

Features

- High Efficiency (Up to 86%)
- Active Power Factor Correction (Typical 0.86)
- Constant Output Voltage
- Waterproof (IP67)
- All-Round Protection: OVP, SCP, OTP
- Comply With UL8750 & EN61347 Safety Regulations



Description

The PLNV-030SxxxSS Series operate from a 90 ~ 264 Vac input range. These units will provide up to a 24V of output voltage and a maximum output current of 2500 mA for 30 W maximum output power. They are designed to be highly efficient and highly reliable. Features include over voltage protection, short circuit protection.

Models

Output Voltage	Input Voltage	Max. Output Current	Max. Output Power	Typical Efficiency (1)	Power Factor		Model Number (2)
					110Vac	220Vac	
12 Vdc	90 ~ 264 Vac	2500 mA	30 W	83%	0.85	0.83	PLNV-030S012SS
24 Vdc	90 ~ 264 Vac	1250 mA	30 W	85%	0.86	0.84	PLNV-030S024SS

Notes: (1) Measured at full load and 220 Vac input.

(2) A suffix –xxx may be added to denote variations or modifications to the base product, where x can be any alphanumeric character or blank.

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90 V	-	264 V	
Input Frequency	47 Hz	-	63 Hz	
Input AC Current	-	-	0.43 A	Measured at full load and 100 Vac input.
	-	-	0.25 A	Measured at full load and 220 Vac input.
Inrush Current			65 A	At 230Vac input 25°C Cold Start

Specifications are subject to changes without notice.

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Voltage Range $V_O = 12\text{ V}$ $V_O = 24\text{ V}$	11.4 V 22.8 V	- -	12.6 V 25.2 V	
Output Current Range $V_O = 12\text{ V}$ $V_O = 24\text{ V}$	0 mA 0 mA	- -	2500 mA 1250 mA	
Ripple and Noise (pk-pk)	-	-	2% V_O	Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1 uF ceramic capacitor and a 10 uF electrolytic capacitor.
Line Regulation	-	-	1%	
Load Regulation	-	-	3%	
Turn-on Delay Time	-	-	3S	
Output Overshoot / Undershoot	-	-	10%	When power on or off.

Note: All specifications are typical at 25 °C unless otherwise stated.

Protection Functions

Parameter	Min.	Typ.	Max.	Notes
Over Voltage Protection $V_O = 12\text{ V}$ $V_O = 24\text{ V}$	14 V 29 V	16 V 32 V	18 V 36 V	Latch mode. The power supply shall return to normal operation only after the power is turn-on again.
Over Current Protection	120% I_O	130% I_O	170% I_O	Hiccup mode. The power supply shall be self-recovery when the fault condition is removed.
Over Temperature Protection	-	110 °C	-	Maximum temperature of components inside the case.
Short Circuit Protection	No damage shall occur when any output operating in a short circuit condition. The power supply shall be self-recovery when the fault condition is removed.			

Specifications are subject to changes without notice.

LED Driver PLNV-030SxxxSS 20090724 A
General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency V _O = 12 V V _O = 24 V	81.5% 83.5%	82.5% 84.5%	- -	Measured at full load and 110 Vac input.
Efficiency V _O = 12 V V _O = 24 V	82.0% 84.0%	83.0% 85.0%	- -	Measured at full load and 220 Vac input.
No Load Power Dissipation	≤ 1.0 W			Measured at 230 Vac input.
MTBF	300,000 hours			At 110 Vac input, full load and 25°C ambient temperature (MIL-HDBK-217F)
Life Time	80,000 hours			At 25°C ambient temperature.
Dimensions Inches (L x W x H) Millimeters (L x W x H)	6.38 x 1.36 x 1.67 162 x 34.5 x 42.5			
Net Weight	-	460 g	-	

Note: All specifications are typical at 25 °C unless otherwise stated.

Environmental Specifications

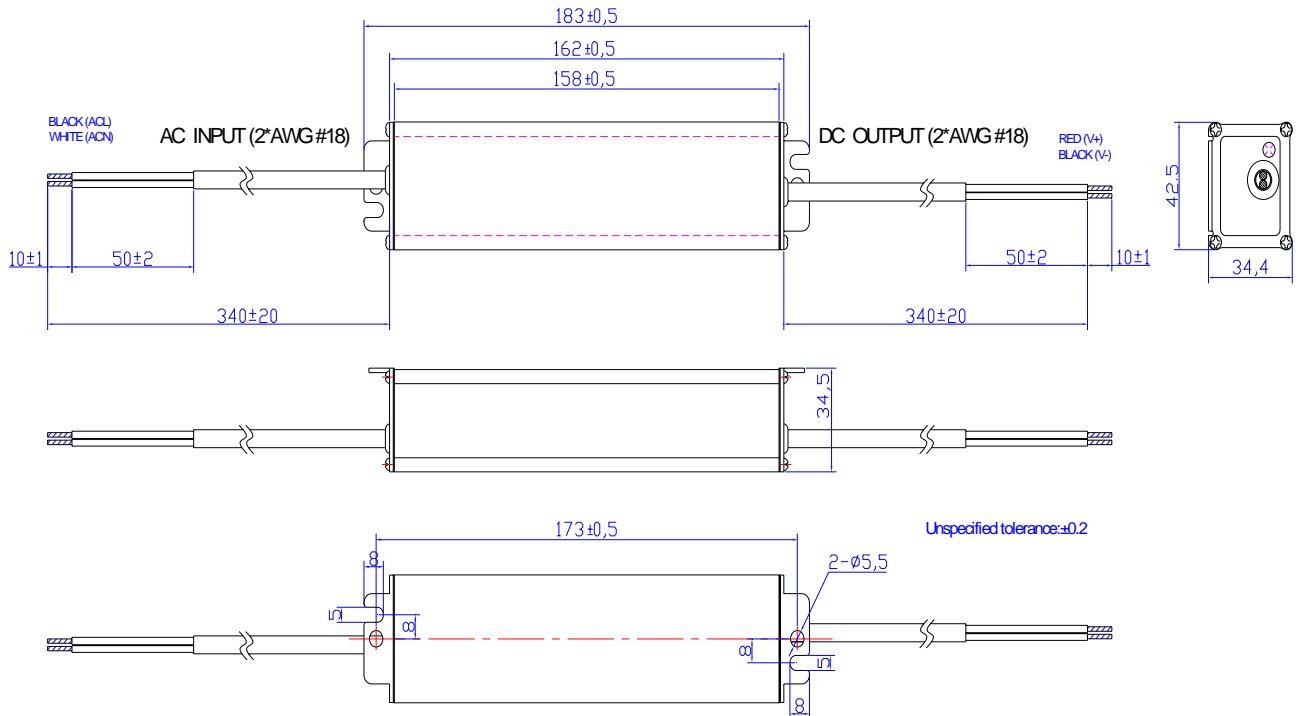
Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-35 °C	-	+60 °C	Humidity: 10% RH to 100% RH
Storage Temperature	-40 °C	-	+85 °C	Humidity: 5% RH to 100% RH

Safety & EMC Compliance

Safety Category	Country	Standard
CUL	USA & Canada	UL8750 Compliance to UL1310 Class2 UL1012 UL935, CAN/CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0
CE	Europe	EN 61347-1, EN61347-2-13
EMI Standards		Notes
EN 55015		Conducted emission Test & Radiated emission Test with 6 dB margin
EMS Standards		Notes
EN 61000-3-2		Harmonic current emissions
EN 61000-3-3		Voltage fluctuations & flicker
EN 61000-4-2		Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
EN 61000-4-3		Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4		Electrical Fast Transient / Burst-EFT
EN 61000-4-6		Conducted Radio Frequency Disturbances Test-CS
EN 61000-4-8		Power Frequency Magnetic Field Test
EN 61000-4-11		Voltage Dips
EN 61547		Electromagnetic Immunity Requirements Applies to Lighting Equipment

Specifications are subject to changes without notice.

Mechanical Outline



RoHS Compliance

Our products comply with the European Directive 2002/95/EC, calling for the elimination of lead and other hazardous substances from electronic products.

Specifications are subject to changes without notice.