42DMW61 NEMA17 Brushless Motor with 24:1 Gearbox

The DCM4103 is a 24 volt brushless DC motor, generating 24 Kg-cm of torque at 166 RPM.

Brushless DC motors provide convenient position and velocity control through the use of their built in hall-effect sensor. They run quieter and last longer than their brushed counterparts. The 24:1 planetary gearbox on this motor results in higher torque at the cost of speed.

Connection

This motor must be controlled by a brushless DC motor controller that has the capability to both send control signals to the three motor wires, and also read the hall-effect feedback from the other five wires. Have a look at the Compatible Products tab for a list of compatible Phidget controllers.

Comes Packaged with

This motor comes with a 5-Pin molex connector soldered to the hall effect wires, and ferrules crimped onto the motor wires so it can quickly and easily be connected to the Brushless DC Motor Phidget as shown in the functional picture.

Product Specifications

Motor Properties	
Motor Type	Brushless DC Motor
Number of Poles	8
Manufacturer Part Number	42JXG50K(24)/42DMW61-2440
Output Power (Mechanical)	50 W

Rated Torque	24.5 kg·cm
Maximum Speed at Rated Voltage	166 RPM
Electrical Properties	
Rated Current	3.5 A
Rated Voltage	24 V DC
Coil Resistance	740 mΩ
Physical Properties	
Mounting Plate Size	17
Operating Temperature Min	-20 °C
Operating Temperature Max	40 °C
Gearbox Properties	
Gearbox Type	Planetary Gearbox
Gear Ratio	24 : 1