

CR200 MicroTurbine Renewable Fuels



World's largest air-bearing microturbine produces 200kW of clean, green and reliable power.

- Ultra-low emissions
- Accepts renewable fuels with up to 5,000 ppm H₂S content
- One moving part: Minimal maintenance and downtime
- Patented air bearing: No lubricating oil or coolant
- 5 and 9 year Factory Protection Plans available
- Remote monitoring and diagnostic capabilities
- Integrated utility synchronization and protection
- Small, modular design allows for easy, low-cost installation
- Proven technology with ten of millions of run hours and counting



C200 MicroTurbine

Electrical Performance⁽¹⁾

| | |
|--|--|
| Electrical Power Output ⁽²⁾ | 200 kW |
| Voltage | 400 to 480 VAC |
| Electrical Service | 3-Phase, 4 wire |
| Frequency | 50/60 Hz |
| Maximum Output Current | 290A RMS @ 400V, grid connect operation 240A RMS @ 480V, grid connect operation |
| Electrical Efficiency LHV | 33% |

Fuel/Engine Characteristics⁽¹⁾

| | |
|---------------------------|--|
| Digester/Landfill Gas HHV | 13.0 to 22.4 MJ/m ³ (350 to 600 BTU/scf) 20.5 to 32.6 MJ/m ³ (550 to 875 BTU/scf) |
| Inlet Pressure | 517-552 kPa gauge (75-80 psig) |
| Fuel Flow HHV | 2,400 MJ/hr (2,280,000 BTU/hr) |
| Net Heat Rate LHV | 10.9 MJ/kWh (10,300 BTU/scf) |
| H ₂ S content | <5,000 ppmv |

Exhaust Characteristics⁽¹⁾

| | |
|---|---------------------------------|
| NO _x Emissions @ 15% O ₂ ⁽³⁾ | 9 ppmvd (18 mg/m ³) |
| NO _x /Electrical Output ⁽³⁾ | 0.14 g/bhp-hr (0.40 lb/MWhe) |
| Exhaust Gas Flow | 1.3 kg/s (2.9 lbm/s) |
| Exhaust Gas Temperature | 280°C (535°F) |
| Exhaust Energy | 1,420 MJ/hr (1,350,000 BTU/hr) |

Reliable power when and where you need it. Clean and simple.

Dimensions & Weight⁽⁴⁾

| | |
|---------------------------------------|---|
| Width x Depth x Height ⁽⁵⁾ | 1.7 x 3.7 x 2.5 m (67 x 144 x 98 in) |
| Weight | 2775 kg (6,120 lb) |

Minimum Clearance Requirements⁽⁶⁾

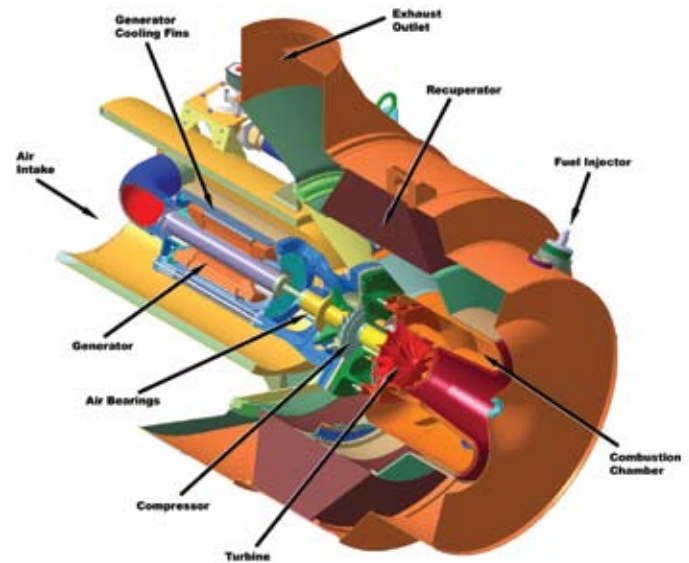
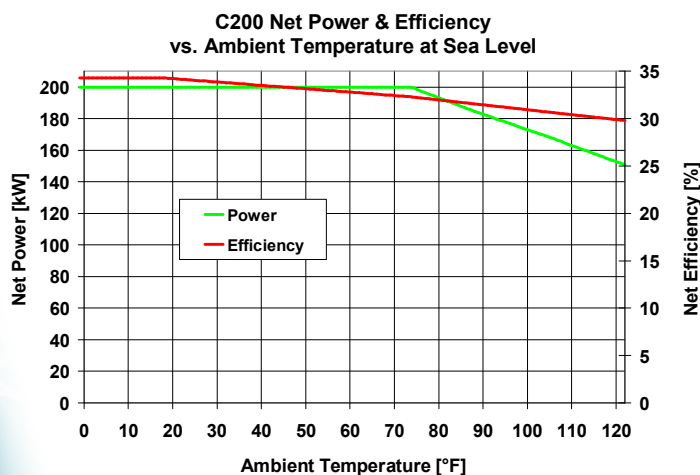
| | |
|----------------------|---------------|
| Vertical Clearance | 0.6 m (24 in) |
| Horizontal Clearance | |
| Left & Right | 1.1 m (42 in) |
| Front | 1.1 m (42 in) |
| Rear | 1.8 m (70 in) |

Sound Levels

| | |
|---------------------------------------|--------|
| Acoustic Emissions at Full Load Power | |
| Nominal at 10 m (33 ft) | 65 dBA |

Planned Certifications

- Will comply with UL 2200 and UL 1741 for raw natural gas and biogas operation under existing UL files⁽⁷⁾
- Will comply with IEEE 1547 and will meet statewide utility interconnection requirements for California Rule 21 and the New York State Public Service Commission
- Models will be available with optional equipment for CE marking



- (1) Nominal full power performance at ISO conditions: 59°F, 14.696 psia, 60% RH
 - (2) Minimum power output is 100 kW for these fuels. Additional fuel gas conditioning required. Contact Capstone for specific application guidance
 - (3) For surrogate landfill and digester gases. Please contact Capstone for additional details
 - (4) Approximate dimensions and weights
 - (5) Height dimensions are to the roof line. Exhaust outlet extends at least 8 inches above the roof line
 - (6) Clearance requirements may increase due to local code considerations
 - (7) All models are planned to be UL Listed or available with optional equipment for CE marking
- Specifications are not warranted and are subject to change without notice.*

