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EverSale PLD-60-700B

MW Mean Well PLD-60-700B LED Power Supply User Manual

Model: PLD-60-700B | Brand: EverSale

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of the MW Mean Well PLD-60-700B Single Output LED Power Supply. This device is designed to provide a constant current output for LED lighting applications. Please read this manual thoroughly before installation and operation.



Figure 1: MW Mean Well PLD-60-700B LED Power Supply

2. PRODUCT FEATURES

- Constant current mode operation.
- Fully isolated plastic case with IP42 protection level.
- Isolation class II, without Frame Ground (F.G.).
- Suitable for indoor LED lighting applications.
- Protections include short circuit and over temperature.
- 3 years warranty.

3. SAFETY INFORMATION

WARNING: Improper installation or use can lead to electric shock, fire, or other hazards. Always follow these safety guidelines:

- Ensure the power supply is disconnected from the main power source before any installation or maintenance.
- Installation should be performed by a qualified electrician in accordance with all local and national electrical codes.
- Do not operate the power supply beyond its specified voltage and current ratings.
- Ensure proper ventilation to prevent overheating.
- Do not expose the unit to moisture or extreme temperatures.
- Verify correct polarity when connecting input and output wires.

4. SETUP AND INSTALLATION

Follow these steps for proper installation of the PLD-60-700B LED Power Supply:

1. **Mounting:** Securely mount the power supply in a location that allows for adequate air circulation and is suitable for indoor use (IP42 rated).
2. **Input Wiring:** Connect the AC input wires to the designated terminals. The PLD-60-700B requires 230VAC input only. Refer to the mechanical specification diagram for wire identification (AC/N (BLUE) and AC/L (BROWN)).
3. **Output Wiring:** Connect the DC output wires to your LED load. Ensure correct polarity: V+ (RED) to the positive terminal of the LED load and V- (BLACK) to the negative terminal.
4. **Verification:** Double-check all connections for secure fit and correct polarity before applying power.



Figure 2: Mechanical Specification and Wiring Diagram. This diagram illustrates the physical dimensions, input/output wiring connections, and case temperature measurement point (T case).

5. OPERATING INSTRUCTIONS

The PLD-60-700B operates in constant current mode, providing a stable current output to the connected LED load. Once properly installed and connected, apply AC power to the input terminals. The power supply will automatically regulate the output voltage to maintain the specified constant current (700mA) to the LED load, within its operational voltage range (up to 86V).



Figure 3: Block Diagram. This diagram shows the internal functional blocks including EMI filter, power switching, rectifiers, and control circuits for PFC and PWM.

6. MAINTENANCE

The PLD-60-700B LED Power Supply is designed for reliable operation with minimal maintenance. However, periodic checks can help ensure longevity:

- **Cleaning:** Ensure the unit is free from dust and debris, especially around ventilation areas, to maintain proper heat dissipation. Disconnect power before cleaning.
- **Connections:** Periodically inspect all wiring connections to ensure they remain secure and free from corrosion.
- **Environmental Conditions:** Verify that the operating environment remains within the specified temperature and humidity ranges.

7. TROUBLESHOOTING

If the LED Power Supply is not functioning as expected, consider the following common issues:

Problem	Possible Cause	Solution
No output from power supply.	No AC input power; Incorrect wiring; Overload/Short circuit protection activated; Over temperature protection activated.	Check AC power source and connections; Verify input/output wiring polarity; Reduce load or check for short circuits; Allow unit to cool down.
LEDs flickering or dim.	Unstable input voltage; Load exceeding power supply capacity; Loose connections.	Ensure stable AC input; Verify LED load is within specifications; Check all wiring connections.

If issues persist after troubleshooting, contact customer support.

8. SPECIFICATIONS

Key technical specifications for the MW Mean Well PLD-60-700B LED Power Supply:

- **Model:** PLD-60-700B
- **Input Voltage:** 230VAC only (PLD-60 series)
- **Output Type:** Constant Current
- **Output Current:** 700mA
- **Output Voltage Range:** Up to 86V
- **Rated Power:** 60W
- **Protection Level:** IP42
- **Dimensions:** 5.04 x 2.36 x 1.24 inches (128 x 60 x 31.5 mm)
- **Weight:** Approximately 11.8 ounces (334g)
- **Operating Temperature:** Refer to Derating Curve for detailed information.

Performance Curves



Figure 4: Derating Curve. This graph shows the maximum permissible output load percentage relative to ambient temperature, indicating performance reduction at higher temperatures.

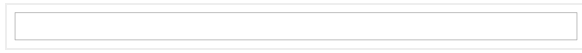


Figure 5: Static Characteristics. This graph illustrates the output load percentage versus input voltage, showing stable operation across the input voltage range.

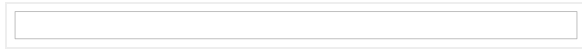


Figure 6: Power Factor Characteristic. This graph displays the power factor performance relative to the output load, indicating efficiency in power utilization.



Figure 7: Efficiency vs Load. This graph shows the power supply's efficiency percentage at various load levels for different input voltages (230V and 277V), highlighting optimal operating points.

9. WARRANTY AND SUPPORT

The MW Mean Well PLD-60-700B LED Power Supply comes with a **3-year warranty** from the date of purchase, covering defects in materials and workmanship under normal use. For warranty claims or technical support, please contact your retailer or the manufacturer directly.

Please have your product model number (PLD-60-700B) and purchase information ready when contacting support.