Low-pressure Natural Gas, ICHP



The Signature Series Microturbine provides reliable electrical/thermal generation from natural gas with ultra-low emissions.

- Ultra-low emissions
- One moving part minimal maintenance and downtime
- Patented air bearings no lubricating oil or coolant
- Integrated utility synchronization no external switchgear
- Compact modular design allows for easy, low-cost installation
- Multiple units easily combined act as single generating source
- Remote monitoring and diagnostic capabilities
- Proven technology with tens of millions of operating hours
- Various Factory Protection Plans available



**C200S ICHP Microturbine** 

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

Electrical Power Output190kWVoltage400/480 VACElectrical Service3-Phase, 4 Wire WyeFrequency50/60 Hz		400104/
Electrical Service 3-Phase, 4 Wire Wye	Electrical Power Output	190kW
	Voltage	400/480 VAC
Frequency 50/60 Hz	Electrical Service	3-Phase, 4 Wire Wye
	Frequency	50/60 Hz
Electrical Efficiency LHV 31%	Electrical Efficiency LHV	31%

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

Natural Gas HHV	35.4-42.8 MJ/m <sup>3</sup> (950-1,150 BTU/scf)
Inlet Pressure	1.7–34.5 kPa gauge (0.25–5.0 psig)
Fuel Flow HHV	2,430 MJ/hr (2,300,000 BTU/hr)
Net Heat Rate LHV	11.6 MJ/kWh (11,000 BTU/kWh)

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

NOx Emissions @ 15% O <sub>2</sub>	< 9 ppmvd (18 mg/m³)
Exhaust Mass Flow	1.3 kg/s (2.9 lbm/s)
Exhaust Gas Temperature	280°C (535°F)

#### **Dimensions & Weight**<sup>(2)</sup>

Width x Depth x Height <sup>(3)</sup>	3.0 x 2.5 x 3.8 m (117 x 100 x 148 in)
Weight - Grid Connect Model	6,300 kg (13,800 lbs)
Weight - Dual Mode Model	7,000 kg (15,300 lbs)

## Minimum Clearance Requirements<sup>(4)</sup>

Horizontal Clearance		
Left	1.5 m (60 in)	
Right	0.0 m (0 in)	
Front	1.7 m (65 in)	
Rear	2.2 m (85 in)	

# ICHP Heat Recovery<sup>(5)</sup>

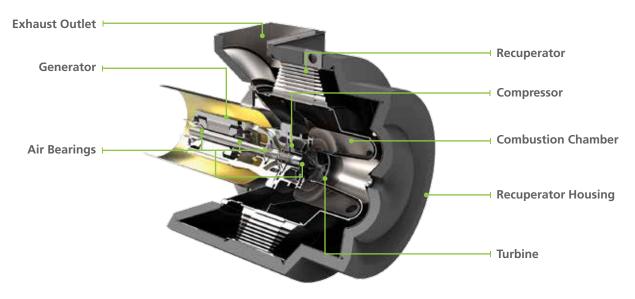
Hot Water Heat Recovery

300 kW (1.0 MMBtu/hr)

# Certifications

- UL 2200 Listed .
- **CE** Certified
- Certified to the following grid interconnection standards: UL 1741, VDE, BDEW and CEI 0-16
- Compliant to California Rule 21

### **C200 Engine Components**



(1) Nominal full power performance at ISO conditions: 15°C (59°F), 14.696 psia, 60% RH

(2) Approximate dimensions and weights

- (3) Height dimensions are to the roofline. Exhaust outlet extends at least 241 mm (9.5 in) above the roofline
- (4) Clearance requirements may increase due to local code considerations
  (5) Nominal heat recovery for water inlet temperature of 38°C (100°F) and flow rate of 6.3 l/s (100 gpm)
  Specifications are not warranted and are subject to change without notice.

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