57DMWH75 NEMA23 Brushless Motor with 15:1 Gearbox

The DCM4108 is a 24 volt brushless DC motor, generating 37 Kg-cm of torque at 250 RPM. The shaft is equipped with a 4mm key to improve coupling.

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 15:1 planetary gearbox on this motor results in higher torque at the cost of speed.

The planetary gearbox on this motor is more sophisticated than a typical spur gearbox and will provide greater efficiency, higher torque, and quieter motor operation.

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	4
Manufacturer Part Number	56JXE300K(15)/57DMWH75-2440
Output Power (Mechanical)	115 W
Rated Torque	37.7 kg·cm
Maximum Speed at Rated Voltage	250 RPM
Electrical Properties	
Rated Current	4.5 A
Rated Voltage	30 V DC
Coil Resistance	900 mΩ
Physical Properties	
Mounting Plate Size	23
Operating Temperature Min	-20 °C
Operating Temperature Max	40 °C
Gearbox Properties	
Gearbox Type	Planetary Gearbox
Gear Ratio	15 : 1