





#### Features:

- Universal AC input / Full range (up to 305VAC)
- · Built-in active PFC function
- High efficiency up to 91%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- · Fully isolated plastic case
- Fully encapsulated with IP67 level (Note.6)
- Class II power unit, no FG
- · Suitable for LED lighting and moving sign applications
- · Compliance to worldwide safety regulations for lighting
- · Suitable for dry / damp / wet locations
- 3 years warranty













WILL MANAGE TO SECULAR















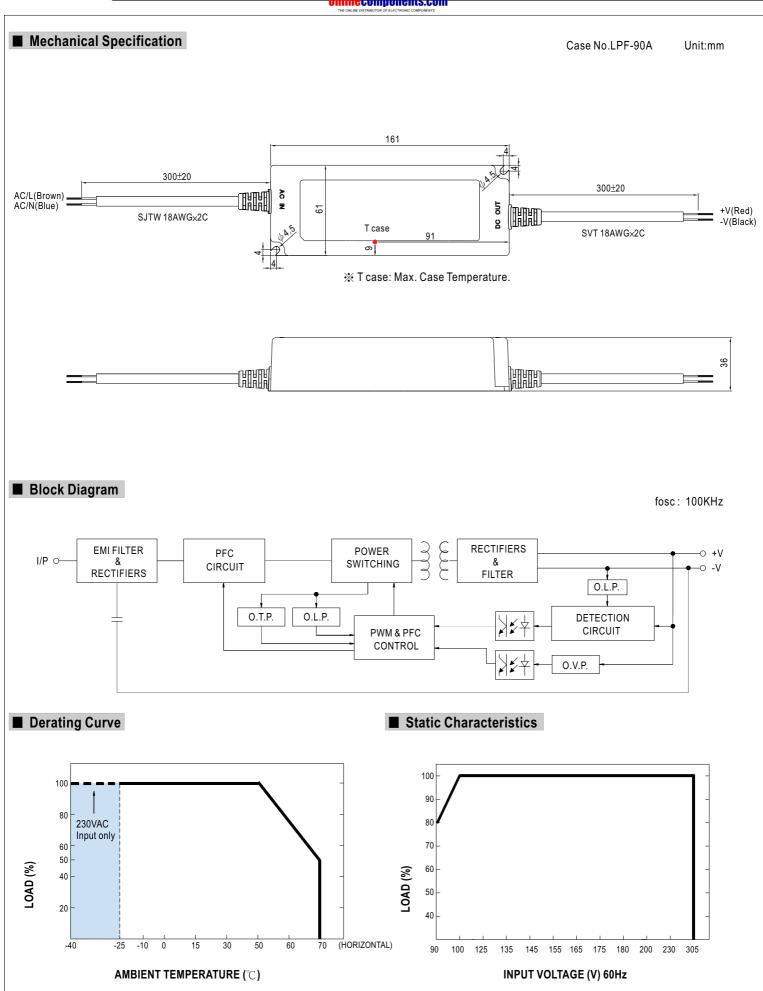


### **SPECIFICATION**

	LPF-90-15	LPF-90-20	LPF-90-24	LPF-90-30	LPF-90-36	LPF-90-42	LPF-90-48	LPF-90-54	
DC VOLTAGE	15V	20V	24V	30V	36V	42V	48V	54V	
CONSTANT CURRENT REGION Note.4	9 ~ 15V	12 ~ 20V	14.4 ~ 24V	18 ~ 30V	21.6 ~ 36V	25.2 ~ 42V	28.8 ~ 48V	32.4 ~ 54V	
RATED CURRENT	5A	4.5A	3.75A	3A	2.5A	2.15A	1.88A	1.67A	
RATED POWER	75W	90W	90W	90W	90W	90.3W	90.24W	90.18W	
RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	
VOLTAGE TOLERANCE Note.3	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	
LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
LOAD REGULATION	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
SETUP, RISE TIME Note.7	2000ms, 80ms / 115VAC at full load 1000ms, 80ms / 230VAC at full load								
HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC at full load								
VOLTAGE RANGE Note.5	90 ~ 305VAC 127 ~ 431VDC								
FREQUENCY RANGE	47 ~ 63Hz								
POWER FACTOR (Typ.)	PF>0.97/115VAC, PF>0.96/230VAC, PF>0.95/277VAC at full load (Please refer to "Power Factor Characteristic" curve)								
EFFICIENCY (Typ.)	89%	90%	90.5%	91%	91%	91%	91%	91%	
AC CURRENT (Typ.)	0.95A / 115VAC								
INRUSH CURRENT(Typ.)	COLD START 70A/230VAC								
LEAKAGE CURRENT	<0.75mA / 277VAC								
OVER CURRENT Note.4	95 ~ 108%								
	Protection type : Constant current limiting, recovers automatically after fault condition is removed								
ROTECTION OVER VOLTAGE	18 ~ 21V	23 ~ 27V	28 ~ 34V	34 ~ 38V	41 ~ 46V	47 ~ 53V	54 ~ 60V	59 ~ 65V	
	Protection type : Shut down o/p voltage, re-power on to recover								
OVER TEMPERATURE	90℃ ±10℃ (RTH2)								
	Protection type : Shut down o/p voltage, re-power on to recover								
WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")								
WORKING HUMIDITY	20 ~ 95% RH non-condensing								
STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH								
TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)								
VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes								
SAFETY STANDARDS	UL8750, EN61347-1, EN61347-2-13 independent, J61347-1, J61347-2-13, IP67 approved; Design refer to UL60950-1, TUV EN6095								
WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC								
ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH								
EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C (≥ 60% load); EN61000-3-3								
EMC IMMUNITY									
MTBF	301.6Khrs min. MIL-HDBK-217F (25°C)								
DIMENSION	161*61*36mm	161*61*36mm (L*W*H)							
	0.7Kg;20pcs/15Kg/0.73CUFT								
	CONSTANT CURRENT REGION Note.4 RATED CURRENT RATED POWER RIPPLE & NOISE (max.) Note.2 VOLTAGE TOLERANCE Note.3 LINE REGULATION LOAD REGULATION SETUP, RISE TIME Note.7 HOLD UP TIME (Typ.) VOLTAGE RANGE Note.5 FREQUENCY RANGE POWER FACTOR (Typ.) EFFICIENCY (Typ.) INRUSH CURRENT (Typ.) LEAKAGE CURRENT OVER CURRENT Note.4  OVER VOLTAGE  WORKING TEMP. WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY MTBF	DC VOLTAGE	DC VOLTAGE	DC VOLTAGE	DC VOLTAGE	DC VOLTAGE	DC VOLTAGE	DC VOLTAGE	

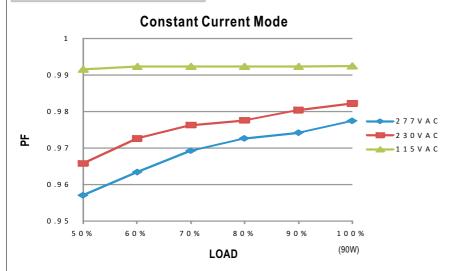
- 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- 4. Constant current operation region is within 60% ~100% rated output voltage. This 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 voltages. Please check the static characteristics for more details.
- 6. Suitable for indoor use or outdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minutes.
- 7. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.
- 8. 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-qualify EMC Directive on the complete installation again.





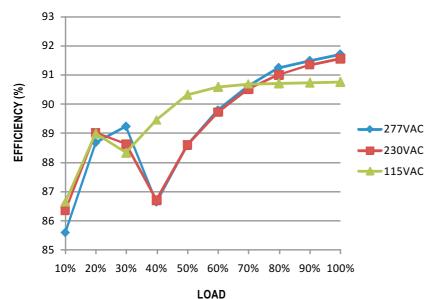


## ■ Power Factor Characteristic



### **■** EFFICIENCY vs LOAD (48V Model)

LPF-90 series possess superior working efficiency that up to 91% can be reached in field applications.



# ■ DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method "direct drive" and "with LED driver".

A typical LED power supply may either work in "constant voltage mode (CV) or constant current mode (CC)" to drive the LEDs. Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode (with LED driver, at area (A) and CC mode (direct drive, at area (B).

