



Technical Details

HYPERCOPTER (HC-155)

Hardware

Drone Type

Hexacopter

Dimension (mm)

1550 x 1300 x 300 mm (hub-to-hub)

Max Take-off weight (kg)

24.9

Max Payload Weight (kg)

10

Batteries

Lithium-ion

HCB-PL: 45.6 V / 16 Ah x 2

HCB-RE: 45.6 V / 22Ah x 2

(Dual redundant power source)

Systems and Redundancies

Triple Redundant IMU

Dual Redundant RTK GPS

LiDAR Altimeter

Dual Power source

Magnetic field independent heading estimation

Can withstand up to 2 motor failures

Vision System (yet to be fully operational)

Radio/Telemetry/Video

(i) 4G / LTE

(ii) 2.4 Ghz 3-in1 Mesh System (Telemetry, RC and Video)

Ground Control Software

F-drones GCS (windows based)

Operation (in AUTO modes)

VTOL Mode

Cruise Speed (m/s)

12.5

Minimum Speed (m/s)

0

Maximum Speed (m/s)

15

Maximum Ascent Speed (m/s)

2.5

Maximum Descent Speed (m/s)

1

Maximum Wind Resistance (m/s)

10

Maximum Altitude (m)

2500

Autonomous Landing Accuracy (using vision system) (m)

0.2

Autonomous Landing Accuracy (using GPS) (m)

3

Flight Modes

Auto / Hover

Take-off / Landing mode

Vertical (VTOL)

Operating Temperature

0 deg to 55 deg Celsius

Weather

No operation during icing, rain, or thunderstorm conditions)



Ease to Use

Flight route planning

Auto generated (based on AIS data)

Return flight (vessel to shore)

One touch selection (follows same route back)

Setting flight area boundaries

Geo-fence capable

Condition monitoring and failsafe systems

- Battery health
- Sensor's health
- Weather conditions
- Communication Systems

Range

	10 kg Payload HCB-PL Batteries	8 kg Payload HCB-RE Batteries	5 kg Payload HCB-RE Batteries	0 kg Payload HCB-RE Batteries
Maximum Range	15 km	20 km	30 km	35 km
Maximum Endurance	25 mins	33 Mins	50 mins	60 mins

Payload Bay

Open/Close Mechanism

Automatic

Inner Dimensions (cm)

30 cm x 30 cm x 20 cm

Propulsion System Bay

Motors

Brushless DC

Propellers

28-inch Carbon Fiber

Charging

Fast Charging time (With 2.5kW charger)

< 60 mins

Assembly

Assembly time

1 Min

Transport Cases

Case 1: 694mm x 593mm x 400mm

(Drone in folded condition, Batteries, and chargers)

Case 2: 581mm x 581mm x 503mm

(GCS and toolbox)

