

## MEAN WELL APC-16-350

# Mean Well APC-16-350 16W 350mA Constant Current LED Driver Instruction Manual

Model: APC-16-350 | Brand: MEAN WELL

## 1. INTRODUCTION

The Mean Well APC-16-350 is a 16-watt constant current LED driver designed for various LED lighting applications. It operates from a wide AC input voltage range of 90-264Vac and provides a constant output current of 350mA. This compact unit features a fully isolated plastic case with an IP42 rating, ensuring protection and ease of integration into lighting designs. Its UL-rated wire connections are suitable for 18-20AWG wiring, and it is classified as a Class 2 power unit, offering a reliable and cost-effective solution for powering 8 to 35-watt LED systems directly from AC power.

## 2. SAFETY INFORMATION

**WARNING:** Electrical shock hazard. Installation should only be performed by qualified personnel. Disconnect power before installation or servicing.

- Ensure the input voltage range (90-264Vac) is compatible with your power supply.
- Do not exceed the maximum output current of 350mA.
- Ensure proper ventilation to prevent overheating. The 'T case' point indicates the maximum case temperature.
- Do not open the driver casing; it is a sealed unit.
- Verify all wiring connections are secure and correct before applying power.
- This device is designed for indoor use or protected outdoor environments (IP42 rated). Avoid direct exposure to water or extreme weather conditions.

## 3. PRODUCT OVERVIEW

The APC-16-350 LED driver is characterized by its robust design and specific features:

- 16 Watt Hardwired LED Driver:** Provides stable power for LED applications.
- Input Voltage: 90 ~ 264Vac:** Wide input range for global compatibility.

- **Output Voltage Range: 12 ~ 48Vdc:** Adaptable to various LED configurations.
- **Output Current: 350mA (.35A):** Constant current output for consistent LED brightness and longevity.
- **Fully Isolated, Low Profile Case:** Enhances safety and allows for easy integration into compact spaces.
- **IP42 Rated:** Protected against solid objects over 1mm and splashing water.
- **UL Rated Wire Connections:** Ensures compliance with safety standards for wiring.
- **Class 2 Power Unit:** Meets safety standards for limited power output.

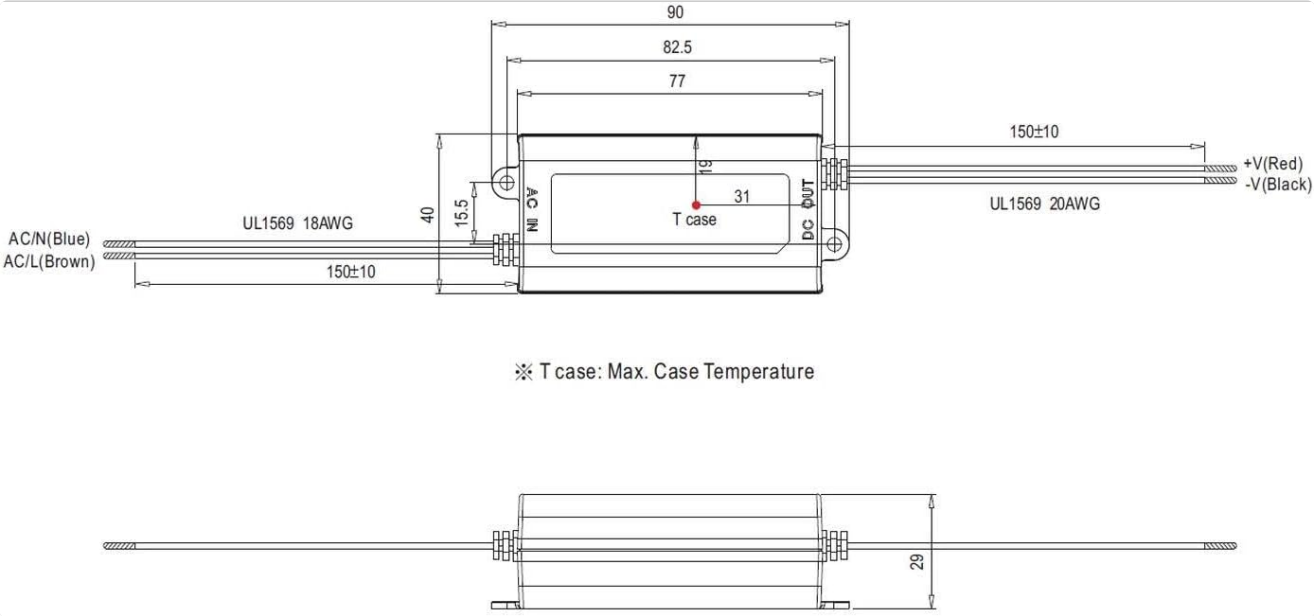


Figure 1: Mean Well APC-16-350 LED Driver. This image shows the compact form factor and wire leads of the LED driver.

#### 4. SPECIFICATIONS

Parameter	Value
Model Number	APC-16-350
Input Voltage	90 ~ 264Vac
Output Current	350mA (Constant Current)
Output Voltage Range	12 ~ 48Vdc
Rated Power	16W
Dimensions (L x W x H)	3.03 x 1.57 x 1.14 inches (77 x 40 x 29 mm)
Weight	3.53 ounces (100 Grams)
Protection	Short Circuit, Over Voltage, Over Temperature
Safety Standards	UL recognized, Class 2 Power Unit
Ingress Protection (IP) Rating	IP42
Input Wire Gauge	UL1569 18AWG
Output Wire Gauge	UL1569 20AWG

## 5. SETUP AND INSTALLATION

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Before beginning installation, ensure all power is disconnected at the circuit breaker. This driver is designed for hardwired applications.

1. **Mounting:** Secure the LED driver in a suitable location, ensuring adequate ventilation and protection from environmental factors beyond its IP42 rating. The compact size allows for flexible placement.
2. **Input Wiring (AC Side):**
  - Connect the **Blue wire (AC/N)** from the driver to the Neutral line of your AC power supply.
  - Connect the **Brown wire (AC/L)** from the driver to the Live/Line line of your AC power supply.
  - Ensure connections are secure and insulated. The input wires are UL1569 18AWG, with a length of 150mm ± 10mm.
3. **Output Wiring (DC Side):**
  - Connect the **Red wire (+V)** from the driver to the positive (+) input of your LED fixture or array.
  - Connect the **Black wire (-V)** from the driver to the negative (-) input of your LED fixture or array.
  - Ensure connections are secure and insulated. The output wires are UL1569 20AWG, with a length of 150mm ± 10mm.
  - Verify that the total wattage and voltage requirements of your LED load do not exceed the driver's specifications (16W, 12-48Vdc, 350mA).
4. **Final Check:** Double-check all wiring connections for correctness and security.
5. **Power On:** Restore power to the circuit. The connected LEDs should illuminate.



Figure 2: Wiring diagram and dimensions for the Mean Well APC-16-350 LED Driver. This diagram illustrates the AC input connections (Blue for Neutral, Brown for Live, UL1569 18AWG) and DC output connections (Red for Positive, Black for Negative, UL1569 20AWG). Both input and output wires have a length of 150mm ± 10mm. The driver's dimensions are shown as approximately 90mm (length), 40mm (width), and 29mm (height). The 'T case' point indicates the maximum case temperature measurement location.

## 6. OPERATING INSTRUCTIONS

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Once properly installed and connected, the Mean Well APC-16-350 LED driver operates automatically. It provides a constant current output to the connected LEDs, ensuring stable illumination. No user intervention is required for its basic operation.

- The driver will automatically convert the AC input to the required DC constant current for your LEDs.
- Ensure the ambient temperature remains within the driver's specified operating range to maintain optimal performance and lifespan.

## 7. MAINTENANCE

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The Mean Well APC-16-350 LED driver is designed for long-term, maintenance-free operation. However, periodic checks can help ensure its longevity and safe performance:

- **Cleaning:** If installed in a dusty environment, gently clean the exterior of the driver with a dry, soft cloth to prevent dust buildup, which can impede heat dissipation. Ensure power is disconnected before cleaning.
- **Connection Checks:** Periodically inspect wiring connections for any signs of loosening or damage. Re-secure

or repair as necessary, always with power disconnected.

- **Environmental Conditions:** Ensure the operating environment continues to meet the IP42 rating and temperature specifications.

## 8. TROUBLESHOOTING

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If your LED lighting system is not functioning correctly, consider the following troubleshooting steps:

- **No Light Output:**
  - Verify that the AC input power is present and correctly connected to the driver (Blue to Neutral, Brown to Live).
  - Check the DC output connections to the LEDs (Red to +, Black to -).
  - Ensure the LED load is within the driver's specified voltage and current range. An incompatible load may prevent operation.
  - Inspect the LED fixture itself. Sometimes, the LED chip set can fail independently of the driver.
- **Flickering or Dim Lights:**
  - This often indicates an issue with the LED fixture's internal components or the LED chip set, rather than the driver.
  - Check for loose connections on both the input and output sides of the driver.
  - Ensure the driver is not overheating. Verify adequate ventilation.
- **Driver Overheating:**
  - Ensure the driver is not enclosed in a space with insufficient airflow.
  - Verify that the ambient temperature is not excessively high.
  - Confirm the LED load does not exceed the driver's maximum wattage.
- **Driver Failure:** If all connections are correct and the LED load is appropriate, but the driver still does not function, it may indicate a driver failure. In such cases, replacement may be necessary.

## 9. WARRANTY AND SUPPORT

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Specific warranty details for the Mean Well APC-16-350 LED Driver are typically provided by the point of purchase or directly by the manufacturer, Mean Well. Please refer to your purchase documentation or the official Mean Well website for the most accurate and up-to-date warranty information.

For technical support, installation assistance, or inquiries regarding product performance, please contact your supplier or Mean Well customer service. Have your product model number (APC-16-350) and purchase details ready when seeking support.