SIRS-E®

BRILLIANCE BORN IN THE USA

SIRS-E® Dimmable LED Driver

Class 2, Constant Voltage

Suitable for use in dry and damp locations

Dimmer Compatibility:

Universal +: Will work with most forward and reverse phase dimmers, such as CL and ELV types.

Universal: Designed to work with forward phase or CL dimmers for optimal performance.

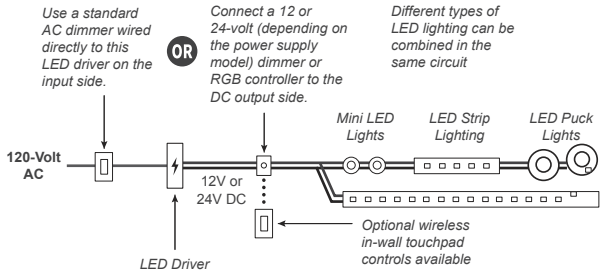
Both are compatible with low-voltage PWM dimmers and RGB controllers.

IMPORTANT: The SIRS-E® Dimmable LED Driver does not require a minimum wattage load for proper operation. However, some AC dimmers may have this requirement. Check your dimmer's specifications to confirm whether your lighting exceeds this requirement or consider choosing a dimmer with little or no load requirement.

IMPORTANT: Read before installing

1. **12-volt LED drivers work only with LED lighting that requires 12-volt DC constant voltage power. 24-volt LED drivers work only with LED lighting that requires 24-volt DC constant voltage power.**

2. This driver is compatible with 12 or 24-volt dimmers (depending on the power supply model), RGB controllers, or 120-volt AC dimmers, but not simultaneously.



Never combine a 120-volt AC dimmer, a 12/24-volt DC dimmer, or an RGB controller in the same circuit. It is permissible to use a standard on/off wall switch with a 12/24-volt dimmer or controller.

3. Some LED driver models may come with an AC cord. While a plug can be used with 12/24-volt LED dimmers and RGB controllers, the unit must be hardwired when used with a 120-volt AC dimmer. Please read the section titled "Using Direct Wire Hook Up" in these instructions.

4. One AC dimmer can be direct wired to multiple LED drivers at the same time.

5. Never combine a 12/24-volt white LED dimmer and an RGB controller in the same low-voltage circuit. Do not use more than one 12/24-volt controller or dimmer in the same low-voltage circuit.

6. Always use one driver for each zone of LED lighting. Never connect two LED drivers to a single run of LED strip lighting.

7. The dimming features of the driver will not work if your LED lighting is not compatible with PWM dimming. If unsure, ask the manufacturer of your LED lighting.

If you have questions about how to install and wire this product, contact a qualified professional.

Installation Guidelines

SHOCK HAZARD: If wiring this LED driver directly to a 120-volt circuit with an AC dimmer, turn off the power at the circuit breaker before installation. Failure to do so may result in serious injury or death.

MAINTAIN POLARITY: Observe the polarity of the DC output and the device or lighting to which you are connecting. Failure to maintain the same polarity could damage LED lighting, dimmers, and RGB controllers. Always connect positive (+) to positive and negative (-) to negative.

The total wattage of all LED fixtures connected to this LED driver must not exceed the unit's maximum watt rating. If you are unsure about the wattage rating of your lighting, contact the manufacturer.

Ensure proper ventilation; do not install in an airtight compartment. Operate only within the specified ambient temperature range of 4°F (-20°C) to 104°F (40°C) as operating at cooler surrounding air temperatures can extend the driver's lifespan.

Mount the driver flush to the surface to provide heat transfer for better cooling. It is normal for this LED driver to feel warm to the touch, especially under a full wattage load.

Protect against water exposure. For locations that may be exposed to rain or splashing water, install the driver in a suitable wet location power supply enclosure.

Use only insulated staples or plastic ties to secure cords and wires. Route and secure wires to prevent pinching or damage.

Do not run Class 2 low voltage wiring in the same conduit as AC main power. If AC and low-voltage wires must cross, keep them at 90° angles.

All wiring must comply with national and local electrical codes for low-voltage Class 2 circuits. For wire runs inside walls, use certified CL2 or better cabling and appropriate mounting hardware.

LED Driver Location and Voltage Drop:

The shorter the DC wire lead between the LED driver and your LED lighting, the brighter and more consistent the lighting will be. Do not coil excess wire. As a practical approach, test your LED lighting before final installation. If voltage drop becomes an issue, use thicker, heavier gauge wires or reduce the amount of lighting used. Use a voltage drop calculator, which is readily available on various websites accessible by searching through Google.

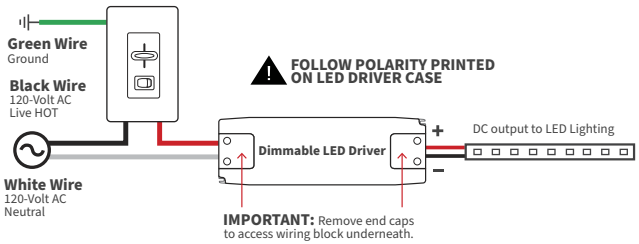
Using Direct Wire Hook Up

Electrical code requires hardwired hookup when connecting this driver to a 120-volt AC dimmer.

Remove the end caps to access the terminal block connectors for both AC input and DC outputs. Use 14-gauge cable to connect to the 120-volt AC line voltage. For DC output, 18-gauge cable is generally recommended. However, the DC terminal block can also accommodate thicker wires, up to 14-gauge if needed to reduce voltage drop. Ensure that all wires are properly seated inside and under the terminal block screw clamp. Tighten the clamp with a screwdriver. **Do not over-tighten.**

Note: Do not use AC ground wire. This LED driver uses Class II AC inputs with a fully isolated plastic case; ground wire is not required.

Typical Wiring Diagram When Used with an AC Dimmer



Large Area Lighting Applications and Maximum Load

For synchronized brightness control of large areas of LED lighting or lighting in different areas, connect one 120-volt AC dimmer to multiple dimming drivers. Do not exceed 40% of your AC dimmer's rated maximum allowable incandescent/halogen wattage capacity.

Use this formula to determine the number of power supplies that your dimmer can accommodate:

[AC Dimmer Rating in Watts] X 40% ÷ [Power Supply Rating in Watts]

For example: If the dimmer states a 600-watt maximum incandescent load and you are using a 24-watt driver, then you can connect no more than ten 24-watt drivers (max combined load of 240 watts).

600 Watts X 40% = 240 ÷ 24 Watts = 10

Features and Specifications

See model-specific information on your unit's case label

- No minimum lighting load required for wide-range dimming.
- No de-rating is required; load up to 100% of the model's rated capacity.
- Rated for 30,000 hours when used 8-12 hours a day at full load; expect longer life when dimmed or when using lesser wattage loads.
- Full protection in case of lighting overload, open circuit, short circuit, over-temperature, or other faults. The driver will automatically restart after the fault has been corrected.
- Output: 12-volt or 24-volt DC constant voltage, depending on the model.
- Ta = -4°F (-20°C) to 104°F (40°C).
- Class II AC input (two-wire connection, requires no ground).
- Complies with FCC Part 15B.
- Safety Standards: UL Std. 1310 and 8750, Certified to CAN/CSA Std. C22.2
- No. 223 and C22.2 No. 250.13; For dry and damp location use.

LIMITED WARRANTY

- Universal +: 5 years; Universal: 3 years.
- Warranty will be void if the LED driver is not installed per these instructions.
- Disregarding warnings, failure to use this product for its intended purpose, or improper installation will void the warranty.
- Proof of purchase is required for all returns.

Intertek 4010300

Part 15B Compliant

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