

## Brushless DC Gear Motor - 42mm Series

This brushless DC gear motor features advantages such as high power density, quick reaction, and low interference. It can be matched with tower reducers and worm gearboxes for various applications.



### Overview

#### 42mm Series High-Performance Brushless DC Motor

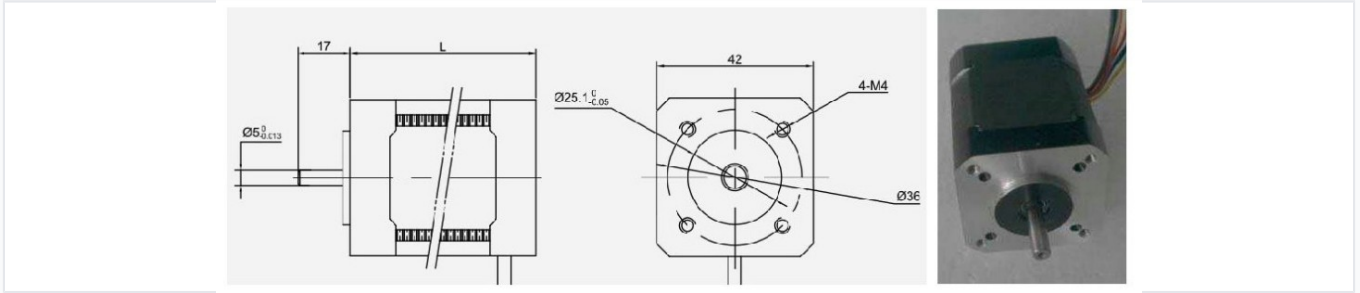
The 42mm Series Brushless DC Gear Motor is designed for high-performance motion control applications requiring energy efficiency and long service life. Featuring a permanent magnet construction and brushless commutation, it eliminates spark interference and reduces maintenance needs. This versatile motor is suitable for a wide range of industrial and domestic uses, including CNC machine tools, medical equipment, and home appliances.

### Key Features

#### Core Advantages

- High power density and small moment of inertia
- Energy-saving permanent magnet rotor design
- Low noise operation without brush sparks
- Integrated protection: overvoltage, undervoltage, and overheating
- Compatible with various reducers (tower, worm gearbox)

## Technical Specifications



Technical drawing showing the 42mm square flange, 5mm shaft diameter, and mounting hole patterns.

### Performance Metrics

**8000 RPM**

Max Speed

**105 W**

Max Power

**250 mN·m**

Max Torque

### Protection Rating

IP40 Standard • IP65 Optional • Waterproof

### Voltage Options

24VDC, 36VDC

### Insulation Class

Class B & Class F available

### Work Duty

S1 (Continuous), S2, or S3

## Product Variants

### Model Specifications Table

| Model Number       | Power (W) | Speed (RPM) | Torque (mN·m) | Length (mm) |
|--------------------|-----------|-------------|---------------|-------------|
| 42BLB1B001204RN-01 | 13        | 2000        | 63            | 41          |
| 42BLB0C006304RN-01 | 62        | 3000        | 201           | 51          |
| 42BLB2B010804RN-01 | 104       | 8000        | 125           | 61          |
| 42BLB4B010404RN-01 | 105       | 4000        | 250           | 101         |

## Applications

### Common Applications

CNC Machine Tools, Robotics, Home Appliances, Electric Bicycles, Medical Equipment, Industrial Control

## Certifications

### Certifications

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