

# 600HF Hi-Flow Thruster

## Technical Specifications



# CrustCrawler “High Flow” 600HF UROV Thruster Technical Specifications

CrustCrawler’s “High Flow” UROV thrusters were designed to be extremely powerful and customizable for any number of our customers unique UROV / ROV requirements. No other thruster on the market has the programmable flexibility to set specific operating parameters for different environmental conditions than the CrustCrawler “High Flow” series. Machined from top of the line materials and sealed with a custom designed fluoroloy spring jacket seal, these thrusters are powerful and engineered for powerful thrust capability in a small package.

## Key Features

- 3,000 ft depth rating (oil compensated)
- Type 37 Kort Nozzle engineered for maximum thrust
- 2.36 (60mm)”, 4 blade brass propeller generates 16+ pounds of thrust
- Propeller is efficient in both forward and reverse thrust
- Type III hard anodized finish for maximum corrosion resistance in salt water
- Rugged 6061-T6 aluminum thruster housing and end caps
- Powerful 600W brushless motor with a 4.28:1 gear ratio
- Operates in all of the popular UAV/ROV voltage ranges from 12 to 50 volts
- Field serviceable components for low cost ownership
- Powerful, brushless motor provides for low maintenance and high reliability in the field

## Motor Specifications

- Motor Type – High efficiency brushless
- Weight – 274g. (9.7oz)
- Max Power – 600W (150W max power output for the thruster)
- Gear Ratio – 4.28:1
- Shaft Diameter – 5.0mm(.1969”)
- Maximum Case Temperature – 100C (212F)
- Ideal Operating Voltage – 12 to 50 volts

## Connector Specifications

- Depth Rating – 10,000 ft.
- 3 wire / 4 prong
- Type – Sea-Con

## Thruster Housing / End Caps

- T- 6061 Aluminum

## Thruster Seal

- Custom fluoroloy spring jacket seal with multistage o-ring followed by encapsulating grease gallery

### **Thruster Weight**

- Weight in air – 2 pounds (.907kg)
- Weight in water – 1 pound (.453kg)

### **Finish**

- Type III Hard Anodized Finish

### **Propeller**

- Size – 2.36” (60mm) - 4 blade
- Material – Solid Brass
- Propeller Adapter – Aluminum

### **Kort Nozzle Adaptor**

- Material – Aluminum with welded joints for strength
- Offset - 120 degrees

### **Depth Rating**

- 3,000 feet – Oil Compensated

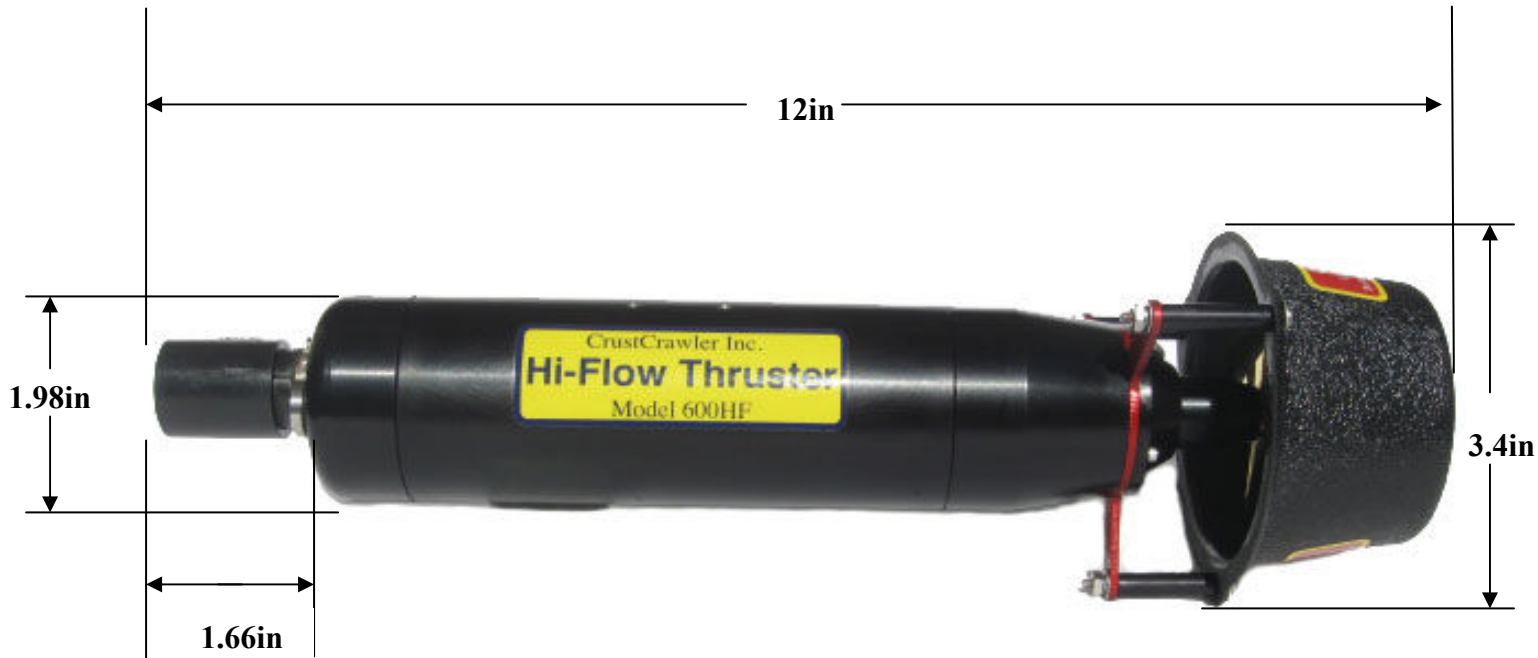
### **Thrust Rating (130W – 150W Maximum)**

- 50 volts – 16 pounds of thrust max (7.27kg)
- 24 volts - 16 pounds of thrust max (7.27kg)
- 12 Volts – 8 pounds of thrust max (3.63kg)
- **Note # 1 - At no time shall the thrust rating of 16lbs be exceeded or damage to the thruster may occur.**
- **Note #2 - For 50 volt users, do not exceed the 16 pound thrust rating or damage to the gearbox may occur!**
- **Note# 2 - Never Exceed the 150W (voltage X current) rating of the thruster or damage to the motor will occur. Always monitor your current consumption based on 12v, 25v and 50v usage to ensure you do not exceed the 130W- 150W thruster rating.**

## Thrust vs. Current Rating at 24v (130W - 150W max)

<b>Thrust (kg)</b>	<b>Thrust (pounds)</b>	<b>Current (Amps)</b>
.453	1	.14
.906	2	.40
1.36	3	.60
1.81	4	.81
2.26	5	1.16
2.72	6	1.46
3.17	7	1.94
3.62	8	2.30
4.08	9	2.70
4.53	10	3.15
4.98	11	3.56
5.44	12	3.89
5.89	13	4.35
6.34	14	4.69
6.79	15	5.26

## Dimensions



- Kort Nozzle Inlet – 2.80” (71mm)
- Kort Nozzle Outlet – 2.44” (62mm)