

DiskDrive 50

Compact hubless thruster

The Hydromea DiskDrive thruster is an ultra-slim, rim-driven, direct-drive propulsion unit. The patented hub-less propeller design makes it robust to debris and eliminates the risk of stall due to strings and water plants wrap/ping around a shaft. The rotor is hydro-lubricated without any dynamic seals, making the design completely oil-free and pressure-proof.

The propeller is easy to replace without any tools. An injection moulded clockwise propeller is provided, anti-clockwise propellers are available on request.

The DiskDrive thruster should be used with ducting to optimise the water flow, thus increasing efficiency. This could be designed into the ROV body profile, or ducts with a mounting bracket are available as accessories in our web shop. All thrust performance data was logged using one of these ducts.

Features

- Ultra-compact
- Thin, low-profile design
- Hub-less propeller
- Direct drive, no gears or dynamic seals
- Pressure-proof

Applications

- Ideal as stabilisation thrusters for small ROVs/AUVs
- Low profile offers low drag for vertically mounted thrusters
- Deep-sea actuators
- Leisure water vehicles



Specifications

Operational

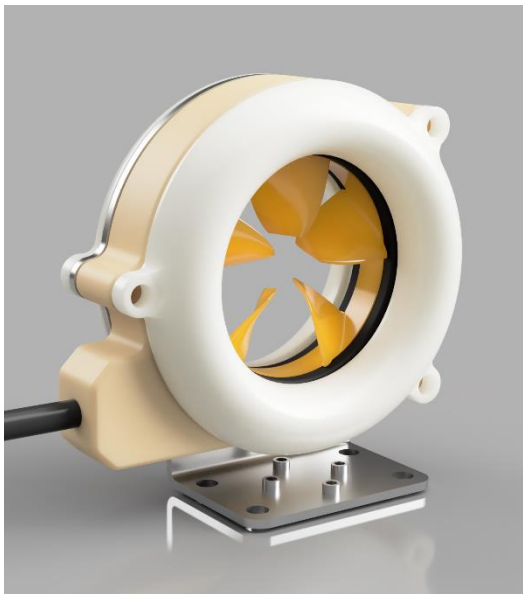
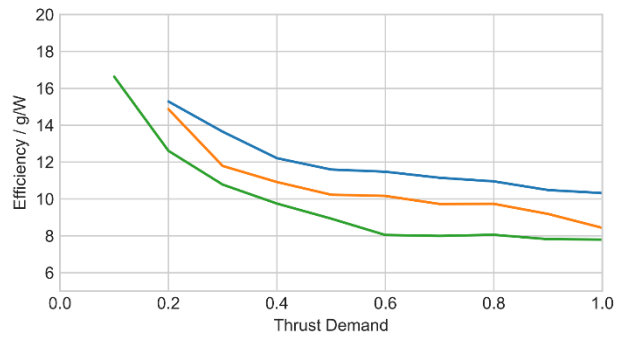
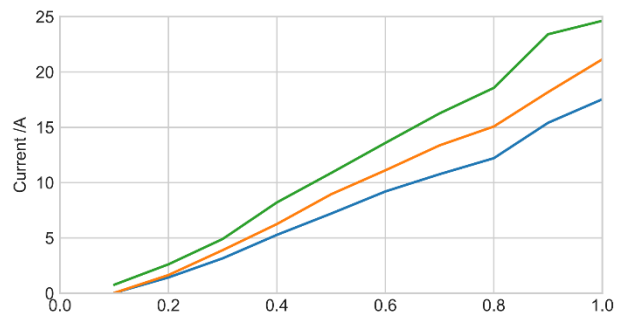
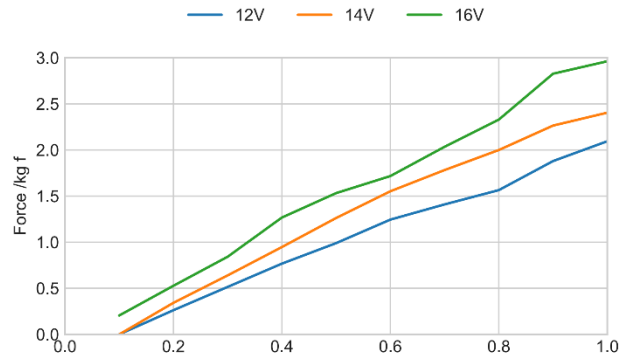
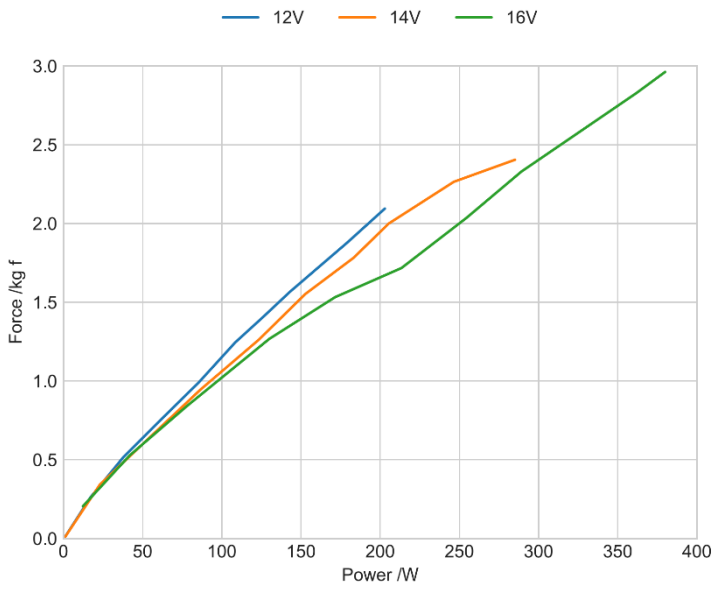
Supply voltage	12-16 V
Max. current	25 A
Max. RPM	4500
Thrust at 16V	3.0 kg f
Thrust at 12V	2.1 kg f
Interface	3-phase brushless sensorless control
Control	Compatible with most ESCs
Depth rating	300 m

Physical

Outer Dimensions	82 x 95 x 15 mm
Propeller diameter	50 mm
Weight in air (no cable)	175 g
Weight in water	115 g
Cable Dimensions	Ø 6.3 mm x 1.0 m
Mounting Holes	3 x Ø 5 mm

Performance Specifications

All measurements taken using Hydromea DiskDrive 50 duct.



DiskDrive 50 Hydro Duct