600U HYDROGEN FUEL CELL

600 Watt UAV Power System

Commercial UAV operators struggle with limited mission duration, range, reliability, and noise. They are frustrated managing, charging, and transporting batteries; and by the cost of maintaining small engines.

Honeywell fuel cell power systems provide up to three times more run-time than the best batteries, and five times the reliability of small engines — and they run on clean hydrogen gas.

All of this means you get:

- Faster refueling for less downtime
- No battery or cable jumble
- Better cold-weather endurance
- Better high-altitude performance
- Quiet operation
- Unmatched expertise and experience.

600U Fuel Cell Power System

KEY BENEFITS

You receive a complete system: 600 watt hydrogen fuel cell, control electronics, heat exchanger, and integrated battery power hybridization.

Our liquid-cooled system delivers reliable operation in hot or cold weather, and in high or low humidity.

Reduce your risk and get off the ground quicker with our integration support and unmatched experience with UAV platforms and systems.

Our team's decades-long defense heritage and experience brings proven and reliable military-grade technology to commercial applications.

Honeywell

PRODUCT SPECIFICATIONS

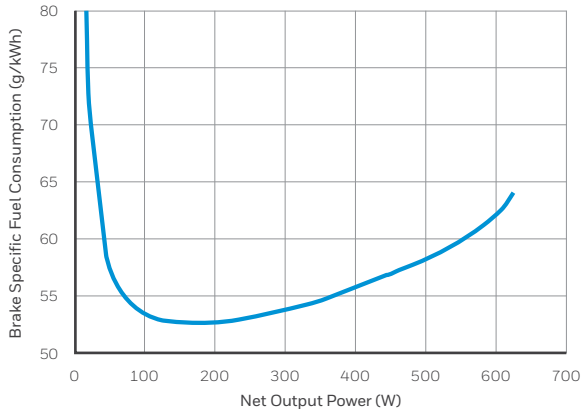
Variants		
Fully-hybridized system (battery and charger included)	600U (012-894)	
Fully-hybridized high voltage system	600U-HV (014-596)	
Electrical	**600U**	**600U-HV**
Continuous Net Output Power (fuel cell only)	0-600 W	0-600 W
Maximum Net Output Power (fuel cell w/ battery)	30A continuous, 50A peak	60A continuous, 100A peak
Recommended Hybrid Battery Configuration	4S to 8S	6S to 14S
Output Voltage	12.0 – 33.6 V	8.0 – 58.8 V
Power Connectors	XT-60, Non-Sparking	XT-90, Non-Sparking
Physical		
Weight	1.8 kg[a]	1.9 kg[a]
Dimensions (L x W x H)	9.5" x 6.7" x 5.5"	9.1" x 6.1" x 5.4"
Standard Mounting Fasteners	4 x 6-32 UNF	4 x 6-32 UNF
Fuel		
Hydrogen Purity	J2719 or better	J2719 or better
Hydrogen Supply Pressure	12-18 psi	12-18 psi
Hydrogen Consumption Rate	53 g/kWh @ 200 W Net[b] 63 g/kWh @ 650 W Net[b]	53 g/kWh @ 200 W Net[b] 63 g/kWh @ 650 W Net[b]
Hydrogen Supply/Exhaust Fitting	1/8-in ID barb	1/8-in ID barb
Communication		
Communication Interface	RS-232	RS-422 (CANbus optional)
Environmental		
Ambient Temperature	5 to 45 ˚C	5 to 45 ˚C
Standard Operating Altitude	0 to 15,000 ft[c]	0 to 15,000 ft[c]
Relative Humidity	0 to 100%	0 to 100%
Durability		
Service Life – Fuel Cell Stack Replacement	3,000 hrs	3,000 hrs
Overhaul Interval – Balance of Plant Component Replacement	1,000 hrs	1,000 hrs

a Includes heat exchanger and control/power management electronics. Excludes battery

b See brake specific fuel consumption (BSFC) plot

c Power de-rating begins at 5,000 ft reaching a maximum of 10% at 15,000 ft

Fuel Consumption



For more information
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THE FUTURE IS WHAT WE MAKE IT

Honeywell