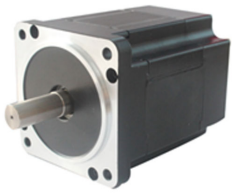
86 Series Brushless DC Motor

This brushless DC motor provides high torque up to 2.5Nm with power ranging from 200-780W. It offers a wide speed range, high efficiency, and extended operational life.



Overview

High-Performance 86 Series BLDC Motor

The 86 Series Brushless DC Motor is engineered for high-torque industrial applications, delivering up to 2.5Nm of torque with power outputs ranging from 200W to 780W. Designed for long-life and high efficiency, this motor offers a wide speed range and smooth operation, making it ideal for robotics, automation, and precision machinery. Its robust construction ensures reliable performance in demanding professional environments.

Performance Highlights

Key Performance Metrics

780 W	2.5 Nm	3500 RPM	8
Max Power	Max Rated Torque	No Load Speed	Number of Poles

General Specifications

Insulation Class
Class B

Winding Type	Star
Hall Effect Angle	120 ° electrical
Shaft Run Out	0.025 mm
Dielectric Strength	500VDC for one minute
Operating Temperature	-20 to +40

Electrical Data

Model Comparison Table

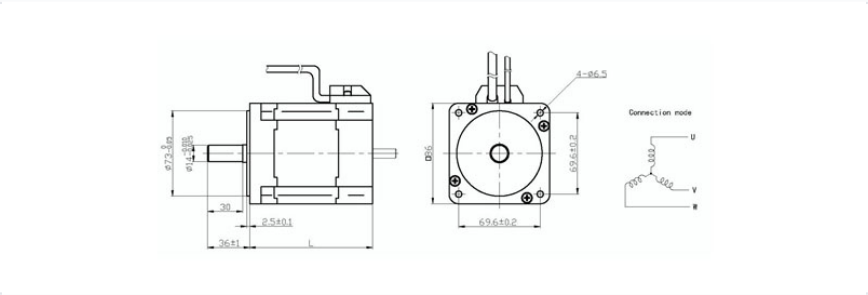
Model	Rated Power (W)	Rated Torque (Nm)	Rated Current (A)	Resistance (ohm)
86DMW70-4830	200	0.67	5.5	0.43
86DMW80-4830	300	1	8.6	0.32
86DMW90-4830	400	1.3	11	0.21
86DMW105-4830	550	1.8	14.8	0.15
86DMW130-4830	780	2.5	20	0.1

Wiring & Connectivity

Lead Wire Configuration

Function	Color	Gauge
Phase U	Red	14AWG UL1569
Phase V	Yellow	14AWG UL1569
Phase W	Black	14AWG UL1569
Hall +5V	Red	26AWG UL1569
Hall A	Blue	26AWG UL1569
Hall B	Green	26AWG UL1569
Hall C	White	26AWG UL1569
Hall GND	Black	26AWG UL1569

Physical Dimensions



Detailed mechanical dimensions and connection diagram for the 86 series brushless DC motor.

Mechanical Dimensions

- Flange Size: 69.6 ± 0.2 mm square
- Mounting Holes: 4 x 6.5 mm diameter
- Shaft Diameter: 14 mm (-0.009 to -0.025 mm)
- Shaft Length: 30 mm
- Pilot Diameter: 73 mm (-0.005 to -0.02 mm)