

DC Geared Motor Dual Shaft 3–12V DC 450RPM – Product Description

The **DC Geared Motor Dual Shaft 3–12V DC 450RPM** is a versatile and powerful motor designed for precision applications requiring controlled speed and high torque. With its dual shafts and compact gearbox, this motor provides enhanced flexibility for robotics, automation, DIY electronics, and small mechanical projects.

Operating within a voltage range of **3–12V DC**, the motor delivers a **no-load speed of 450 RPM**, making it ideal for applications that require moderate speed with consistent torque. Its dual-shaft design allows the motor to drive two separate mechanical components simultaneously, expanding its potential uses in complex projects.

What Is a Dual Shaft DC Geared Motor?

A **dual-shaft DC geared motor** combines a standard DC motor with a precision gearbox to reduce speed while increasing torque. Unlike standard DC motors, this motor delivers controlled mechanical power, which is essential for robotic arms, mobile robots, conveyor systems, and other automation applications.

The dual shafts extend from both sides of the motor, allowing you to connect multiple mechanisms at the same time. This feature is especially useful for DIY robotics or mechanical prototypes where synchronized motion of two shafts is required.

[caption id="attachment_107745" align="aligncenter" width="380"]



Version 1.0.0[/caption]

Key Features

- ⚡ **Operating Voltage:** 3–12V DC – compatible with standard batteries and DC power supplies.
- ⚙️ **No-Load Speed:** 450 RPM – optimal for controlled and precise mechanical motion.
- 🛠️ **Dual Shaft Design:** Drive two mechanical components simultaneously.
- ⚙️ **High Torque Gearbox:** Reduces speed while increasing torque for heavy-duty tasks.
- 🔧 **Compact and Durable:** Small form factor with metal gearbox and sturdy construction.
- ⚡ **Easy Integration:** Standard motor shaft diameter and mounting options for DIY and professional projects.
- ⚙️ **Versatile Applications:** Robotics, automation, DIY gadgets, and small machines.



Why Choose the DC Geared Motor Dual Shaft 3–12V 450RPM?

Standard DC motors often provide high speed but insufficient torque for mechanical applications. The **dual-shaft DC geared motor** solves this problem by reducing speed and increasing torque, enabling precise control over mechanical movement.

Its dual-shaft design adds flexibility, allowing simultaneous operation of multiple components without additional motors. The wide voltage range makes it compatible with various power sources, from small battery packs to regulated DC supplies.

Whether you are a hobbyist, student, or engineer, this motor is reliable, versatile, and ideal for both experimentation and practical mechanical solutions.



Applications

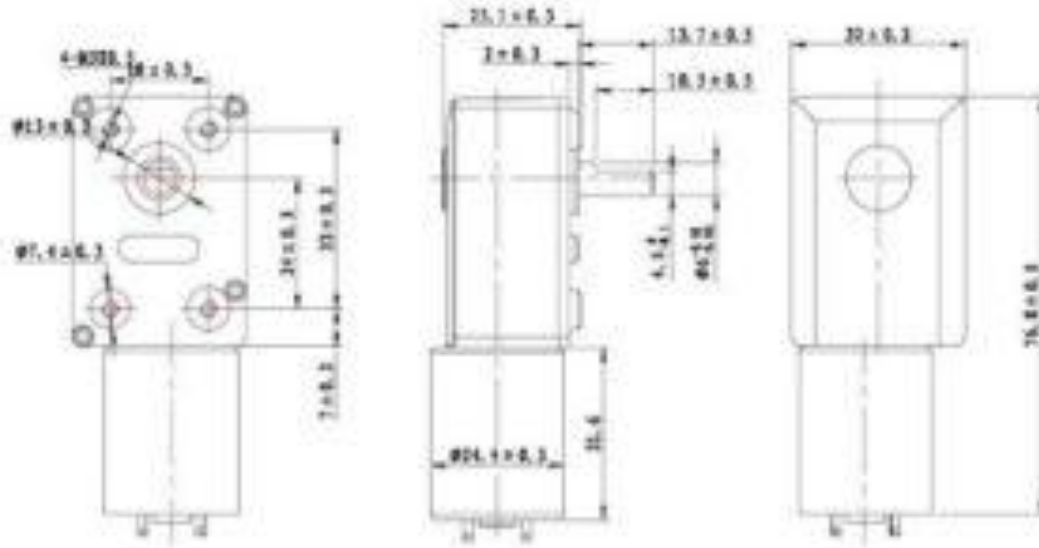
The **DC Geared Motor Dual Shaft 3–12V 450RPM** is suitable for a wide variety of projects:

1. **Robotics Projects** – Drive wheels, arms, or mechanisms with precision.
2. **Automation Systems** – Operate conveyor belts, gates, or rotating platforms.
3. **DIY Electronics** – Build motorized toys, gadgets, and experimental devices.
4. **Prototyping and Testing** – Test mechanical designs that require dual motion.
5. **Educational Kits** – Teach principles of torque, speed reduction, and dual-shaft mechanics.
6. **Small Machines** – Ideal for low-voltage, torque-demanding mechanical systems.



Technical Specifications

- **Model:** DC Geared Motor Dual Shaft 3–12V DC 450RPM
- **Voltage Range:** 3–12V DC
- **No-Load Speed:** 450 RPM
- **Motor Type:** Brushed DC motor
- **Gearbox Type:** Precision reduction gearbox
- **Output Shafts:** Dual shafts on both sides
- **Material:** Durable metal gears and robust motor housing
- **Shaft Diameter:** Standard for integration in DIY and professional projects
- **Mounting:** Multiple mounting options available
- **Torque:** Enhanced by gearbox reduction (depends on load and voltage)



Benefits for Hobbyists and Makers

The **dual-shaft DC geared motor** is a must-have for hobbyists, makers, and students. Its compact size, dual-shaft functionality, and high torque make it perfect for building complex robotics or mechanical systems with minimal additional components.

Educators benefit from its hands-on learning potential, demonstrating real-world mechanical principles safely and efficiently. Makers can experiment with synchronized movements or multi-component projects without investing in multiple motors.

Safety and Usage Considerations

Ensure the motor operates within the recommended voltage range (3–12V DC) to avoid overheating or damage. Always secure the motor properly to prevent mechanical stress or misalignment. Avoid exceeding the torque limits of the gearbox, and use appropriate motor drivers for electronics integration.

Why Add It to Your Toolkit?

The **DC Geared Motor Dual Shaft 3–12V 450RPM** adds versatility and precision to your electronics and mechanical projects. Its dual shafts, high torque, and reliable performance make it ideal for robotics, automation systems, DIY gadgets, and educational demonstrations.

With this motor, you gain a compact, durable, and flexible solution for controlled motion, enabling more complex and professional-quality projects with ease.

Conclusion

The **DC Geared Motor Dual Shaft 3–12V 450RPM** provides controlled speed, high torque, and dual-shaft functionality, making it perfect for robotics, automation, and DIY electronics projects. Its compact and durable design, combined with versatile applications, makes it essential for hobbyists, students, and engineers seeking a reliable motor solution.

Whether powering wheels, arms, or other mechanical systems, this motor ensures precision, durability, and ease of integration for any project requiring low-voltage DC motion control.