

1200U HYDROGEN FUEL CELL

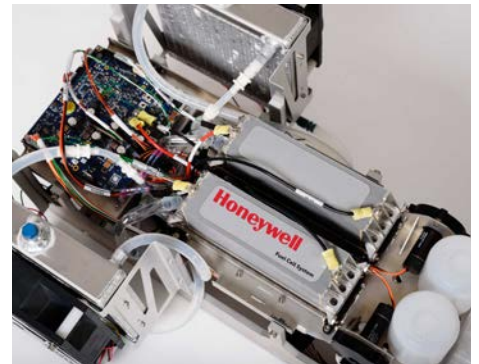
1200 Watt UAV Power System

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.



1200U Fuel Cell Power System

KEY BENEFITS



You receive a complete system: 1200 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 low humidity and at high altitude.



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.

PRODUCT SPECIFICATIONS

Ordering Information

Fully-hybridized system (battery and charger included) 1200U (014-413)

Electrical

Continuous Net Output Power (fuel cell only) 0 – 1200 W
 Maximum Output Current (fuel cell w/ battery) 60A continuous, 100A peak (1 second)
 Recommended Hybrid Battery Configuration 6S to 20S Lithium Polymer (LiPo)
 Output Voltage 18-84 VDC
 Output/Input Power Connectors XT-90, Non-Sparking

Physical

Weight 4.0 kg^a
 Dimensions (L x W x H) 17.0-in x 10.5-in x 6.5-in
 Standard Mounting Fasteners 8 x 8-32 UNF

Fuel

Hydrogen Purity J2719 or better
 Hydrogen Supply Pressure 12-18 psi
 Hydrogen Consumption Rate 53 g/kWh @ 400 W Net^b
 63 g/kWh @ 1300 W Net^b
 Hydrogen Supply/Exhaust Fitting 1/8-in ID barb

Communication

Communication Interface RS-422 (CAN bus optional)

Environmental

Ambient Temperature 5 to 45 °C
 Standard Operating Altitude 0 to 15,000 ft^c
 Relative Humidity 0 to 100%

Durability

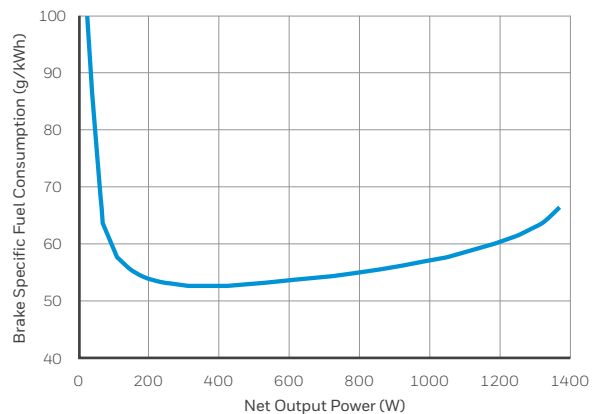
Service Life – Fuel Cell Stack Replacement 3,000 hrs
 Overhaul Interval – Balance of Plant Component Inspection/Maintenance 1,000 hrs

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

aerospace.honeywell.com

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 FUTURE
 IS
 WHAT
 WE
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