

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 tens of millions of run hours and counting



CR200 MicroTurbine

Electrical Performance⁽¹⁾

Electrical Power Output ⁽²⁾	200kW
Voltage	400–480 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⁾

Landfill Gas HHV	13.0–22.3 MJ/m ³ (350–600 BTU/scf)
Digester Gas HHV	20.5–32.6 MJ/m ³ (550–875 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/kWh)
H ₂ S content	< 5,000 ppmv

Exhaust Characteristics⁽¹⁾

NOx Emissions @ 15% O ₂ ⁽³⁾	< 9 ppmvd (18 mg/m ³)
NOx / 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 3.8 x 2.5 m (67 x 150 x 98 in)
Weight	2776 kg (6,120 lb)

Minimum Clearance Requirements⁽⁶⁾

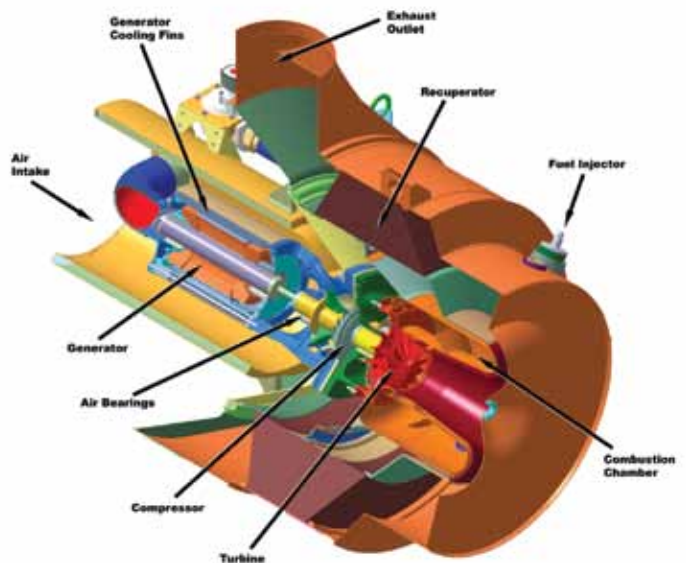
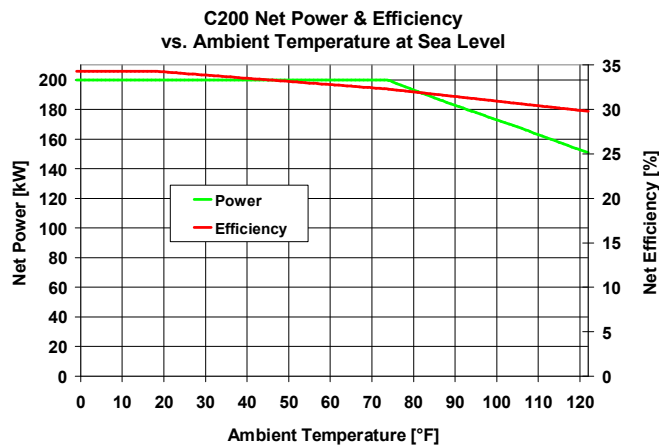
Vertical Clearance	0.6 m (24 in)
Horizontal Clearance	
Left & Right	1.1 m (42 in)
Front	1.1 m (42 in)
Rear	1.8 m (70 in)

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
- Models will be available with optional 2008 CARB certification for waste gas



- (1) Nominal full power performance at ISO conditions: 59°F, 14.696 psia, 60% RH
(2) Minimum power output is 100kW 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.

