

# 12V DC, 30 Watt Constant Voltage LED Power Supply

Order # ALSLT30W12VB

## Highly efficient, stabilized 12V DC power for LED lighting

Open circuit, short circuit, overload and over-temperature protection. Class 2 protection against electric shock from direct and indirect contact.

### INSTALLATION GUIDELINES

**Power to this LED power supply must be disconnected at all times during installation.**

**Observe polarity of the 12V DC output. Failure to observe polarity could damage LED lighting.**

**Total wattage of all LED fixtures used must not exceed the 30 watt rating of this power supply.**

This electronic LED power supply is not compatible with standard 120V AC dimmer switches. Use only Armacost Lighting low voltage 12V DC LED dimmers for brightness control of lighting.

- Power supply will shut off in case of lighting overload, open circuit, short circuit, over-temperature or other fault. Unit will automatically restart after the fault has been corrected.
- For dry location use only. Allow for ventilation. Do not install in cabinet smaller than 12" square.
- Use only insulated staples or plastic ties to secure cords and wires.
- Route and secure wires so they will not be pinched or damaged.
- All wiring must be in accordance with national and local electrical codes, low voltage Class 2 circuit. For wire runs inside of walls, use properly certified CL2 or better cabling and appropriate mounting hardware. If you are unclear as to how to install and wire this product, contact a qualified electrician. Failure to install this device properly may result in electrical shock or fire.
- Do not install Class 2 low voltage wiring in the same runs as AC main power. If AC and low voltage wires cross, keep them at 90-degree angles.

This power supply is assembled with a 24" (610mm) 12V DC output wire and terminal block connector for ease of connection to LED lighting. Power supply comes prewired with AC cord and plug for use with existing outlets. When end caps are removed, this power supply can also be direct wire installed through on-board terminal blocks. Unit is Class 2; a ground is not required. Use minimum 18 AWG rated cable or better to tie in with line voltage.



For better LED brightness, keep voltage drop to a minimum. (See **Understanding Voltage Drop**)

### SPECIFICATIONS

Input voltage .....	120V AC
Input frequency .....	50/60Hz
Constant voltage output .....	2.5A
Output voltage .....	12V DC
Output power rate .....	0~30 Watts
Operating temperature .....	-4 to 95°F (-20 to 35°C)
IP protection .....	IP20, dry location only
Dimensions .....	5 <sup>15</sup> / <sub>16</sub> " L x 1 <sup>5</sup> / <sub>8</sub> " W x 1 <sup>13</sup> / <sub>16</sub> " H
	(150.5mm L x 41mm W x 30.5mm H)

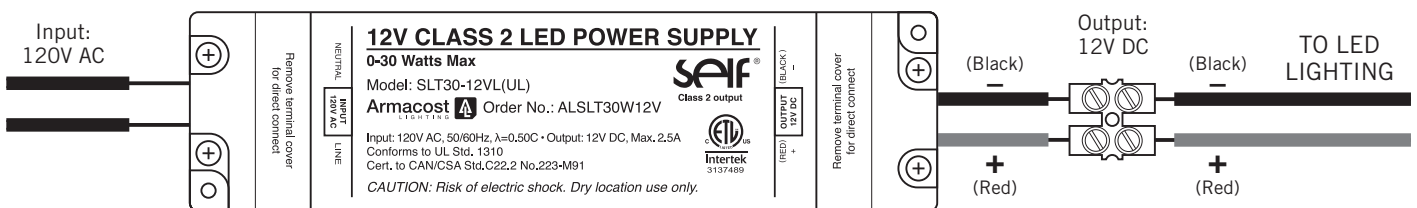
Limited 3-year warranty. This product is for dry location use only. Failure to use this power supply for its intended purpose or improper installation will void warranty. Questions? Email [support@armacostlighting.com](mailto:support@armacostlighting.com).

Conforms to UL Std. 1310. Cert. to CAN/CSA Std. C22.2 No. 223-M91



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## Understanding Voltage Drop

Voltage drop is a natural occurrence in low voltage lighting systems. It is the gradual decrease in voltage that occurs along the length of the 12V power feed wires to the lighting, and varies depending on the type and size of installation. It is a function of wire length, wire thickness, and the energy, or total watts, used by the lighting.

Voltage drop only becomes undesirable if you notice the brightness in one area of your lighting is objectionably different than in another area. With LED tape lighting, voltage drop also occurs along longer length strips. As a practical approach, test your lighting prior to final installation.

If voltage drop appears to be a concern, shorten your 12V power feed wires or switch to a heavier gauge wire (lower AWG

number). You can also shorten the length of an LED tape light installation, or consider using an additional power supply to create a second, separate installation.

LED light color and brightness are best when the 12V power feed wires from the power supply to the LED lighting is delivering as close to 12 volts as possible.

- Excessive voltage drop = reduced brightness and color accuracy**
- Shorter and/or thicker wires = higher brightness and color consistency**
- Longer LED tape = an increase in voltage drop**

Visit [armacostlighting.com](http://armacostlighting.com) for LED installation ideas, wire diagrams and an on-line voltage-drop calculator.