

DUSKTEC DT-NC24V-60W

DUSKTEC 24V 60W LED Driver Power Supply Instruction Manual

Model: DT-NC24V-60W

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1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your DUSKTEC 24V 60W LED Driver Power Supply, Model DT-NC24V-60W. This constant voltage adapter is designed to convert 220V AC to 24V DC, making it suitable for various low-voltage LED applications such as CCTV, GU5.3, G4 bulbs, and LED strip lights. Please read these instructions carefully before installation and operation.

2. SAFETY INFORMATION

WARNING: Risk of electric shock. Installation should only be performed by a qualified electrician.

- Ensure the power supply is disconnected before any installation, wiring, or maintenance.
- Do not exceed the maximum load of 60 watts. Overloading can damage the driver and connected LEDs.
- Maintain the load at less than 85% of the LED power supply's capacity to prolong its lifespan.
- The product is IP44 rated, suitable for dry or damp locations, but not for direct water immersion.
- The casing is made of flame-retardant and dustproof ABS material.
- Reliable internal circuits provide protection against overvoltage, overheating, overcurrent, and short circuits.

- Do not attempt to open or modify the LED driver. There are no user-serviceable parts inside.
- Ensure proper ventilation around the driver to prevent overheating.



This image emphasizes the high safety features of the LED driver, including protection against short circuits, overvoltage, overload, overheating, and overcurrent.

3. PRODUCT OVERVIEW

The DUSKTEC 24V 60W LED Driver is a compact and efficient power supply designed for various low-voltage LED lighting applications. It ensures stable and flicker-free operation without radio interference or noise.

Key Features:

- Constant Voltage DC Output: 24V
- Maximum Load: 60 Watts (2.5A)
- Compact Class 2 LED adapter
- No radio interference, minimum load, flickering, or noise
- IP44 rated for protection against dust and splashing water
- Built-in protections: overvoltage, overheating, overcurrent, and short circuits
- Non-dimmable



Front view of the DUSKTEC 24V 60W LED Driver, highlighting its compact design.

Quality Components:

The driver is constructed with high-quality internal components to ensure reliability and longevity.

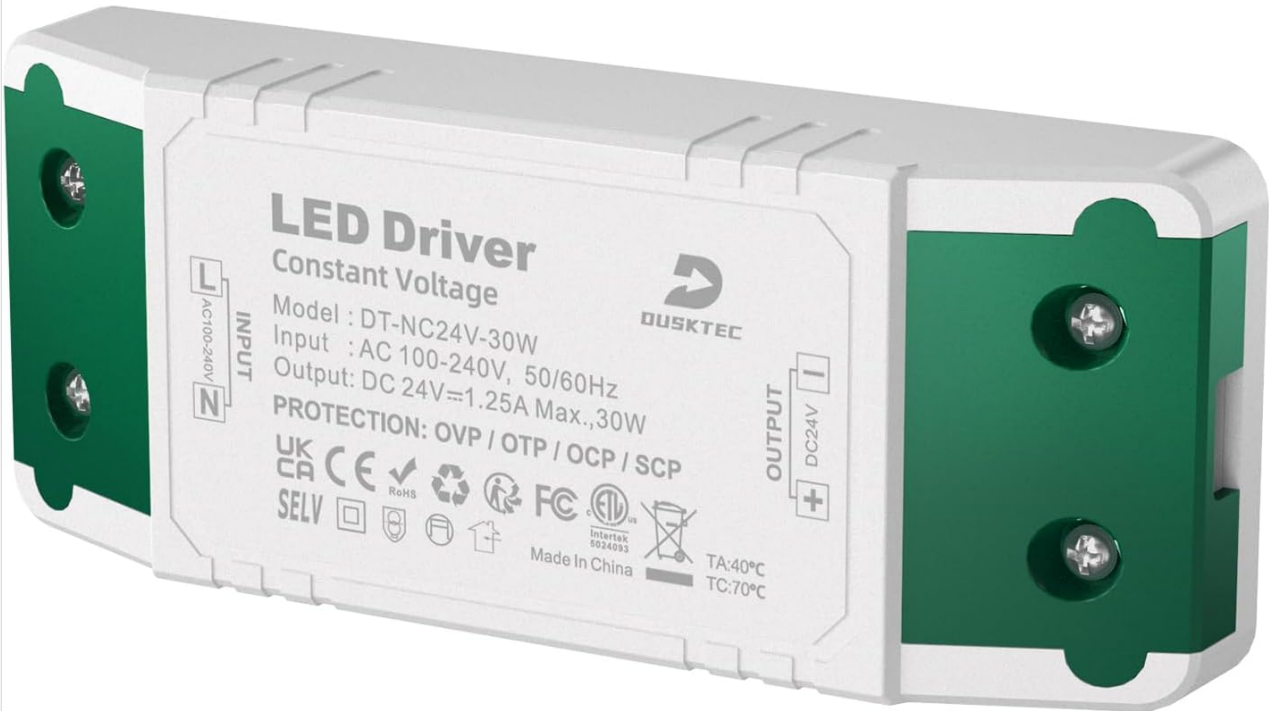


This image highlights the quality components used in the LED driver, such as a pure copper transformer, common mode

inductor, smart electronic chip, electrolytic capacitor, safety capacitor, and Schottky diode, ensuring reliable performance.

Certifications:

PRODUIT CERTIFIÉ



This image shows the DUSKTEC LED Driver with its certifications, including IP44 rating for protection against dust and splashing water, UKCA, CE, and RoHS compliance, indicating adherence to safety and environmental standards.

4. SPECIFICATIONS

Parameter	Value
Model Number	DT-NC24V-60W
Input Voltage	AC 100-240V
Input Frequency	50/60 Hz
Output Voltage	DC 24V (Constant Voltage)
Output Current	2.5A

Maximum Load Power	60 Watts
Dimensions (L x W x H)	115 x 45 x 22 mm (approx. 11.5 x 4.5 x 2.2 cm)
Weight	130 grams
IP Rating	IP44
Dimmable	No
Compliant Specifications	RoHS
Power Source	Corded Electric
Country of Origin	China



This image illustrates the physical dimensions of the DUSKTEC 24V 60W LED Driver, showing its compact size. It also indicates the input (AC 100-240V 50/60Hz) and output (DC 24V/30V 1.25A max) parameters, and notes it is not dimmable.

5. SETUP & INSTALLATION

Follow these steps for proper installation. Ensure all power is disconnected before proceeding.

Wiring Instructions:

- Input Connection (AC 100-240V):** Connect the live (L) and neutral (N) wires from your AC power source to the corresponding 'L' and 'N' input terminals on the LED driver.
- Output Connection (DC 24V):** Connect the positive (+) and negative (-) wires from your 24V LED load (e.g., LED strip, GU5.3/G4 bulbs) to the corresponding '+' and '-' output terminals on the LED driver.
- Ensure all connections are secure and properly insulated.
- Verify that the total wattage of your connected LED lights does not exceed 60 watts.



This image details the input (Eingang/Input) and output (Ausgang/Output) terminals of the LED driver, showing where to connect the AC power and the DC LED load. It highlights the Class II protection with supplementary isolation.



This diagram illustrates the basic wiring for the LED driver. The 'L' and 'N' terminals are for AC input (220V), and the '+' and '-' terminals are for DC output (24V) to connect to an LED strip or other compatible LED load.

Mounting:

The compact design allows for easy integration into various setups. Ensure the driver is mounted in a location that allows for adequate airflow and is protected from excessive moisture or heat, consistent with its IP44 rating.

6. OPERATING INSTRUCTIONS

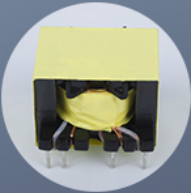
Once properly installed and wired, operating the DUSKTEC LED Driver is straightforward:

1. After completing all wiring and safety checks, connect the AC power supply to the LED driver.
2. The connected LED lights should illuminate.
3. This driver is non-dimmable. Do not connect it to a dimmer switch.

Typical Applications:

Composants de qualité

Des composants sélectionnés avec soin, un approvisionnement rigoureux, un contrôle strict des lots, aucun compromis, une qualité assurée.



Transformateur en cuivre pur



Inducteur de mode commun



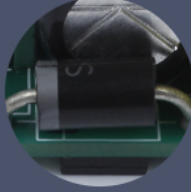
Puce électronique intelligente



Condensateur électrolytique



Condensateur de sécurité



Diode redresseuse Schottky

This image provides examples of typical applications for the LED driver, such as G4, MR16, MR11 bulbs, and LED strip lights, indicating its versatility for various low-voltage LED setups without a minimum load requirement.

7. MAINTENANCE

The DUSKTEC LED Driver requires minimal maintenance:

- Ensure the driver is kept clean and free from dust and debris. Use a dry cloth for cleaning.
- Regularly check wiring connections for any signs of wear or loosening.
- Ensure the operating environment remains within the specified temperature and humidity ranges.
- Do not use harsh chemicals or abrasive cleaners on the unit.

8. TROUBLESHOOTING

If you encounter issues with your LED driver, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
LEDs do not light up	No power to the driver; incorrect wiring; faulty LED load; driver failure.	Check AC power connection; verify input/output wiring; test LED load with another power source; contact support if driver is suspected faulty.
LEDs flicker or dim	Overloaded driver; loose connections; incompatible LED load; driver overheating.	Reduce total wattage of connected LEDs; check all wiring connections; ensure LED load is 24V DC; ensure adequate ventilation.
Driver is hot to the touch	Overloaded driver; insufficient ventilation.	Reduce load to below 85% of capacity; improve airflow around the driver.

No output voltage	Internal protection activated (overvoltage, overcurrent, short circuit); driver failure.	Disconnect power, check for short circuits in wiring or LED load, then reconnect. If problem persists, contact support.
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9. WARRANTY & SUPPORT

The DUSKTEC 24V 60W LED Driver comes with a **2-year warranty** from the date of purchase. For any product-related issues, technical assistance, or warranty claims, please do not hesitate to contact DUSKTEC customer support. Provide your model number (DT-NC24V-60W) and purchase details when contacting support to expedite assistance.