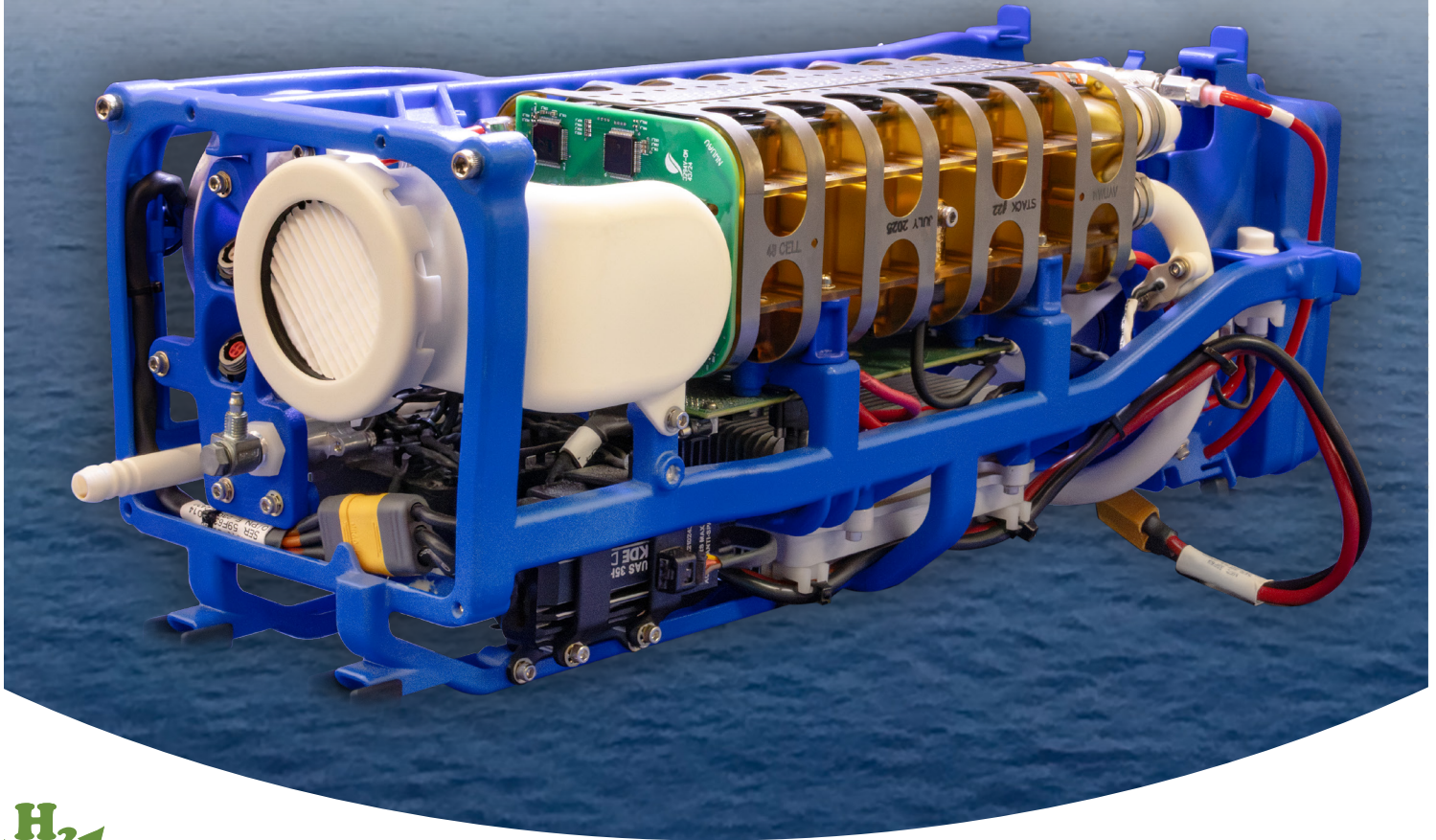


NWFC-1500 PEM Fuel Cell



Clean Reliable Energy

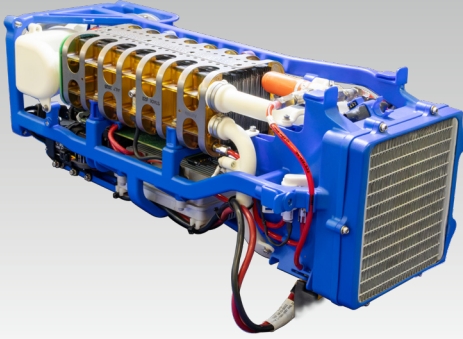
MISSION-GRADE HYDROGEN PROPULSION

BREAKING THE BATTERY BARRIER

The NWFC-1500 is a high-density Proton Exchange Membrane (PEM) Hydrogen Fuel Cell system engineered in cooperation with the U.S. Government for the 18–25 kg (40–55 lbs)¹ UAS class. Designed to displace traditional battery arrays, the NWFC-1500 offers a modular power solution that significantly extends mission radius while maintaining the low-observable characteristics of electric flight.

01. Classification: Proton Exchange Membrane (PEM) Fuel Cell System
02. Origin: U.S. Government Co-Development
03. Platform Class: Modular Fuel Cell System

MILITARY PROVEN PROPULSION SOLUTIONS!



H₂ FUEL CELL - STRATEGIC RELIABILITY & LOGISTICS

The NWFC-1500 System is designed to lower Total Cost of Ownership (TCO) through reduced maintenance cycles and long-term fueled storage capabilities. Its modular and scalable design allows it to adapt to varying power requirements, providing a flexible propulsion baseline for the next generation of Remotely Operated and Autonomous Systems.

01. SYSTEM SPECIFICATIONS

PARAMETER	SPECIFICATION
Technology ¹	Proton Exchange Membrane (PEM)
Rated Power (Gross)	1500 W / 1200 W (Customer Available)
Rated Performance	24-29VDC / 45A Continuous, 50A Peak
Number of Cells	48
Hybridized Battery Operation	7S, BB2590 or similar
Fuel Type	Hydrogen, SAE J2719 Standard (or Better)
Cooling Type	Liquid
Hydrogen Consumption at Rated Power	1.8 grams/min 5.3 gpm STP
Hydrogen Consumption at Cruise Power (500 W)	0.5 grams/min 1.5 gpm STP
Hydrogen Supply Pressure	10-16 psig
Weight ²	8.8 lbs (3990 g ± 100 g)
System Dimensions (HxWxL)	6.1 x 7.1 x 16.4 in 15.494 x 18.034 x 41.656 cm
Sound Rating (Max)	66 dBa
Power-to-Weight Ratio	375 W/kg
System Efficiency at Cruise (500 W)	53%
Time Between Overhaul ³	500 hours
Service Life ³	1500 hours

NOTE: This product is under continual development reserving the right to make product improvements as needed. | ¹Excludes Hydrogen Storage tank and pressure regulator. | ²Depending upon aircraft. | ³Aircraft performance results vary by model.

PEM Fuel Cell application is dependent on airframe factors including: Aerodynamics, propeller, and operational concept. Please contact NWUAV for guidance.



RELIABLE



LIGHTWEIGHT



INSTANT ON



SCALABLE



CUSTOMIZABLE



REMOTE OPERATION

02. TACTICAL ADVANTAGES & SYSTEM ARCHITECTURE

- Advanced Low-Observable Profile:** Engineered for near-silent operation with a minimal thermal signature, providing a decisive advantage in covert ISR and high-sensitivity reconnaissance missions.
- Rapid Deployment Readiness:** Features a Quick-start capability, ensuring rapid power-up for time-critical launches.
- Energy Density Optimization:** Offers superior energy-to-weight ratios compared to traditional battery systems, allowing for increased "on-station" duration and environmentally responsible operations.
- AS9100-Compliant Engineering:** American-made, purpose-built system designed for the rigors of flight, featuring a compact envelope and customizable layout for streamlined airframe integration.

03. OPERATIONAL BENEFITS

- Stealth Optimization:** Low audible and thermal signatures.
- Reduced Logistics:** Low maintenance requirements and operating costs.
- Configuration:** Lightweight, compact envelope designed for customizable internal airframe layouts.



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