## C65 & C65 ICHP MicroTurbine Natural Gas



# Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.

- Ultra-low emissions
- 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<sup>(1)</sup>
- Small, modular design allows for easy, low-cost installation
- Reliable tens of millions of run hours and counting



**C65 MicroTurbine** 

## Electrical Performance(2)

Electrical Power Output 65kW

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 100A, grid connect operation

100A, stand alone operation(3)

Electrical Efficiency LHV 29%

**C65 ICHP MicroTurbine** 

### Fuel/Engine Characteristics(2)

 Natural Gas HHV
 30.7–47.5 MJ/m³ (825–1,275 BTU/scf)

 Inlet Pressure<sup>(4)</sup>
 517–552 kPa gauge (75–80 psig)

 Fuel Flow HHV
 888 MJ/hr (842,000 BTU/hr)

 Net Heat Rate LHV
 12.4 MJ/kWh (11,800 BTU/kWh)

### Exhaust Characteristics(2)

NOx Emissions at 15%  $O_2^{(5)}$  < 9 ppmvd (19 mg/m<sup>3</sup>)

NOx / Electrical Output<sup>(5)</sup> 0.16 g/bhp-hr (0.46 lb/MWhe)

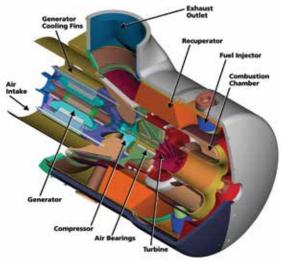
Exhaust Gas Flow 0.49 kg/s (1.08 lbm/s)

Exhaust Gas Temperature 309°C (588°F)

C65 ICHP Heat Recovery <sup>(6)</sup>		
Integrated Heat Recovery Module Type Hot Water Heat Recovery	Copper Core 112kW (0.38 MMBTU/hr)	Stainless Steel Core 70kW (0.24 MMBTU/hr)
Dimensions & Weight <sup>(7)</sup>	C65	C65 ICHP
Width x Depth <sup>(8)</sup> x Height <sup>(9)</sup> Weight – Grid Connect Model  Weight – Dual Mode Model	0.76 x 2.0 x 1.9 m (30 x 77 x 75 in) 758 kg (1,671 lb) 1121 kg (2,471 lb)	0.76 x 2.2 x 2.36 m (30 x 87 x 93 in) 1000 kg (2,200 lb) 1364 kg (3,000 lb)
Minimum Clearance Requirements(10)	C65	C65 ICHP
Minimum Clearance Requirements <sup>(10)</sup> Horizontal Clearance     Left & Right     Front <sup>(11)</sup> Rear	0.76 m (30 in) 1.65 m (65 in) 0.91 m (36 in)	0.76 m (30 in) 1.65 m (65 in) 0.76 m (30 in)
Horizontal Clearance Left & Right Front <sup>(11)</sup>	0.76 m (30 in) 1.65 m (65 in)	0.76 m (30 in) 1.65 m (65 in)

## Certifications

- Certified to UL 2200 and UL 1741 for natural gas operation (UL files AU2687, E209370)
- Complies with IEEE 1547 and meets statewide utility interconnection requirements for California Rule 21 and the New York State Public Service Commission
- Materials Equipment Acceptance (MEA) approval for New York City
- Models available with optional equipment for CE Marking



- (1) Some utilities may require additional equipment for grid interconnectivity
- Nominal full power performance at ISO conditions: 59°F, 14.696 psia, 60% RH
- With linear load
- Inlet pressure for standard natural gas at 39.4 MJ/Nm³ (1,000 BUT/scf) (HHV)
- Exhaust emissions for standard natural gas at 39.4 MJ/Nm³ (1,000 BTU/scf) (HHV)
- Heat recovery for water inlet temperature of 60°C (140°F) and flow rate of 2.5 l/s (40 GPM)
- Approximate dimensions and weights
  Depth includes 10 inch extension for the heat recovery module rain hood on ICHP versions
- Height dimensions are to the roof line. Exhaust outlet extends at least 7 inches above the roof line
- (10) Clearance requirements may increase due to local code considerations
- (11) Dual Mode MicroTurbine configuration for Battery Removal clearance
  (12) The optional acoustic inlet hood kit can reduce acoustic emissions at the front of the MicroTurbine by up to 5 dBA Specifications are not warranted and are subject to change without notice.

