






- Universal AC input
- Protections: Short Circuit/ Overload/ Over voltage/ Over temperature
- IP64 design for indoor or outdoor installations
- Built-in active Power Factor Correction function
- Cooling by free air convection
- UL1310 Class 2 power unit
- Suitable for LED lighting and moving sign applications
- High reliability
- Compliance to worldwide safety regulations for lighting

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

Model Number	Output Volts	Output Amps	Ripple & Noise	Efficiency	OVP	Current Adjust	DC Volt Adjust
SINGLE OUTPUT							
PLN100-12	12 Volts(DC)	5.0 Amps	150mVpk-pk	83%	13~16Volts(DC)	3.75~5Amps	10.2~12Volts(DC)
PLN100-15	15 Volts(DC)	5.0 Amps	150mVpk-pk	85%	16.5~20Volts(DC)	3.75~5Amps	12.8~15Volts(DC)
PLN100-20	20 Volts(DC)	4.8 Amps	150mVpk-pk	87%	22~27Volts(DC)	3.6~4.8Amps	17~20Volts(DC)
PLN100-24	24 Volts(DC)	4.0 Amps	150mVpk-pk	87%	27~34Volts(DC)	3~4Amps	20.4~24Volts(DC)
PLN100-27	27 Volts(DC)	3.55 Amps	150mVpk-pk	87%	29~36Volts(DC)	2.6~3.55Amps	23~27Volts(DC)
PLN100-36	36 Volts(DC)	2.65 Amps	150mVpk-pk	87%	39~48Volts(DC)	2~2.65Amps	30.6~36Volts(DC)
PLN100-48	48 Volts(DC)	2.0 Amps	200mVpk-pk	87%	52~64Volts(DC)	1.5~2Amps	40.8~48Volts(DC)



100W Single Output LED Lighting Power Supply

PLN100 series

INPUT SPECIFICATIONS

Input Voltage Range (Note 4)	90-264VAC, 127~370Volts(DC)
Frequency Range	47-63 Hz
Inrush Current, typ: (cold start)	40 Amps @ 230VAC
Input Current typ	
12Volts(DC)	0.8 Amps/115VAC; 0.4 Amps/230VAC
15Volts(DC)	0.9Amps/115VAC; 0.4Amps/230VAC
20~48Volts(DC)	1.1Amps/115VAC; 0.55Amps/230VAC
Leakage current	< 0.75mA / 240VAC
Power Factor @ FL typ.	PF> 0.95/ 230VAC; >0.95/ 115VAC ≥0.9 at 75~100%load

OUTPUT SPECIFICATIONS

Voltage and Current (Note 5)	See Selection Chart
Line Regulation	±1.0%
Load Regulation	±2%
Voltage Tolerance (Note 2)	±3%: 12~27Volts ; ±2%: 36~48Volts
Ripple/Noise (Note 1)	See Selection Chart
Setup, Rise Time @ FL	1200mS, 80mS / 230VAC & 115VAC
Hold Up Time @ FL	60mS/230VAC; 30mS/115VAC
Over Temperature Protection	90°C ±10°C (RTH2) Shutdown o/p voltage, auto recover
Over Voltage Protection	See Selection Chart Shutdown and latch off o/p voltage, re-power
Over Current Protection	95~102% Constant current limiting, auto recov
Short Circuit (Note 3)	Hiccup mode, auto recover
Current Adjust Range(Note6)	Can be adjust by internal potential meter SVR2
DC Voltage Adjust	See Selection Chart

GENERAL SPECIFICATIONS

Safety (Note 8)	UL1310 Class 2, EN61347-1 EN61347-2-13 independent, UL60950-1, UL879 (listed in UL SAM) TUV EN60950-1, CAN/CSA C22.2 No. 223-M91(except for 48V), IP64 approved
Insulation Resistance	≥100MΩ/500 Volts / 25°C / 70%RH
EMI	Compliance to EN55015 EN55022B(CISPR22B)

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

Harmonic Current	Compliance to EN61000-3-2C (>75% load); EN61000-3-3
Efficiency	See Selection Chart
Isolation	3750VAC Input - Output 1880VAC Input - Ground 500VAC Output - Ground
EMS	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN55024, EN61547, light industry level (surge 4KV) criteria A

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-30°C to +50°C (See Derate Curve)
Storage Temperature	-40°C to +80°C, 10~95% RH
Relative Humidity	20 to +95% RH non cond
Temperature Coefficient	±0.03% / °C (0-50°C)
MTBF	303.1KHrs min, MIL-HDBK-217F(25°C)
Vibration	10~500Hz, 2G10min./1cycle, period for 72min. each along X, Y, Z axes

PHYSICAL SPECIFICATIONS

Size	200 x 70.5 x 35mm (7.87"x2.77"x 1.38")
Weight	18.34 oz (520g)

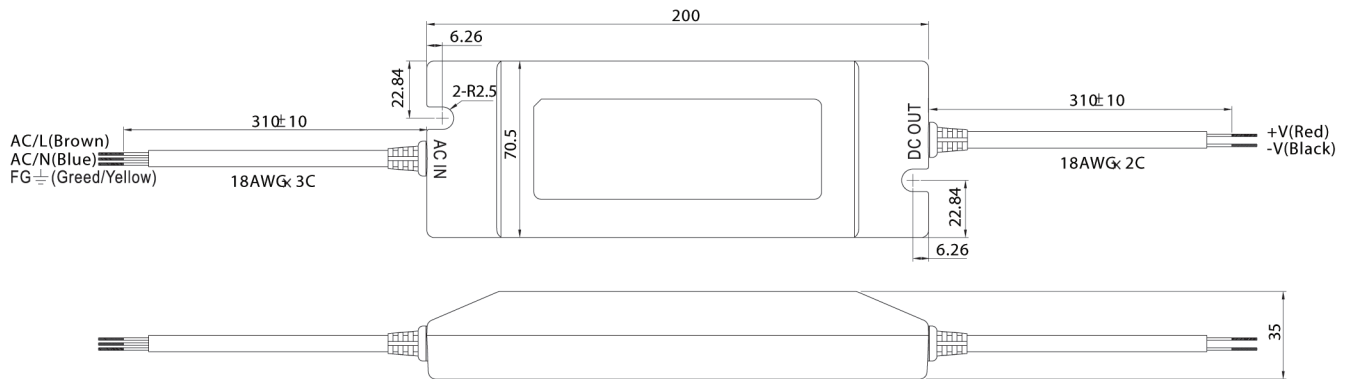
NOTES

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. Please refer to OLP characteristics.
4. Derating may be needed under low input voltage. Please check the derating curve for more details.
5. This is the maximum possible output current and power. Over load protection may be activated slightly below this level to comply with the requirement of UL1310 class 2.
6. Constant current operation region is within 75% ~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.
8. Safety and EMC design refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.

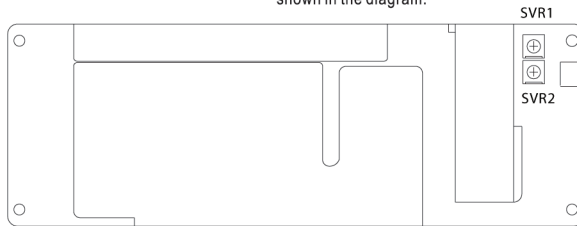
Astrodyne products are not authorized or warranted for use as critical components in life support systems, equipment used in hazardous environments, nuclear controls systems, or other mission-critical applications.

Mechanical Specification

Unit:mm



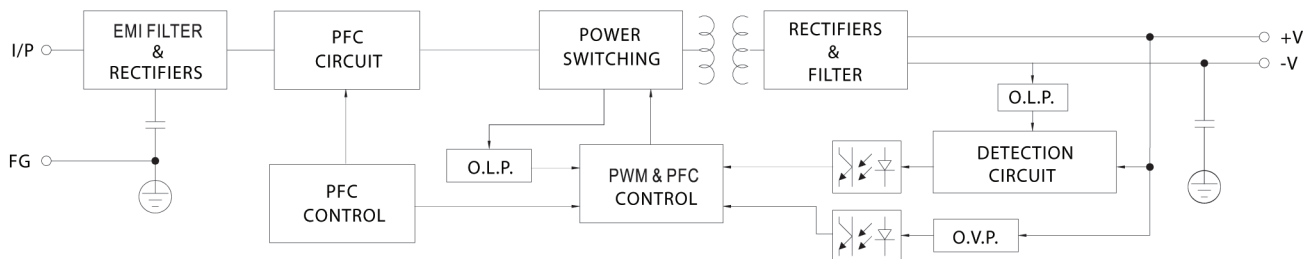
Output voltage and current adjustment : remove the upper case and adjust through SVR1 & SVR2 shown in the diagram.



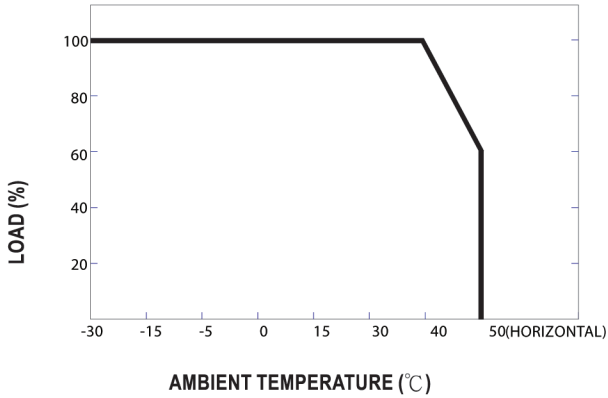
SVR1	Output voltage adjustment
SVR2	Output current adjustment

Block Diagram

Fosc : 100KHz



Derating Curve



Static Characteristics

