



- Constant voltage design
- Universal AC input
- Protections: Short circuit / Overload / Over voltage
- Epoxy encapsulated with IP67 level
- Cooling by free air convection
- Suitable for LED lighting and moving sign applications
- High reliability, low cost
- Fully isolated plastic case
- Small and compact size
- UL1310 Class 2 power unit, pass LPS

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

Model Number	Output Volts	Output Amps	Efficiency	OVP	Ripple & Noise
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**SINGLE OUTPUT**

LPV60-5	5 Volts(DC)	8 Amps	76%	5.75~6.75 Volts(DC)	80mV pk-pk
LPV60-12	12 Volts(DC)	5 Amps	83%	13.8~16.2 Volts(DC)	120mV pk-pk
LPV60-15	15 Volts(DC)	4 Amps	83%	17.25~20.25 Volts(DC)	120mV pk-pk
LPV60-24	24 Volts(DC)	2.5 Amps	86%	27.6~32.4 Volts(DC)	150mV pk-pk
LPV60-36	36 Volts(DC)	1.67 Amps	86%	41.4~48.6 Volts(DC)	150mV pk-pk
LPV60-48	48 Volts(DC)	1.25 Amps	86%	55.2~64.8 Volts(DC)	150mV pk-pk



## 60W Single Output Class 2 Switching Power Supply

## LPV60 series

### INPUT SPECIFICATIONS

Input Voltage Range	90-264VAC
Frequency Range	47-63 Hz
Input Current	1.2 Amps @ 115VAC 1.0 Amps @ 230VAC
Inrush Current, max, Cold Start	30Amps/115VAC ; 60Amps/230VAC
Leakage Current	0.25mAmps/240VAC

### OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation	±1.0%
Load Regulation	5Volts(DC) only: ±6.0% 12~36Volts(DC): ±2.0%
Ripple/Noise (Note 1)	See Selection Chart
Over Voltage Protection	See Selection Chart Shut down o/p voltage, re-power
Over Current Protection (Note 3)	110~150% rated output power Hiccup mode, auto recov after fault condition is removed
Voltage Tolerance (Note 2)	5Volts(DC) only: ±8.0% 12~36Volts(DC): ±5.0%
Setup, Rise Time @ FL	
5~36Volts(DC)	500ms, 20ms /230VAC/115VAC
48Volts(DC)	500ms, 30ms/230VAC/115VAC
Hold up Time, typ @ FL	50ms/230VAC ; 16ms/115VAC

### GENERAL SPECIFICATIONS

Safety	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
EMI	Compliance to EN55022 (CISPR22) Class B
Isolation	3KVAC Input/Output

Resistance	I/P-O/P >100MΩ / 500VDC / 25°C/70%RH
Efficiency	See Selection Chart
Harmonic Current	Compliance to EN61000-3-2,-3
EMS	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204; EN55024 light industry level, criteria A

### ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-30°C to +70°C (See Derate Curve)
Relative Humidity	20~90% RH non cond
Storage Temperature	-40°C to +80°C, 10~95% RH
MTBF	732KHrs min, MIL-HDBK-217F (25°C)
Temp. Coefficient	±0.03%/°C (0~50°C)
Vibration	10~500Hz, 2G 10min./1cycle, preiod for 60min. each along X,Y, Z axes

### PHYSICAL SPECIFICATIONS

Size	Millimeters	162.5 x 42.5 x 32
	Inches	6.4" x 1.67" x 1.26"
Weight		11.99 oz (400g)

### NOTES

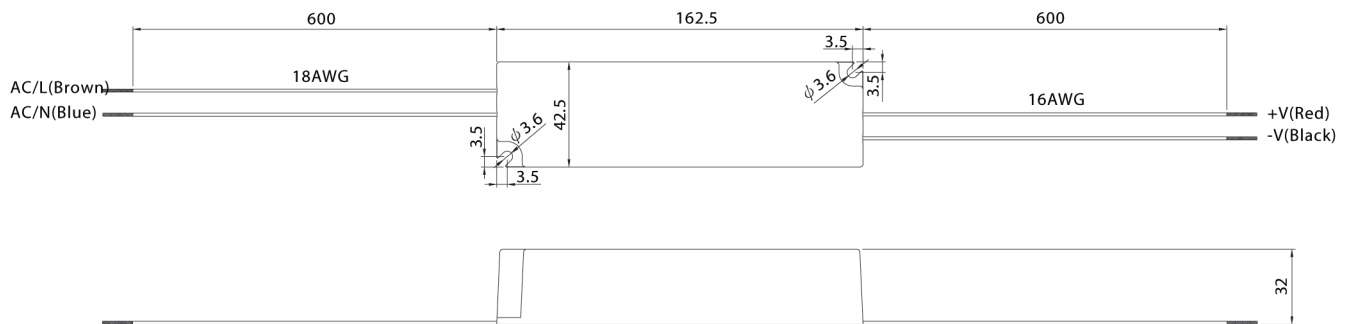
1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
2. Tolerance : includes set up tolerance, line regulation and load regulation.
3. Derating may be needed under low input voltage. Please check the derating curve for more details.

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

**Astrodyne products are not authorized or warranted for use as critical components in life support systems, equipment used in hazardous environments, nuclear controls systems, or other mission-critical applications.**

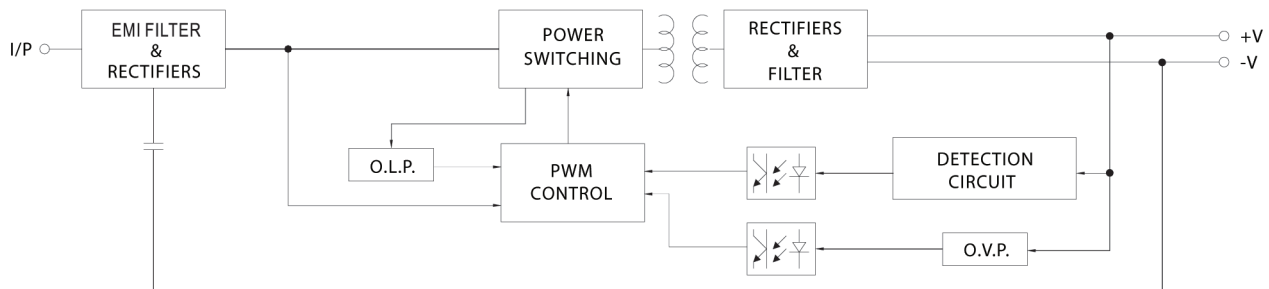
■ Mechanical Specification

Case No. 976A Unit:mm

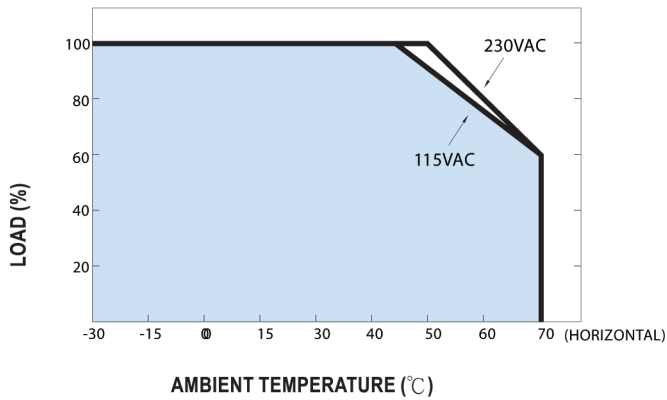


■ Block Diagram

fosc: 65KHz



### Derating Curve



### Static Characteristics

