Web |www.uavisus.ca
Phone | 780-394-3958
Email |info@uavisus.ca

UAVISUS V500

CONTENTS

V500

The V500 is a lightweight, high-precision, long-endurance electric VTOL fixed-wing drone. It excels in efficient data collection, control point-free mapping, and portability. Built with Kevlar and PMI composite materials, it maximum weighs only 7.5kg and can fly for up to 180 minutes. The modular design allows quick assembly and improved efficiency. The V500 comes in three configurations: orthophoto and oblique photography, Phase One versions, meeting diverse customization needs.

Orthophoto and Oblique Version

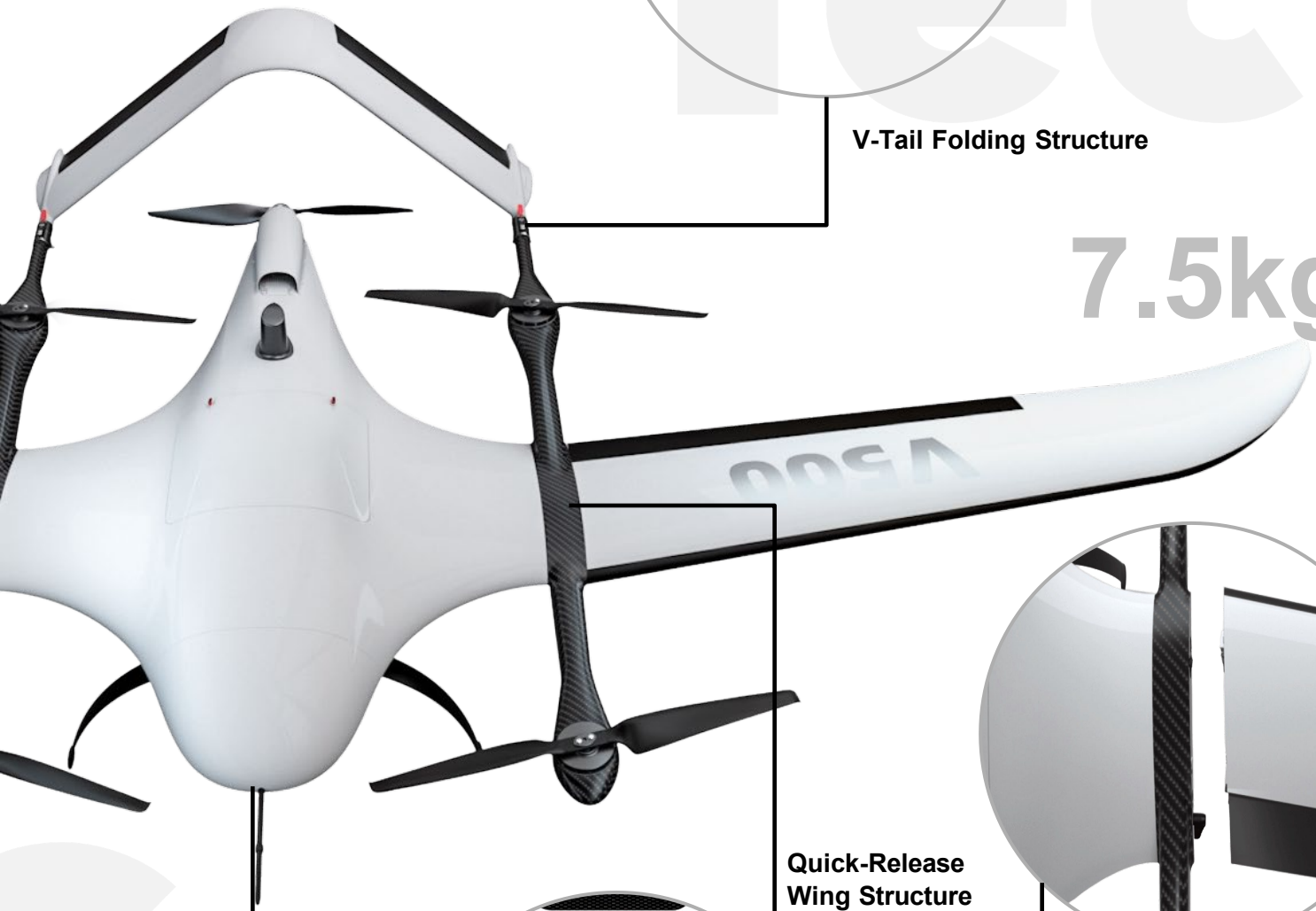
Phase One Version

Parameters of System	
Material of body	Kevlar and PMI
Size of expanded	2296mm*1280mm* 257mm
Takeoff weight	≤ 7.5kg
Power mode	Electric
Cruising speed	17m/s
Maximum speed	26m/s
Battery life	≤ 180minutes
Single flight distance	≤ 150km
Takeoff altitude	0-5000m
Maximum ceiling altitude	7000m
Wind resistance	≤ 15m/s
Control distance	25km
Take-off and landing mode	Vertical take-off and landing
Operating temperature	-20°C to 50°C

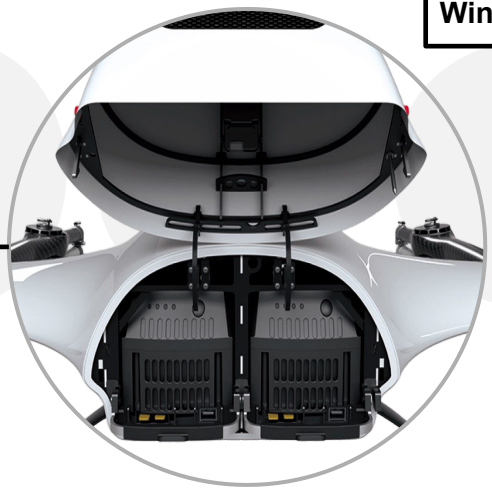
2.3m

V-Tail Folding Structure

7.5kg



Quick-Release
Wing Structure



Smart Battery

180 mins

Orthophoto Version

Technical parameters of Orthophoto sensor

Pixel size	3.76 µm
Sensor Size	36mm×24mm
Effective Pixels	61 Megapixels (9540×6336)
Lens Focal Length	40mm Fixed Focal Length

Flight Efficiency Table - Orthophoto Version

*(Based on Three Flights per Day, 80% * 60% Overlap, Standard Route Design)*

GSD	Flight Altitude	Operation Area	Daily Flight Capacity	Flight Range
cm	m	km²	km²	km
2	213	10.72	32.16	150
3	319	15.83	47.49	
5	532	25.74	77.22	
8	851	39.98	119.94	

Oblique Version

Technical parameters of Oblique Sensor

Pixel size	3.76 μm
Sensor Size	23.5mm × 15.6mm
Effective Pixels	126 Megapixels (25.2 Megapixels × 5)
Maximum shutter speed	1/12000s
Lens Focal Length	Nadir 28mm / Oblique 40mm

Flight Efficiency Table - Oblique Version

*(Based on Three Flights per Day, 80% * 60% Overlap, Standard Route Design)*

GSD	Flight Altitude	Single Flight		Daily Flight Capacity		Flight Range
		Best Texture	Operation Area	Best Texture	Operation Area	
cm	m	km²		km²		km
2.5	160	4.67	6.04	15.98	18.45	120
3	192	5.43	7.22	18.86	22.09	
5	321	8.12	11.87	29.69	36.52	
8	513	11.37	18.69	44.33	57.90	

Phase One Version

Technical parameters of Phase One sensor

Sensor model	Phase One P5
Maximum shutter speed	1/16000s
Sensor size	43.8mm×32.7mm
Sensor effective pixels	About 102 million pixels (9568×6380)
Maximum frame rate	4fps
Lens focal length	Fixed focus 50mm

Flight Efficiency Table - Orthophoto Version

*(Based on Three Flights per Day, 80% * 60% Overlap, Standard Route Design)*

GSD	Flight Altitude	Operation Area	Daily Flight Capacity	Flight Range
cm	m	km²	km²	km
2	266	8.49	25.47	100
3	399	12.47	37.40	
5	665	20.08	60.25	
8	1064	30.85	92.55	

System Configurations

Orthophoto Version

256GB high-speed memory card *1	Smart Battery changer *1
Memory card reader *1	Transportation case *1
Ground data transmission system *1	Landing pad *1
UAVManager software (Professional Edition) *1	
Smart Battery *2	

Oblique Version

128GB high-speed memory card *5	Smart Battery changer *1
FMR-500 smart memory card reader *1	Transportation case *1
Ground data transmission system *1	Landing pad *1
UAVManager software (Professional Edition) *1	
Smart Battery *2	

Phase One Version

256GB high-speed memory card *2	Smart Battery changer *1
Memory card reader *1	Transportation case *1
Ground data transmission system *1	Landing pad *1
UAVManager software (Professional Edition) *1	
Smart Battery *2	

Data Transmission Radio

The drone-specific data transmission radio, with a dedicated drone channel range of 840.5MHz to 845MHz, features a frequency hopping design to enhance anti-interference capabilities.

Transportation Case

The transport case for operations features a molded design, making it convenient and reliable to carry.

Its dimensions are 1141mm x 744mm x 500mm, with a total weight of 34kg for the orthophoto version (including internal equipment) and 34.4kg for the oblique version (including internal equipment), 35kg for the Phase One version.

Surveyor Professional Mapping Software

The Surveyor Professional Mapping Software is designed to meet diverse application needs, featuring automatic high-precision flight planning based on real-world 3D terrain data. It supports both fixed-wing and multi-rotor UAV platforms.

The software delivers powerful 2D and 3D reconstruction from RGB imagery, along with integrated LiDAR data processing and point cloud classification. Users can complete LiDAR data reconstruction and classification without any third-party trajectory processing software, efficiently generating multiple GIS-ready outputs.

Surveyor Professional Mapping Software is included with the UAV purchase and comes with lifetime free access, delivering long-term value with no recurring software purchase cost.