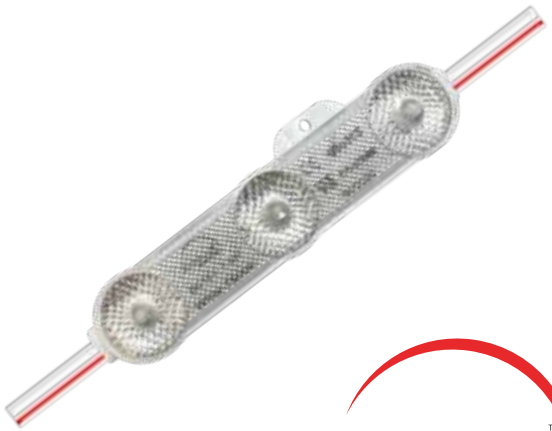
Specification | MX-40-4000-75K

Characteristics

High Efficiency | IP68 | 60,000H LIFETIME | Single-Bin SMD2835 | cULus E547958 | Wide Angle 175° | DC12V | CE | RoHS | FC

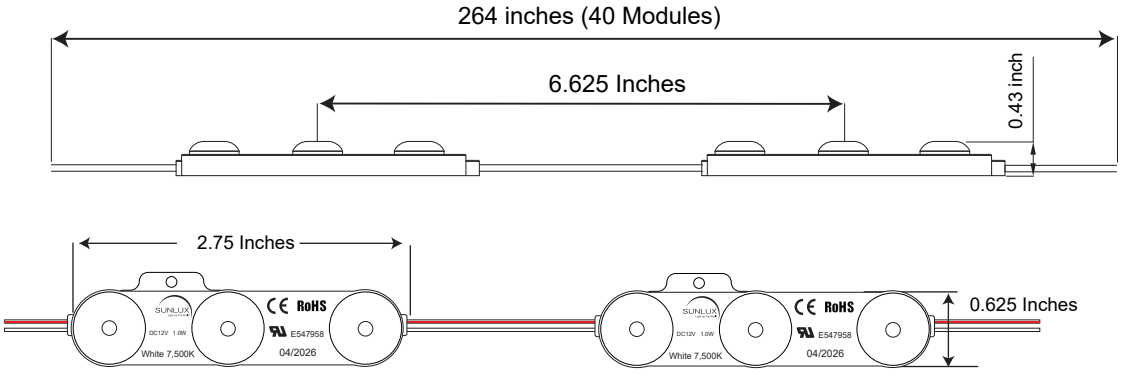


SUNLUX™ Light Up The World

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

· High Luminous Efficacy 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 175° optical lens for wide and evenly distributed light
· 7-Year Limited Warranty: subject to terms and conditions; see full warranty policy for details. (Page 5)

Physical



Optical Characteristics

Color	Current Dissipation (mA)	Power Consumption (Watt)	Luminous Flux (lm)	Luminous Efficiency (lm/W)	CCT (Kelvin)	Viewing Angle
White	83	1.0	170	170	7,500K	175 (2Θ½)

Electrical Characteristics

Current dissipation: 83mA // Operating power: DC 12V // Supports 12V dimming
Maximum quantity for serial connection: 40 modules.
**Connecting more than 40 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

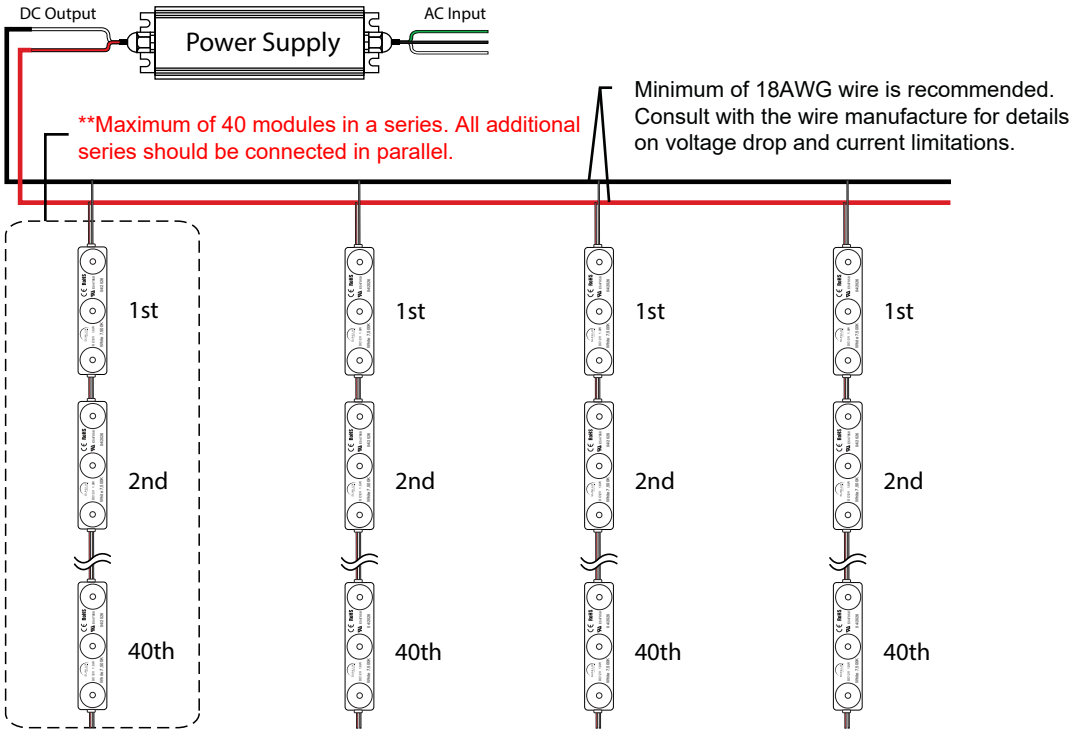
Approval

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: 80 modules (44 feet) // Master carton box: 1600 modules (20 vinyl bags, 880 feet)

Wiring Guide



Power Supply Load Table**

Power Consumption	Safety Factor	Power Supply* (watt) / Qty (pcs)				
		60W	120W	150W	200W	320W
1.0 Watt	80%	48	96	120	160	211
	90%	54	108	135	180	238

*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 N° MX-40-4000-75K)

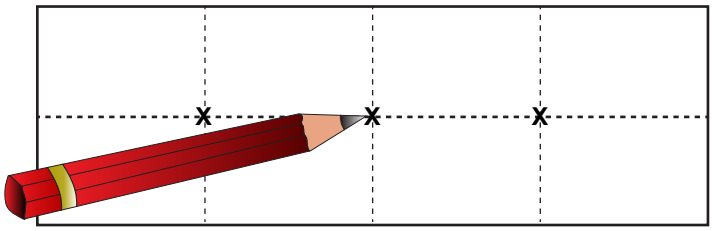
Required Tools	• LED Modules • Wirenuts • LED Power Supply • LED Wire • Wire Stripper
Package Contents	• 80 LED modules pcs/bag ~ 44Ft
Safety Warnings	• LED modules must be installed and operated by qualified professionals • Cut off the power to the power supply before installation • Do not handle electrical parts with wet hands • Use appropriate personal protective equipment (PPE), such as safety shoes, gloves, etc.

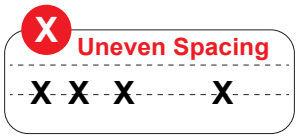
1. Prepare the Area

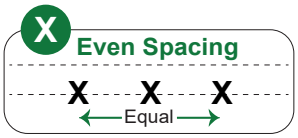
Clean and dry the installation surface to ensure it is free of dust, grease, or any debris

2. Measure and Mark

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

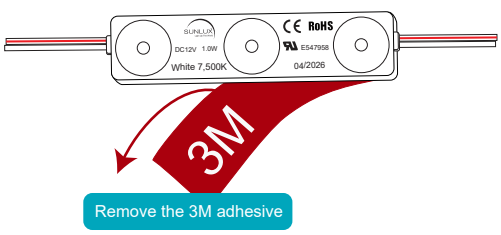


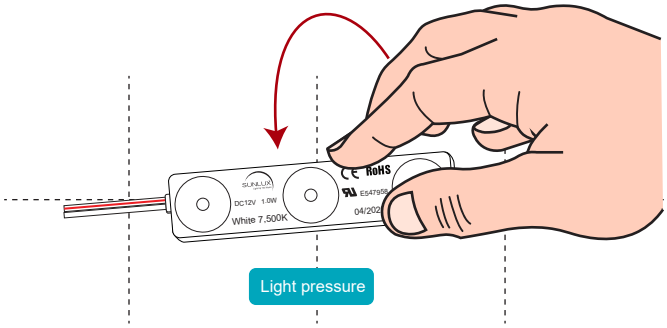




3. Mount the LED Modules

- A maximum of 40 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





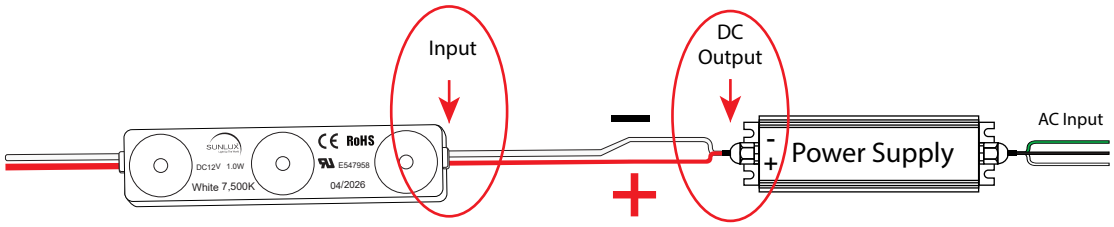
4. Adhesive Activation

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)



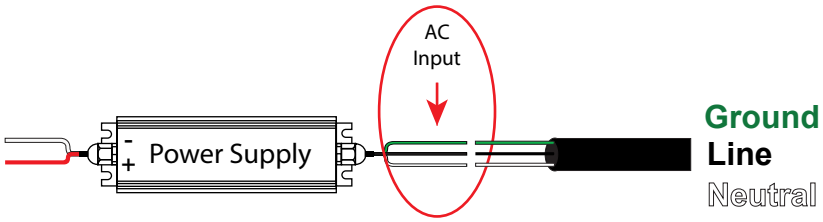
6. Verification

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

* All products are thoroughly inspected and tested prior to sale to ensure compliance with quality and perfomance standards.

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 (7) 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-40-4000-75K)

- 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 40 LED modules should be connected in series. All additional series should be connected in parallel.

Warranty Coverage:

(Model Nº MX-40-4000-75K):

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

Period Coverage:

(Model Nº MX-40-4000-75K):

- The warranty is valid for 7 years from the day of purchase

Warranty dose not Cover:

(Model Nº MX-40-4000-75K):

- 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-40-4000-75K):

- 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.

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* All products are thoroughly inspected and tested prior to sale to ensure compliance with quality and perfomance standards.