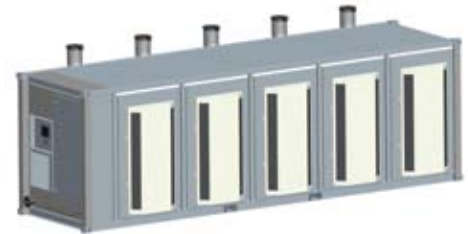


# C1000 Megawatt Power Package High-pressure Natural Gas



1 MW of reliable electrical power in one small, ultra-low emission and highly efficient package.

- 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
- Internal fuel gas compressor available for low fuel pressure Natural Gas applications



C1000 MicroTurbine

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

Electrical Power Output	1000 kW
Voltage	400 to 480 VAC
Electrical Service	3-Phase, 4 wire
Frequency	50/60 Hz, grid connect operation 10-60 Hz, stand alone operation
Maximum Output Current	1,450A RMS @ 400V, grid connect operation 1,200A RMS @ 480V, grid connect operation 1,550A RMS, stand alone operation <sup>(2)</sup>
Electrical Efficiency LHV	33%

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

Natural Gas HHV	30.7 to 47.5 MJ/m <sup>3</sup> (825 to 1,275 BTU/scf)
Inlet Pressure <sup>(3)</sup>	517-552 kPa gauge (75-80 psig)
Fuel Flow HHV	12,000 MJ/hr (11,400,000 BTU/hr)
Net Heat Rate LHV	10.9 MJ/kWh (10,300 BTU/kWh)

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

	Standard	CARB 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	6.7 kg/s (14.7 lbm/s)	6.7 kg/s (14.7 lbm/s)
Exhaust Gas Temperature	280°C (535°F)	280°C (535°F)
Exhaust Energy	7,100 MJ/hr (6,750,000 BTU/hr)	7,100 MJ/hr (6,750,000 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	14106 kg (31,000 lbs)
Weight - Dual Mode Model	17191 kg (37,900 lbs)

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

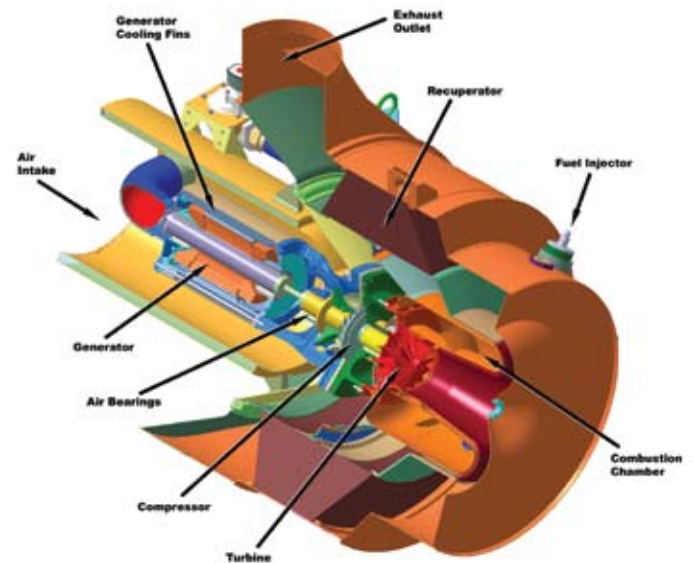
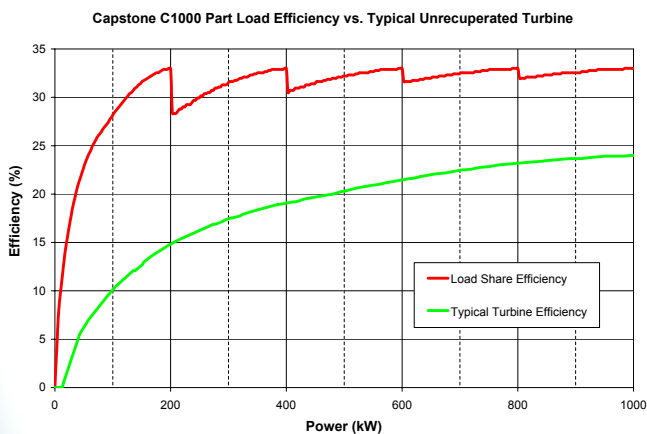
Vertical Clearance	0.6 m (24 in)
Horizontal Clearance	
Left & Right	1.5 m (60 in)
Front	1.5 m (60 in)
Rear	1.8 m (72 in)

## 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



C200 Engine

- (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.*

