



Date: March 5, 2024

A99H

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240 Uran Street
Hillsdale, MI 49242



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www.cobra-aero.com



DESCRIPTION

The A99H Engine System is a platform based on proven A33 core internals. It features an inline triple topology for low vibration and low acoustic output, precision liquid cooling, spark-ignited heavy fuel capability, and a direct drive starter/generator.



- Cowls much tighter than singles or boxers with the same power output.
- Liquid cooling improves temperature control and reduces airframe drag.
- Additively manufactured cylinder, cases, mount, intake, and exhaust system unlock design potential that other manufacturing methods can't (performance, weight, package, sound, efficiency, etc.)
- Hardware, electronics, and software all designed specifically for UAS applications.
- Inline triple architecture means primary and secondary shaking forces are inherently balanced.
- Inline triple fires every 120 degrees, dramatically reducing airframe vibration.
- Separate crankcases for each cylinder for improved mixture control and decreased cycle-to-cycle variability.
- Integrated focal isolation mount.
- Full size spark plugs for high altitude performance and improved MTBO
- Parallel hybrid capabilities help boost output when bursts of climb or sprint power are required

SPECIFICATIONS

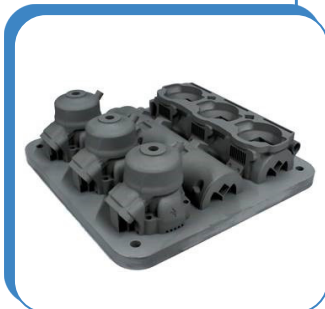
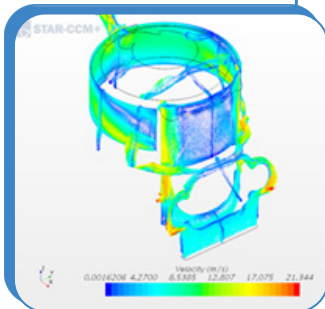
Engine Type:	Liquid-cooled 2-stroke inline triple
Displacement:	101.4cc (6.0 ci)
Mass:	8.4 kg (18.5 lbs) (Includes core engine, exhaust, ECU, fuel system, ignition, generator, harnesses, cooling)
Power Output:	6.5 kW (8.7 HP) at 7000 RPM
Fuel Consumption:	460 g/kW-hr (0.83 lb/hp-hr) cruise
Generator Output:	650W (800W intermittent)
Fuel Type:	VP P4F heavy fuel or VP C9 50:1 premix, JP5, JP8, Jet A

THE ENGINE PACKAGE INCLUDES

- Power4Flight IntelliJect ECU
- Self-priming fuel pump and accumulator
- All required EFI sensors and wire harnessing
 - *CHT, MAT and Fuel pressure*
 - *Baro and MAP*
 - *CDI module*
- Integrated preheating system
- Full induction and exhaust system
- Engine isolation mount
- Electric power generator with start capability
- Active cooling liquid cooling control with radiator
- Optional IntelliGen PMU for starting charging and power augmentation capabilities

FEATURES

- Altitude compensation
- Cold start compensation
- Onboard data logging, maintenance schedule, and logbook
- Free communications ICD and software developers kit for CAN and serial
- Free user interface for engine and configuration development





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