

MEAN WELL LPV-100-12

MEAN WELL LPV-100-12 LED Driver Instruction Manual

Model: LPV-100-12

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the MEAN WELL LPV-100-12 LED Driver. This unit is a constant voltage, single output, waterproof power supply designed for LED-related fixtures and appliances. It features a universal AC input and is fully encapsulated with an IP67 rating, making it suitable for various environments.

2. SAFETY INSTRUCTIONS

Read all instructions carefully before installation and operation. Failure to follow these instructions may result in electric shock, fire, or other hazards.

- **Qualified Personnel:** Installation and servicing must be performed by qualified personnel only.
- **Power Disconnection:** Always disconnect power before installation, maintenance, or troubleshooting.
- **Proper Wiring:** Ensure all wiring connections are secure and comply with local electrical codes. Incorrect wiring can cause damage or fire.
- **Ventilation:** Although IP67 rated, ensure adequate air circulation around the unit to prevent excessive heat buildup, especially when operating at maximum load.
- **Load Compatibility:** Do not exceed the specified output wattage or current. Overloading can damage the driver and connected devices.
- **Environmental Conditions:** The IP67 rating indicates suitability for dry and damp locations. Avoid submerging the unit or exposing it to extreme temperatures outside its specified operating range.

3. PRODUCT OVERVIEW

The LPV-100-12 is a robust LED driver designed for reliable performance in demanding conditions. Its compact form factor and waterproof design make it versatile for various applications.

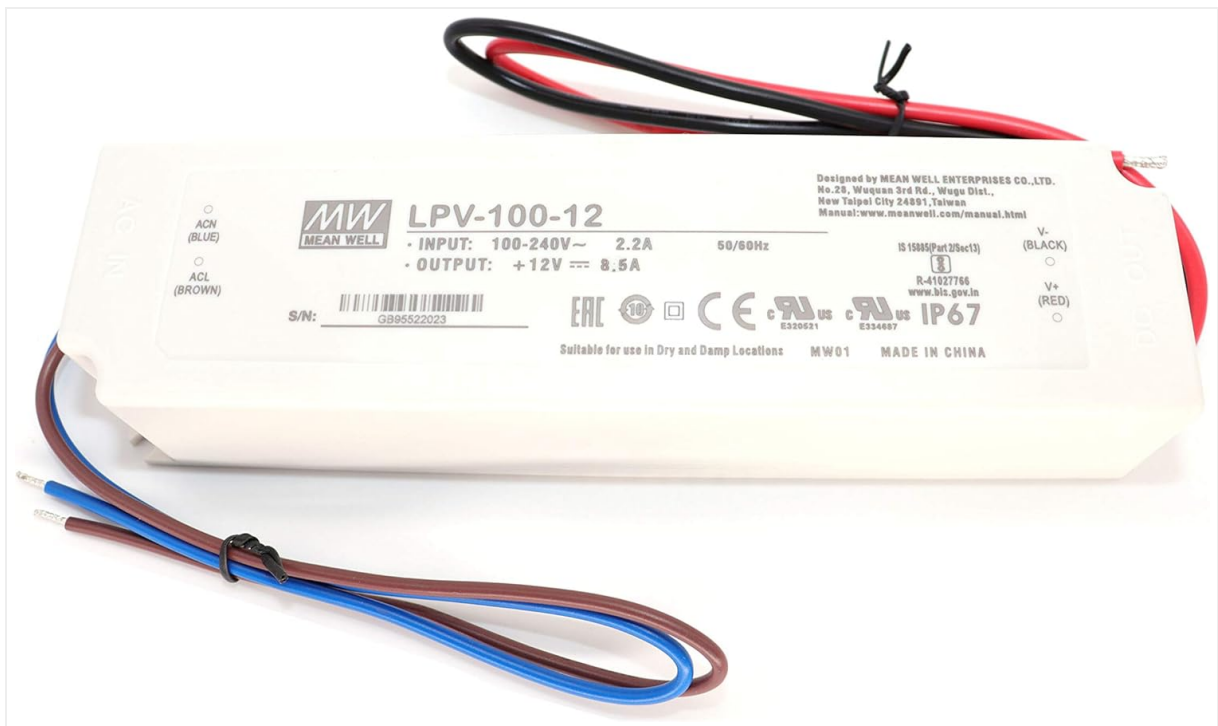


Figure 3.1: Overall view of the MEAN WELL LPV-100-12 LED Driver. This image displays the white rectangular housing with input (AC) and output (DC) wires, along with the product label.



Figure 3.2: Close-up of the product label on the LPV-100-12. The label details input voltage (100-240V~, 2.2A, 50/60Hz), output voltage (+12V == 8.5A), and various certifications including CE, cURus, and IP67.



Figure 3.3: Product label with the serial number highlighted. The serial number for this unit is **GB95522023**. This serial

4. SETUP AND INSTALLATION

Follow these steps for proper installation of the LPV-100-12 LED Driver.

1. **Mounting:** The unit is designed for wall mount installation. Secure the driver to a stable surface using appropriate fasteners. Ensure the mounting location allows for adequate heat dissipation.
2. **Input Wiring (AC):**
 - Connect the **Brown (ACL)** wire to the Live (L) AC input.
 - Connect the **Blue (ACN)** wire to the Neutral (N) AC input.
 - The input voltage range is 90 ~ 264VAC or 127 ~ 370VDC. Ensure your power source is within this range.
3. **Output Wiring (DC):**
 - Connect the **Red (V+)** wire to the positive (+) terminal of your 12VDC LED fixture.
 - Connect the **Black (V-)** wire to the negative (-) terminal of your 12VDC LED fixture.
 - Ensure the total power consumption of the connected LED fixtures does not exceed 102 Watts (8.5 Amps at 12VDC).
4. **Insulation:** After making all connections, ensure all exposed wires are properly insulated to prevent short circuits.
5. **Power On:** Once all connections are secure and verified, apply power to the AC input.

5. OPERATING INSTRUCTIONS

The MEAN WELL LPV-100-12 is a constant voltage LED driver. Once properly installed and powered, it will provide a stable 12VDC output to the connected LED load.

- **Automatic Operation:** The driver operates automatically when power is supplied. There are no user-adjustable controls.
- **Load Monitoring:** Ensure the connected LED load remains within the driver's specified output limits (12VDC, 8.5A, 102W).
- **Protection Features:** The unit includes built-in protections against short circuit, overload, and over voltage. In case of a fault, the driver may temporarily shut down to protect itself and the connected load. Remove the fault condition and cycle power to reset.

6. MAINTENANCE

The LPV-100-12 LED Driver is designed for minimal maintenance due to its fully encapsulated, waterproof construction.

- **Regular Inspection:** Periodically inspect the driver and its wiring for any signs of damage, wear, or loose connections.
- **Cleaning:** If necessary, gently clean the exterior of the unit with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners. Ensure the unit is powered off before cleaning.
- **Environmental Check:** Verify that the operating environment remains within the specified temperature range (-25~70°C) and that the IP67 rating is not compromised by physical damage.

7. TROUBLESHOOTING

If you encounter issues with your LPV-100-12 LED Driver, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
No output from driver / LEDs not lighting up	No AC input power Loose wiring connections Overload or short circuit protection activated Faulty LED fixture	Check AC power source and circuit breaker. Verify all input and output wiring connections are secure. Disconnect load, cycle power. If driver works, check LED load for short circuit or excessive current draw. Test driver with a known good load.
LEDs flickering or dim	Insufficient power supply (voltage drop) Intermittent connection Overload condition	Ensure input voltage is stable and within range. Check all wiring for loose connections. Reduce the connected LED load to ensure it is within the driver's capacity.
Driver is hot to the touch	Operating at maximum load Inadequate ventilation High ambient temperature	Ensure load does not exceed 102W. Provide more space around the driver for air circulation. Verify ambient temperature is within -25~70°C.

8. SPECIFICATIONS

Detailed technical specifications for the MEAN WELL LPV-100-12 LED Driver:

Feature	Specification
Model Number	LPV-100-12
Input Voltage	90 ~ 264VAC or 127 ~ 370VDC
Input Frequency	47 ~ 63Hz
Input Current	2.2A/115VAC, 1.2A/230VAC
Output Voltage	12VDC
Output Current	8.5 Amps
Output Wattage	102 Watts
Efficiency	Not specified in provided data, typical for constant voltage drivers.
Protections	Short Circuit, Overload, Over Voltage
Operating Temperature	-25 ~ 70°C
Ingress Protection (IP) Rating	IP67 (Fully encapsulated, suitable for dry and damp locations)

Feature	Specification
Dimensions (L x W x H)	7.48 x 2.05 x 1.46 inches (190 x 52 x 37 mm)
Item Weight	0.16 ounces (approx. 4.54 g)
Mounting Type	Wall Mount
UPC	645312123049

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official MEAN WELL website or contact your authorized distributor. Keep your purchase receipt and the product's serial number (e.g., GB95522023) for any warranty claims or support inquiries.