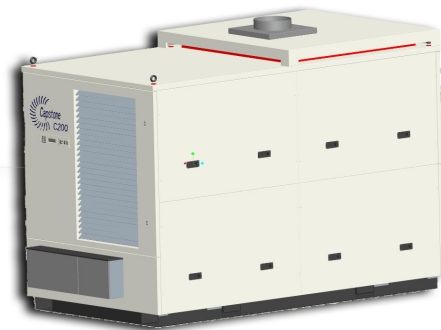


C200 & C200 with External HRM MicroTurbine Low-pressure Natural Gas



World's largest air-bearing microturbine with built-in compressor producing clean, green and reliable power.

- Low NOx emissions – better than tough global standards
- Built-in compressor means smaller footprint and easy installation
- 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 16,000,000+ run hours and counting



C200 MicroTurbine

Electrical Performance ⁽¹⁾

Electrical Power Output	190 kW
Voltage	400 to 480 VAC
Electrical Service	3-Phase, 3 or 4 wire, grid connect operation ⁽²⁾ 3-Phase, 4 wire, stand alone operation ⁽³⁾
Frequency	50/60 Hz, grid connect operation 10 - 60 Hz, stand alone operation
Maximum Output Current	275A RMS @ 400V, 230A RMS @ 480V, grid connect operation 310A, stand alone operation ⁽⁴⁾
Electrical Efficiency LHV	31%

Fuel/Engine Characteristics ⁽¹⁾

Natural Gas	30.7 to 47.5 MJ/m ³ (825 to 1,275 BTU/scf)
Inlet Pressure ⁽⁵⁾	0.25 to 3.0 psig
Steady State Fuel Flow HHV ⁽⁶⁾ ⁽⁷⁾	2400 MJ/hr (2,280,000 BTU/hr)

Exhaust Characteristics ⁽¹⁾

	Standard	CARB Version
NOx Emissions @ 15% O ₂ ⁽⁸⁾	< 9 ppm V	< 4 ppm V
Exhaust Mass Flow	1.3 kg/s (2.9 lbm/s)	1.3 kg/s (2.9 lbm/s)
Exhaust Gas Temperature ⁽⁹⁾	280°C (535°F)	280°C (535°F)
Exhaust Energy ⁽⁹⁾	1420 MJ/hr (1,350,000 BTU/hr)	1420 MJ/hr (1,350,000 BTU/hr)

Heat Recovery ⁽¹⁾ ⁽¹⁰⁾

Hot Water Heat Recovery	835,000 BTU/hr (245 kW _{th})
Total System Efficiency LHV	73%

Power when and where you need it. Clean and simple.

Dimensions & Weight

Width x Depth x Height ⁽¹¹⁾	1700 x 3660 x 2490 mm (67 x 144 x 98 in)
Weight – Grid Connect Model	2730 kg (6,000 lbs)
Weight – Dual Mode Model	3640 kg (8,000 lbs)

Minimum Clearance Requirements

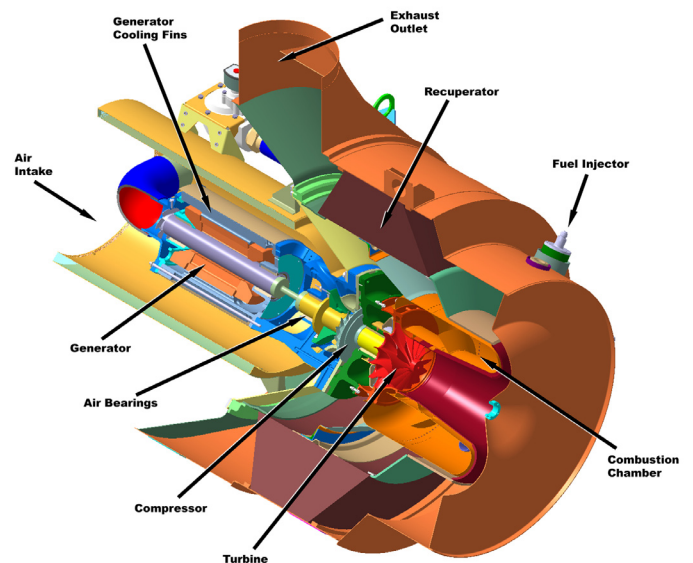
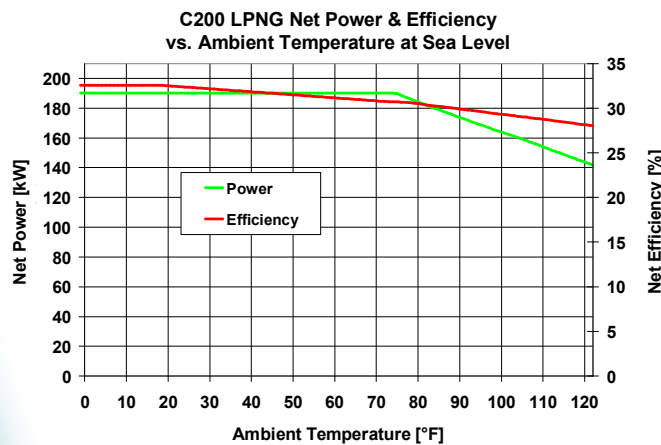
Vertical Clearance	610 mm (24 in)
Horizontal Clearance	
Left & Right	1067 mm (42 in)
Front	1067 mm (42 in)
Rear	1676 mm (66 in)

Sound Levels

Acoustic Emissions at Full Load Power ⁽¹⁾	
Nominal at 10 m (33 ft)	65 dBA

Planned Certifications

- UL 2200 and UL 1741 to be listed for natural gas operations under existing UL files.⁽¹²⁾
- California Air Resources Board (CARB) 2007 Certification
- Complies with IEEE 1547 and meets statewide utility interconnection requirements for California Rule 21 and the New York State Public Service Commission
- Models will be available with optional CE compliance marking



- (1) Nominal full power performance at ISO conditions: 59°F, 14.696 psia, 60% RH
 - (2) The grid must be neutral grounded
 - (3) Neutral must be solidly grounded
 - (4) With linear load
 - (5) Inlet pressure for standard natural gas at 1,000 BTU/scf HHV
 - (6) The ratio of Higher Heating Value (HHV) to Lower Heating Value (LHV) is assumed to be 1.1
 - (7) Onload fuel flows can be up to two times higher than the steady state values
 - (8) Emissions for standard natural gas at 1,000 BTU/scf HHV
 - (9) Final exhaust temperature and energy if the external Heat Recovery Module (HRM) is bypassing exhaust heat. Temperature and exhaust energy will be lower while recovering heat
 - (10) Heat recovery for water inlet temperature of 60°C (140°F) and flow rate of 9.5 l/s (150 GPM), +/- 10% performance range
 - (11) Height dimensions are to the roof line. Exhaust outlet extends at least 8 inches above the roof line
 - (12) All models are planned to be UL Listed or alternately CE compliant marked
- Specifications are not warranted and are subject to change without notice.*

