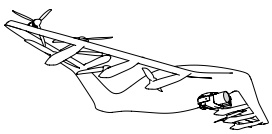
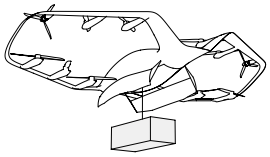
KATLA 3®



15kg of payload for EO/IR gimbal or any other type of sensor.
Stream live 4K video over 4G/LTE

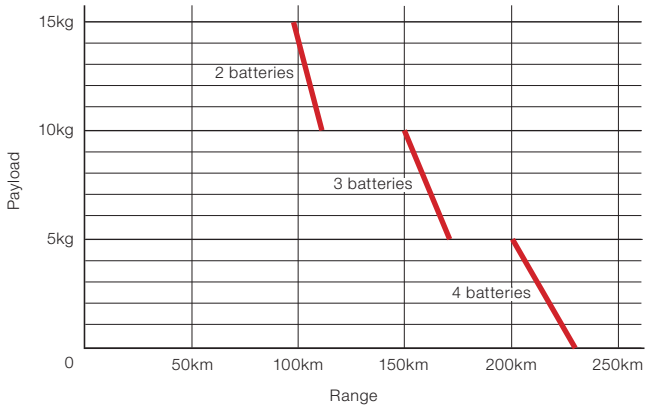


Internal, weather protected cargo bay (100 L) with access from top or bottom.

Overview

Katla 3 is a versatile and durable vertical take-off and landing (eVTOL) platform designed for heavy and rough weather conditions. It is ideal for sensor or cargo missions beyond visual line of sight (BVLOS) where large payload, high speed, dependability and range are critical for success. It is designed and assembled in Sweden to the highest standards of safety and built using industrial grade components.

Each Katla 3 is made to order with different options for sensors or hardware. It is delivered with an easy to use mission planning software, documentation and an optional training package.



Range specified with 20% reserve energy in ideal conditions and no wind. Aircraft empty weight is 15 kg, maximum take-off weight is 40 kg Batteries are 5 kg each.

Dimensions

Overall size

2.95 m wingspan
1.70 m length
0.47 m height

Cargo bay size

1.01 m length
0.35 m width
0.38 m max. height
100 L volume

Weights

15 kg empty
40 kg max take-off weight
15 kg max payload + 2 batteries
5 kg payload at 25 kg/55 lb MTOW (for part 107 etc.)

Batteries

1100 Wh each, 5 kg pack weight
5 batteries/5500 Wh max.
Integrated battery management system.

Performance

Speed

150 km/h cruise speed
120 km/h loiter speed

Range

200 km
(see graph for detailed range vs. payload)

Flight Time

110 min loiter
35 min continuous hover

Weather

-40 °C to +45 °C operating temperature
20 m/s max wind for hovering
rain and snow tolerant

Systems

Sensors

Heated, rainproof airspeed sensor.

RADAR altimeter

Dual RTK GPS, Galileo, GLONASS GNSS positioning system.

GNSS-heading
(no magnetometer calibration aka. “rain dance” required)

Flightmodes

Manual control with carefree VTOL transition, automated mission with waypoints or curves, hover, loiter, swarm, low level skimming, automatic generation of search and scanning patterns, custom flight modes, geo fencing.

Connectivity

Integration

API available for direct interface to flight controller for custom fleet management ground stations. Ability to run custom code on the onboard co-computer (see below)

Onboard edge-computing

Onboard NVidia Jetson Co-computer with 2-way connection to flight controller. User access to custom hardware and software. Supports real-time AI, detect-and-avoid, video compression and custom data links and camera/ sensors.

Onboard Interfaces

MIPI CSI-2
USB3.1 (10 Gbps)
Ethernet (1000 Base-T)
HDMI2.0-Input (4K60 fps support)

Flexible Redundant Network link

LTE/5G/Arbitrary UDP link system using multiple links for redundant encrypted safe communication over an ensemble of any network (UDP) links.

Data links

2X redundant 3G/4G LTE/5G for data, low latency video and telemetry link

LOS telemetry link choice of 433 MHz, 900 MHz or 2.4 GHz

Iridium Satellite telemetry

Ground station

Fleet management ground station software: control multiple Katla’s from one ground station or one Katla from multiple ground stations.

Direct control with ultralow latency, typical video latency over 4G: 50 ms. Supports VR, video dome or multiple screens.

Point-and-click on a map, fly with joystick and throttle or combine control modes during the same mission. Ground station can connect via cloud from anywhere in the world using fiber, redundant 4G or any other UDP link.

Safety

10 x redundant

Lift rotor systems tolerant to motor/ propeller failures.

Parachute

Ballistic, 50 m minimum deployment altitude.

Completely aerodynamically integrated with airframe.

Flight controller

Dual IMU, Barometer, GNSS, magnetometer.

Devloped in acordance with DO-178C/ED-12, DO254 and DO160, MIL-STD-810

Dissimilar FTS microprocessor for triggering parachute in case of a major autopilot failure.

Dual redundant data bus to flight critical components.

Transponder

ADS-B with IN & OUT

Failsafes

Auto land and return to home, fully configurable

Pre-programmable alternate landing zones. Automatically selects the closest spot in case of emergency.

Black box

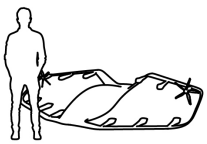
On board data logging of all flights, sync with ground station for export.

Training

Flight simulator for pilot training available.

Organisational

Documentation for SORA permits available: Pilot’s operating handbook and example of OM
Maintenance manual
ERP example
PDRA G02-template
references to POH



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Rev. 6 March 2022 Data is subject to change.
Find latest version at: www.katla.aero