Technical Data Sheet

UAV Fuel Cell | **Hydrogen** | **Rated power: 1650 W** | **Power ratio: 884 W/kg**

TÜV Rheinland IEC safety certificated

This fuel cell system, specifically design for UAV and drones can power a drone with 1 kg payload and 90 minutes of battery life or 20 km flight.

Applications: UAV and drone hydrogen systems for extra-long endurance: High-precision surveying and topographic mapping, power grid inspection, refinery inspections, emergency rescue...

Specification

Hydrogen purity	≥99,99% (CO < 1PPM)
Hydrogen pressure	0,05 MPa - 0,09 MPa (recommended pressure 0,07 MPa)
Operating ambient temperature	-5ºC to 42ºC
Working environment humidity	10% - 95% RH
Nominal system rating	1.650 W
Bare stack power rating	1.750 W
Rated Voltage	48 V
Rated Current	34,5 A
DC Voltage Range	44 – 80 V
Average efficiency	≥50%
Hydrogen consumption	23,5 L/min (STP)
Start-up time	1,8 seg
Life-span	2.000 h

Product configuration

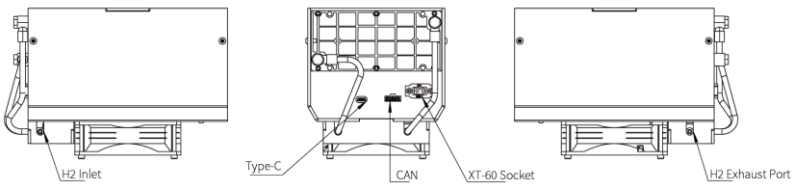
Environmental characterization	
Operating ambient temperature	-5 ºC to 42 ºC (can be extended to -30 °C – 50 °C by adding customized thermal management modules)
Operation ambient humidity	10 % - 95 % RH
Storage ambient temperature	-50 ºC to 70 ºC
Optimal storage Environment	20 °C – 50 % RH
Noise	≤50 dB @3m (levels may vary slightly according to operating conditions)

Physical parameters	
Bare stack size (mm)	226 * 148 * 68
Bare stack weight (kg)	1,98
System size (mm)	242 * 160 * 66
System weight (kg)	2,82
Bare stack volumetric power density (W/L)	761
Bare stack masic power density (W/kg)	884

Other information

The fuel cell system includes the stack, cooling fan, intake and exhaust solenoid valves, FCCU module, DC/DC converter for component power supply, cables and housing.

The system layout can be centralized or distributed according to the customer's installation space.



H2 Tube	PU6mm
Communication	USB-C
CAN	X3025WRS-04D-LPSW
Power Output	Amass XT60E-F

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