Zhitao Group
ZHITAO GROUP

Industrial Power Supply

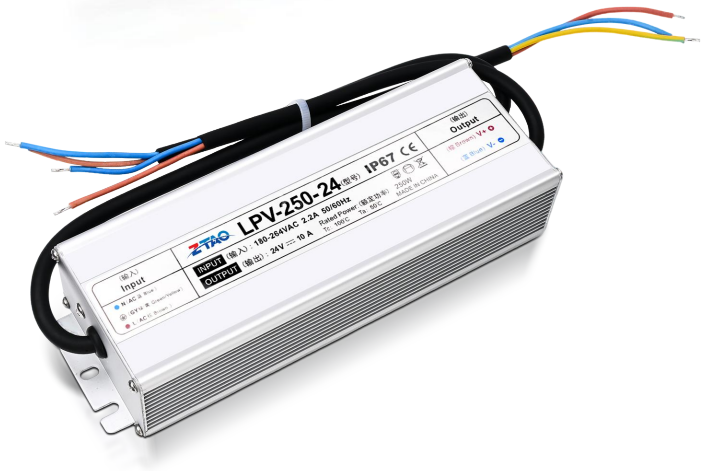
Product Specifications

LPV-250

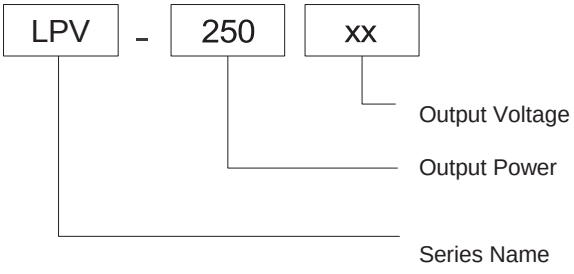
- Product Category: 250W Waterproof Power Supply
- Version Number: ZTAO3.0
- Release Date: May 1st, 2025

Product Overview

The LPV-250W series is a waterproof AC-to-DC LED driver power supply designed for constant voltage and constant power output. It uses an AC input voltage range of 180~264VAC and offers 12V, 24V, 36V, and 48V output options. It boasts a high conversion efficiency of up to 94% and features self-cooling. It has a gold-plated casing and is IP67 rated.High protection level design.



Model encoding



Product Features

- 180~264VAC AC input range
- constant voltage and constant power mode
- 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

CE FC RoHS ISO ISO9001

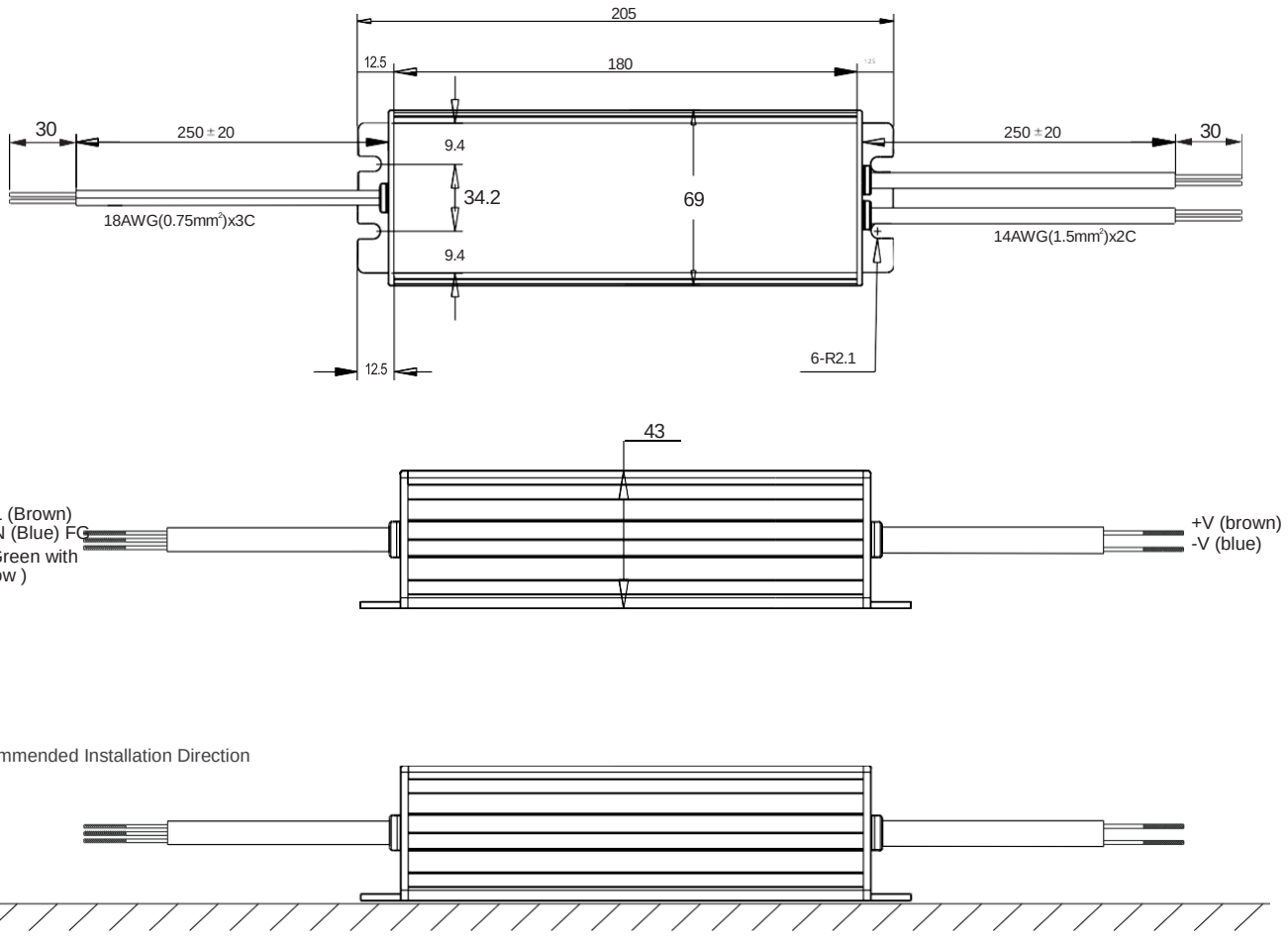
Application Areas

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-250-12	LPV-250-15	LPV-250-24	LPV-250-36	LPV-250-48
Output	DC Output Voltage	12V	15V	24V	36V	48V
	Rated Current	16.5A	13A	10A	7.0A	5.2A
	Current Range	0~16.5A	0~13A	0~10A	0~7.0A	0~5.2A
	Rated Power	198W	195W	240W	252W	250W
	Ripple & Noise (Maximum)	180mVp-p	180mVp-p	200mVp-p	220mVp-p	220mVp-p
	Voltage Accuracy	±3%	±2%	±2%	±2%	±2%
	Linearity Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load Regulation	±2%	±0.5%	±0.5%	±0.5%	±0.5%
	Start-up & Rise Time	2000ms, 30ms / 230VAC (at full load)				
	Hold Time	20ms / 230VAC (at full load)				
Input	Input Voltage	180~264VAC selectable via switch	235~370VDC(switc on 230VAC)			
	Input Frequency	50~60HZ				
	Efficiency	91%	91%	92%	92.5%	93%
	Input Current	2.5A/230VAC				
	Leakage Current	＜ 3mA/240VAC				
Protection	Overload Protection	100~110% Constant Current Limit of Rated Power				
		Protection Mode: Hiccup-type protection, automatically recovers after abnormal conditions are removed				
	Overvoltage Protection	115%~135% Overvoltage Protection Activated				
		Protection Mode: Output Voltage Shutdown, Recovers Upon Restart				
	Over-Temperature Protection	95℃±10℃ (JK1 detected on transformer side / MOSFET surface)				
		Protection Mode: Output Voltage Shutdown, Automatic Recovery After Temperature Drop				
Environment	Operating temperature	-20℃ ~+60℃				
	Operating humidity	20~90%RH non-condensing				
	Storage temperature / humidity	-40~+80℃ 10~95%RH, non-condensing				
	Vibration resistance	10~500HZ, 5G 10 minutes / Cycle, X, Y, Z each 60 minutes				
Safety	Withstand Voltage	Input to output: 1.5KVAC; Input to ground: 1.5KVAC; Output to ground: 500VAC				
	Insulation Resistance	Input to output, input to ground, output to ground: 100 Ohms / 500VDC / 25℃ / 70%RH				
Other	Product Dimensions	205*69*43mm（L*W*H）				
	Packaging	0.85kg/16pcs/0.026 cubic meters				
	Remarks	1. All parameters are measured under 230VAC voltage input, rated load and 25°C unless otherwise specified. 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. Line Regulation Measurement Method: Tested from low voltage to high voltage under rated load. 5. Load Regulation Measurement Method: From 0% to 100% of rated load. 6. Startup time is measured under cold start conditions. Rapid and frequent power-on and power-off may increase startup time.				

Dimensions and Mounting (mm)



Recommended Installation Direction

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

Screws: M4

Mounting Torque: 8Kgf.cn (0.8Nm)

Remarks:

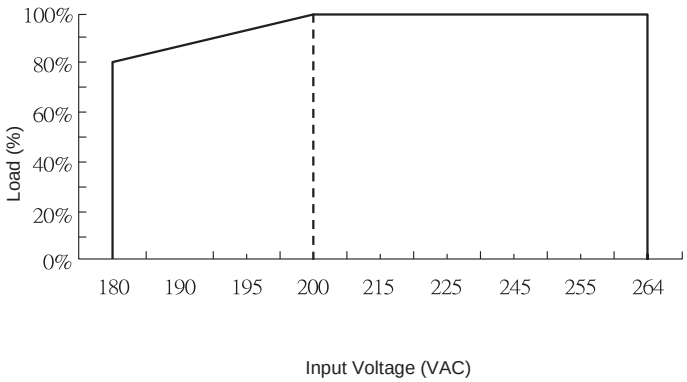
Unit: mm [inch]; Unspecified tolerance is ±0.5 [±0.020]

Terminal Pin No. Assignment

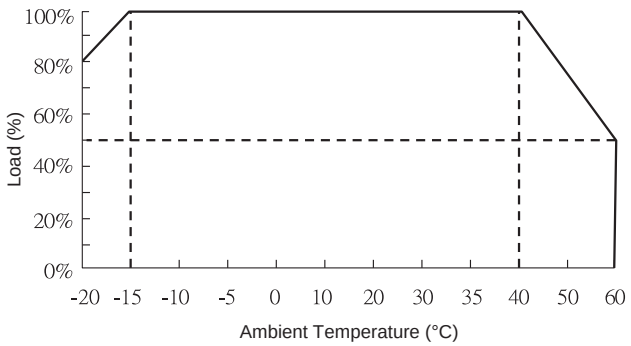
Input(black three core		Output(black two core	
Brown	AC/L	Brown	DC OUTPUT+V
Blue	AC/N	Blue	DC OUTPUT-V
Green& yellow	⏚ : Ground		

Characteristic Curve

Input Voltage VS Output Load



Ambient Temperature VS Output Load



Note:

1. For more detailed test data, please contact our technical support for 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.