



Product Specifications

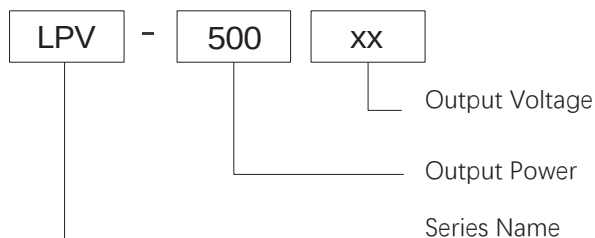
LPV-500

- Product Category: 500W Waterproof Power Supply
- Version Number: ZTAO3.0
- Release Date: May 1st, 2025

Product Overview

The LPV-500W series is a waterproof AC-to-DC LED driver power supply designed for constant voltage and constant power output. It features an AC input voltage range of 180~264VAC and offers 12V, 24V, 36V, and 48V output options. It **good** conversion efficiency of up to 94% and employs self-cooling technology. It features a gold-plated casing and an IP67 **good** protection rating.

Model encoding



Product Features

- 180~264VAC AC input range
- constant voltage and constant power model
- IP67 protection rating
- Protection Types: Short Circuit / Overload / Overvoltage / Overtemperature
- Natural Air Cooling
- Suitable for Dry, Humid, and Rainy Environments
- 100% Full Load Burn-in Test
- 3-Year Warranty

Application Areas

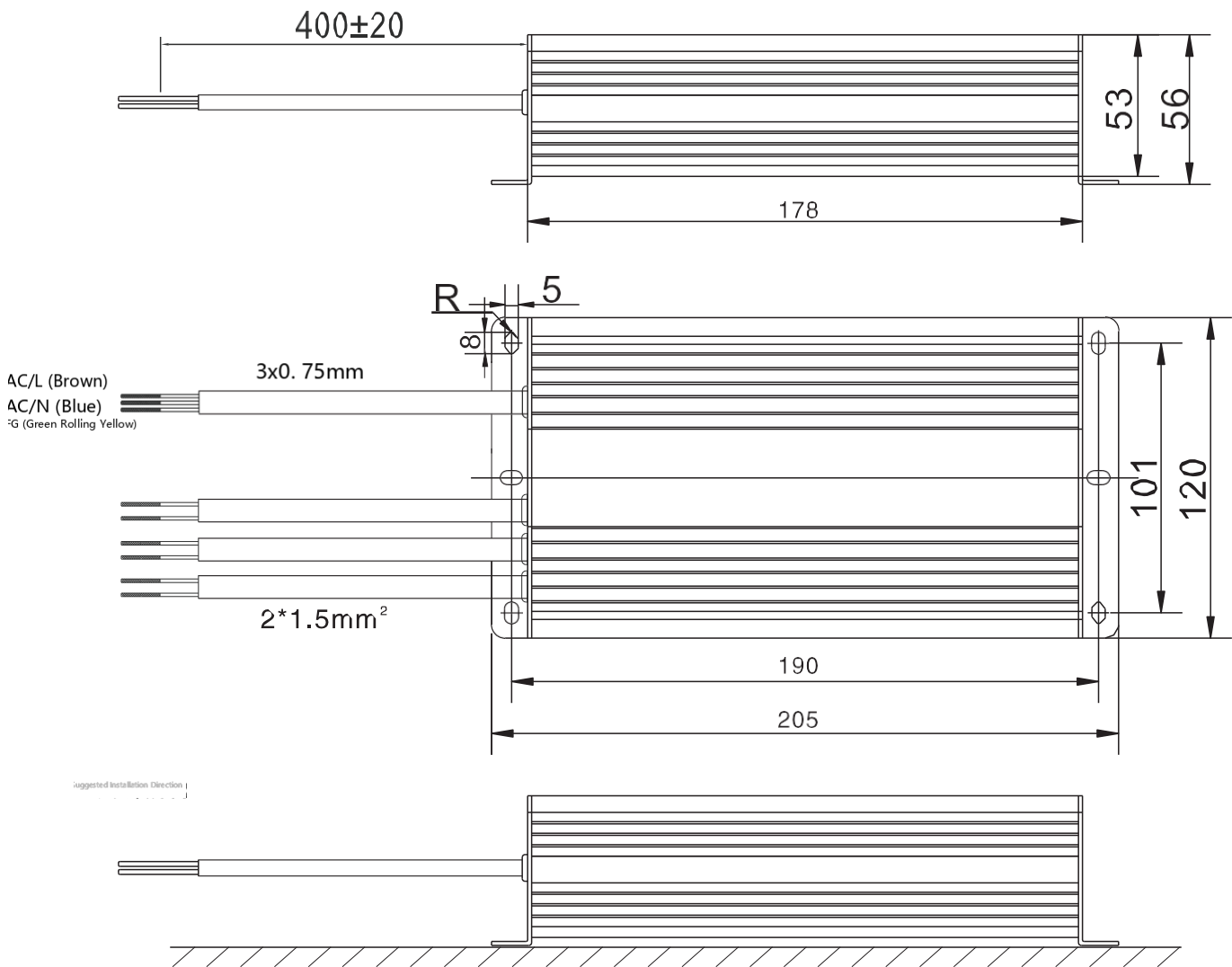
Street Lighting, Wall Washers, Courtyard Lights, Fishing Lights, Floodlights, Building Lighting, Plant Lighting, Electronic Instruments and Devices, etc. (excluding information technology equipment)



Electrical Specifications

Model		LPV-500-24	LPV-500-36	LPV-500-45	LPV-500-48	LPV-500-60
Output	DC Output Voltage	24V	36V	45V	48V	60V
	Rated Current	20A	13.5A	11A	10.5A	8.3A
	Current Range	0~20A	0~13.5A	0~11A	0~10.5A	0~8.3A
	Rated Power	480W	486W	495W	504W	498W
	Ripple & Noise (Max)	200mVp-p	220mVp-p	240mVp-p	240mVp-p	240mVp-p
	Voltage Accuracy	±2%	±2%	±2%	±2%	±2%
	Linearity Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Start-up & Rise Time	500ms, 50ms / 230VAC (at full load)				
	Hold Time	24ms / 230VAC (at full load)				
Input	Input Voltage	180~264VAC selected through switch 245~370VDC (switch on 230VAC)				
	Input Frequency	50~60HZ				
	Efficiency	92%	92.5%	93.5%	93.5%	94.5%
	Input Current	5.0A/230VAC				
	Leakage Current	< 3mA/240VAC				
Protection	Overload Protection	100~110% Overcurrent Limit of Rated Power Protection Mode: Hiccup-type protection, automatically recovers after abnormal conditions are removed				
	Overvoltage Protection	Overvoltage protection activated at 115%~135% of rated output voltage Protection mode: Output voltage off, restarts to recover				
	Over-temperature protection	95°C±10°C (JK1 is tested on the transformer side/Mos tube surface) Protection mode: Output voltage off, automatically recovers after temperature drops				
	Operating temperature	-20°C ~+60°C				
Environment	Operating humidity	20~90% RH without condensation				
	Storage temperature / Humidity	-40~+80 °C 10~95% RH, no condensation				
	Vibration resistance	10~500HZ, 5G 10 minutes / Cycle, X, Y, Z each 60 minutes				
	Withstand voltage	Input to output: 1.5KVAC; Input to ground: 1.5KVAC; Output to ground: 500VAC				
Safety	Insulation resistance	Input to output, input to ground, output to ground: 100 Ohms/500VDC/25°C/70%RH				
	Product dimensions	205*120*56mm (L*W*H)				
Other	Packaging	2.05kg/10pcs/21.5Kg/0.033 cubic meters				
Remarks		1. All parameters, unless otherwise specified, are measured at 230VAC voltage input, rated load, and 25 °C conditions. 2. Ripple and noise voltage were measured on a 20MHz bandwidth oscilloscope with 0.1μ and 47μ capacitors added to the ends of a 12-inch twisted pair cable. Measurements were performed at a 20MHz bandwidth. 3. Accuracy: Includes setting error, line regulation, and load regulation. 4. Linear regulation measurement method: Test from low voltage to high voltage under rated load 5. Load regulation measurement method: From 0% to 100% rated load 6. Startup time is measured under cold start conditions. Rapid and frequent power-on and power-off may increase startup time.				

Appearance and Installation Dimensions (mm)



Pins	Function
L	AC LINE
N	AC NETURAL
	EARTH
-V	DC output -
-V	DC output -
+V	DC output +
+V	DC output +

4-M4 Customer System Mounting Hole

Mounting Screws: M4
Installation torque: 8 kgf.cm (0.8 Nm)

Remarks:

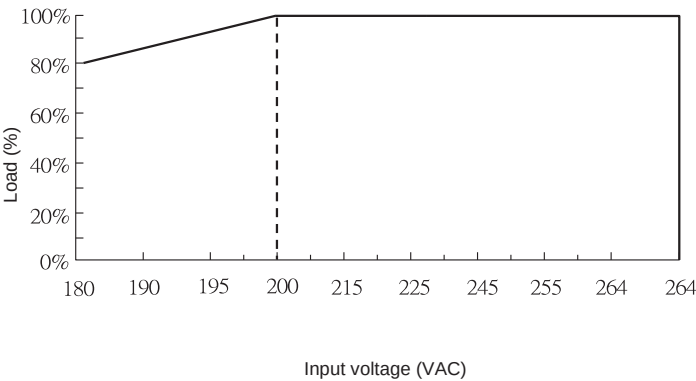
Unit: mm [inch]; Unspecified tolerance is ± 0.5 [± 0.020]

Terminal Pin No.Assignment

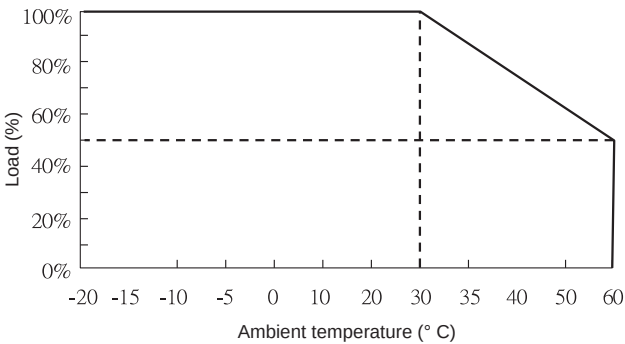
input (Black three core)		Output(Black two core)	
Brown	AC/L	Brown	DC OUTPUT +V
Blue	AC/N	Blue	DC OUTPUT -V
Green& yellow	: Ground		

Characteristic Curve

Input voltage vs output load



Ambient temperature vs. output load



- Note:
- 1. For more detailed test data, please contact our technical support to obtain the application notes for the corresponding product.
 - 2. This product is suitable for use in natural air convection environments. For use in enclosed environments, please contact our technical support.