

SPECIFICATION SHEET

ARC

10kWe Output

Micro Turbine Generator

September, 2026



ORDER CONFIGURATION: ARC-[Voltage]-[Type]

Voltage	Alternator Winding	Operating Range	Optimal Voltage	Max Current
LV1	Standard	25 – 75 VDC	65 VDC	150 A
LV2	Standard	30 – 95 VDC	80 VDC	120 A
MV1	Custom*	40 – 120 VDC	100 VDC	100 A
MV2	Custom*	50 – 150 VDC	130 VDC	75 A
HV	Custom*	250 – 750 VDC	650 VDC	15 A

*Custom Alternator winding may incur additional cost (contact for more information)

Type	Description	Mass	Dimensions
-E (Enclosed)	Fully Enclosed	23.6 lb (10.7 kg)	20" × 11" × 7" (510 × 270 × 168 mm)
-A (Aircraft)	No Enclosure	17.0 lb (7.7 kg)	19" × 10" × 6" (486 × 247 × 144 mm)

FEATURES (Common to all Models)

Applications:	Hybrid Electric Aviation, Battery Range Extension
Output Current:	DC, Filtered & Rectified
Fuel Flexibility:	Kerosene, Diesel, Jet-A, or Biodiesel
Fuel Storage:	External Fuel Tank Required
Firmware Configuration:	Arduino IDE
Primary Control Method:	Constant Voltage Output with Active Load Compensation
System Operation:	Wired Remote Control
Automatic Functions:	Start-Up, Fuel Prime, Voltage Calibration, Cool-Down
Delivery:	Ready-to-Use Out of the Box

PERFORMANCE

Electrical Output (Max):	9.7 kWe
Voltage Ripple (Peak-to-Peak):	< 1% of DC Output
Engine-Start Altitude (Max):	6,500 ft (2 km)
Operating Altitude (Max):	33,000 ft (10 km, ISA Standard Day)
Operating Temperature Range:	14 °F to 120 °F (-10 °C to 50 °C)
Noise Level (Max):	95 dBA @ 1 m



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POWER PLANT

Prime Mover:	Microturbine Jet-Engine
Transmission:	Fuel-Cooled Reduction Gearbox
Start-Up Time:	30 seconds
Start-Up Battery:	1,500 mAh LiFePO4 (Recharged During Operation)
Turbine Rotational Rate (Max):	140,000 RPM
Fuel Flowrate (Max):	7.2 gal/hour (27 L/hour)
Air Flowrate (Max):	480 CFM (13,500 L/min)
Exhaust Gas Temperature (Max):	1,292 °F (700 °C)
Service Interval:	50 hours (Includes Turbine Cleaning & Rebalancing)
Time Between Overhaul (TBO):	1,000 hours

INTERFACES

Fuel Supply & Return:	2 × 4 mm ID, 6 mm OD Hose
Electrical Load:	2 × M6 Threaded Insert Terminals (Positive and Negative)
Turbine / Control / Charger:	3 × JST 2.54 mm Ports (3-PIN, 6-PIN, 4-PIN)

WIRED REMOTE CONTROL (Combines the Following Elements)

Turbine Display:	3" Touchscreen for Turbine Diagnostics and Telemetry
ARC Display:	1" OLED for ARC Status and Voltage Display
Toggle Switch & Turn-Dial:	Manual Controls for ARC Start & Operation

INCLUDED WITH EVERY SHIPMENT

Wired Remote Control	Detailed Instruction Manual
Fuel Tubing	Power Leads
Start-Up Battery Charger	Armored Case (Ensures Safe Product Delivery)

AVAILABLE OPTIONS (Contact Us for Pricing)

Custom DC Voltage Output
Exhaust/Inlet Customization
Wireless Control & Telemetry
Buffer Tank (Recommended for Aircraft and Vibration-Prone Environments)
Custom Fuel Tank Solutions
Custom Control Logic



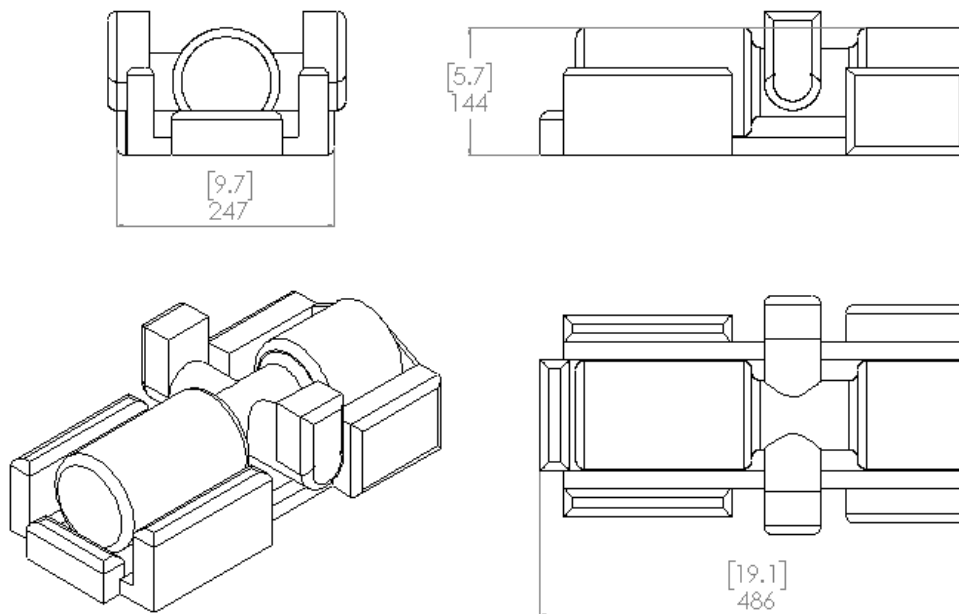
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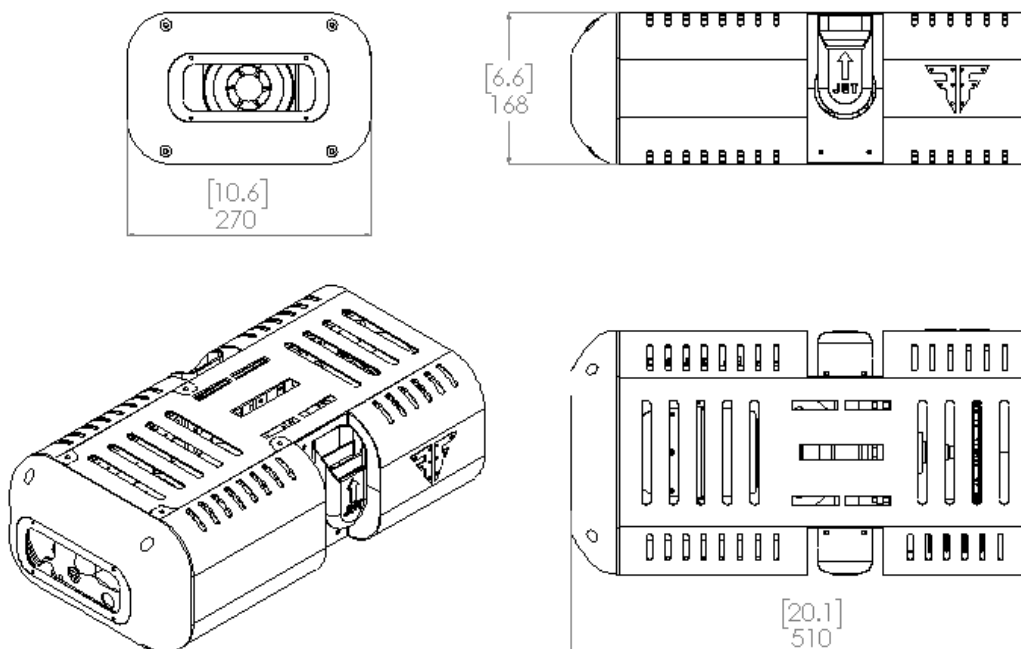
ENGINEERING DRAWINGS

(Dimensions Format: [in] mm)

ARC-A (Aircraft Variant)



ARC-E (Enclosed Variant)



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