350W Single Output With PFC Function

AIPUPOWER®

LP-350-R0 series



Features:

- Universal AC input 90~264VAC
- Built-in active PFC function
- Protections : Short circuit / Overload / Over voltage / Over temperature
- Built-in cooling Fan ON-OFF control
- 1U low profile 30mm
- Forced air cooling by built-in DC fan
- 100% full load burn-in test
- LED indicator for power on
- High reliability
- 3 years warranty
- Compliance to IEC/EN/UL 62368-1

Specification

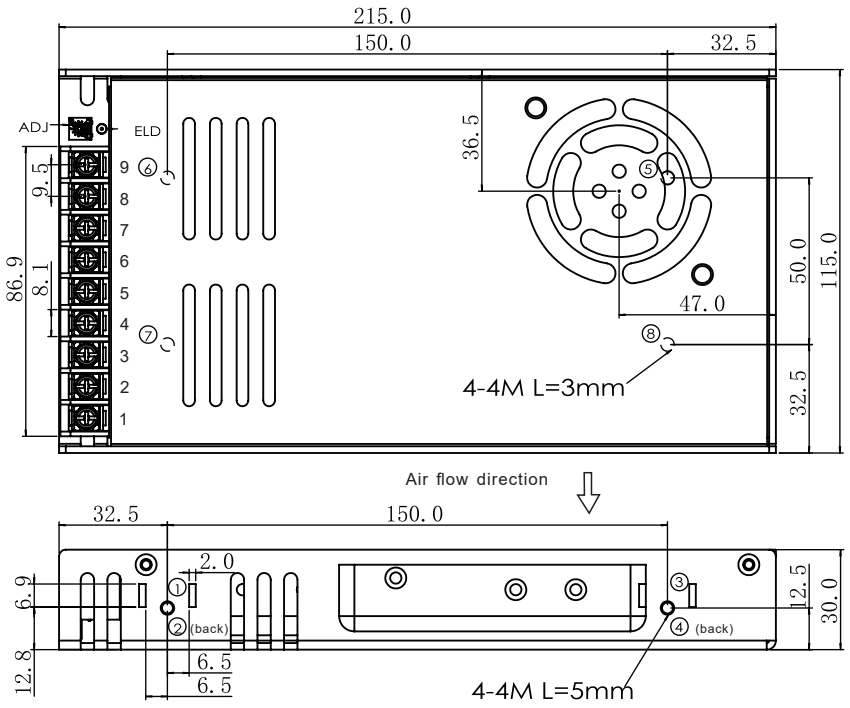
MODEL		LP-350-5	LP-350-7.5	LP-350-12	LP-350-15	LP-350-24	LP-350-36	LP-350-48
INPUT	VOLTAGE RANGE	90~264VAC 127~370VDC(refer to 'static characteristic')						
	FREQUENCY RANGE	47~63Hz						
	POWER FACTOR(Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load						
	EFFICIENCY(Typ.)	84.5%	88%	88.5%	88.5%	90%	90%	91%
	AC CURRENT(Typ.)	4A/115VAC 2A/230VAC						
	INRUSH CURRENT(Typ.)	20A/115VAC 40A/230VAC (cold start)						
	LEAKAGE CURRENT	<1mA/240VAC						
OUTPUT	DC VOLTAGE	5V	7.5V	12V	15V	24V	36V	48V
	RATED CURRENT	60A	46A	29A	23.3A	14.6A	9.7A	7.3A
	CURRENT RANGE	0~60A	0~46A	0~29A	0~23.3A	0~14.6A	0~9.7A	0~7.3A
	RATED POWER	300W	345W	348W	349.5W	350.4W	349.2W	350.4W
	RIPPLE&NOISE (max.)	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ.RANGE	4.5~5.5V	6~9V	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%	±1%	±1%	±1%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1500ms,50ms/230VAC 3000ms,50ms/115VAC						
	HOLD UP TIME(Typ.)	8ms/230VAC 8ms/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	9.4~10.9V	13.8~16.2V	18.8~21.8V	28.8~33.6V	41.4~48.6V	55.2~64.8V
		Protection type : Hiccup mode , recovers automatically after fault condition is removed						
	OVER TEMPERATURE	Protection type : Hiccup mode , recovers automatically after fault condition is removed						
FUNCTION	FAN ON/OFF CONTROL(Typ.)	RTH2≥50℃ FAN ON, ≤40℃ FAN OFF						
ENVIRONIMENT	WORKING TEMP., HUMIDITY	-30~+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 , 2G 10min./1 cycle , each along X、Y、Z axes						

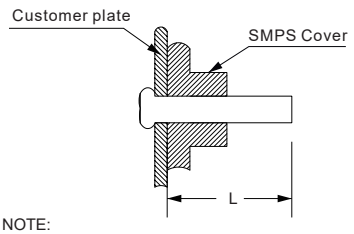
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Safety and electromagnetic compatibility	Safety standards	Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1		
	Withstand voltage and isolation resistance	I/P-O/P: 3KVac; 100MΩ / 500Vdc / 25℃ / 70%RH		
		I/P-FG: 2KVac; 100MΩ / 500Vdc / 25℃ / 70%RH		
		O/P-FG: 0.5KVac; 100MΩ / 500Vdc / 25℃ / 70%RH		
	Electromagnetic	**Parameter**	**Standard**	**Test Level / Note**
		Conducted emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1	Class B
		Radiated emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1	Class B
		Harmonic current	BS EN/EN61000-3-2,GB17625.1	Class A
		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	≥300Khrs MIL-HDBK-217F(25℃)		
	DIMENSION	215*115*30mm(L*W*H)		
	PACKING	0.8Kg; 15pcs/13Kg/0.77CUFT		
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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℃/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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Mechanical specification





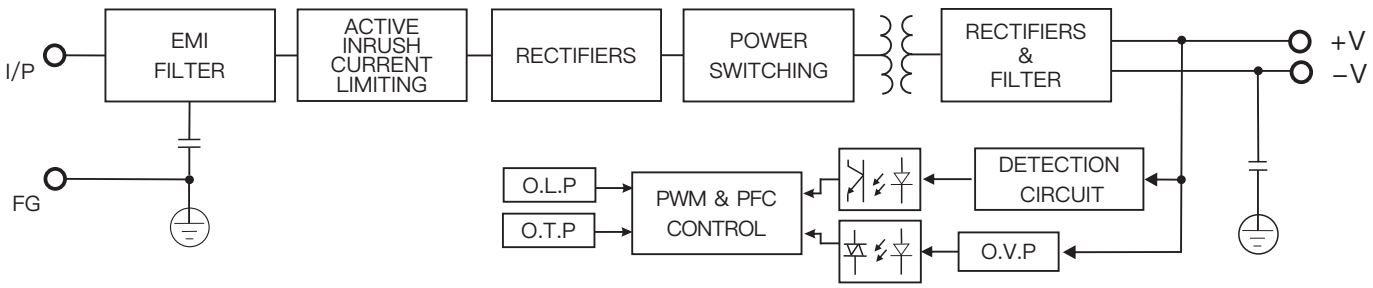
NOTE:
Unit: mm
ADJ:Output adjustable resistor
Torque:M3.5, 0.8N • m Max
TOL: ±1.00

Position No.	Screw Size	L max	Torque max
⑤ - ⑧	M4	3mm	0.9N • m
① - ④	M4	5mm	0.9N • m

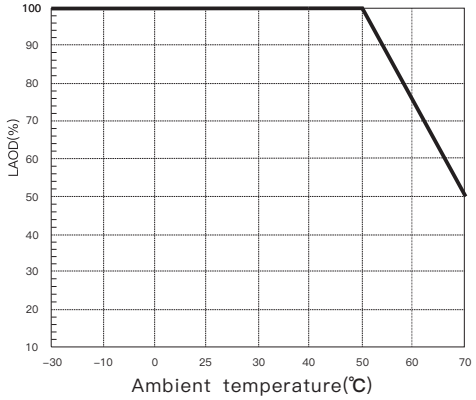
Screw Terminal

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5,6	DC OUTPUT –
2	AC/N	7,8,9	DC OUTPUT +
3	FG		

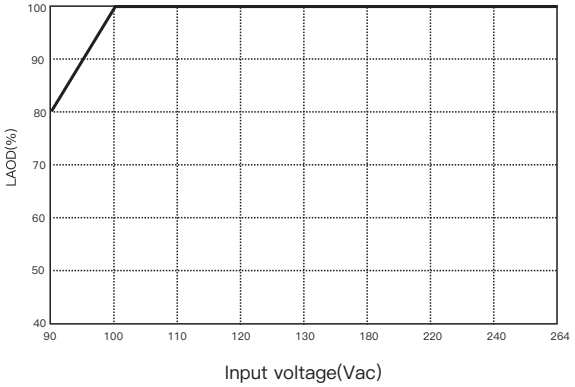
Block diagram



Derating curve



Static characteristics



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