



# Capstone MicroTurbine™

**MODEL 330**  
**Landfill Gas**  
**Digester Gas**

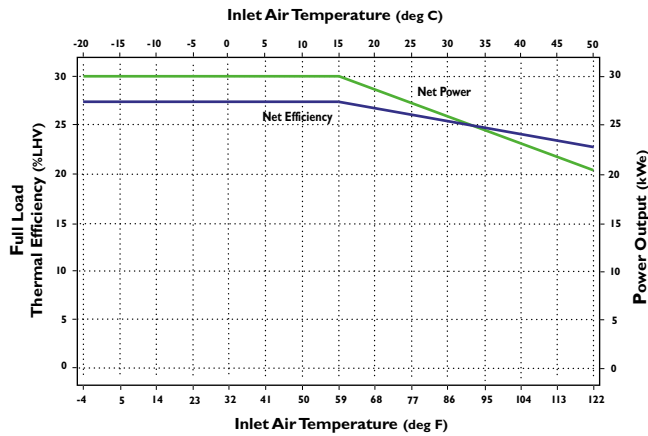
## The Product

### Features

- 15-30 kW net (ISO conditions)
- 400-480 VAC, 50/60 Hz  
no transformer required  
3-phase, 3-wire wye or 4-wire wye,  
or corner ground delta, 46A/phase max
- Grid-connect
- Maintenance-free air bearings
- Digital power controller
- Air cooled
- Type 3R outdoor enclosure

### Benefits

- Renewable energy: 350-1200 Btu/scf (HHV)
- Greenhouse gas reduction
- Ultra-low emissions
- Minimal maintenance
- No liquid lubricants
- No liquid coolants
- Phase-to-phase balance (0-100%)
- Small footprint
- Vibration-free
- Quiet operation
- MultiPac capable
- Optional remote monitoring



**Conformance**  
ANSI C84.1  
IEEE 519  
NFPA 70



Open and walk-in packaging options also available.

## Performance Specifications Under ISO Conditions (15°C / 59°F @ sea level)

**Performance @ 50 or 60Hz**  
Landfill or digester gas

**Full-Load Power**  
30 kW net (+/- 1)

**Efficiency (LHV)**  
27% (+/- 2)

**Heat Rate (LHV)**  
13,300 kJ (12,600 Btu) / kWh

### Emissions

NO<sub>x</sub> <9 ppmV @ 15% O<sub>2</sub>

### Intake/Exhaust

Fuel flow (Methane-HHV) 440,000 kJ/hr (420,000 Btu/hr)  
Exhaust gas temperature 261°C / 500°F  
Total exhaust energy 305,000 kJ/hr (290,000 Btu/hr)

| Pressure Requirements* |       |
|------------------------|-------|
| Btu/scf (HHV)          | psig  |
| 700-1200               | 40-55 |
| 600-700                | 50-60 |
| 500-600                | 55-65 |
| 450-500                | 60-70 |
| 400-450                | 65-75 |
| 350-400                | 70-80 |

### Dimensions

H: 1942mm / 76.5"  
W: 762mm / 30"  
D: 1518mm / 59.7"

### Weight

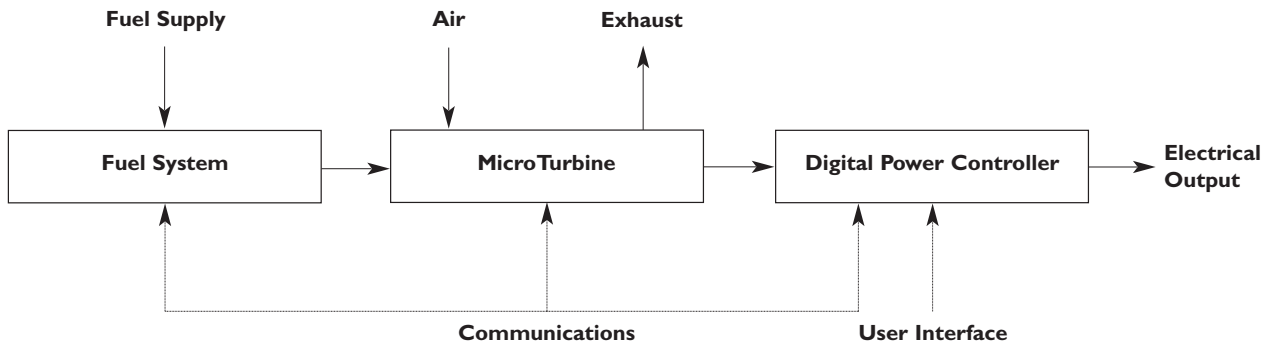
405 kg / 891 lb  
Add 173 kg/380 lb for stand-alone option

### Typical Sound Level

65dBA @ 10 m / 33 ft

\*Pressures above or below recommended range may result in system faults (flame-outs, over-temps) and/or restrict maximum available power. All specifications at full-load power. Fuel Heat Content: 12,800 to 43,800 kJ/Nm<sup>3</sup> (350 to 1200 Btu/scf) HHV, methane.  
Note: The manufacturer reserves the right to change or modify without notice, the design or equipment specifications without incurring any obligation either with respect to equipment previously sold or in the process of construction.

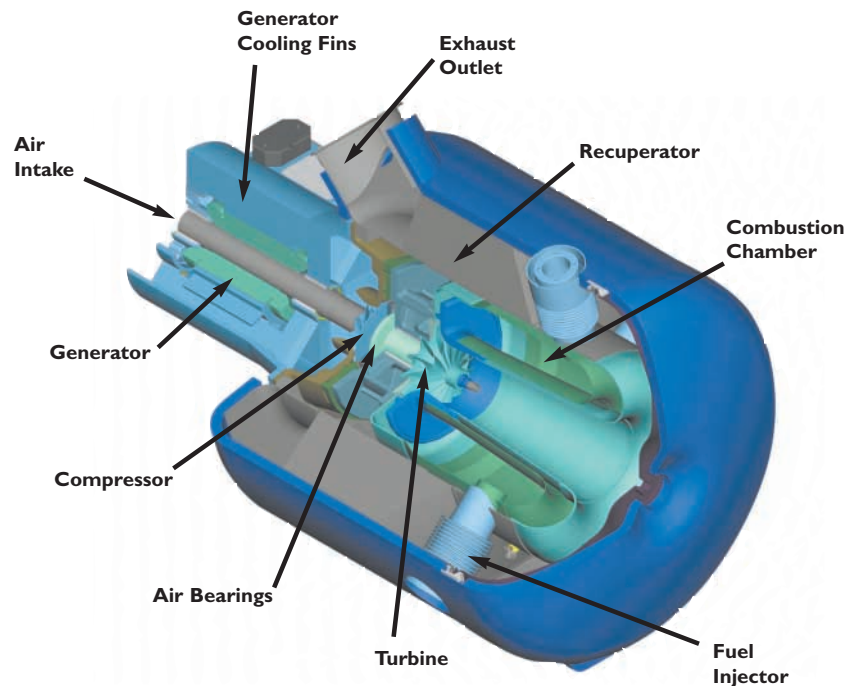
## Capstone Model 330 MicroTurbine System



The Capstone Model 330 MicroTurbine system is a compact, low emission, power generator providing electrical power up to 30 kW. Solid-state power electronics allow grid-connect operation; stand-alone battery support and automatic grid/stand-alone switching are available options.

The system incorporates a compressor, recuperator, combustor, turbine and permanent magnet generator. The rotating components are mounted on a single shaft that rotates at up to 96,000 RPM (full load) and is supported by air bearings. The generator is cooled by intake air flow, thus eliminating the need for liquid cooling. Output of the system is variable frequency (50 or 60 Hz) AC power. A 60-kW system and a non-recuperated Model 330 are also available.

## The Capstone Model 330 MicroTurbine Generator



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