Hobbywing EZRUN 3652SD-3300KV-G3

HOBBYWING EZRUN 3652 SD G3 Motor User Manual

Model: EZRUN 3652SD-3300KV-G3

Introduction

This manual provides essential information for the proper setup, operation, and maintenance of your HOBBYWING EZRUN 3652 SD G3 Motor. Please read this manual thoroughly before use to ensure optimal performance and longevity of your product.

The Hobbywing EZRUN 3652/3665 SD G3 motor series features an improved waterproof sensored cable interface and an upgraded sensored mode for motor temperature protection, perfectly matching the EzRun MAX10 G2 ESC. Its high-precision Hall sensor components ensure accurate and consistent rotor position output, leading to excellent linearity and precise throttle control.

The motor incorporates a high-precision waterproof bearing at the front and a precision iron cover at the rear, enhancing capacity and providing higher bearing speed with low resistance for smoother and more reliable operation. Compared to the G2 motor, this G3 version significantly reduces motor temperature under the same load conditions, boasts 3% higher overall efficiency, and a 5% increase in maximum output power.

Constructed from carefully selected materials including motor casing, bearings, ultra-thin silicon steel sheets, high temperature-resistant copper wire, explosion-proof rotor, and high-tolerance alloy shaft, the EZRUN 3652/3665 G3 motor is designed for extraordinary long-term performance. Its modular detachable structure simplifies disassembly and daily maintenance, extending the motor's lifespan and maintaining efficiency. The IP-67 waterproof system ensures excellent protection against water and dust, allowing the power system to operate reliably in various challenging environments such as mud, sand, ice, snow, and water without damage.

What's in the Box

- (1) Ezrun 3652 Motor

Product Overview



Front view of the Hobbywing EZRUN 3652 SD G3 Motor, showcasing its compact design, ribbed casing for heat dissipation, and the attached sensored cable and power wires.



Side view of the Hobbywing EZRUN 3652 SD G3 Motor, highlighting the robust construction and the connection points for the sensored cable and three power wires.



Rear view of the Hobbywing EZRUN 3652 SD G3 Motor, displaying the motor shaft and the clean integration of the sensored cable and power wire exits.

Setup and Installation

Proper installation is crucial for the performance and longevity of your EZRUN 3652 SD G3 Motor. Follow these steps carefully:

1. **Mounting the Motor:** Securely mount the motor to your vehicle's motor mount using appropriate screws. Ensure the motor is aligned correctly with the transmission to prevent binding.
2. **Pinion Gear Installation:** Install the pinion gear onto the motor shaft. Ensure the pinion gear is properly meshed with the spur gear. A small amount of play (backlash) is necessary to prevent excessive wear and heat.
3. **Connecting to ESC:** Connect the three motor phase wires (usually labeled A, B, C or U, V, W) from the motor to the corresponding output terminals on your Electronic Speed Controller (ESC). Ensure correct polarity if using bullet connectors.
4. **Sensored Cable Connection:** Connect the sensored cable from the motor to the sensor port on your ESC. Ensure the connector is fully seated and oriented correctly. This connection is vital for the motor's sensored operation and temperature protection features.
5. **Initial Checks:** Before powering on, double-check all connections for security and correct orientation. Ensure no wires are pinched or can interfere with moving parts.

Note: *This motor is designed to perfectly match the Hobbywing EzRun MAX10 G2 ESC for optimal performance and temperature protection. Using other ESCs may result in different performance characteristics.*

Operating Instructions

Once the motor is installed and connected, follow these guidelines for operation:

- **Power On Sequence:** Always power on your transmitter first, then your vehicle's ESC. When powering off, disconnect the battery from the ESC first, then turn off the transmitter.
- **Throttle Control:** The high-precision Hall sensor components ensure excellent linearity and great throttle control. Apply throttle smoothly to avoid sudden jolts to the drivetrain.
- **Temperature Monitoring:** While the motor has built-in temperature protection when paired with a compatible ESC, it is good practice to periodically check the motor's temperature during extended runs. Excessive heat can indicate improper gearing or excessive load.
- **Waterproof System:** The IP-67 waterproof system allows operation in various conditions including mud, sand, ice, snow, and water. However, always ensure your ESC and other electronic components are also waterproof to the same standard before operating in wet conditions. After operating in wet conditions, clean and dry the motor thoroughly.

Maintenance

Regular maintenance will prolong the lifespan and maintain the efficiency of your EZRUN 3652 SD G3 Motor:

- **Cleaning:** After each use, especially in dirty or wet conditions, clean the motor to remove dirt, dust, and debris. Use a soft brush or compressed air. Avoid using harsh chemicals.
- **Bearing Inspection:** Periodically inspect the motor bearings for smooth operation. The motor uses a high-precision waterproof bearing at the front. If bearings feel rough or noisy, they may need cleaning or replacement.
- **Modular Design:** The motor features a modular detachable structure for easy disassembly and daily maintenance. Refer to Hobbywing's official resources for detailed disassembly and reassembly instructions if needed for deeper maintenance.
- **Wire and Connector Check:** Regularly inspect all wires and connectors for signs of wear, fraying, or corrosion. Ensure all connections remain secure.

Troubleshooting

If you encounter issues with your EZRUN 3652 SD G3 Motor, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution
Motor not spinning or erratic operation	Loose or incorrect wire connections Damaged sensored cable ESC not properly calibrated Motor or ESC overheating	Check all motor-to-ESC connections. Inspect sensored cable for damage; replace if necessary. Recalibrate your ESC according to its manual. Allow components to cool; check gearing and load.
Motor overheating	Incorrect gearing (too high) Excessive load on the motor Insufficient airflow/cooling Damaged bearings	Reduce pinion gear size or increase spur gear size. Reduce vehicle weight or operating intensity. Ensure proper ventilation around the motor. Inspect and replace bearings if rough.

Problem	Possible Cause	Solution
Reduced power or efficiency	Dirty motor or bearings Worn out components Battery issues	Clean the motor and check bearings. Inspect for worn gears or drivetrain components. Ensure battery is fully charged and in good condition.

If problems persist, contact Hobbywing customer support for further assistance.

Specifications

Brand	Hobbywing
Model Name	HOBBYWING EZRUN 3652 SD G3 Motor
Specific Model (as reviewed)	EZRUN 3652SD-3300KV-G3
Item Model Numbers (Series)	30402603/30402605/30402606
Product Dimensions	3 x 5 x 3 inches
Item Weight	0.6 Pounds (9.6 ounces)
Voltage	12 Volts (Operating Voltage Range depends on KV and ESC)
Material	Plastic (referring to some components, main body is metal)
Waterproof Rating	IP-67
Manufacturer	Hobbywing Technology

Warranty and Support

For warranty information and technical support, please refer to the official Hobbywing website or contact their customer service directly. Keep your proof of purchase for any warranty claims.

Hobbywing Official Website: www.hobbywing.com

Hobbywing is committed to providing users with extraordinary performance and reliable products. Should you require assistance, their support team is available to help with product inquiries, troubleshooting, and service requests.

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