AST-160 Turbojet

Astro Power System's AST-160 Turbojet Engine is a radial flow turbojet designed for providing thrust to small high-speed UAVs and model jet aircraft. The designated system provides ease of operation, flexibility, and maintainability over other systems. Different engine parameters can be altered via touch LCD (GSU). Astro Power System's engines have undergone extensive redesign and testing in order to provide safe and reliable working engines with highest quality standards for the satisfaction of customers.

All engines, before delivery are subjected to test runs, for the said purpose, a specialized engine test bed measures and record all performance data automatically and the engine rotors are dynamically balanced and finely tuned.

All manufacturing, assembly of mechanical parts and testing are performed in house in our work-shop/Laboratory. In addition to that, the Electronics Control Unit (ECU) hardware and related software are also developed, manufactured, and tested in house.

Features

- Microprocessor based fully automatic ECU (Engine Control Unit)
- Touch LCD Programmable GSU and Mini OLED External Status Display Adapter (For Newer versions)
- ECU Auto cool Down and Over Temp Protection Function
- Rapid Acceleration and Faster Engine Starting
- 2S LiPo (7.2V) Compatible Operation
- Telemetry output for external Sources
- Internal Temp Sensor for protection from damage

Specifications

- Thrust: 160N
- Exhaust Gas Temperature(EGT):550–750°C
- Compressor Type: Single Stage Radial
- Typical Fuel: Kerosene, JetA-1, JP-4, JP-5, JP-8
- RPM:35000@Idle, 120,000@Max
- Compressor Pressure Ratio: 3.1@ Max RPM
- Turbine Type: Single stage Axial
- Lubrication: 5% Turbine Oil Mixed with Fuel
- Mass flow: 0.36 kg/s
- Fuel Consumption idle(ml/min):150
- Fuel Consumption full(ml/min):565
- Dia: 113 mm
- Length: 245 mm
- Weight: 1.7kg
- Maintenance interval: 30 hours
- Ignition Type: Kerosene (Internal)