

6x12mm LED Neon Flex

Warm White 2700K | Horizontal / Side Bend | 48V DC | IP67

BEND	BODY	CUT INTERVAL	MAXIMUM RUN	SUPPLY
Horizontal	6x12mm	100mm	40 Metre	48V DC

SPECIFICATIONS

Property	Specification
Colour	Warm White 2700K
Supply voltage	48V DC
Body cross-section	6x12mm
Cut interval	100mm (10cm)
Maximum continuous run	40 Metre
Bend direction	Horizontal / Side Bend
Min. bending diameter	120mm
Beam angle	120°
Body construction	Solid silicone extrusion
Housing colour	White
Body protection	IP67
Rated power	9.4W/m
LEDs per metre	120
Lumens per metre	377 lm/m
CRI Ra	>90
LED package type	SMD2835
Average lifetime	50,000 hours
Operating temperature	-30°C to 50°C
Warranty	4 Years
Order length	Custom cut / made to order

Continuous runs up to 40 metre with one-side power. Cut only at the 100mm marked positions.

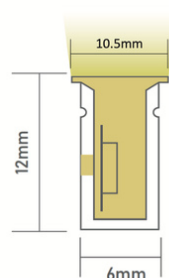


Solid silicone construction

A continuous, diffused line of light in a compact 6x12mm body. The solid silicone extrusion supports smooth horizontal curves for architectural and outdoor lighting.

Construction illustration; light colour is indicative.

COMPACT DIMENSIONS



FLAT SURFACE:120°

6mm body width

12mm body height

10.5mm emitting face

Flat light-emitting face
120° beam angle
Horizontal bend only

Made to measure and custom cut to your specific requirements, within the permitted cut marks and maximum run.

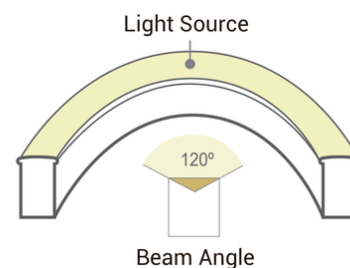
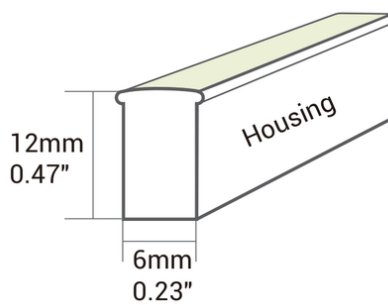
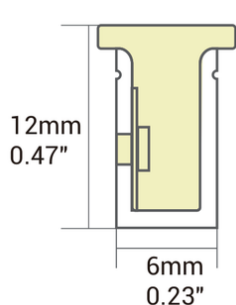
Performance & selection

Warm White 2700K | 48V DC | 100mm cut interval | 40 metre maximum run

LIGHT OUTPUT & COLOUR

377 lm/m Lumens per metre	120 LEDs per metre	>90 CRI Ra	9.4W/m Rated power
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BODY DIMENSIONS, HOUSING & BEAM



6mm body width · 12mm body height · 10.5mm emitting face · 120° beam. Fitting dimensions are separate.

WEBSITE SKUS

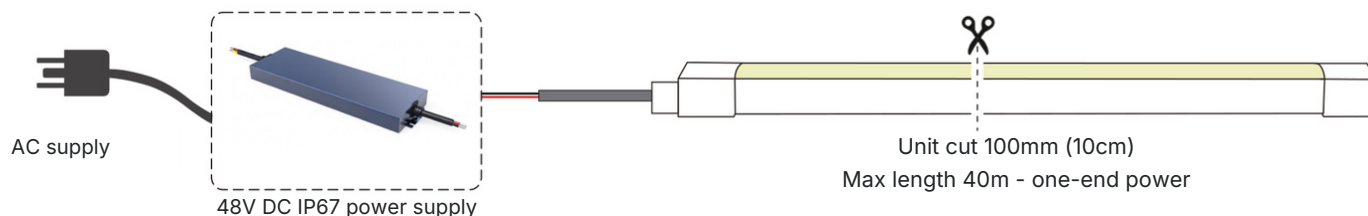
NF48-0612-27K

DEK48-0612-27K

MX48-0612-27K

MXNF48-0612-27K

ELECTRICAL SELECTION & ONE-END CONNECTION



Nominal current: 195.8mA/m, calculated from rated power / supply voltage. Load for the full 40 metre run: 376W before power-supply allowance. Match the supply voltage and allow headroom according to the driver specification. Check polarity, cable voltage drop and driver capacity. Do not join independent power-supply outputs together.

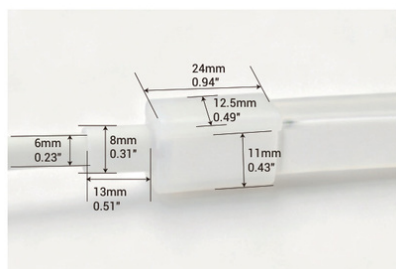
WARNING: Use only 48V DC, matching the light. Never connect directly to 220-240V AC mains; incorrect voltage can damage the light.

Incorrect-power damage: Damage caused by incorrect voltage or direct mains connection is not covered by warranty where ATOM LED is not at fault. ATOM LED Lighting Ltd accepts no liability for loss or damage caused by such connection where it is not at fault. This does not exclude liability for our negligence or breach of statutory duty, or affect your statutory rights.

Connection accessories

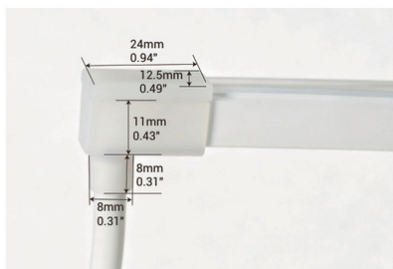
IP67 connector options | Dimensioned fitting examples and silicone construction

Choose the cable exit for your custom-cut length. Dimensions below are separate drawing callouts in millimetres; they do not form one nominal connector size.



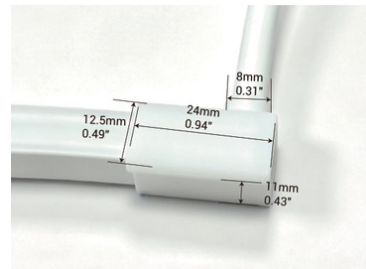
Front cable exit

24 / 12.5 / 11 / 8 / 6 / 13mm



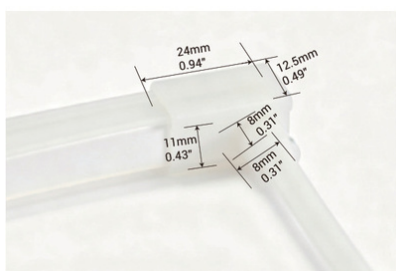
Bottom cable exit

24 / 12.5 / 11mm; two 8mm callouts



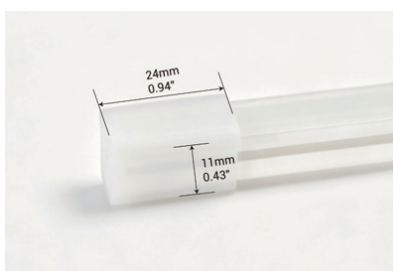
Left cable exit

24 / 12.5 / 11 / 8mm



Right cable exit

24 / 12.5 / 11mm; two 8mm callouts



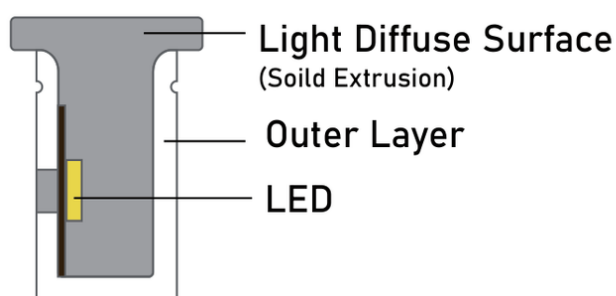
Closed end cap

24mm length / 11mm height

Connection notes

The closed cap drawing does not specify a width. Match every fitting and sealing kit to the actual neon. Use two conductors: positive (+) and negative (-).

SILICONE CROSS-SECTION



Solid silicone extrusion surrounds the LED. The source cross-section identifies the light-diffusing surface, outer layer and LED.

Example lead: 200mm, with a separate 6mm callout. This does not specify conductor gauge, capacity or the included lead length.

Seal every joint correctly. An IP68 connection requires a verified IP68 connector system, assembled and sealed to its specified instructions. The neon body remains IP67.

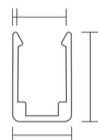
Mounting & essential guidance

Fit the correct 6x12mm channel and support the light progressively along its length.

OPTIONAL CLIPS & CHANNEL



20mm clip / 1m channel examples

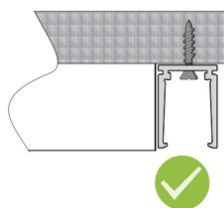
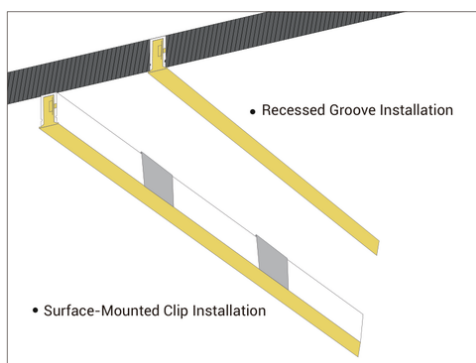


Illustrated channel

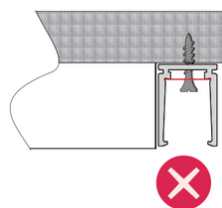
8mm outside / 6.2mm clear width
13.6mm height / 0.9mm wall

Mounting dimensions are separate from the neon. Select fixings for the substrate; example screw callouts are 6mm and 25mm.

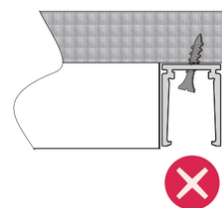
INSTALLATION METHODS & FIXING POSITIONS



Flush / recessed

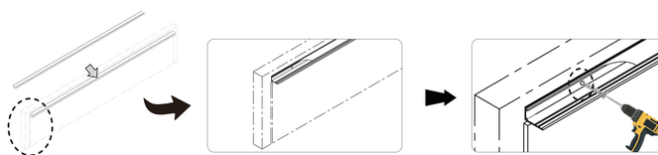


Proud head: wrong



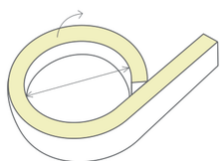
Angled screw: wrong

Recessed groove or surface-mounted clips. Keep screw heads straight and fully clear of the neon.



Secure and deburr the channel. Remove swarf, then insert progressively by hand. Do not force connectors into the channel.

BENDING & ESSENTIAL CAUTIONS



120mm minimum bending diameter. Horizontal bend only. Keep the first and last full 100mm cut units straight. Never twist, kink, crush or pull the light.

Isolate power before work. Use a suitable 48V DC constant-voltage supply, correct polarity and sealed joints. Cut only at 100mm marks. Stay within the -30°C to 50°C range.

Fully unroll before power; do not operate in the packaging coil. The manufacturer states that an energised coil must never exceed 30 minutes; normal operation must be fully unrolled.

Full safety, illustrated steps and troubleshooting: [Install48-0612-C100.pdf](#)