

SPECIFICATION SHEET

ARC

10kWe Peak Output

Micro Turbine Generator

July, 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
MV	Custom*	40 – 120 VDC	100 VDC	100 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 in (510 × 270 × 168 mm)
-A (Aircraft)	No enclosure	17.0 lb (7.7 kg)	19 × 10 × 6 in (486 × 247 × 144 mm)

FEATURES (Common to all Models)

Output:	Filtered and Rectified DC
Fuel Compatibility:	Jet-A, JP-8, Diesel, Kerosene, Biodiesel
Operation Modes:	Auto: Fuel Prime / Start / Restart / Cool-down
Firmware:	Fully reprogrammable via Arduino IDE
Configurations:	Manual and Auto (select one when placing an order)
Control:	Constant Voltage Output with load compensation
Battery:	Internal start-up battery with self-recharging circuit
Delivery:	Ready-to-use out of the box (requires external fuel tank)

PERFORMANCE

Power (Peak):	9.7 kWe (can run continuously with external cooling)
Fuel Flowrate (Peak Power):	0.08 gal/min (0.3 L/min)
Voltage Ripple (Peak-to-Peak):	< 1% of DC Output
Startup Altitude (Max):	6500 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 @ 1m (Max)



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POWER PLANT

Prime Mover:	Microturbine Jet-Engine
Start-up time:	30 seconds
Turbine Rotational Rate (Max):	140,000 RPM
Alternator Rotational Rate (Max):	10,000 RPM
Air Flowrate (Peak Power):	400 CFM (12,000 L/min)
Exhaust Gas Temperature (EGT):	1,200 °F (650 °C) (Max)
Service Interval:	50 hours (Service includes cleaning and rebalancing)
Time Between Overhaul (TBO):	1000 hours

INTERFACES

Fuel Supply / Return:	2 × 6 mm OD hose
Electrical Load:	2 × M6 Terminals
Data / Control / Charger:	3 × JST 2.54 mm Ports (3-PIN, 6-PIN, 4-PIN)

WIRED REMOTE CONTROL (combines the following elements)

Turbine Display:	Touch-panel for turbine diagnostics and telemetry
ARC Display:	OLED display for generator status and output/setpoint voltage
Two-Way Switch and Knob:	For starting and operating the generator

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 price)

Custom DC Voltage Output (requires custom wound alternator)
Exhaust/Inlet Customization
Wireless Control
Buffer Tank (Recommended for aircraft and vibration-prone environments)
Custom Fuel Tank Solutions
Custom Mounting Solutions
Custom Firmware (desired communication protocols and custom control logic)



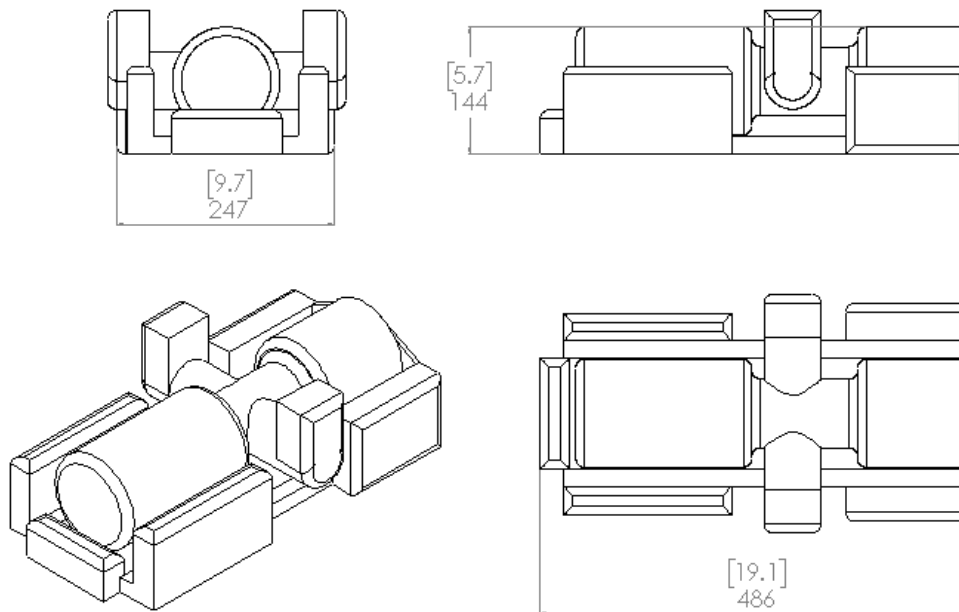
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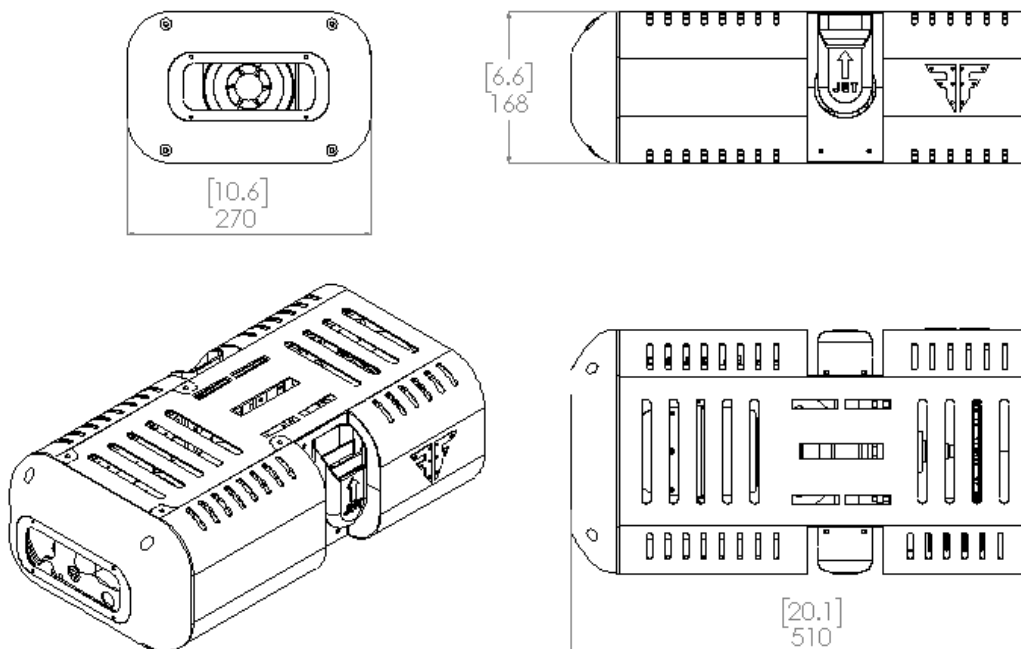
ENGINEERING DRAWINGS

(Dimensions Format: [in] mm)

ARC-A (Aircraft Variant)



ARC-E (Enclosed Variant)



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