

C1000S Megawatt Power Package

High-pressure Natural Gas, ICHP



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

- + 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
- + High electrical efficiency over a very wide operating range
- + High availability – part load redundancy
- + Remote monitoring and diagnostic capabilities
- + Proven technology with tens of millions of operating hours
- + Various Factory Protection Plans available



C1000 ICHP Power Package

Electrical Performance⁽¹⁾

Electrical Power Output	1000kW
Voltage	400/480 VAC
Electrical Service	3-Phase, 4 Wire Wye
Frequency	50/60 Hz
Electrical Efficiency LHV	33%

Fuel/Engine Characteristics⁽¹⁾

Natural Gas HHV	30.7–47.5 MJ/m ³ (825–1,275 BTU/scf)
Inlet Pressure	517–551 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⁽¹⁾

NO _x Emissions @ 15% O ₂	< 9 ppmvd (18 mg/m ³)
Exhaust Mass Flow	6.7 kg/s (14.7 lbm/s)
Exhaust Gas Temperature	280°C (535°F) (Heat Recovery Bypassed)

Dimensions & Weight⁽²⁾

Width x Depth x Height ⁽³⁾	3.0 x 9.1 x 4.0 m (117 x 360 x 157 in)
Weight - Grid Connect Model, dry	19,975 kg (44,040 lbs)
Weight - Dual Mode Model, dry	24,200 kg (53,360 lbs)

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

Minimum Clearance Requirements⁽⁴⁾

Horizontal Clearance	
Left	1.5 m (60 in)
Right	0.0 m (0 in)
Front	1.7 m (65 in)
Rear	2.0 m (80 in)

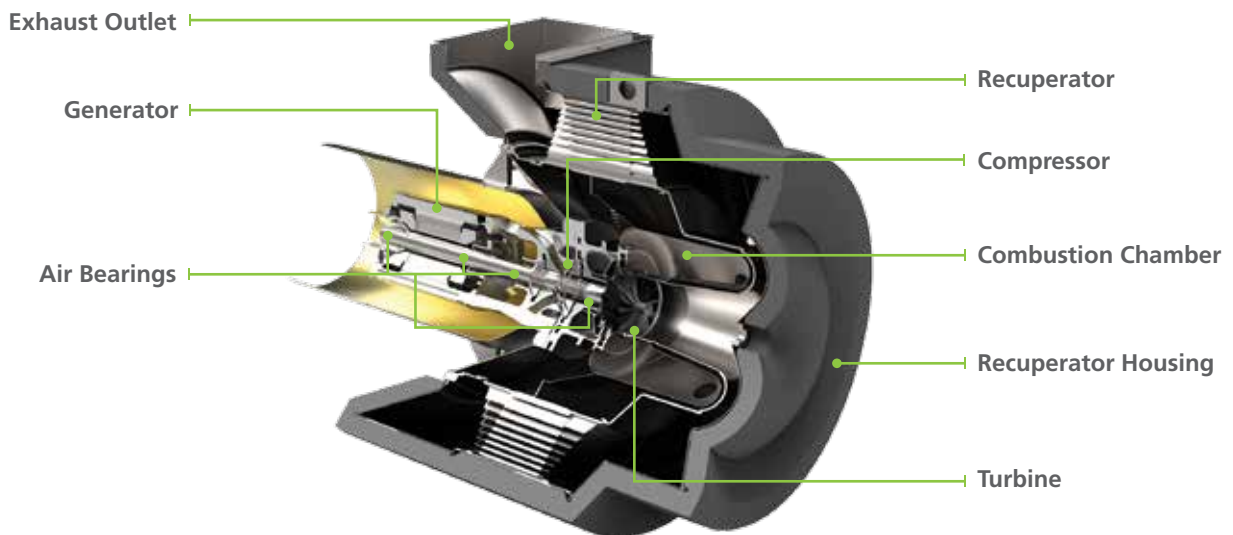
ICHP Heat Recovery⁽⁵⁾

Hot Water Heat Recovery	1.5 MW (5.1 MMBtu/hr)
-------------------------	-----------------------

Certifications

- UL 2200 Listed
- CE Certified
- Certified to the following grid interconnection standards: UL 1741, VDE, BDEW and CEI
- Compliant to California Rule 21 and New York State Public Service Commission

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 roof line. Exhaust outlet extends at least 238 mm (9.4 in) above the roof line

(4) Clearance requirements may increase due to local code considerations

(5) Total heat recovery using 5 Heat Recovery Modules (HRM). Inlet temperature of 38°C (100°F) and flow rate of 6.3 l/s (100 gpm) per HRM.

Specifications are not warranted and are subject to change without notice.