Overview

aspectLED offers a full line of dimmable LED power supplies (drivers). A high quality dimmable power supply results in your LED lights using less energy, shining brighter, and lasting longer. That’s why aspectLED offers the highest quality dimmable LED power supplies. Our power supplies can be used with a wide variety of incandescent dimmer switches. All of our power supplies are energy efficient and eco-friendly.

Our power supplies feature flexible input voltage (90-135VAC) and come in 12VDC or 24VDC voltage output. Wattage displayed is the Maximum Wattage.

SAFETY AND WARNINGS

- Install in accordance with the National Electric Code, and all local regulations.
- This product is intended to be installed and serviced by a qualified licensed electrician.
- Only use with compatible LED fixtures, controls and dimmer switches. Only use copper wiring.
- Proper heat dissipation will prolong the working lifespan of this product. Install in well-ventilated area free from explosive gases and vapors.
- Ensure appropriate type and size wire is installed between driver, fixture, and any controls in between. When choosing wire, factor in voltage drop, amperage rating, and type (in-wall rated, wet location rated, etc). Improper wire type could overheat wires, and cause a fire.
- Do not install if product has any visible damage.
- Do not modify or disassemble this product beyond instructions or the warranty will be void.
- Use only constant voltage fixture that are marked Dimmable with your dimmable LED power supply.

MODELS

<table>
<thead>
<tr>
<th>Dimmable Power Supply Wattage</th>
<th>Maximum Continuous Wattage</th>
<th>SKU</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>20W</td>
<td>16W</td>
<td>AL-PS-W-D-20-24V</td>
<td>5-1/2” long</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1-3/4” wide</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1-1/8” thick</td>
</tr>
<tr>
<td>45W</td>
<td>36W</td>
<td>AL-PS-W-D-45-24V</td>
<td>7-1/8” long</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2-3/8” wide</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1-1/2” thick</td>
</tr>
</tbody>
</table>

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>90 to 135 VAC, 50/60Hz</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>See driver label</td>
</tr>
<tr>
<td>Ambient Temperature</td>
<td>-4 Degrees to 104 Degrees Fahrenheit (-20 Degrees Celsius to 40 Degrees Celsius)</td>
</tr>
<tr>
<td>Minimum Load</td>
<td>≥ 60 % to ensure ideal dimming performance</td>
</tr>
<tr>
<td>Maximum Load</td>
<td>Refer to derating curve</td>
</tr>
</tbody>
</table>
Before you begin

We know how boring it can be to read instructions, so we'll keep this installation guide as short and sweet as possible. Before you begin with your installation, be sure to fully read these instructions. They contain many useful tips and pointers that will help to ensure a perfect installation, save you time, and ensure your safety.

It is important that you install this product (and all other electrical products) in accordance with the National Electric Code (NEC) and all applicable local building and electrical codes for your area. If you are unfamiliar with the NEC, your local building/electrical codes, and/or the proper installation methods for electrical devices, you should hire a qualified and licensed electrician to do the work for you.

**Before beginning any electrical work, always disconnect power at the fuse or circuit breaker.**
Important considerations

⚠️ **This fixture is suitable for use in dry or damp locations.**

When using this fixture in exterior damp locations, it must be installed where it is protected from rain or other moisture by installing in a weatherproof electrical enclosure like the one shown in Figure 1.

![Figure 1. Weatherproof electrical enclosure](image1.png)  ![Figure 2. This power supply is not suitable for wet location use.](image2.png)  ![Figure 3. This power supply is not submersible.](image3.png)

⚠️ **This product is suitable for environments of ambient temperatures between -4°F to 104°F (-20°C to 40°C).**

It is important that power supplies are not installed outside this range. Precautions should be taken when installing in ambient temperatures of over 100°F to avoid overheating and damage to the driver. Refer to the derating curve in Figure 4.

![Figure 4. Derating curve](image4.png)
System diagram: standard

System diagram: 3-way

*Drivers may not require a framed ground connection.

^Ensure to load the driver at least 60% the labeled load for proper dimming performance.
Wiring connections: 24VDC 20W power supply

Drivers housed in a non-conductive plastic casing don’t require a framed ground connection if a framed ground connection is not required. When utilizing 3-conductor cables, trim the ground wire flush with sheathing. Make sure that the wire sheathing is set on top of the wire strain relief once covers are reattached.

Wiring connections: 24VDC 45W power supply
Installation

1 Determine a suitable location to install the 3 components, as labeled in System Diagram.

These components will include suitable wire installed between the power supply, the LED light fixture, and any controls or dimmer switches. It is important to choose the correct wire for the specific application, this is dependent on voltage drop, amperage rating, and environment. Please consult a voltage drop and wire sizing chart to determine adequate wire size. Using the incorrect wire size will damage your products and pose a fire risk! If installing wiring in a wall or ceiling, always use appropriately rated in-wall wiring.

2 Using the two mounting holes as labeled in Wiring Connections, fasten the driver to a sturdy surface in the desired orientation using appropriate screws and screwdriver.

Use a screwdriver and screws for attaching the power supply to sturdy surface. Remove the wiring compartment access covers using a screwdriver.

Use a wire stripper to expose the bare stranded copper wire before placing on top of the metal plates in the screw terminal. Use a mini Phillips or flathead screwdriver to turn screw clockwise to raise metal plate and clamp wire. Screw terminals fit up to 12AWG solid-core copper wire. DO NOT place wire underneath plate and clamp by screwing counterclockwise.
Attach your LED light fixtures (making sure the load is at least 60% the power supply’s labeled load) and dimmer switch by referring to the System Diagram and installation guides for both the lights and dimmers available at www.aspectled.com.

When installing in ambient temperatures that may reach over 100°, refer to the derating curve in Figure 4 to avoid overheating and damage to the driver.

Do not install different LED fixture types on the same power supply as flickering and faulty dimming may occur.

Before reconnecting power at the fuse or circuit breaker, install any additional components and verify all connections.

Once you’ve finished, double check all connections and turn on power to your circuit.

Test functionality of your installation. If you experience any issues, immediately disconnect power to your installation and see the trouble shooting guide on page 9, or contact technical support at (888) 503-1317 option 3 or support@aspectled.com.

Congratulations!

You’ve successfully completed the installation process. Once your light is installed, your project is finished. Now is a great time to take a moment to sit down and enjoy your favorite beverage while giving yourself a pat on the back for a job well done.
Troubleshooting

**Lights are flashing**
- Ensure a compatible constant voltage dimmable fixture is installed.
- Verify a compatible dimming switch is installed. If flickering is apparent at low light levels, install a compatible trim-adjustable dimming switch.
- Make sure the driver is not overloaded.
- Ensure correct input voltage
- Check that all connections are properly secured.
- Make sure different light fixture types are not connected to the same driver, as different types of fixtures must be connected to their own individual drivers.

**Lights are not dimming**
- Ensure a compatible constant voltage dimmable fixture is installed.
- Ensure a compatible dimmer switch is installed and wired correctly.

**Lights are not illuminating**
- Check System Diagram, Wiring Connections and installation guides of all components.
- Ensure the system is wired correctly and positive connections are connected to positive, and negative connections are wired to negative.
- Ensure a compatible constant voltage dimmable fixture is installed.

**Different light types do not dim on sync**
- Make sure different light fixture types are not connected to the same driver. Different fixtures must be connected to their own individual drivers.

**Installation trips main breaker**
- Check wiring for a short circuit. If breaker continues to trip, there might be a short in your circuit. Call a licensed electrician for assistance.

Dimmer compatibility

See our list of compatibility tested dimmer switches on [www.aspectled.com](http://www.aspectled.com).

Have questions or need assistance?

We’re always here to help!
Feel free to contact our electrician’s help desk at **(888) 503-1317** option 3, or support@aspectled.com.