12V 60W IP67 constant-voltage LED power supply

Constant-voltage DC output for compatible LED lighting

60W	IP67	DC	50 / 60 Hz	CV
RATED POWER	IP RATING	OUTPUT	MAINS	SUPPLY TYPE

SPECIFICATION

Manufacturer / brand	ATOM LED
Output type	Constant voltage
Rated output	60W
AC input	100–277V AC
Mains frequency	50/60 Hz
Output versions	12V DC
Protection rating	IP67
Cooling	Free air convection



ATOM LED range photograph. Housing and label vary by rating.

RATED OUTPUT BY VERSION

DC output	Maximum output current	Rated power
12V	5A	60W

Choose a supply with the same DC output voltage as your LED strip. Add the loads connected to the unit and use the temperature curve on page 4 to check the available output at your installation temperature.

Dimensions, connections and installation

Enclosure dimensions and connections for the supplied unit

DIMENSIONS



Enclosure (L × W × H)	202 × 48 × 19 mm
Mounting	Provide clearance for cable entries and air circulation.
Connections	Identify AC input, protective earth and DC output from the markings on the unit.

SYSTEM CONNECTIONS

AC supply
Fixed mains installation

LED power supply
60W constant voltage

LED load
Match the output voltage

Connect LED loads with the correct polarity. Protect terminations and joints against the installation environment. The IP rating applies to the supply enclosure.

Cautions

Before mounting or connecting the power supply

HANDLING AND INSTALLATION

1

Isolate the supply

A qualified person must isolate the AC supply before working on mains connections.

2

Match the output

Check the DC voltage on the unit against the voltage required by the strip.

3

Size the load

The total connected load must stay within the available output, up to 60W at rated conditions.

4

Allow airflow

Allow air to circulate around the case. Apply temperature derating where needed.

5

Protect cable ends

Use suitable enclosures and glands for exposed connections and terminations.

6

Check polarity

Check the DC positive and negative conductors before switching on.

OPERATING CONDITIONS

Ambient temperature	−30°C to +50°C, subject to the load derating curve
Storage	−40°C to +80°C, 10–95% RH
Protection	Short circuit, overload, over-voltage and over-temperature
Cooling	Natural convection

LOAD AND TEMPERATURE

The temperature curve on page 4 shows the maximum load at each ambient temperature. Use the line for the actual AC input voltage. Mount the power supply so that heat can dissipate from the enclosure.

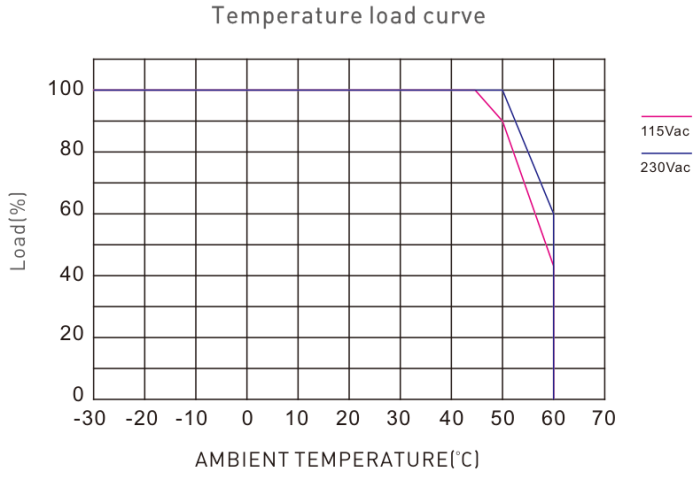
Electrical performance

Electrical specifications and the operating load curve

ELECTRICAL SPECIFICATION

Output voltage tolerance	±0.3V DC
Output ripple and noise	170 mV
Typical efficiency at full load	93%
Power factor at full load	>0.96 at 230V AC, >0.98 at 115V AC
No-load input power	<0.5W
Typical inrush at 230V AC	50A
Leakage current	0.5 mA
Maximum case temperature	80°C
Cable leads	250 mm input and output leads
Mounting centres	180 mm
Net weight	370 g ±10 g

LOAD DERATING



Ratings apply to the 12V, 5A version of this supply.