
# In-Line Single-Channel LED Amplifier, 12V/144W, 5–24V Input, 12A Output

- Delivers up to 12A max output current for 144W loads at 12V
- Accepts wide DC input range of 5–24V for flexible power sourcing
- Supports common anode and common cathode wiring configurations
- Rated for continuous runs up to 10 meters at 60 LEDs per meter
- Operates across -20°C to 60°C ambient temperature range
- Compact 250mm x 12mm x 4mm housing for low-profile inline mounting

## OVERVIEW

The C-AM1-144 is a single-channel inline LED amplifier used to boost and repeat power and signal across extended LED strip runs, preventing voltage drop and color fade on long installations. It supports both common anode and common cathode wiring, making it suitable for single-color LED strip circuits in retail, architectural and display lighting.

The amplifier accepts a DC input of 5–24V and delivers up to 12A output, supporting loads up to 144W at 12V. It is rated to drive continuous runs up to 10 meters at a density of 60 LEDs per meter. Operating temperature range is -20°C to 60°C, and the compact housing measures 250mm L x 12mm W x 4mm H for low-profile inline mounting.

The unit carries a 1-year warranty and is rated for an LED lifetime of 50,000 hours.



## SPECIFICATIONS

### OPTICAL

| | |
|---|---|
| LED Density | 60 LEDs/m |
| LED Lifetime | 50,000 h |

### ELECTRICAL

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|---|---|
| Operating Voltage | 5–24 V |
| Wattage | 144 W |
| Current Draw | 12 A |
| Input Connection Type | Common anode or common cathode |

### MECHANICAL

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|---|---|
| Product Dimensions | 250mm x 12mm x 4mm |
| Length | 10 m<br>32.8 ft |

### ENVIRONMENTAL

| | |
|---|---|
| Ambient Operating Temperature | -20–60 °C<br>-4–140 °F |

### ORDERING

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|---|---|
| Warranty | 1 y |

## APPLICATIONS

- LED strip signal boosting for long linear runs
- Retail display lighting installations
- Architectural cove and channel lighting
- Signage and channel letter illumination

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| slug | value | source | confidence |
|---|---|---|---|
| led_density | 60 LEDs/m | pdf | high |
| led_lifetime_h | 50,000 h | db | high |
| operating_voltage | 5–24 V | pdf | high |
| wattage | 144 W | pdf | high |
| current_draw | 12 A | pdf | high |
| input_connection_type | Common anode or common cathode | pdf | high |
| product_dimensions | 250mm x 12mm x 4mm | pdf | high |
| length | 10 m | pdf | medium |
| ambient_temp_c | -20–60 °C | pdf | high |
| warranty_years | 1 y | db | high |

Specifications subject to change without notice.