HYDROGEN POWERED. MAXIMUM RANGE.

H2PM – Hydrogen UAS

Replacing Helicopters. Enabling the Impossible. Enduring. Flexible.

Hydrogen fuel cells deliver longer, and more reliable power than conventional battery-powered systems – enabling new use cases for industrial drones.

150 km	**2.5 h**	**5 kg**
Operational Range[1]	Flight Time[1]	Payload[1]

H2PM is a modular, hydrogen-powered octocopter with customizable tank sizes and payload options for various industrial applications.

H2PM – HYDROGEN UAV

Combining unmatched redundancy, proven reliability, and exceptional payload flexibility

Hydrogen Storage Tank
Compressed Gaseous Hydrogen (300 bar)

Rotors
X8 Configuration Enables System Redundancy

Backup Batteries
Batteries for Peak Power and Safe Emergency Landing

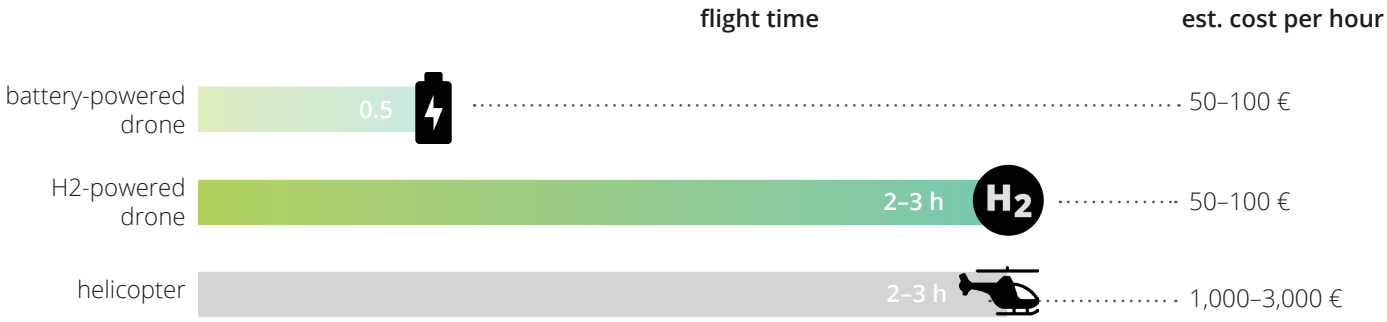
Fuel Cell
3 kW High-Performance Fuel Cell System

Payload Rails
any payload up to 5kg can be mounted on the rails

Compact System
Foldable Arms for Easy Transport

REDEFINING WHAT'S POSSIBLE IN THE SKY

Long-Range, Low-Cost: The Benefit of Hydrogen Drones



Making New Missions Feasible

Energy Inspections

Power grid lines, pipelines, solar farms

Offshore Operations

Inspection and rapid deployment to remote locations

Time Critical Logistics

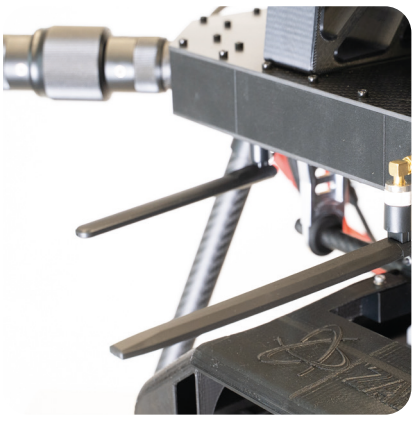
Medical supplies and samples, spare parts

Surveillance

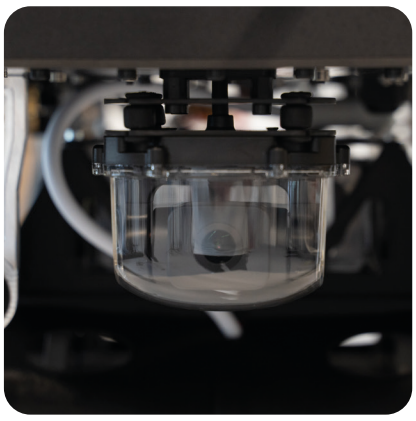
Search and rescue operations, wildfires, situational awareness

CONTROL & COMMUNICATION

Redundant Dual-Frequency System for Maximum Reliability



Fail-Safe Transmission
Flight data is transmitted on two frequencies



Onboard Camera
Providing a clear view for precise control

LiDAR Rangefinder
Measures ground distance to ensure smooth landing

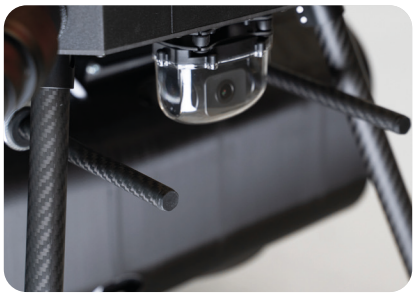
SYSTEM OVERVIEW

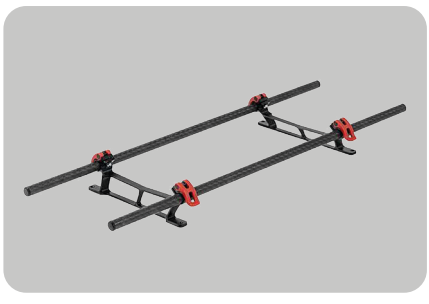
Flight Performance[1]

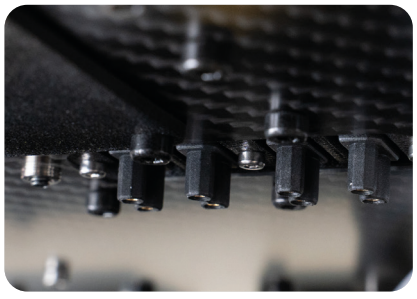
Cruise Speed	Operation Range	Flight Time
60 kph	**150 km**	**2.5 h**
Wind Resistance	Altitude	Operating Temperature[2]
12 m/s	**3,000 m**	**-5°C to 40°C**

Payload

Max. Payload Weight	Payload Rails	Payload Power Supply
5 kg	**12 mm – 165 mm spacing**	**5 V, 12 V**







[1] All data were measured using a prototype model of the H2PM drone in a controlled environment. Actual performance may vary depending on environmental conditions, payload and tank size.
[2] Operating range of a fuel cell.

QUICK START

Ready for flight in 5 minutes or less

1

Transport
A simple, flat surface is sufficient as a takeoff area.

2

Setup
Unfold the rotor arms and secure them using the screw threads.

3

Fuel Cell
Connect the hydrogen tank to the fuel cell.

4

Takeoff
After a short automatic system check, the drone is ready for takeoff.

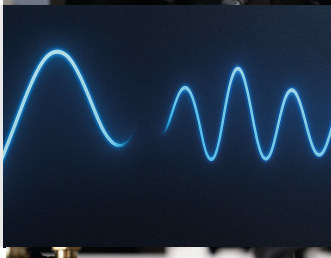
H2PM PLATFORM

Safety & System Robustness

Motor Redundancy
The X8 Config allows for a save landing in the event of a motor failure.

GPS Redundancy
Dual helical antennas allow heading estimation, offering a backup to the magnetic compass.

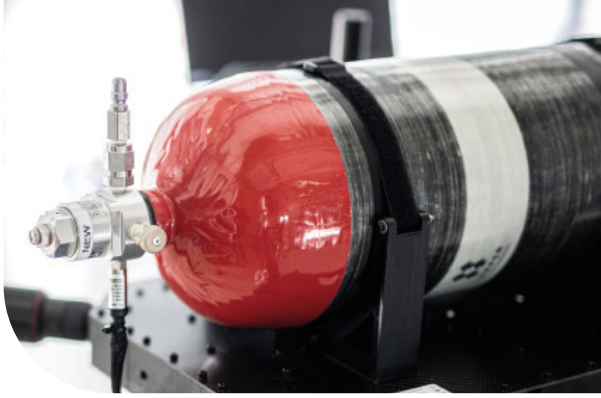
2.4 and 5 GHz dual frequency redundancy
Flight data is sent on both frequencies simultaneously to ensure continuous drone connection.



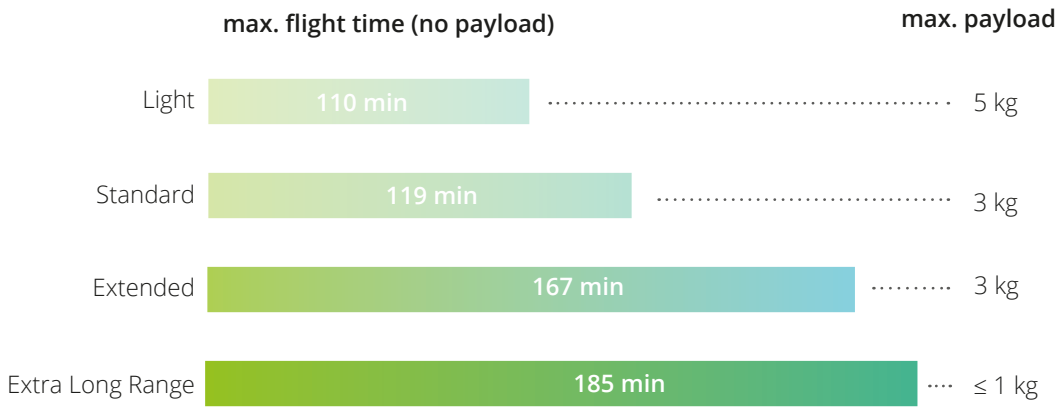
Dual hybrid energy system with two backup batteries
and ensure safe landing in case of a failure in the hydrogen-powered main drive.

High performance Cube Orange +
CPU Failsave Co Processor, ADSB and triple redundant IMU.

TANK & REFUELING



Hydrogen tank options[1]



Detailed information on the H2PM Datasheet.

Hydrogen Refueling & Logistics

Reliable hydrogen supply across Europe

Stationary Refueling

Ideal for scheduled operations

Mobile Refueling

Mobile Station for remote or adhoc mission

Photo: AIR PRODUCTS

[1] The stated performance has been partly calculated from reference flights and may vary depending on environmental conditions. Please contact us for more detailed performance information.

DATASHEET

Parameter	Value[1]
Unfolded Dimensions (including propellers)	179 cm x 159 cm x 64 cm
Folded Dimensions (including propellers)	75 cm x 60 cm x 64 cm
Propeller Size	28 Inches
Transport	Foldable Arms and Propellers
Flightcontroller	Cube Orange+ Flightcontroller
Remote Control / Groundstation	SIYI-UniRC-7-Pro
RTK GNSS Module	Holybro H-RTK F9P Drone CAN Helical GPS RTK Modul
Default FPV Camera	SIYI FPV 1-Axis Gimbal
Payload Power Supply	5 V / 12 V
50V	12S (50 Volt)
Payload Integration	12 mm CFK Tubes with 165 mm spacing
MTOW	25 kg
Dry Weight (Without Gas Tank)	16,9 kg
Max. Tested Groundspeed	16 m/s
Fuel Cell Max Height	3.000 m
Fuel Cell Start-up Temperature	+5°C to 40°C
Fuel Cell Storage Temperature	-10°C to 70°C
Tested Wind Resistance	24 km/h (steady), 41 km/h (gusts)
Ground LIDAR	Lightware LW20/C LiDAR Rangefinder 100m
Operating Frequency	2.4 GHz & 5 GHz
RC Communication Range	40 KM
Tank Option 1 (Light)	9.3 Liter, certified, Payload max. 4.3 kg, max. flight time 111 min
Tank Option 2 (Standard)	13 Liter, certfied, Payload max 2.12 kg, max. flight time 119 min
Tank Option 3 (Extended)	17.2 Liter, not yet certified, Payload max. 2.7 kg, max flight time 167 min
Tank Option 4 (Extra Long Range)	20 Liter, not yet certified, Payload max. 0,75 kg, max flight time 185 min

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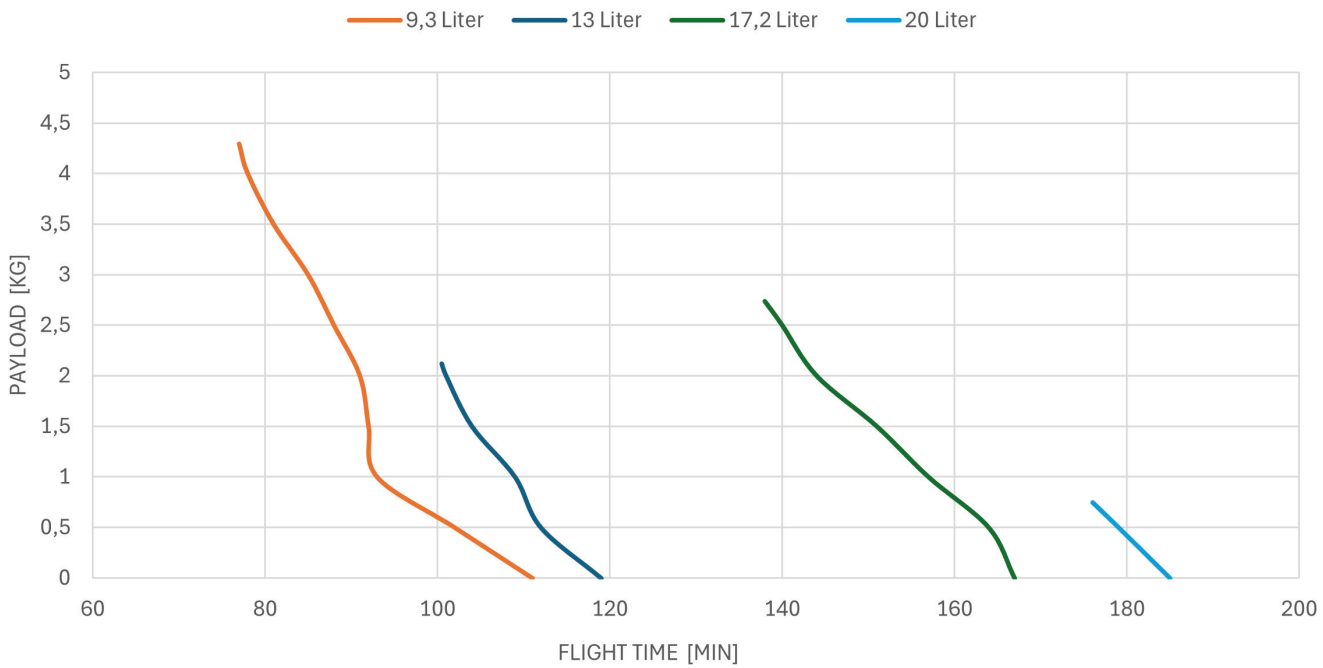
DATASHEET

PAYLOAD VS FLIGHT TIME [1]



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