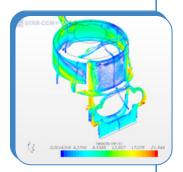240 Uran Street
Hillsdale, MI 49242

P: 517-437-9100

F: 517-437-9101

www.cobra-aero.com

DESCRIPTION

The A99S (series generator system), is currently under development. It utilizes A99 core triple inline architecture, based off Cobra Aero's A33 combustion system. It features the same great benefits of the core A99, with a purpose-designed, liquid-cooled 3-phase brushless alternator.

- High power to weight
- Low acoustic signature
- Additively manufactured cylinder, crankcase, intake, and exhaust - agile supply chain, lightweight, high quality
- Hardware, electronics and software all designed specifically for autonomous applications
- Primary and secondary shaking forces are inherently balanced
- Fires every 120 deg. Higher frequency torque impulses provide for relatively smooth operation
- Separate crankcases for each cylinder offers improved mixture control and decreased cycle-to-cycle variability
- Low torque voltage ripple, sinusoidal generator output for smooth rectified power

SPECIFICATIONS

Engine Type:	Liquid-cooled 2-stroke inline triple
Displacement:	99 cc (6.0 ci)
Mass:	5.58 kg (12.3 lbs) (Includes core engine, exhaust, ECU, fuel pump, injectors, ignition, generator, harnesses)
Fuel Consumption:	500 g/kW-hr (0.82 lb/hp-hr) cruise
Generator Output:	up to 4.5 kW DC rectified (<70VDC)
Fuel Type:	Heavy fuel or gasoline

THE ENGINE PACKAGE INCLUDES

- Power4Flight IntelliJect ECU
- Currawong self-priming fuel pump
- All required EFI sensors and wire harnessing
  - ○ CHT, MAT and Fuel pressure
  - ○ Baro and MAP
  - ○ CDI module
- Fuel pressure accumulator
- Full induction and exhaust system
- Liquid cooling system with active control
- Active rectification electronics
- Power electronics and stator actively cooled on separate loop

FEATURES

- Altitude compensation
- Cold start compensation
- DC Rail set points with user current limits
- Onboard log-booking and maintenance tracking
- Onboard data logging
- Plug n' Play with Piccolo autopilot
- Free communications ICD and software developers kit for CAN and serial
- Free user interface for engine and configuration development