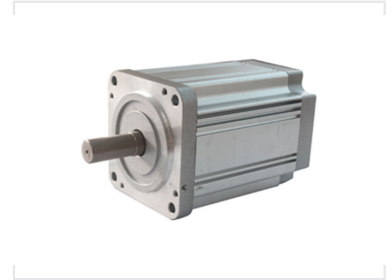


# 80 Series Brushless DC Motor

This brushless DC motor provides high torque up to 1.0Nm. It features a wide speed range, high efficiency, and long service life.



## Overview

### High-Performance 80 Series BLDC Motor

The 80 Series Brushless DC Motor is engineered for high-torque applications, delivering up to 1.0Nm of torque with exceptional efficiency and a long service life. Designed for versatility, it features a wide speed range and robust construction, making it ideal for robotics, automation, and precision motion control. This motor offers reliable performance with minimal maintenance requirements in demanding industrial environments.

## Key Performance Metrics

### Performance Highlights

**24 V**

Rated Voltage

**3000 rpm**

Rated Speed

**1 Nm**

Max Rated Torque

**4 P**

Number of Poles

## Electrical Specification

### Model Comparison

Model	Rated Power (W)	Rated Torque (Nm)	Rated Current (A)	Weight (kg)	Length (mm)
80DMW85-2430	100	0.32	5.2	1.6	85
80DMW105-2430	200	0.65	10.5	2.2	105
80DMW125-2430	300	1	15	3	125

## General Specification

### Insulation Class

Class B

### Winding Type

Star

### Hall Effect Angle

120 degree

### Shaft Run Out

0.025 mm

### Dielectric Strength

500VDC for one minute

### Ambient Temperature

-20 to +40

## Wire Diagram

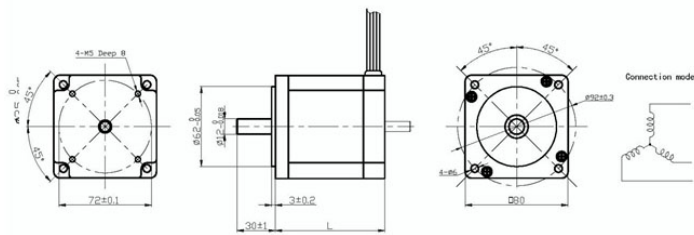
### Phase Wiring (18AWG)

- Phase U: Red
- Phase V: Yellow
- Phase W: Black

### Hall Sensor Wiring (26AWG)

- +5V: Red
- Hall A: Blue
- Hall B: Green
- Hall C: White
- GND: Black

## Physical Dimensions



Detailed mechanical dimensions and connection diagram for the 80 series motor housing and shaft.

### Mechanical Constants

- Flange Size:  $72 \pm 0.1$  mm
- Body Diameter:  $\varnothing 62$  mm
- Shaft Diameter:  $\varnothing 12$  mm
- Mounting: 4-M5 Holes (8mm depth)