



### Features:

- Universal AC input range/Full range
- Built-in active PFC function
- Protections: Short circuit / Over load/Over voltage/Over temperature
- Cooling by free air convection
- Class II power unit
- IP67 design for indoor or outdoor installations
- Suitable for LED lighting and moving sign applications
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations
- 3 years warranty

### SPECIFICATION

DIMENSION: 204 × 49 × 34mm



MODEL		LPF-100-2750	LPF-100-2100	LPF-100-1750	LPF-100-1400
OUTPUT	DC VOLTAGE	36V	48V	58V	72V
	CONSTANT CURRENT REGION	21.6~36V	28.8~48V	34.8~58V	43.2~72V
	RATED CURRENT	2750mA	2100mA	1750mA	1400mA
	RATED POWER	99W	100.8W	101.5W	100.8W
	RIPPLE&NOISE	3.4Vp-p	4.5Vp-p	5.5Vp-p	6.8Vp-p
	VOLTAGE TOLERANCE	± 5%			
	CURRENT TOLERANCE	± 5%			
	LINE REGULATION	± 3%			
INPUT	LOAD REGULATION	± 5%			
	SETUP TIME	1200ms/115VAC, 500ms/230VAC(Full load)			
	VOLTAGE RANGE	90 ~ 264VAC 47 ~ 63Hz, 127 ~ 370VDC			
	AC CURRENT (Typ.)	0.8A/115VAC 0.4A/230VAC			
	POWER FACTOR (Typ.)	PF>0.9/230VAC ,PF > 0.92/115VAC(at full load)			
	EFFICIENCY (Typ.)	88%	89%	90%	91%
	INRUSH CURRENT (Typ.)	Cold start current 40A/230VAC			
PROTECTION	LEAKAGE CURRENT	< 0.75mA/240VAC			
	OVER CURRENT	95~110% Protection type : Constant current limiting, recovers automatically after fault condition is removed			
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE	42~46.6V	55~64V	66~78V	82~95V
ENVIRONMENT	OVER TEMPERATURE	90°C ± 10°C(RTH2) Protection type : Shut down o/p voltage, re-power on to recover			
	WORKING TEMP,HUMIDITY	-30°C ~ +50°C; 20% ~ 90%RH(Please refer to"derating curve" )")			
	STORAGE TEMP,HUMIDITY	-40°C ~ +80°C; 10% ~ 95%RH Non-condensing			
	VIBRATION	10 ~ 500Hz, 5G 12min./1 cycle, period for 72 min, each along X, Y, Z axes			
SAFETY& EMC	SAFETY STANDARDS	UL8750, TUV EN61347-1,EN61347-2-13, UL60950-1,IP67 Certificated			
	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC ,I/P-FG:1.5KVAC,O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms/500VDC/25°C/70%RH			
	EMC INTERFERENCE	Compliance to EN55015,EN61000-3-2 Class C(≥65% Load)			
	EMC EMISSION	Compliance to EN61000-3-2 Class C(≥75% Load); EN61000-3-3			
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2 ,3,4,5,6,8,11; ENV50204,EN55024,EN61547,light industry level (surge 4KV), criteria B			
	MTBF	420K hrs min. MIL-HDBK-217F(25°C)			
	DIMENSION	204*49*34mm ( L*W*H )			
	PACKING	0.62kg/30pcs/19.5kg/0.027 m³/0.95CUFT			

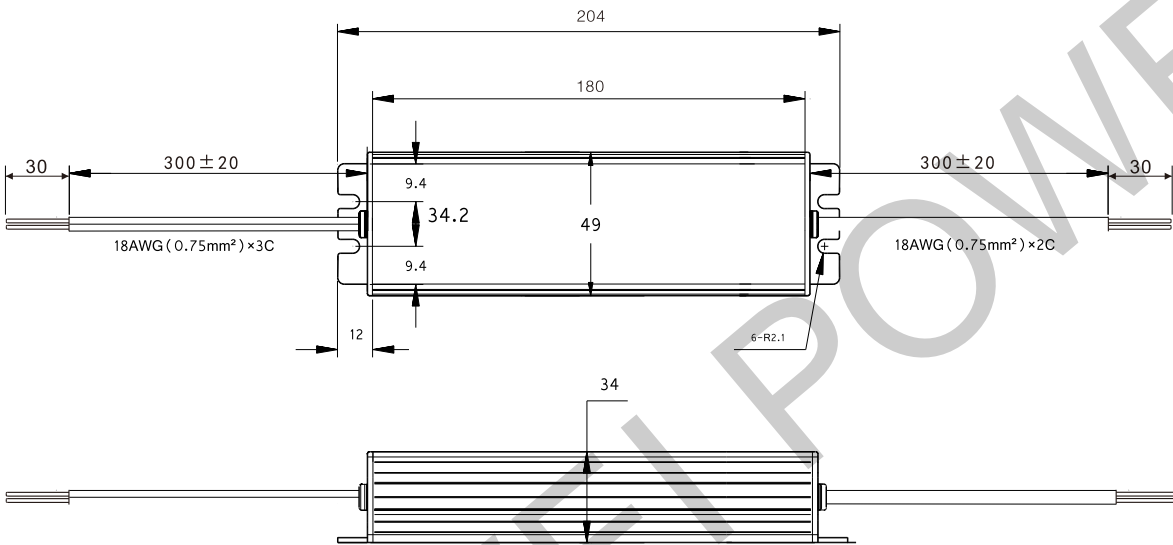
- NOTE:
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 °C of ambient temperature.
  2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
  3. Tolerance : includes set up tolerance, line regulation and load regulation.
  4. Constant current operation region is within 60% ~ 100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.
  5. Derating may be needed under low input voltage. Please check the static characteristics for more details.
  6. Setup time is measured at cold start condition. Turning ON/OFF the power supply frequently may increase the set up time.
  7. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-quality EMC Directive on the complete installation again.

**Mechanical specification**

Unit:mm

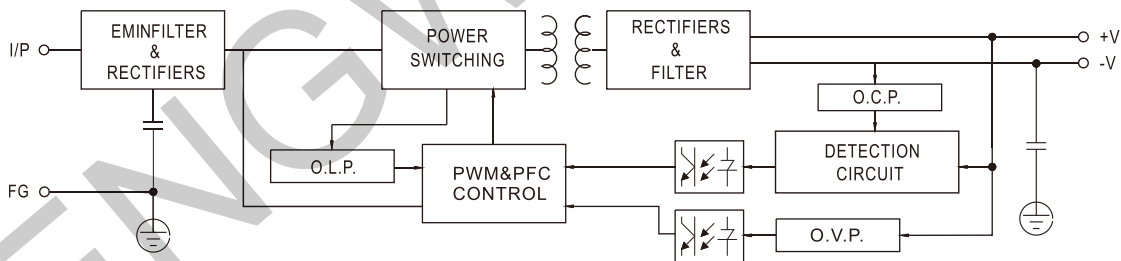
lead-out wire assignment

Input(Black three-core)		Output (Black two-core)	
Brown	AC/L	Red	DC OUTPUT +V
Blue	AC/N	Black	DC OUTPUT -V
Yellow-green	FG $\perp$	Shell connect with earth	

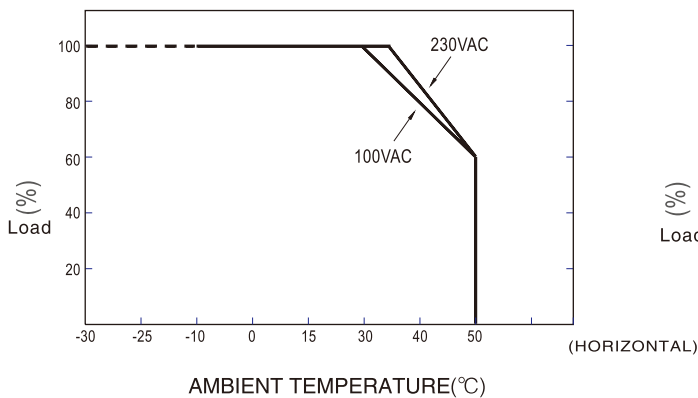


**Block Diagram**

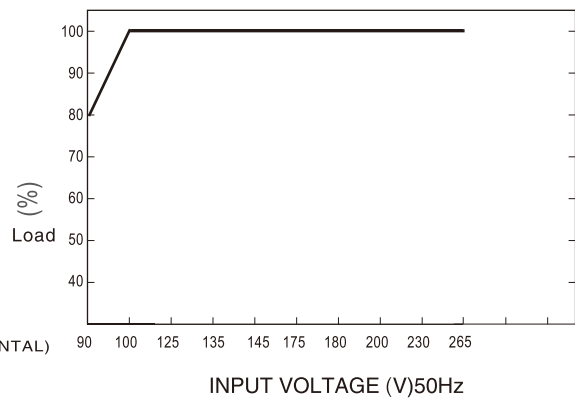
Fosc: 90KHz(115VAC)  
120KHz(230VAC)



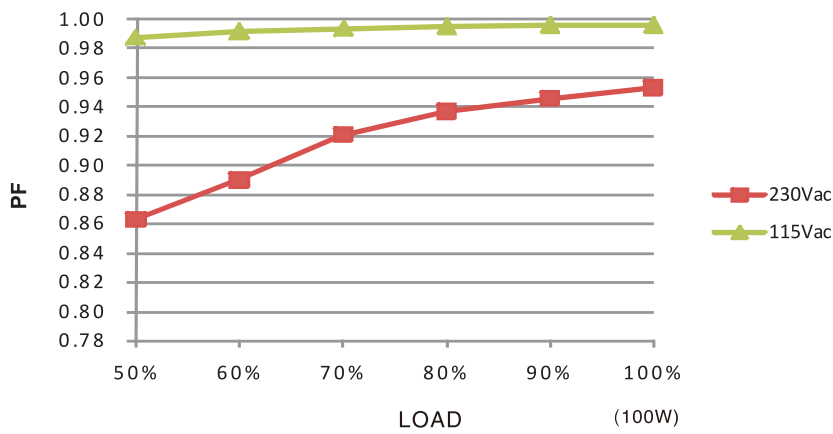
**Derating Curve**



**Static Characteristics**

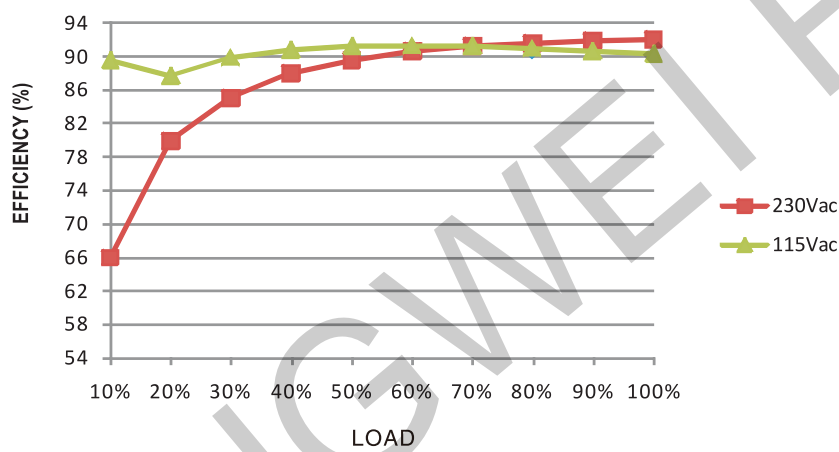


Power Factor Characteristic



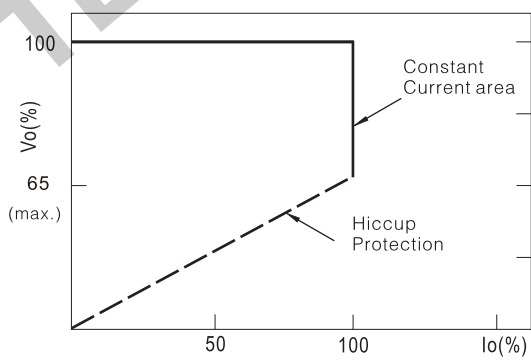
Efficiency vs Load(48V model)

LPF-100 series possess superior working efficiency that up to 90.5% can be reached in field applications.



Driving Methods Of LED Module

This LED power supply is suggested to work in constant current mode area (CC) to drive the LEDs



Typical LED power supply I-V curve