

# C800 800kW Power Package High-pressure Natural Gas



World's largest air-bearing microturbine produces 800kW of clean, green, and reliable power.

- High electrical efficiency over a very wide operating range
- Low-maintenance air bearings require no lube oil or coolant
- Ultra-low emissions
- High availability – part load redundancy
- Proven technology with tens of millions of operating hours
- Integrated utility synchronization and protection with a modular design
- 5 and 9 year Factory Protection Plans available
- Remote monitoring and diagnostic capabilities
- Upgradable to 1MW with field installation of Capstone 200kW power module
- Internal fuel gas compressor available for low fuel pressure natural gas applications



C800 Power Package

## Electrical Performance<sup>(1)</sup>

Electrical Power Output	800kW
Voltage	400–480 VAC
Electrical Service	3-Phase, 4 wire
Frequency	50/60 Hz, grid connect operation 10–60 Hz, stand alone operation
Maximum Output Current	1,160A RMS @ 400V, grid connect operation 960A RMS @ 480V, grid connect operation 1,240A RMS, stand alone operation <sup>(2)</sup>
Electrical Efficiency LHV	33%

## Fuel/Engine Characteristics<sup>(1)</sup>

Natural Gas HHV	30.7–47.5 MJ/m <sup>3</sup> (825–1,275 BTU/scf)
Inlet Pressure <sup>(3)</sup>	517–552 kPa gauge (75–80 psig)
Fuel Flow HHV	9,600 MJ/hr (9,120,000 BTU/hr)
Net Heat Rate LHV	10.9 MJ/kWh (10,300 BTU/kWh)

## Exhaust Characteristics<sup>(1)</sup>

	Standard	Low-Emissions Version
NOx Emissions @ 15% O <sub>2</sub> <sup>(4)</sup>	< 9 ppmvd (18 mg/m <sup>3</sup> )	< 4 ppmvd (8 mg/m <sup>3</sup> )
NOx / Electrical Output <sup>(4)</sup>	0.14 g/bhp-hr (0.4 lb/MWhe)	0.05 g/bhp-hr (0.14 lb/MWhe)
Exhaust Gas Flow	5.3 kg/s (11.7 lbm/s)	5.3 kg/s (11.7 lbm/s)
Exhaust Gas Temperature	280°C (535°F)	280°C (535°F)
Exhaust Energy	5,680 MJ/hr (5,400,000 BTU/hr)	5,680 MJ/hr (5,400,000 BTU/hr)

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

## Dimensions & Weight<sup>(5)</sup>

Width x Depth x Height	2.4 x 9.1 x 2.9 m (96 x 360 x 114 in)
Weight - Grid Connect Model	14650 kg (32,300 lbs)
Weight - Dual Mode Model	15558 kg (34,300 lbs)

## Minimum Clearance Requirements<sup>(6)</sup>

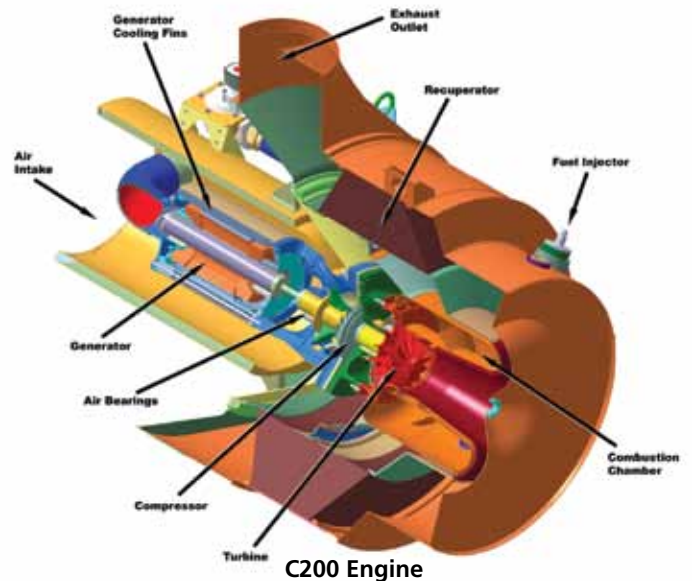
Vertical Clearance	0.6 m (24 in)
Horizontal Clearance	
Left	1.5 m (60 in)
Right	0.0 m (0 in)
Front	1.5 m (60 in)
Rear	2.0 m (80 in)

## Sound Levels

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

## Planned Certifications

- UL 2200 and UL 1741 for natural gas operation under existing UL files<sup>(7)</sup>
- 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) With linear load  
 (3) Inlet pressure for standard natural gas at 39.4 MJ/Nm<sup>3</sup> (1,000 BTU/scf) (HHV)  
 (4) Emissions for standard natural gas at 39.4 MJ/Nm<sup>3</sup> (1,000 BTU/scf) (HHV)  
 (5) Approximate dimensions and weights  
 (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.*

