Alomejor MY6812

Alomejor 24V 100W Brushed Motor MY6812 Instruction Manual

Model: MY6812

1. Introduction

This manual provides essential information for the safe and effective use of your Alomejor 24V 100W Brushed Motor, model MY6812. This motor is designed for various applications including electric scooters, small electric vehicles, and robotics. Please read this manual thoroughly before installation and operation to ensure proper function and longevity of the product.

2. Safety Information

Always observe the following safety precautions to prevent injury or damage to the motor and associated equipment:

- **Electrical Safety:** Ensure the power supply matches the motor's voltage requirements (24V DC). Disconnect power before making any electrical connections or performing maintenance. Avoid contact with live wires.
- **Mechanical Safety:** Keep hands, hair, and loose clothing away from moving parts, especially the rotating shaft and sprocket, during operation. Securely mount the motor to prevent unexpected movement.
- **Ventilation:** Ensure adequate ventilation around the motor to prevent overheating.
- **Environment:** Do not operate the motor in wet or excessively dusty environments unless specifically designed for such conditions.
- **Professional Installation:** If you are unsure about any installation steps, consult a qualified technician.

3. Product Overview

The Alomejor MY6812 is a compact and robust 24V 100W brushed DC motor. It features a metal belt pulley and is constructed from durable aluminum material, ensuring long-term performance. This motor is versatile and compatible with a wide range of applications, including electric scooters, mopeds, ATVs, karts, Vespas, dirt bikes, pocket bikes, and various robotic projects.

Image 3.1: The Alomejor MY6812 motor with key dimensions indicated. The motor body length is 100mm (3.9 inches), diameter is 68mm (2.7 inches), shaft length is 28mm (1.1 inches), and shaft diameter is 8mm (0.3 inches).

Image 3.2: The Alomejor MY6812 motor showing its wiring connections and the product label indicating 'MY6812 24VDC 100W'. The rated voltage range is below 36V DC.

4. Specifications

Feature	Specification
Brand	Alomejor
Model Number	MY6812 (Alomejortzmrb0kw28)
Voltage	24 Volts DC
Power Output	100 Watts
Speed	2800 RPM
Material	Aluminum, Metal
Item Weight	1.13 Kilograms (2.49 pounds)
Motor Length	100 mm

Feature	Specification
Motor Diameter	68 mm
Shaft Length	28 mm
Shaft Diameter	8 mm (with 1mm single milling slot)
Fixed Hole Distance	36 mm (between the 2 fixed holes)
Sprocket Type	9 teeth, 25H model
UPC	705989932488

5. Setup and Installation

Proper installation is crucial for the motor's performance and safety. Follow these steps carefully:

1. **Mounting:** Securely attach the motor to your application's frame using appropriate fasteners. The distance between the two fixed mounting holes is 36mm. Ensure the motor is stable and free from excessive vibration.
2. **Sprocket Installation:** The motor comes with a 9-tooth, 25H model sprocket. Ensure it is correctly aligned with the chain or belt system of your application.
3. **Brush Preparation (Important):** Before initial use, it is recommended to carefully remove the brush plate end of the motor. Gently radius the carbon brushes to conform to the commutator's curvature. This step helps ensure proper contact, reduces wear, and extends the motor's lifespan. Exercise caution to avoid damaging internal components. Do not remove the rotor without using an iron keeper to preserve the magnets.
4. **Electrical Connections:** Connect the motor's wires to your 24V DC power source and motor controller. Typically, the red wire connects to the positive (+) terminal and the black wire to the negative (-) terminal. Ensure all connections are tight and insulated to prevent short circuits. The motor's connectors are spade terminals, as shown in Image 5.1.

Image 5.1: Top view of the Alomejor MY6812 motor, highlighting the 9-tooth sprocket and the shaft.

Image 5.2: Close-up view of the motor's wiring, showing the spade-type connectors for electrical attachment.

6. Operating Instructions

Once installed, the motor can be operated by applying a 24V DC power supply through a compatible motor controller. The controller will regulate the speed and direction of the motor based on your application's requirements.

- **Power On:** Ensure all connections are secure before applying power. Activate your motor controller or power supply.
- **Speed Control:** Use your motor controller's interface (e.g., throttle, potentiometer) to adjust the motor speed.
- **Monitoring:** During initial operation, observe the motor for any unusual noises, excessive heat, or vibrations. If any anomalies occur, immediately shut off power and inspect the installation.

7. Maintenance

Regular maintenance helps ensure the longevity and optimal performance of your motor.

- **Brush Inspection:** Periodically inspect the carbon brushes for wear. Worn brushes can lead to reduced performance and commutator damage. Replace brushes as needed.

- **Cleaning:** Keep the motor free from dust, dirt, and debris. A clean motor dissipates heat more effectively. Use compressed air or a soft brush for cleaning.
- **Connection Checks:** Regularly check all electrical connections to ensure they remain tight and free from corrosion.
- **Lubrication:** The motor bearings are typically sealed and do not require lubrication. Avoid applying lubricants to the commutator or brushes.

8. Troubleshooting

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

- **Motor Not Starting:**
  - Check power supply: Ensure 24V DC is being supplied.
  - Check connections: Verify all electrical connections are secure and correct.
  - Check controller: Ensure the motor controller is functioning correctly.
  - Inspect brushes: Worn or improperly seated brushes can prevent the motor from starting.
- **Reduced Power/Speed:**
  - Check voltage: Ensure the power supply voltage is stable at 24V.
  - Inspect brushes: Worn brushes can lead to reduced efficiency.
  - Check load: Ensure the motor is not overloaded beyond its 100W capacity.
  - Check for obstructions: Ensure the shaft and sprocket are free to rotate without obstruction.
- **Excessive Noise/Vibration:**
  - Check mounting: Ensure the motor is securely mounted.
  - Inspect bearings: Damaged bearings can cause noise.
  - Check for foreign objects: Remove any debris that may be interfering with rotation.
- **Overheating:**
  - Check load: Reduce the load on the motor if it is consistently running hot.
  - Ensure ventilation: Clear any obstructions around the motor that might impede airflow.
  - Check for short circuits: Internal shorts can cause excessive heat.

9. Warranty and Support

For warranty information or technical support, please contact Alomejor customer service through the retailer where the product was purchased or visit the official Alomejor website. Please have your product model number (MY6812) and purchase details ready when contacting support.