



The **Capstone C30 MicroTurbine™** system is a **compact, very-low-emission** generator

**FEATURES**

- Load-following 0-30 kW
- 360-528 VAC, 50/60 Hz (grid-connect)  
360-480 VAC, 10-60 Hz (stand-alone)  
3-phase, 3- or 4-wire wye (4-wire stand-alone)  
46ARMS/phase max continuous
- Grid-connect and/or stand-alone
- Maintenance-free air bearings
- No liquid lubricants
- No liquid coolants
- Sour gas tolerant (up to 70,000 ppm)
- Digital power controller
- Built-in display and user interface
- Built-in protective relays
- Built-in MultiPacking of 2-20-units
- Open communications protocol
- Made in USA
- Optional internal gas compressor (0.2-15 psig inlet)
- Optional remote dispatch/monitoring, hot-water CHP, sound attenuation

**BENEFITS**

- Extremely-low emissions
- Fast and easy permitting
- 8,000 hr recommended service intervals
- Quick, minor maintenance parts/labor
- Direct2Grid™ interconnection
- No fluid storage, changes, leaks, disposal
- No hazardous fluids or materials
- Untaminated exhaust heat for CHP
- Phase-to-phase balance (0-100%) on stand-alone units
- Easy energy management integration
- Small footprint and relatively light weight
- Vibration-free
- Much quieter than reciprocating engine
- Easy indoor/outdoor/rooftop siting
- Zero hardware arraying (up to 600 kW)



**Certifications**

- UL 1741
- UL 2200
- IEEE 519
- CEC Rule 21
- NYPSC DG
- EPA Exempt
- WY DEQ Exempt
- NEMA 3R / IP 14
- Others



**Dimensions**

H: 1943 mm (76.5")  
W: 762 mm (30")  
D: 1516 mm (60")

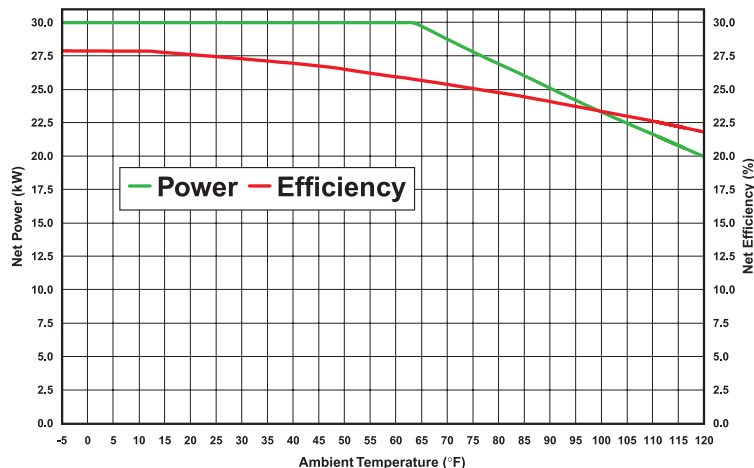
**Weight**

405 kg (891 lb)  
Add 173 kg (380 lb) for stand alone

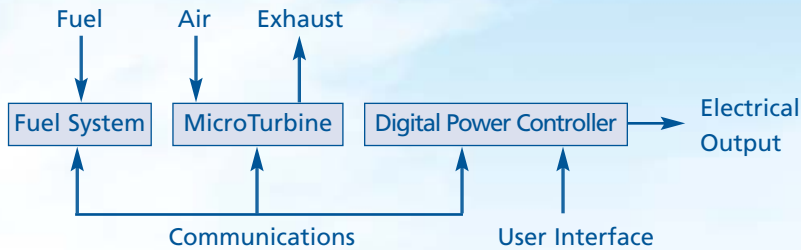
**Sound**

65dBA @ 10 m (33 ft)  
58dBA @ 10 m (optional)  
CE LWA 89 compliant

C30 Net Power and Efficiency\* at Ambient Temperature, Sea Level



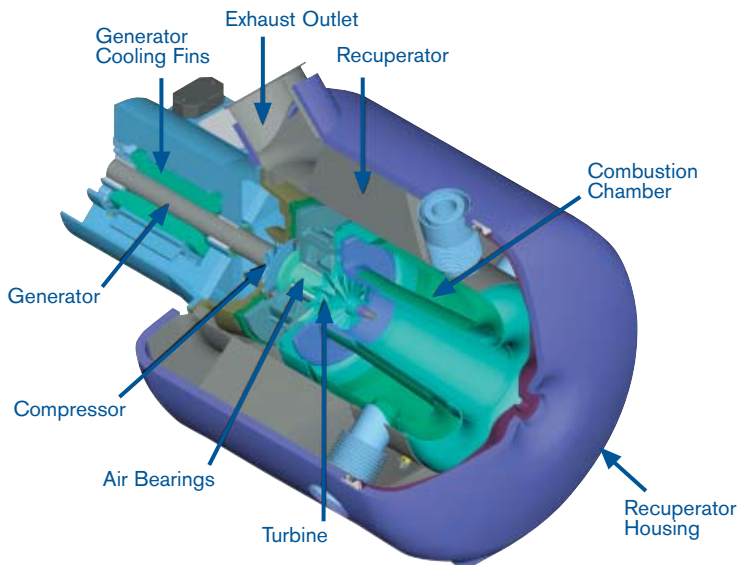
# Capstone C30 MicroTurbine System



The Capstone C30 MicroTurbine system is a compact, ultra-low-emission generator providing up to 30 kW of power and 85 kW of heat for combined heat and power applications. Solid-state patented power electronics permit 0-30 kW load following, safe zero-hardware Direct2Grid™ interconnection, advanced communications and 2-to-20-unit stand-alone MultiPacking with no external hardware except computer cables. Automatic grid/stand-alone switching, single-unit internal/multi-unit external fuel gas compressors, heat recovery unit, 100-unit PowerServer™ networking, remote monitoring/dispatch and other functionalities are available options.

The system incorporates a compressor, recuperator, combustor, turbine and permanent magnet generator. The rotating components are mounted on a single shaft, supported by patented air bearings, that spins at up to 96,000 rpm. This is the only moving part of the microturbine. The generator is cooled by inlet air flow. The system uses no oil, lubricants, coolants or other hazardous materials, and has no pumps, gearbox or other mechanical subsystems. The system achieves ultra-low NOx performance with no post-combustion catalysts or other exhaust cleanup devices or chemicals. System output is variable frequency (50/60 Hz) 3-phase AC power. A 60-kW model is available and 30-kW models for liquid fuels or biogas are also available.

## Capstone C30 MicroTurbine Generator



ISO 9001:2000

- The microturbine generator for power on or beyond the grid:
- Ultra-Low Emissions
  - Designed for Ultra-Low Maintenance
  - Fuel-Flexible
  - Air-Cooled
  - One Moving Part
  - No Lubricants or Coolants

Visit [www.microturbine.com](http://www.microturbine.com) or call **818-407-3770**  
or, toll free, **866-4-capstone (866-422-7786)**  
to find your authorized Capstone distributor.

Power when and where you need it. Clean and simple. **Now.**

Capstone and the turbine blade logo are Registered Trademarks of Capstone Turbine Corporation. Unique factors at individual sites may affect system output and performance.

## Full Load Specifications

@ ISO Conditions (15°C/59°F @ sea level)

### Power:

30 kW net (+0/-2)\*  
38.2 kVA max @ 480 VAC

### Electrical Efficiency (LHV):

26% (±2)\*

### Heat Rate (LHV):

13,800 kJ (13,100 Btu) / kWh\*

### Exhaust Temp.:

275°C (530°F)

### Mass Flow:

0.31 kg/s (0.68 lb/s)

### Exhaust Energy:

327,000 kJ/hr (310,000 Btu/hr)

**NOx:** <9 ppmV @ 15% O<sub>2</sub>

(<0.47 lb/MWh)

### Fuel:

Gaseous propane  
or Natural gas @ 52-55 psig  
HHV 457,000 kJ/hr  
(433,000 Btu/hr)

\* Without natural gas compression option.

Fuel heat content: 27.8 to 93.8 MJ/m<sup>3</sup> (760 to 2616 Btu/scf) HHV; natural gas, methane, propane, ethane.

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. The manufacturer does not warrant the data on this document. Warranted specifications are documented separately.



Capstone C30

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