Glixal ATMT1-209

Glixal ATMT1-209 GY6 Starter Motor Instruction Manual

Model: ATMT1-209 | Brand: Glixal

Product Overview

The Glixal ATMT1-209 starter motor is designed for GY6 4-stroke engines ranging from 49cc to 100cc. This component is crucial for initiating engine startup in various scooters, mopeds, ATVs, and go-karts that utilize 139QMA, 139QMB, and 147QMD engine types. It features premium field coils for increased torque, ensuring fast and efficient engine starts.



Image: The Glixal ATMT1-209 GY6 Starter Motor, a key component for engine ignition.



Image: Close-up view of the starter motor's field coils, designed for optimal performance.

Compatibility

This starter motor is compatible with GY6 49cc, 50cc, 80cc, and 100cc 4-stroke engines, specifically models 139QMB and 139QMA. It fits a wide range of vehicles including scooters, mopeds, ATVs, and go-karts from brands such as Baja, JMstar, Jonway, Lance, NST, Peace, Roketa, Sunl, Tank, TNG, Vento,

VIP, and Taotao.



Image: A typical GY6 engine, illustrating the type of engine this starter motor is compatible with.

Specifications

Feature	Detail
Voltage	12 Volts
Wattage	200 Watts
Spline Shaft	10-Spline
Mounting	2-Bolt
Rotation	Counter-Clockwise (CCW)
Mounting Hole Spacing	70mm (center to center)
Overall Length	108mm
Material	Metal
Item Weight	Approximately 1.34 pounds (0.61 kg)
Package Dimensions	5.2 x 3.9 x 3.11 inches
Model Number	ATMT1-209

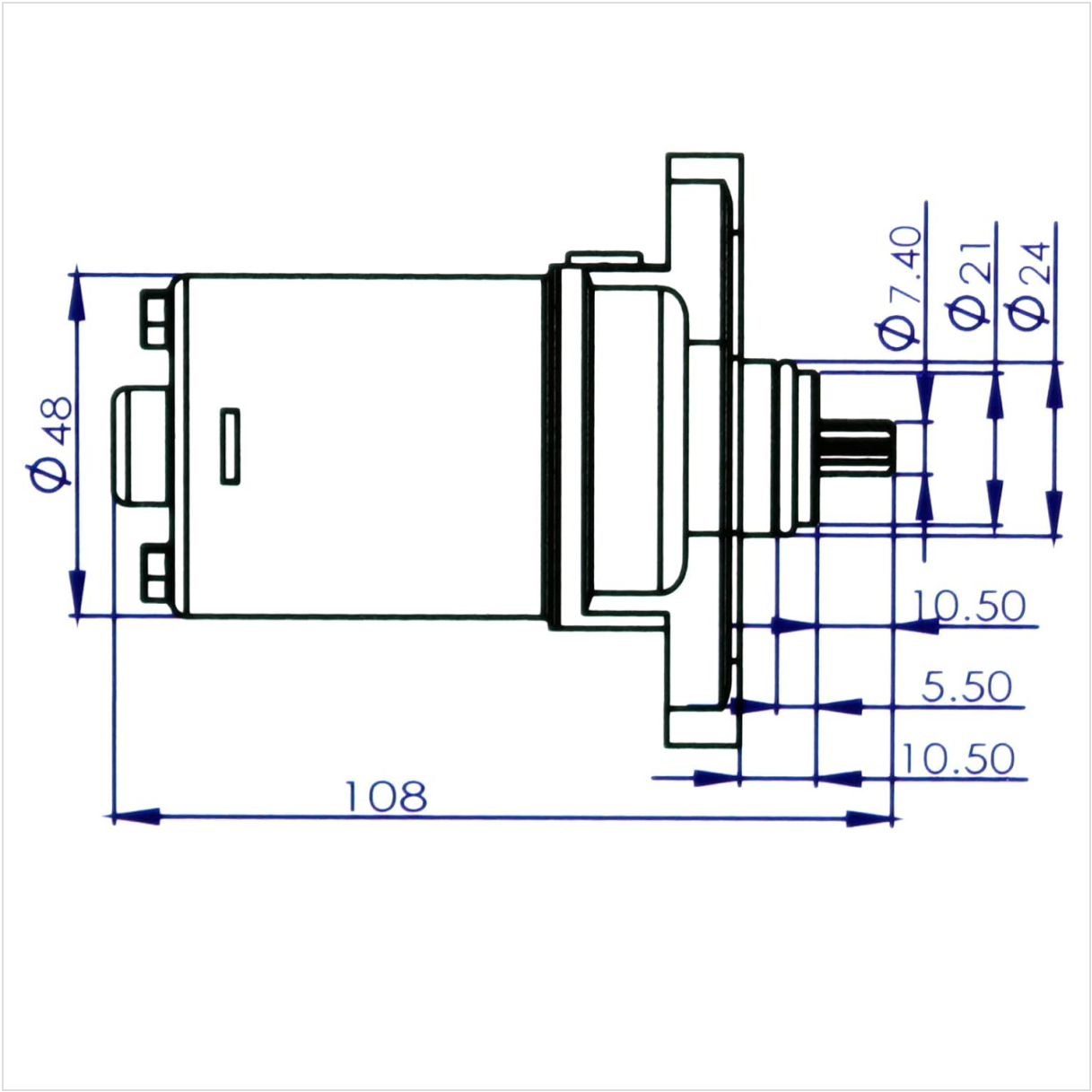


Image: Technical drawing showing the side dimensions of the starter motor.

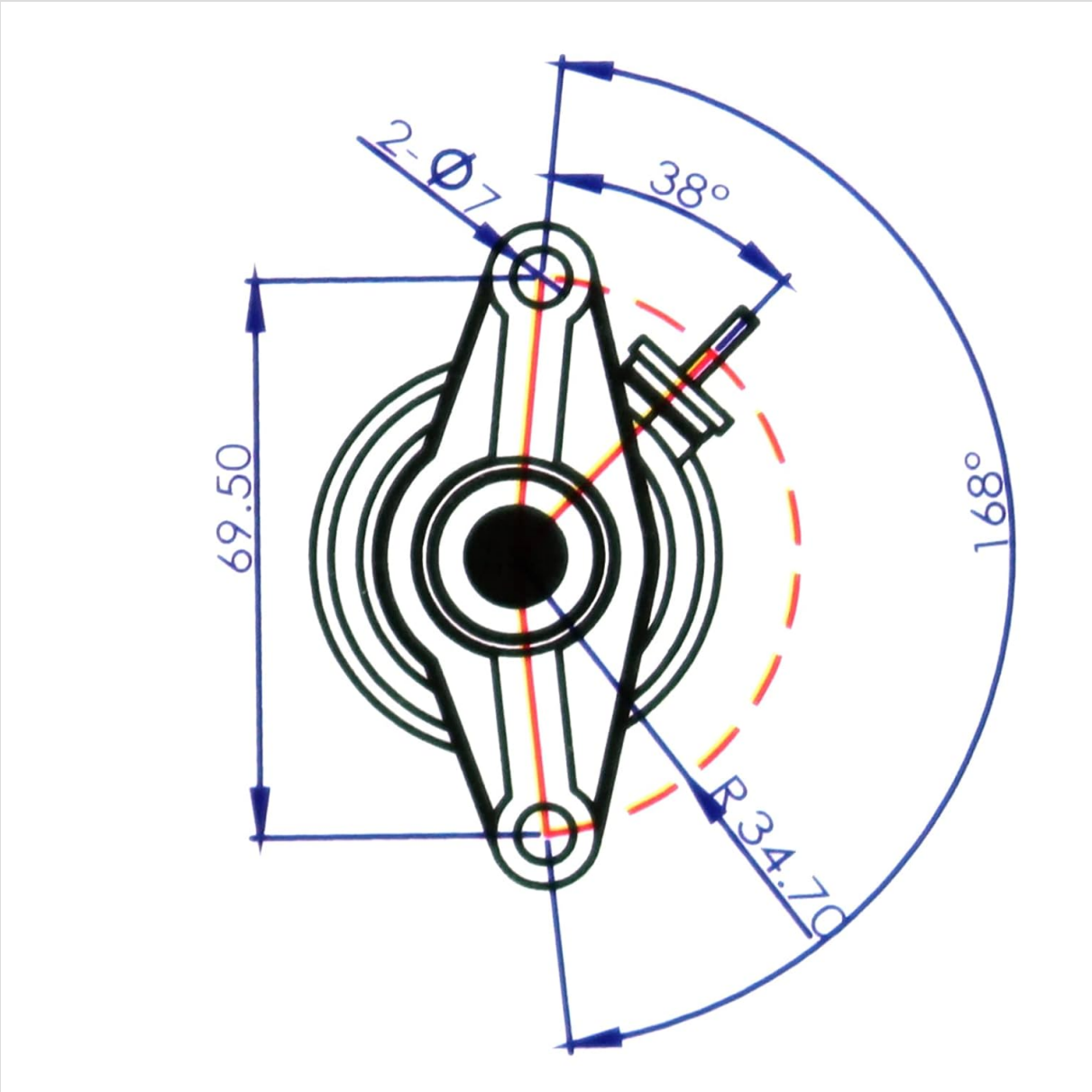


Image: Technical drawing detailing the front view and mounting hole spacing.

Safety Information

- Always disconnect the battery's negative terminal before working on electrical components to prevent accidental starting or electrical shock.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure the vehicle is stable and secured before beginning any work.
- Refer to your vehicle's specific service manual for detailed instructions and torque specifications.
- If unsure about any step, consult a qualified mechanic.

Installation Instructions

Follow these steps for proper installation of the Glixal ATMT1-209 starter motor:



Image: The starter motor showing its integrated wire for electrical connection.

1. **Preparation:** Ensure the vehicle's ignition is off and the battery's negative terminal is disconnected. Locate the existing starter motor.
2. **Removal of Old Starter:** Disconnect the electrical wire from the starter motor. Remove the mounting bolts that secure the starter motor to the engine casing. Carefully pull the old starter motor out.
3. **Inspection:** Inspect the mounting area and the engine's starter gear for any damage or debris. Clean as necessary.
4. **Installation of New Starter:** Position the new Glixal ATMT1-209 starter motor into the mounting location. Ensure the spline shaft aligns correctly with the engine's starter gear.
5. **Secure Mounting:** Insert and tighten the mounting bolts. Ensure they are securely fastened according to your vehicle's specifications, typically 70mm center-to-center for this model.



Image: Detail of the electrical wire connection point on the starter motor.

6. **Electrical Connection:** Connect the electrical wire to the new starter motor. Ensure a tight and secure connection.



Image: Example of a secure battery terminal connection, crucial for starter operation.

7. **Battery Reconnection:** Reconnect the battery's negative terminal.
8. **Testing:** Attempt to start the engine to verify proper operation of the new starter motor.

Operation

The starter motor engages the engine's flywheel to crank the engine, initiating the combustion process. When the ignition key is turned to the "start" position, electrical current flows to the starter motor, causing its internal gears to rotate. This rotation extends the starter's pinion gear, which meshes with the engine's flywheel, turning the crankshaft and starting the engine. Once the engine starts, the starter motor disengages automatically.

Maintenance

Proper maintenance can extend the life and ensure reliable performance of your starter motor:

- **Regular Inspection:** Periodically check the starter motor's electrical connections for corrosion or looseness. Clean terminals as needed to ensure good conductivity.
- **Mounting Security:** Ensure the mounting bolts remain tight to prevent vibration and potential damage to the starter motor or engine casing.
- **Avoid Prolonged Cranking:** Do not crank the engine for more than 5-10 seconds at a time. Allow a

brief pause (at least 30 seconds) between attempts to prevent overheating the starter motor and draining the battery.

- **Battery Health:** A healthy, fully charged battery is essential for optimal starter performance. Regularly check your vehicle's battery condition and charging system.



Image: A double-sealed carbon steel bearing, a component contributing to the starter motor's durability.

Troubleshooting

If you encounter issues with your starter motor, consider the following common problems and solutions:

- **Starter Motor Does Not Engage:**
  - Check battery charge. A weak battery may not provide enough power to turn the starter.
  - Inspect all electrical connections to the starter motor and battery for looseness or corrosion.
  - Verify the ignition switch and starter relay are functioning correctly.
- **Starter Motor Clicks but Does Not Turn:**
  - This often indicates a low battery charge or a faulty starter solenoid.
  - Check battery terminals for corrosion and ensure they are tight.
- **Starter Motor Spins but Engine Does Not Crank:**
  - The starter's pinion gear may not be engaging the engine's flywheel. This could be due to a worn pinion gear or a mechanical issue within the starter or flywheel.
- **Starter Motor Makes Grinding Noise:**
  - This suggests improper engagement between the starter pinion and the flywheel, possibly due to worn gears or incorrect installation.

Warranty and Support

This Glixal product is covered by a standard manufacturer's warranty against defects in materials and workmanship. For warranty claims, technical assistance, or support, please contact Glixal customer service through the retailer where the product was purchased or visit the official Glixal website for contact information. Please have your model number (ATMT1-209) and purchase details available when contacting support.