






## 60W Single Output Switching Power Supply

## LPV-60 series



### ■ Features :

- Constant voltage design
- Universal AC input / Full range
- Epoxy encapsulated with IP67 level
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload / Over voltage
- Fully isolated plastic case
- Cooling by free air convection
- UL1310 Class 2 power unit, pass LPS
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED lighting and moving sign applications
- 2 years warranty

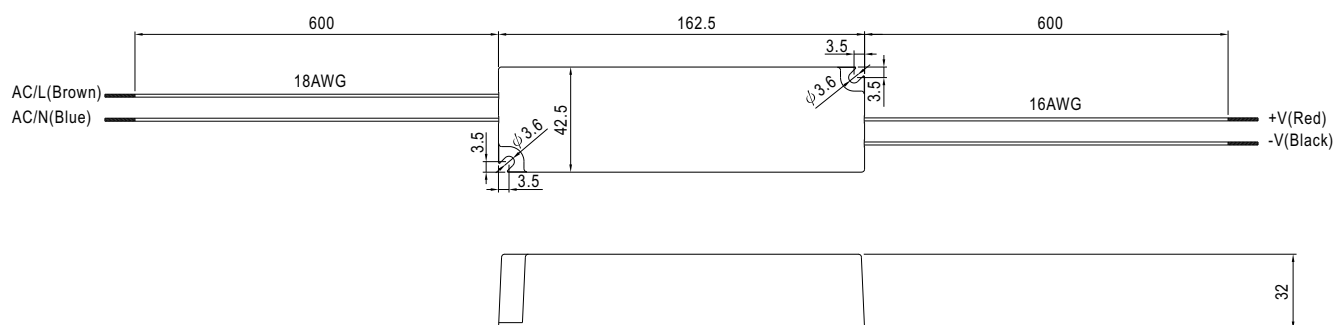
LPS IP67  ( for 48V only )  US ( except for 5V,48V ) 

### SPECIFICATION

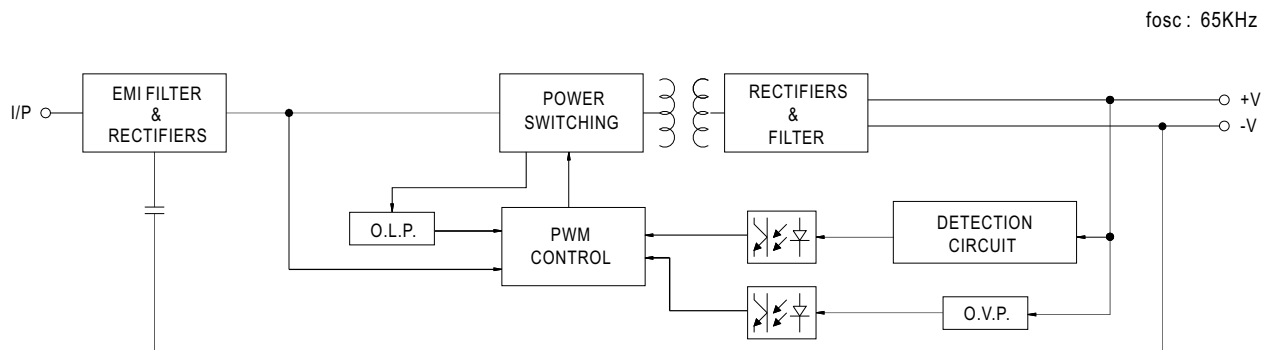
MODEL		LPV-60-5	LPV-60-12	LPV-60-15	LPV-60-24	LPV-60-36	LPV-60-48
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	36V	48V
	RATED CURRENT	8A	5A	4A	2.5A	1.67A	1.25A
	CURRENT RANGE	0 ~ 8A	0 ~ 5A	0 ~ 4A	0 ~ 2.5A	0 ~ 1.67A	0 ~ 1.25A
	RATED POWER	40W	60W	60W	60W	60W	60W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3	±8.0%	±5.0%				
	LINE REGULATION	±1.0%					
	LOAD REGULATION	±6.0%	±2.0%				
INPUT	SETUP, RISE TIME Note.6	500ms, 20ms / 230VAC	500ms, 20ms / 115VAC at full load(for 5~36V) ; 500ms, 30ms / 230VAC	500ms, 30ms / 230VAC	500ms, 30ms / 115VAC at full load(for 48V)		
	HOLD UP TIME (Typ.)	50ms/230VAC	16ms/115VAC at full load				
	VOLTAGE RANGE	90 ~ 264VAC					
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY (Typ.)	76%	83%	83%	86%	86%	86%
	AC CURRENT	1.2A/115VAC 1A/230VAC					
PROTECTION	INRUSH CURRENT(max.)	COLD STAR 30A/115VAC 60A/230VAC					
	LEAKAGE CURRENT	0.25mA / 240VAC					
	OVER CURRENT Note.4	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	OVER VOLTAGE	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	41.4 ~ 48.6V	55.2 ~ 64.8V
		Protection type : Shut down o/p voltage, re-power on to recover					
	WORKING TEMP.	-30 ~ +70°C (Refer to output load derating curve)					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH					
SAFETY & EMC	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
	SAFETY STANDARDS	UL1310 Class 2, CAN/CSA C22.2 No. 223-M91(except for 5V,48V), IP67 approved, design refer to TUV EN60950-1, EN61347-2-13					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC					
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C / 70% RH					
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B					
OTHERS	HARMONIC CURRENT	Compliance to EN61000-3-2,-3					
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A					
	MTBF	732Khrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	162.5*42.5*32mm (L*W*H)					
NOTE	PACKING	0.4Kg; 32pcs/13.8Kg/0.56CUFT					
		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. Derating may be needed under low input voltage. Please check the derating curve for more details. 5. The power supply is considered a component which will be installed a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.					

## ■ Mechanical Specification

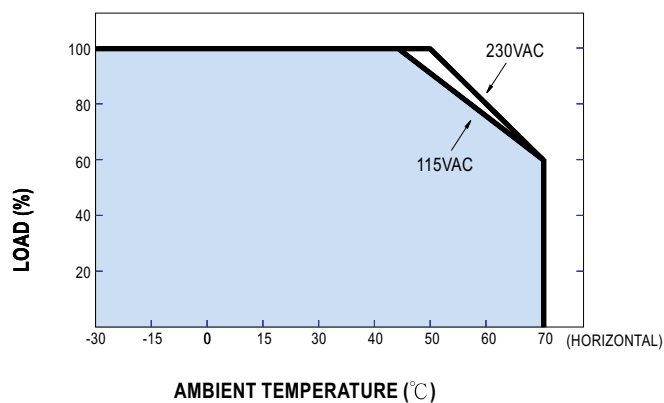
Case No. 976A      Unit:mm



### ■ Block Diagram



### Derating Curve



### ■ Static Characteristics

