EPSILON

EPH 18

Long-Endurance Helicopter UAS

A Comprehensive Solution Provider

FLIGHT-PROVEN
50+ hours flight test & LiDAR ops

3 hours endurance | **5 kg payload** | **20 kt wind capability** | **Hover & low, slow flight**



The EPH 18 is a petrol-powered unmanned helicopter with an efficient 2 m rotor and custom-designed rotor head. It carries a 5 kg payload for 3 hours and flies slow and low with rock-steady hover, making it ideal for LiDAR mapping, ISR and small package delivery. Strong in crosswinds and fully customisable to the mission.

AT A GLANCE

MTOW	**20 kg**
Max payload	**5 kg**
Endurance	**3 h with 5 kg payload**
Cruise speed	**40 km/h**
Max speed	**120 km/h**
Max wind	**37 km/h (20 kt)**
Data link	**35 km / 100 km+***
Engine	**2-stroke petrol**

KEY CAPABILITIES

Long endurance
3 hours with full payload, from petrol power.

Built for LiDAR
Slow, low-altitude flight for dense point clouds.

Steady in wind
Holds station in crosswinds up to 20 kt.

Multi-role payload
LiDAR, ISR cameras or small delivery packages.

Long-range link
35 km standard; Silvus to 100 km+.

Customisable
Payload and configuration tailored to the mission.

ENDURANCE. STRENGTH. TRUST.
HOVER WHERE IT MATTERS.

LIDAR MAPPING | **ISR & SURVEILLANCE** | **SMALL PACKAGE DELIVERY** | **AGRICULTURE & ENVIRONMENT**

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*Line-of-sight data-link range; 100 km+ with optional Silvus radio and tracking antenna. Performance varies with payload and conditions.

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EPH 18

Platform Specifications & Integration

DIMENSIONS & MASS	
Main rotor diameter	**2 m**
Tail rotor diameter	**424 mm**
Length	**1,586 mm**
Standing height	**580 mm**
Basic operating mass	**10 kg**
Fuel mass	**5.2 kg**
Max payload	**5 kg**
MTOW	**20 kg**

PERFORMANCE	
Endurance	**3 h with 5 kg payload**
Cruise speed	**40 km/h (21.6 kt)**
Max speed (Vmax)	**120 km/h (65 kt)**
Max wind	**37 km/h (20 kt)**
Flight profile	**Hover; slow, low altitude**
Engine	**2-stroke petrol**
Rotor head	**Custom-designed**
Launch / recovery	**Vertical, no runway**

MISSION PAYLOADS

LiDAR mapping
Slow, low passes for high-density point clouds over farms, mines, corridors and terrain.

ISR
EO and thermal cameras for surveillance, overwatch and inspection, with stable hover over a point of interest.

Small package delivery
Up to 5 kg of supplies, spares or samples, delivered where there is no landing strip.

Customisable — payload and configuration tailored to your requirement.



DATA LINK & CONTROL

35 km — **Standard radio**
Included as standard.

100 km+ — **Silvus upgrade**
MANET radio with ground tracking antenna.

Common GCS — same ground control station as the EPV 25: one system across the fleet.

FLIGHT HERITAGE

50+ **flight hours**
of flight testing and LiDAR payload operations.

Designed and developed in South Africa for endurance, strength and reliability.

*Line-of-sight data-link ranges. Optional Silvus radios are US-origin and subject to US export licensing. Performance varies with payload, configuration and conditions. Specifications are indicative and subject to change without notice. Operation subject to applicable civil aviation regulations.

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