

Technical Data Sheet

UAV Fuel Cell

Hydrogen

Rated power: 1700 W

Power ratio: 960 W/kg



World's first TÜV Rheinland IEC safety certification

This fuel cell system, specifically design for UAV and drones can power a drone with 5 kg payload and 25 kg take-off weight for more than 2,5 hours or 30 km flight.

Applications: UAV and drone hydrogen systems for extra-long endurance: fire surveillance, Defense, agriculture mapping, fertilizing...

Specification

Hydrogen purity	≥99,99% (CO < 1PPM)
Hydrogen pressure	0,05 MPa - 0,09 MPa (recommended pressure 0,07 MPa)
Operating ambient temperature	-5°C to 42°C
Working environment humidity	10% - 95% RH
Nominal system rating	1.700 W
Bare stack power rating	1.900 W
Rated Voltage	51 V
Rated Current	33,3 A
DC Voltage Range	50 - 85 V
Average efficiency	>50%
Hydrogen consumption	23,1 L/min (STP)
Start-up time	1,8 seg
Life-span	2.000 h

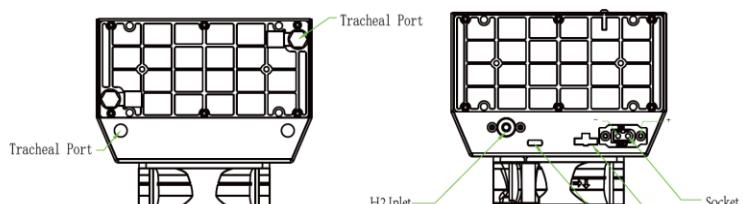
Product configuration

Environmental characterization		Physical parameters
Operating ambient temperature	-5 °C to 42 °C (can be extended to -30 °C - 50 °C by adding customized thermal management modules)	Bare stack size (mm) 248 * 148 * 68
Operation ambient humidity	10 % - 95 % RH	Bare stack weight (kg) 2,10
Storage ambient temperature	-50 °C to 70 °C	System size (mm) 248 * 154 * 132
Optimal storage Environment	20 °C - 50 % RH	System weight (kg) 2,90
Noise	≤50 dB @3m (levels may vary slightly according to operating conditions)	Bare stack volumetric power density (W/L) 760
		Bare stack masic power density (W/kg) 960

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