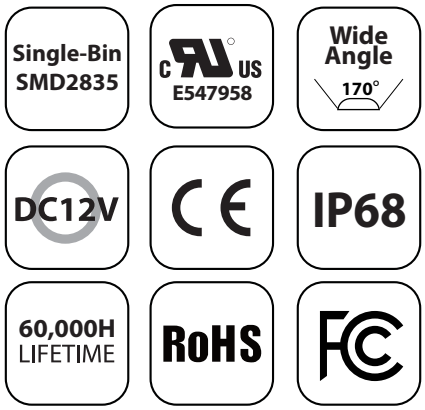
Characteristic



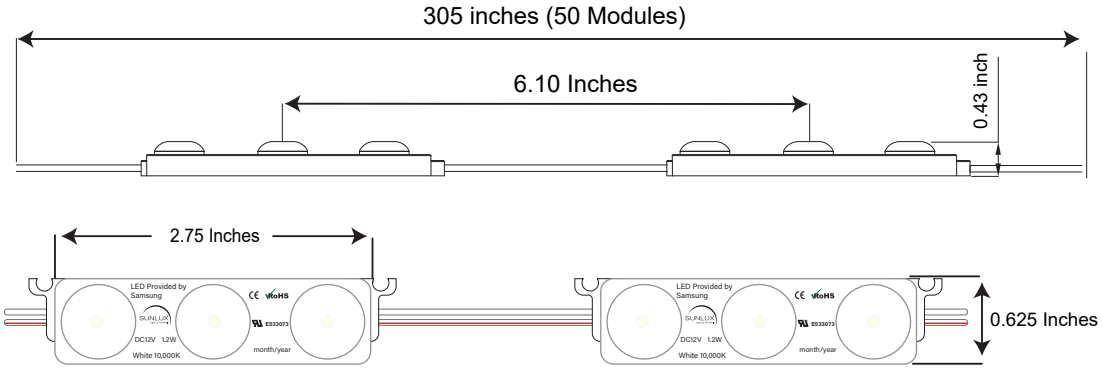


SUNLUX™
Light Up The World

Recommended for channel letter. 3” to 8” from LED to face

· LED Module Solution for Signage and Cabinets
· Electrical and material safety certified (UL, CE and RoHS Certificates)
· Industry-leading, single-bin SMD2835 LED chips
· Ultra Sonic Welding Technology provides extreme weather protection (IP68)
· Secure and easy fastening with genuine double coated tissue 3M adhesive
· Guaranteed lifetime of more than 60,000 hours (L70)
· High strength polycarbonate lens + ABS plastic body for harsh environments
· Fully integrated 170° optical lens for wide and evenly distributed light
· 5-Year Limited Warranty: subject to terms and conditions; see full warranty policy for details. (Page 5)

Physical



Optical Characteristic

Color	Current Dissipation (mA)	Power Consumption (Watt)	Luminous Flux (lm)	Luminous Efficiency (lm/W)	CCT (Kelvin)	Viewing Angle
White	100	1.2	144	120	10,000K	170 (2Θ½)
Warm White	100	1.2	144	120	3,000K	170 (2Θ½)

Electrical Characteristics

Current dissipation: 100mA // Operating power: DC 12V // 12V Dimming support
Maximum quantity for serial connection: 50 modules.
**Connecting more than 50 modules in series will result in unstable brightness

Thermal

Heat dissipation: Ambient air
Operating ambient temperature: -4° F to 140° F
Storage ambient temperature: -4° F to 140°F

Ingress Protection

IP68: Complete protection against dust and water.
Immersion up to 1 meter **under defined condition of pressure and time**.

Construction

LED type: SMD 2835 // Body, Lens, PCB: ABS, PC and FR-4
Cable: UL, AWM2468 20AWG 300V E493542
Pre-mounted 3M adhesive tape and screwing hole for mechanics fastening

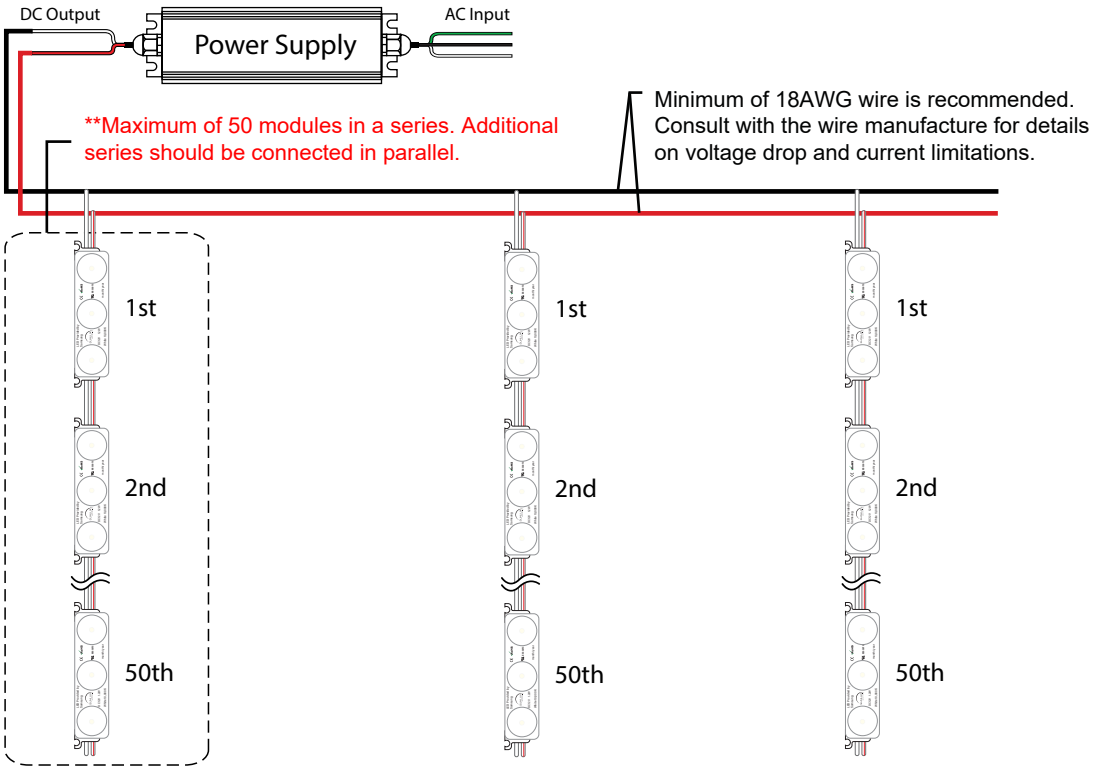
Approval

EN 55015/A2: 2009
UL879 -U.S Standard for Electric Sign Components
C22.2 No. 207-M89-Canadian Standard for Portable and Stationary Electric Signs & Displays RoHS Directive 2011/65/EU

Packaging

Anti-static vinyl bag: 100 modules (50 feet) // Master carton box: 1500 modules (15 vinyl bags, 750 feet)

Wiring Guide



Power Supply Load Table**

Power Consumption	Safety Factor	Power Supply* (watt) / Qty (pcs)				
		60W	120W	150W	200W	320W
1.2 Watt	80%	40	80	100	133	176
	90%	45	90	113	150	198

*Check power supply specification/data sheet for the temperature and line derating curve.
**This table is generated with a Safety Factor (SF) of 1.15 (80% and 90% load).

Step-by-Step Installation Guide

(Model Nº MX-50-6000-100K / Model Nº MX-50-6000-30K)

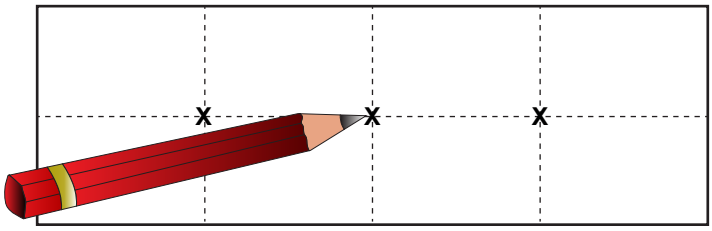
Required Tools	• LED Modules • Wire Stripper • Wirenuts • LED Power Supply • LED Wire
Package Contents	• 100 LED modules pcs/bag ~ 50Ft
Safety Warnings	• LED modules must be installed and operated by qualified professionals • Cut off the power to the power supply before installation • Do not handle electrical parts with wet hands • Use appropriate personal protective equipment (PPE), such as safety shoes, gloves, etc.

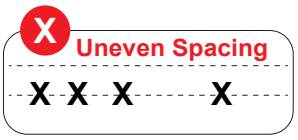
1. Prepare the Area

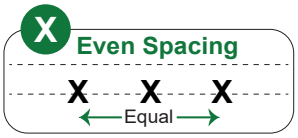
Clean and dry the installation surface to ensure it is free of dust, grease, or any debris

2. Measure and Mark

Measure the area to ensure even spacing and proper alignment of the LED modules. Mark the positions before mounting.

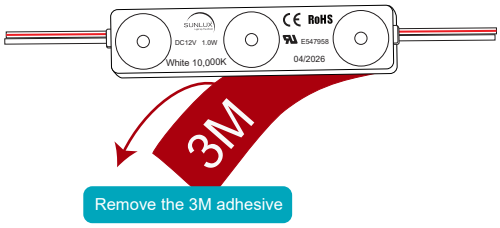


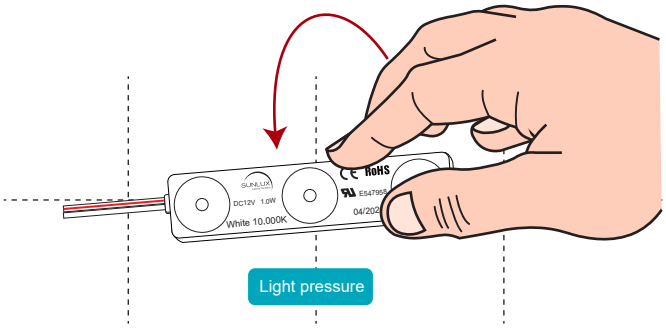




3. Mount the LED Modules

- A maximum of 50 LED modules should be connected in series. All additional series should be connected in parallel.
- Remove the 3M adhesive backing from each LED Module
- Place each LED module in the marked position and apply light pressure to activate the adhesive





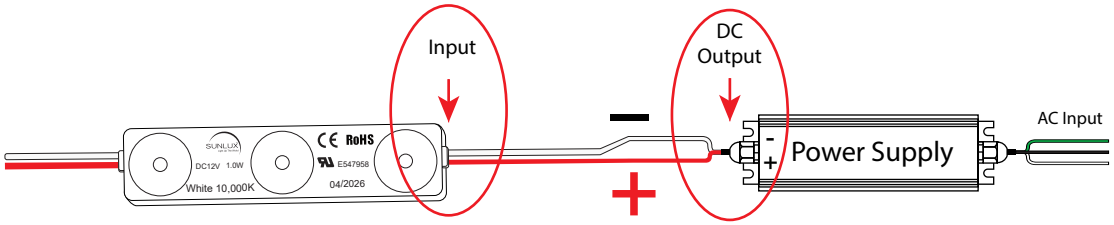
4. Adhesive Activation

The 3M adhesive is designed to strengthen over time, especially with exposure to heat, improving its bonding performance

* It is recommended to use silicone to ensure a better adhesion to sucure the LED modules, when screws are not used, ensuring long-term stability
* Customer can determine the type of silicone based on the installation surface

5. Install the 12 VDC Power Supplies

- Use appropiate equipment for a safe installation
- Ensure the 12 VDC power supply is not connected to the 110-277VAC main power during installation
- **Connect the 12 VDC power supply to the LED module series using wire nuts:**
  - Connect the positive output (red wire) of the 12 VDC power supply to the positive input of the LED module (white wire with a red stripe)
  - Connect the negative output (black wire) of the 12 VDC power supply to the negative input of the LED module (solid white wire)



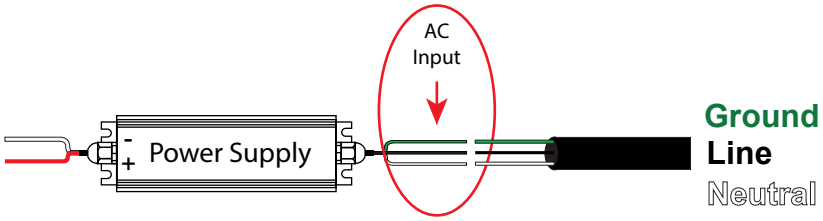
6. Verification

Verify that all connections are correct

7. Connect to Main Power

Connect the 110-277VAC main power to the 12 VDC power supply

* Always follow the power supply manufacture's instructions to avoid, short circuits, damage to the LED modules, or electrical hazards.



8. Safety Notice

- Always follow the power supply manufacture's instructions to avoid, short circuits, damage to the LED modules, or electrical hazards.
- Do not exceed 80% of the power supply's maximum output capacity.
- The quantity of power supplies required will be determined by the total number of LED modules installed
- Failure to follow all operating conditions may void the warraty

Product Warranty Policy

ELITE LED SUPPLY is committed to excellence in product quality and the full satisfaction of its customers. In support of this commitment, it provides a five (5) year limited warranty covering the repair or replacement of products under **specified operating conditions and in accordance with the product specifications.**

Operating Conditions:

(Model Nº MX-50-6000-100K / Model Nº MX-50-6000-30K)

- LED modules must be installed and operated by qualified professionals.
- LED modules must operate within the specified electrical range and environmental conditions (ingress protection rating of IP68).
- LED modules must be connected to a 12 VDC power supply, not exceeding 80% of the power supply's maximum output capacity.
- A maximum of 50 LED modules should be connected in series. All additional series should be connected in parallel.

Warranty Coverage:

(Model Nº MX-50-6000-100K / Model Nº MX-50-6000-30K):

- Warranty cover the repair or replacement of LED modules under specified operating conditions.

Period Coverage:

(Model Nº MX-50-6000-100K / Model Nº MX-50-6000-30K):

- The warranty is valid for 5 years from the day of purchase

Warranty dose not Cover:

(Model Nº MX-50-6000-100K / Model Nº MX-50-6000-30K):

- Misuse, improper installation, electrical surges, or physical damage
- Labor or installation costs
- Shipping and delivery costs for warranty claims, **unless otherwise stated**

Warranty Terms and Conditions

(Model Nº MX-50-6000-100K / Model Nº MX-50-6000-30K):

- Defective LED modules must be reported within 48 hours of receipt
- All the claims require a valid proof of purchase (Invoice) which must match ELITE LED SUPPLY records
- LED modules are elegible for repair or replacement only after inspection
- Approved claims will be repaired or replaced in accordance of manufacturer terms within 1-5 business days

- **Shipping and Delivery Costs for Warranty Claims:**

  - **Manufacturing defects:** ELITE LED will refund the shipping / delivery costs or issue a credit for a future order
  - **Defect due to misuse, improper installation, electrical surges, or physical damage:** The customer is responsible for all shipping and delivery costs related to the warranty claim.