, 8KV air, Level 2, 4KV contact, criteria A
		RF field susceptibility	BS EN/EN61000-4-3	Level 3, criteria A
		EFT bursts	BS EN/EN61000-4-4	Level 3, criteria A
Surge susceptibility		BS EN/EN61000-4-5	Level 3, 1KV/L-N, 2KV/L/N-FG criteria A	
Conducted susceptibility		BS EN/EN61000-4-6	Level 3, criteria A	
Magnetic field immunity		BS EN/EN61000-4-8	Level 4, criteria A	
Voltage dips and interruptions		BS EN/EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods , >95% interruptions 250 periods	
OTHERS	MTBF	≥328Khrs MIL-HDBK-217F(25°C)		
	DIMENSION	215*115*30mm(L*W*H)		
	PACKING	0.67Kg; 15pcs/ 10.5Kg/ 0.77CUFT		
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor. 3. Tolerance: includes set up tolerance, line regulation and load regulation. 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 0% to 100% rated load 6. Length of set up time is measured at cold first start, Turning ON/OFF the power supply very quickly may lead to increase of the set up time. 7. The ambient temperature derating of 5°C/1000m is needed for operating altitude great than 2000m(6500ft). 8. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives.			

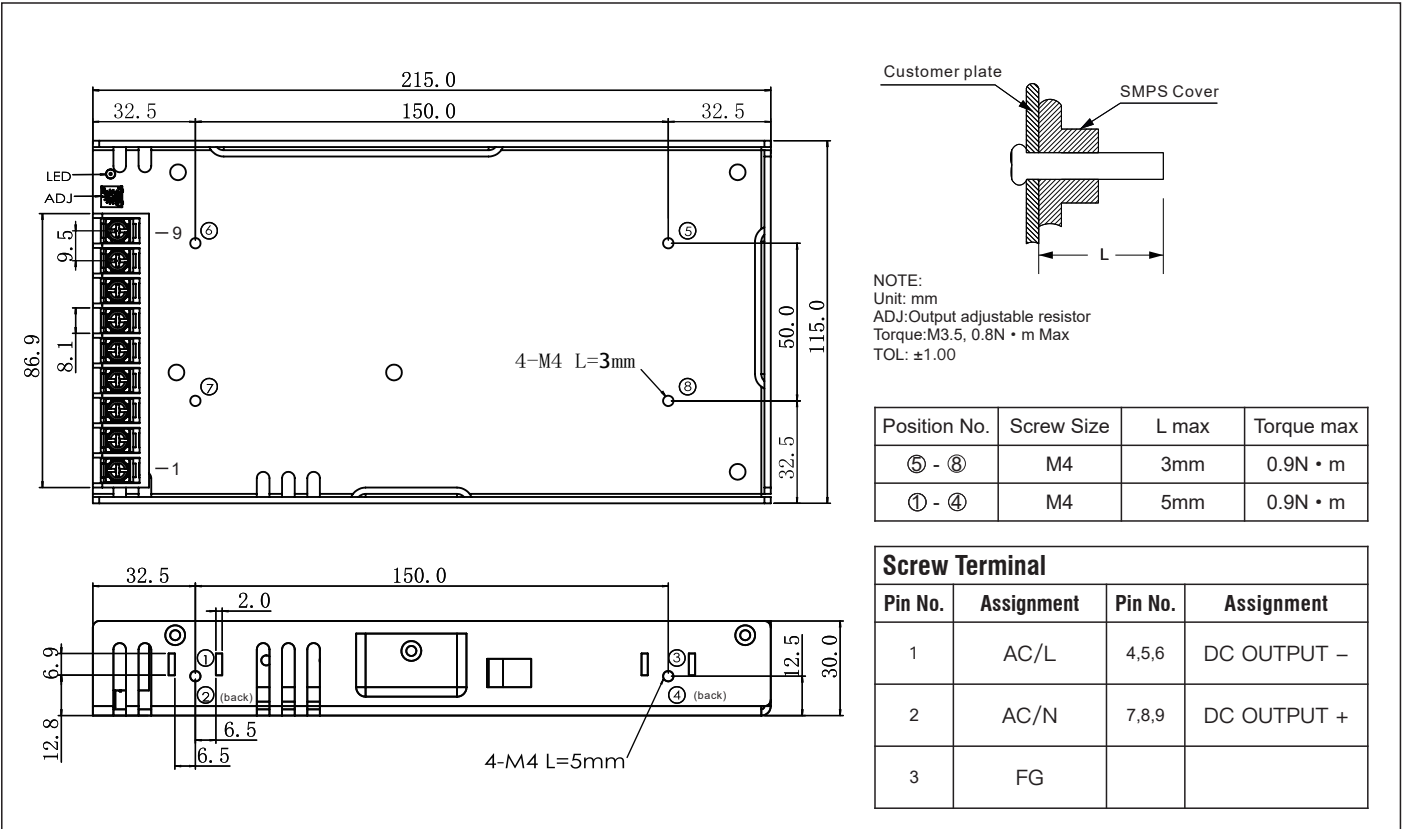
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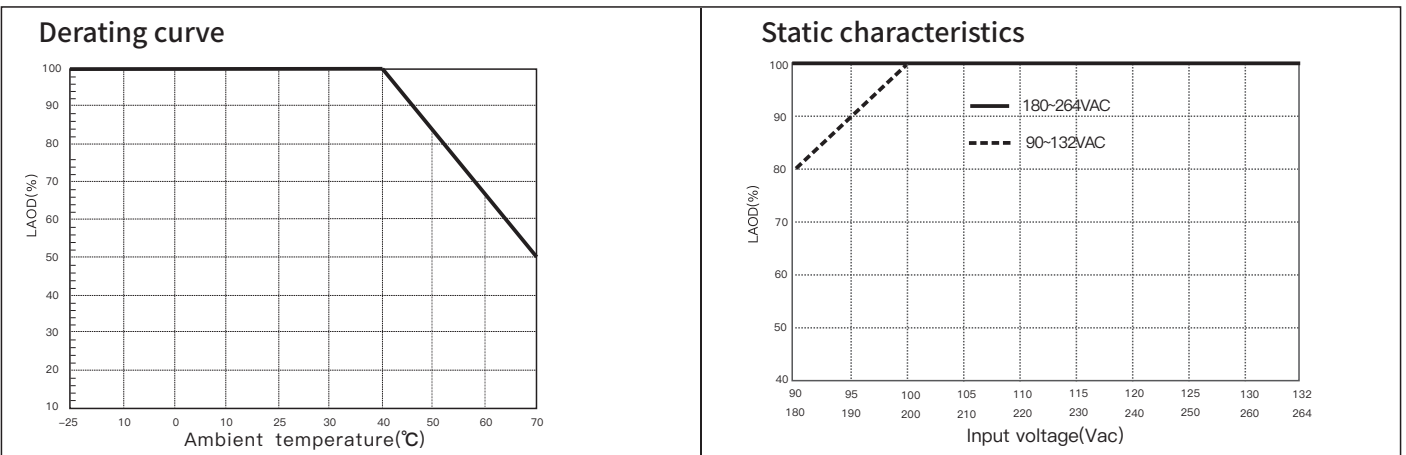
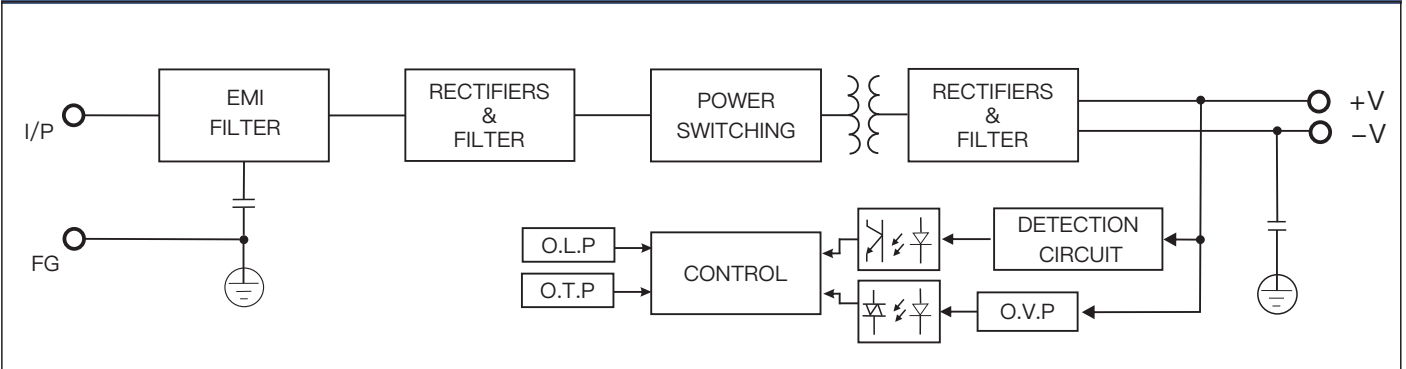
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## Mechanical specification



## Block diagram



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