



240 Uran Street
Hillsdale, MI 49242

P: 517-437-9100

F: 517-437-9101

www.cobra-aero.com

DESCRIPTION

The A99HF Propulsion 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 increased power output.
- Liquid cooling improves temperature control, reduces airframe drag and improves durability.
- Additively manufactured cylinder, cases, mount, intake, and exhaust system unlock design potential that other manufacturing methods can't (performance, weight, package, sound, efficiency).
- 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 boost output when bursts of climb or sprint power are required.
- Passed FAR33 Accelerated Durability Test.

SPECIFICATIONS

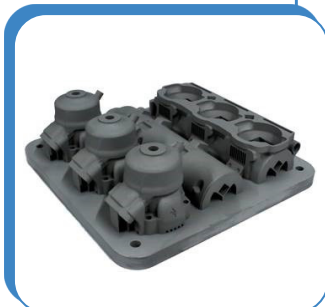
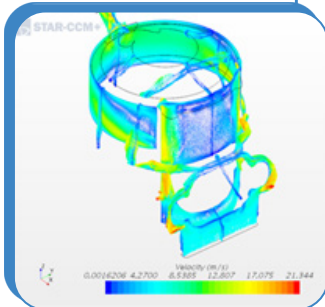
Engine Type:	Liquid-cooled 2-stroke inline triple
Displacement:	101.4cc (6.0 ci)
Mass:	8.4 kg (18.5 lbs) (Includes core engine, exhaust, ECU, fuel system, ignition, generator, harnesses, cooling)
Power Output:	6.5 kW (8.7 HP) at 7000 RPM
Fuel Consumption:	460 g/kW-hr (0.83 lb/hp-hr) cruise
Generator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

SYSTEM 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
- Generator with optional start capability
- Active liquid cooling control with radiator
- Optional IntelliGen PMU for starting, charging and power augmentation capabilities
- Available NDAA-848 compliant ECU

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





Date: April 10, 2025

A99HF

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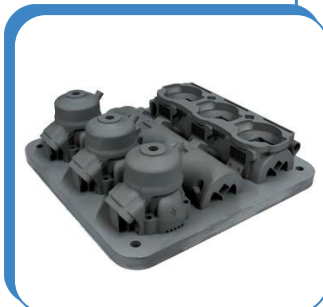
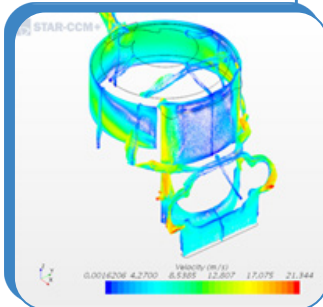
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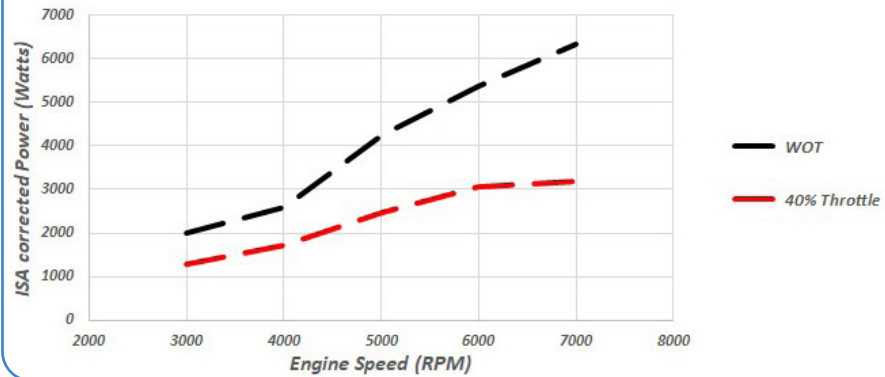
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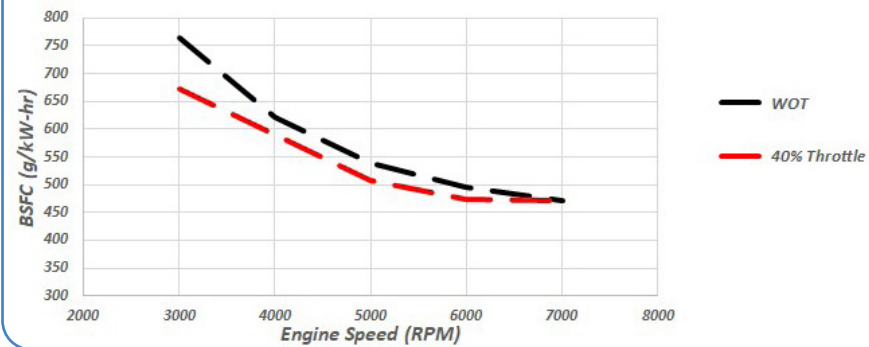
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A99HF PWR_{ISA}



A99HF BSFC



Intracycle Crankshaft Torque

