

mGYDY KT-22A

mGYDY KT-22A 36/48V 750W E-Bike Brushless Motor Controller User Manual

Model: KT-22A

1. INTRODUCTION

1.1 Product Overview

The mGYDY KT-22A 36/48V 750W E-Bike Brushless Motor Controller is designed to provide stable speed control and sensitive braking for electric bicycles. This controller is compatible with 500W/750W brushless motors and features a waterproof design for enhanced durability in various weather conditions. Its aluminum alloy housing with a groove design ensures efficient heat dissipation, protecting internal circuits from thermal overload.



Image 1.1: The mGYDY KT-22A E-Bike Brushless Motor Controller, showcasing its robust aluminum alloy casing and integrated wiring.

1.2 Key Features

- **Waterproof Function:** Ensures maximum durability and reliable operation in diverse weather conditions.
- **Stable Speed Control:** Provides consistent and sensitive control over speed, braking, and direction changes.
- **Efficient Heat Dissipation:** Aluminum alloy outer shell with groove design protects internal circuits from thermal overload.
- **Enhanced Battery Life:** Reduces current consumption, contributing to longer battery life for your e-bike.
- **Silent Operation:** Engineered for quiet performance with minimal vibration.
- **Wide Application:** Suitable for 500W/750W brushless motors, compatible with various e-bike models.

Product Details

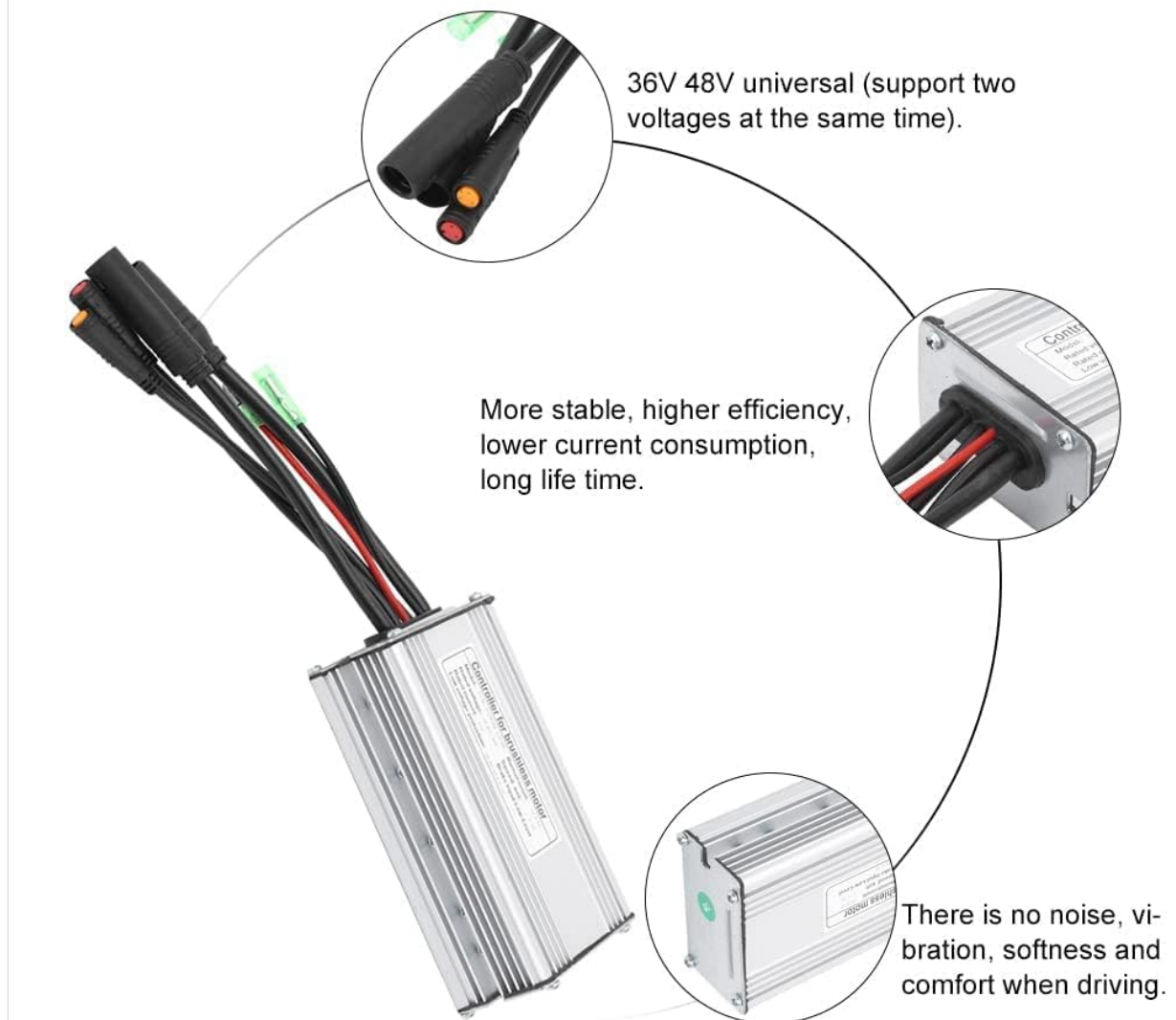


Image 1.2: Visual representation of the controller's benefits, including universal 36V/48V support, high efficiency, and quiet performance.

1.3 Package Contents

Upon opening the package, please verify that all items are present and undamaged:

- 1 x mGYDY KT-22A E-Bike Brushless Motor Controller
- 1 x User Manual (this document)

2. SAFETY INSTRUCTIONS

Please read and understand all safety instructions before installing or operating the controller. Failure to follow these instructions may result in electric shock, fire, serious injury, or property damage.

- Always disconnect the battery power before performing any installation, maintenance, or troubleshooting.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- Do not expose the controller to extreme temperatures or direct sunlight for prolonged periods.
- Avoid disassembling the controller. Unauthorized modifications will void the warranty and may lead to

malfunction.

- Keep the controller away from children and pets.
- If you are unsure about any installation steps, consult a qualified technician.

3. INSTALLATION AND SETUP

Proper installation is crucial for the optimal performance and safety of your e-bike system. This controller is designed for use with KT series products and requires a display with the same communication protocol.

3.1 Physical Installation

The controller features an aluminum alloy casing with a groove design for effective heat dissipation. Mount the controller in a location that allows for adequate airflow and protects it from physical damage and excessive moisture. Ensure the mounting surface is stable and secure.



Image 3.1: Controller dimensions (approximately 12.5cm x 6.6cm x 3.8cm) for installation planning.

3.2 Wiring Diagram and Connections

Carefully follow the wiring instructions below. All connectors are waterproof for reliable performance.

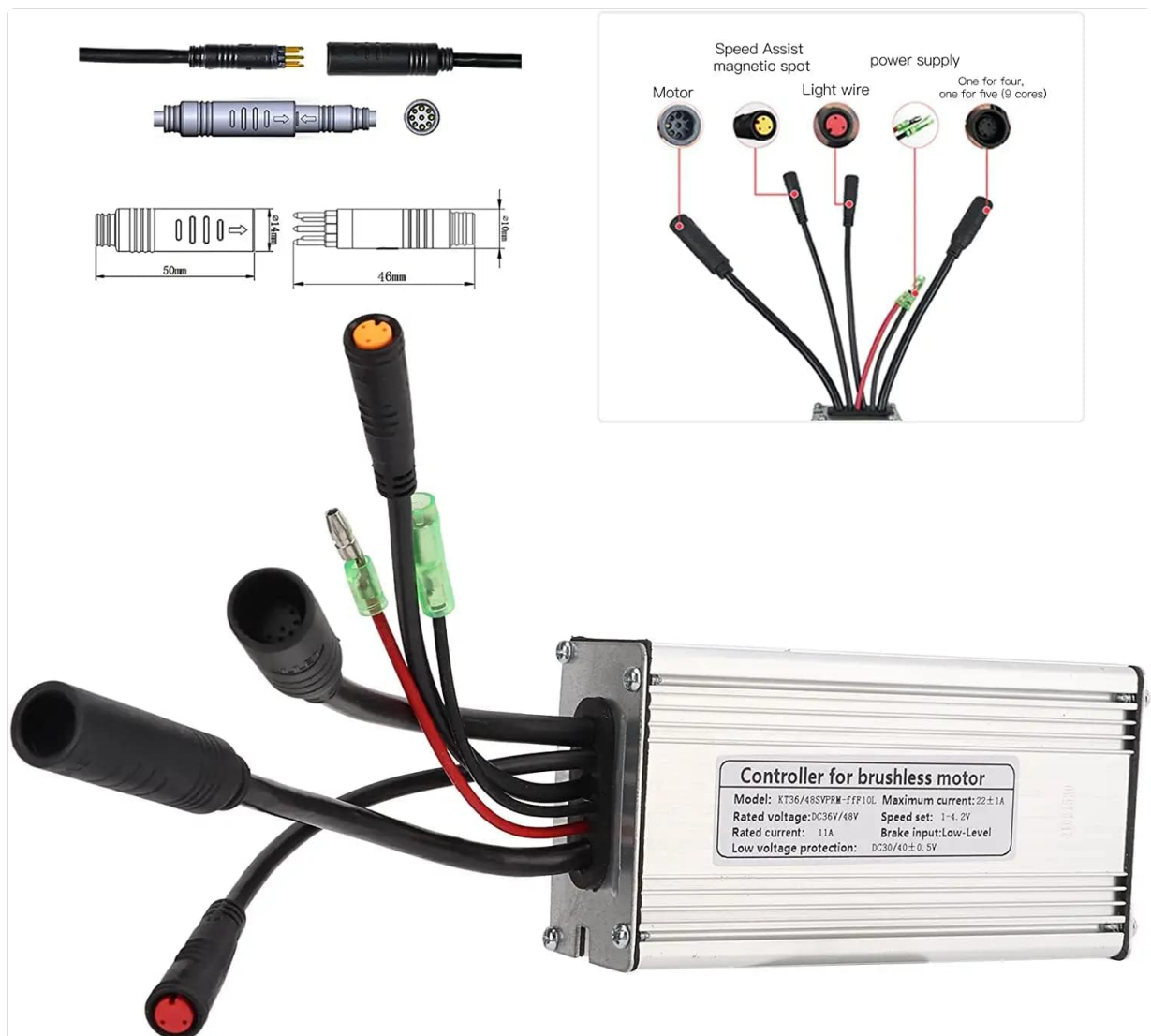


Image 3.2: Comprehensive wiring diagram illustrating connections for motor, light, PAS sensor, battery, and 1-to-5 cable.



Image 3.3: Close-up view of the controller's connectors, showing the various wire types and their corresponding functions.

Controller Wire Color Definitions:

- **Black Long Wire:** Motor Wire (typically 9-pin connector)
- **Red and Black Single Short Wires:** Power Cord (for battery connection)
- **Black Long Wire (Fine Hole):** One for Four, One for Five (9 Cores) - This refers to the main communication cable for display and other accessories.
- **Black Line and Red Head:** Light Line (for e-bike lights)
- **Black Line and Yellow Head:** PAS Speed Assist Sensor Line (for pedal assist system)

Important Note: This controller requires a display unit that uses the same KT communication protocol. It is only suitable for KT series products. A 1-to-4 or 1-to-5 cable (not included) may be necessary to connect multiple accessories.



Image 3.4: The controller, emphasizing the requirement for compatibility with KT communication protocol displays and the potential need for a 1-to-4 cable.

4. OPERATION

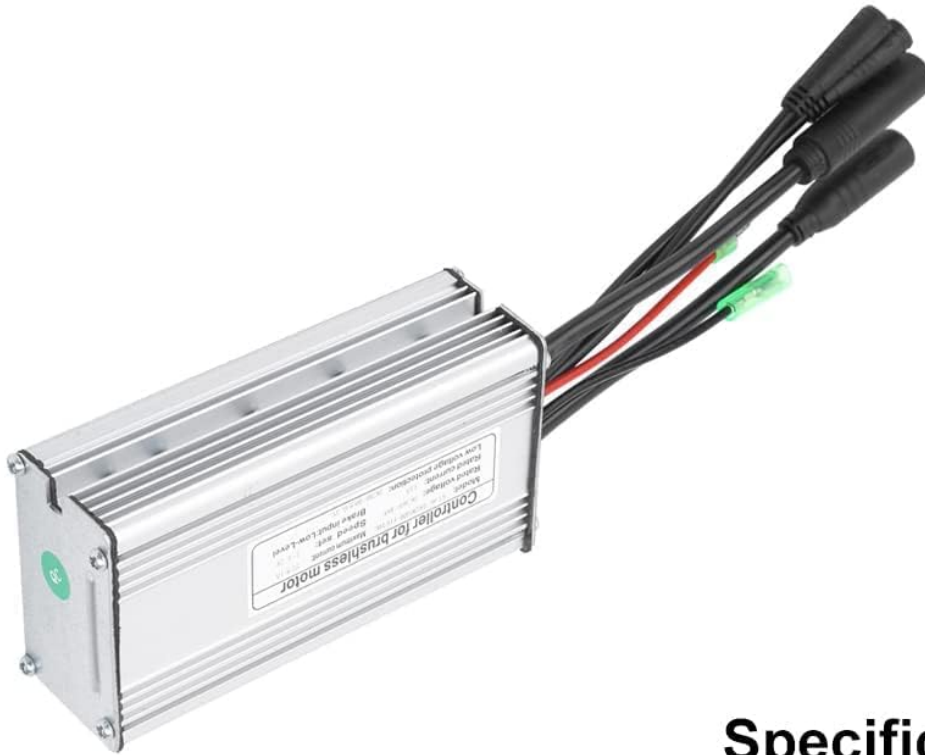
Once properly installed and connected to a compatible KT series display and motor, the controller will manage the power delivery to your e-bike's brushless motor. The display unit will allow you to monitor speed, battery level, and adjust pedal assist levels.

- **Power On/Off:** Use the power button on your compatible KT display unit to turn the system on or off.
- **Speed Control:** The controller provides sensitive speed regulation based on throttle input or pedal assist sensor (PAS) signals.
- **Braking:** When brake levers with sensors are activated, the controller will cut power to the motor, ensuring safe stopping.
- **Light Control:** If connected, the light line allows for integration with your e-bike's lighting system, typically controlled via the display.

5. SPECIFICATIONS

Detailed technical specifications for the mGYDY KT-22A E-Bike Brushless Motor Controller:

Product Specification



Specification

Condition: 100% brand new

Item type: Rectangula Controller

Material: aluminium alloy

Color: As picture shown

Weight: Approx. 410g

Maximum current: 22±1A

Rated voltage: DC36V/48V

Speed set: 1-4.2V

Rated current:11A

Brake input: Low-Level

Low voltage protection: DC30/40±0.5V

Image 5.1: A table summarizing the key specifications of the controller.

Specification	Value
Item Type	22A Sine Wave Controller
Material	Aluminum Alloy
Controller Type	Sine Wave Controller
Connector Type	Waterproof Connector
Rated Voltage	DC 36V / 48V (Universal)
Maximum Current	22 ± 1A
Rated Current	11A
Speed Setting	1-4.2V
Brake Input	Low Level
Low Voltage Protection	DC 30/40 ± 0.5V

Weight	Approx. 422g / 14.9oz
Controller Box Size	Approx. 125x61x39mm / 4.9x2.4x1.5in

6. TROUBLESHOOTING

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

- **No Power to Display/Motor:**
 - Check battery connection and charge level.
 - Verify all power cables are securely connected.
 - Ensure the display unit is properly connected and powered on.
- **Motor Not Responding:**
 - Inspect motor wire connections for looseness or damage.
 - Confirm the PAS sensor or throttle is correctly installed and functioning.
 - Ensure the controller is compatible with your motor's wattage (500W/750W).
- **Erratic Operation:**
 - Check for loose or corroded connections.
 - Ensure no water has entered the controller or connectors.
 - Verify that your display unit uses the KT communication protocol.

For persistent issues, please contact customer support or a qualified e-bike technician.

7. MAINTENANCE

To ensure the longevity and reliable performance of your mGYDY KT-22A controller, follow these maintenance guidelines:

- **Regular Cleaning:** Keep the controller's exterior clean from dust and dirt using a soft, dry cloth. Avoid using harsh chemicals or abrasive materials.
- **Connection Inspection:** Periodically check all wire connections for tightness and signs of wear or corrosion.
- **Environmental Protection:** While waterproof, avoid submerging the controller. Store your e-bike in a dry, temperate environment when not in use.
- **Heat Dissipation:** Ensure the controller's housing remains unobstructed to allow for proper heat dissipation.

8. WARRANTY AND SUPPORT

8.1 Manufacturer's Warranty







The mGYDY KT-22A E-Bike Brushless Motor Controller comes with a **1-Year Manufacturer Warranty**. This warranty covers defects in materials and workmanship under normal use. It does not cover damage resulting from misuse, accidents, unauthorized modifications, or improper installation.

Please retain your proof of purchase for warranty claims.

8.2 Customer Support

For technical assistance, warranty inquiries, or any questions regarding your mGYDY KT-22A controller, please contact your retailer or the manufacturer's customer support. Refer to your purchase documentation for contact details.

Related Documents - KT-22A

	<p>KT-LCD11 E-Bike Display User Manual - Operation and Settings Guide</p> <p>Comprehensive user manual for the KT-LCD11 E-Bike Display. Learn how to operate your e-bike display, understand its functions, adjust settings like speed limits and wheel diameter, and interpret error codes. Includes wiring information and dimensions.</p>
	<p>KT-LCD8H E-Bike Display User Manual</p> <p>User manual for the KT-LCD8H E-Bike Display, providing instructions on functions, operation, settings, and error codes for electric bicycles.</p>
	<p>KT-LCD3 Electric Bicycle Meter User Manual</p> <p>Comprehensive user manual for the KT-LCD3 electric bicycle meter, covering installation, operation, function overview, display modes, and detailed parameter settings for e-bike customization.</p>
	<p>KT-LCD8S P Electric Bicycle Meter User Manual - Kunteng E-bike Display</p> <p>Official user manual for the Kunteng KT-LCD8S P electric bicycle meter. Learn about installation, operation, features, and parameter settings for your e-bike display.</p>
	<p>KT-LCD3 E-bike Display User Manual</p> <p>Comprehensive user manual for the KT-LCD3 e-bike display, detailing its functions, operation, parameter settings, and how to optimize electric bicycle system performance. Includes installation guidance and specifications.</p>
	<p>KT-LCD5 eBike Special Meter User Manual</p> <p>Comprehensive user manual for the KT-LCD5 eBike Special Meter, detailing installation, operation, display functions, parameter settings, and troubleshooting for electric bicycles.</p>

