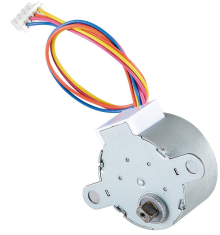


# Miniature DC Gear Motor

This miniature DC gear motor features a compact design with a metal gearbox. It is equipped with a 5-pin connector for easy integration into electronic circuits and is suitable for robotics and automation applications.



## Overview

### Precision Miniature Gear Motor

The VGSM3002 is a compact, high-precision DC gear motor designed for demanding applications in robotics, automation, and motion control. Featuring a durable metal gearbox and a 1:85 reduction ratio, it delivers reliable torque and consistent performance. This motor is engineered for easy integration into electronic circuits, complete with a standard 5-pin connector and clearly defined wiring specifications.

## Electrical Specifications

Rated Voltage	12 V
Resistance	130 ±7% ©

## Performance Metrics

### Key Performance Indicators

**500 Hz**

Pull-in Frequency (No-load)

**700 Hz**

Pull-out Frequency (No-load)

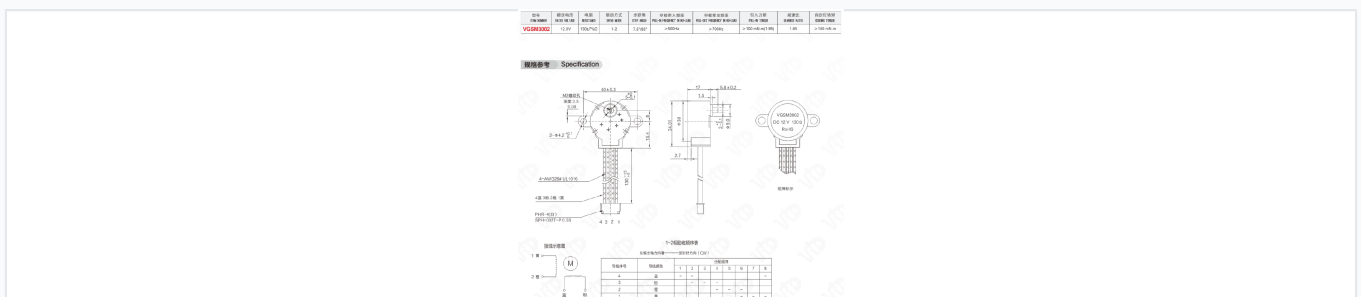
**100 mN.m**

Pull-in Torque (1:85)

**150 mN.m**

Cogging Torque

## Mechanical Specifications



Technical drawing and wiring schematic for the VGSM3002, detailing dimensions, connector pinout, and excitation sequence.

### Mounting

- M2 screw holes
- Hole depth: 3.5mm

Gearbox Ratio	1:85
Step Angle	7.5°/85

## Wiring and Connectivity

### Wiring Configuration

Wire Color	Quantity
Blue	4
Pink	3
Orange	2
Yellow	1

### Connector Type

PHR-4 (white) SPH-002T-P 0.5S

## Compliance and Standards

### Certifications

RoHS