

# 2.5 Inch Hub Motor

73 mm PU Wheel • 24 VDC Brushless DC Motor

MAIN PRODUCT VIEW



KEY SELECTION VALUES

|                   |
|-------------------|
| NOMINAL SUPPLY    |
| 24 VDC            |
| RATED POWER       |
| 100 W             |
| PU WHEEL DIAMETER |
| 73 mm             |
| MAX. TORQUE       |
| 2.5 N·m           |

## 01 Product Overview

A compact 73 mm polyurethane-wheel brushless hub motor integrating traction and wheel rotation in one drive unit. Designed for space-limited mobile equipment; braking, Hall sensing and shaft configurations must be specified for the intended integration.

## 02 Core Technical Specifications

|                     |           |                   |               |
|---------------------|-----------|-------------------|---------------|
| Rated voltage       | 24 VDC    | PU wheel diameter | 73 mm         |
| Rated power         | 100 W     | No-load speed     | 1800 ± 5% rpm |
| Rated current       | 10 A*     | No-load current   | ≤ 1 A         |
| Rated torque        | ≥ 0.5 N·m | Protection class  | IP44          |
| Max. torque         | 2.5 N·m   | Operating temp.   | -10 to +35 °C |
| Efficiency (source) | ≥ 84%*    | Pole pairs        | 10            |

### ENGINEERING SELECTION NOTE

Rated current, rated power and stated efficiency require supplier confirmation at a common operating point. Continuous rated speed, payload/wheel load, controller interface and brake holding torque are not specified in the source.  
Product finish digitally recolored; final supplied appearance should be confirmed.

03 Configuration and Test Conditions

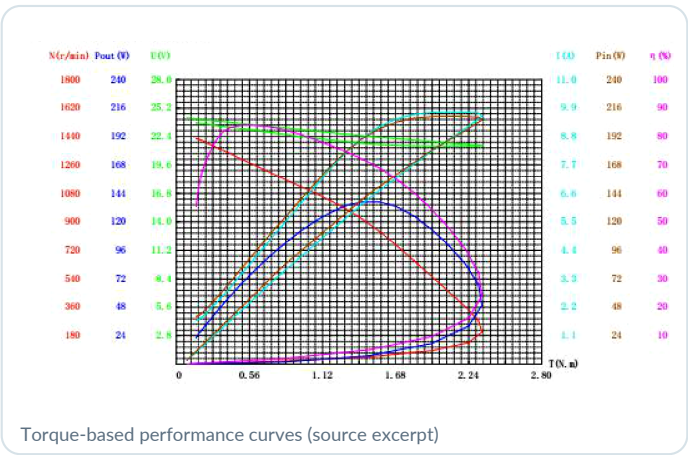
|                   |                              |                   |                     |
|-------------------|------------------------------|-------------------|---------------------|
| Brake types       | Electronic / electromagnetic | Motor pole pairs  | 10 pairs            |
| Hall sensor       | SF41 / optional              | Test ambient      | 20 ± 10 °C          |
| Shaft             | Single-sided / double-sided  | Test humidity     | 65 ± 5% RH          |
| Insulation class  | Class E                      | Test power supply | Regulated DC supply |
| Insulation test   | DC 500 V / 20 MΩ / 30 s*     | Rated voltage     | 24 VDC              |
| No-load noise     | 55 dB*                       | No-load speed     | 1800 ± 5% rpm       |
| Rotation          | CW from cable side*          | No-load current   | ≤ 1 A               |
| Wiring / rotation | Right-side cable exit*       | Protection grade  | IP44                |

04 Measured Performance Points

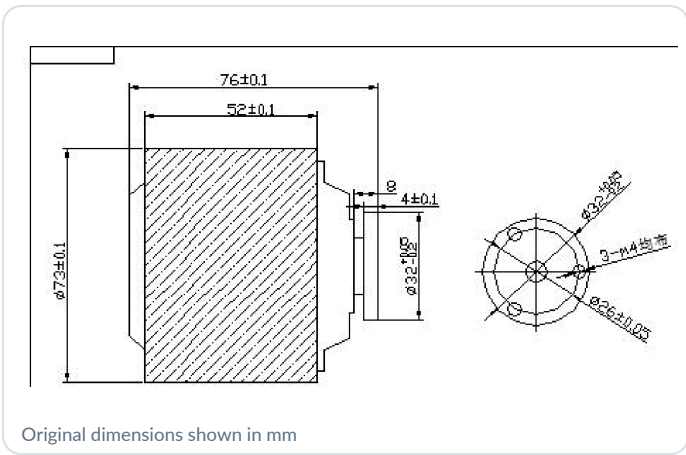
From the supplied motor-characteristic graph / curve test data (not continuous-duty ratings)

| Operating point    | Current | Torque   | Speed      | Output   | Eff.  |
|--------------------|---------|----------|------------|----------|-------|
| Starting point     | 1.70 A  | 0.15 N·m | 1426.4 rpm | -        | -     |
| Highest efficiency | 3.84 A  | 0.56 N·m | 1273.7 rpm | 74.44 W  | 84.0% |
| Max. torque point  | 9.58 A  | 2.34 N·m | 202.2 rpm  | 49.60 W  | -     |
| Max. output point  | 9.17 A  | 1.55 N·m | 842.1 rpm  | 136.87 W | -     |

05 Original Motor Curve



06 Installation Dimensions



DIMENSIONS / IMPORTANT CONFIRMATIONS

Wheel  $\varnothing 73 \pm 0.1$  mm | Body length  $52 \pm 0.1$  mm | Overall length  $76 \pm 0.1$  mm | 3 × M4 as drawn. Confirm hole details and the correct single/double shaft drawing before fabrication.

\* The source does not clearly define noise test conditions, rotation viewing convention or insulation acceptance method. Brake selection, required driver/Hall pinout, duty cycle and wheel load limit require supplier approval.