

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

## **FEATURES**

- Grid-connect load-following 15-30 kW
- 360-528 VAC, 50/60 Hz
  3-phase, 3- or 4-wire wye
  46ARMS/phase max continuous
- Fuel input as low as 350 Btu/scf
- 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 remote dispatch/monitoring, fuel treatment, hot-water CHP, sound attenuation, etc.

# **BENEFITS**

- · Renewable energy from waste
- Greenhouse gas reduction
- Extremely-low emissions
- Fast and easy permitting
- 8,000 hr recommended service intervals
- Quick, minor maintenance parts/labor
- Direct2Grid<sup>™</sup> interconnection
- No fluid storage, changes, leaks, disposal
- · No hazardous fluids or materials
- Odor-free, dry exhaust heat for CHP
- 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

CE SE

#### **Dimensions**

H: 1943 mm (76.5") W: 762 mm (30")

D: 1516 mm (60")

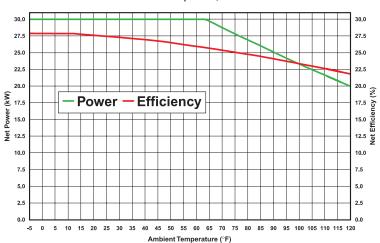
#### Weight

405 kg (891 lb)

#### Sound

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

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



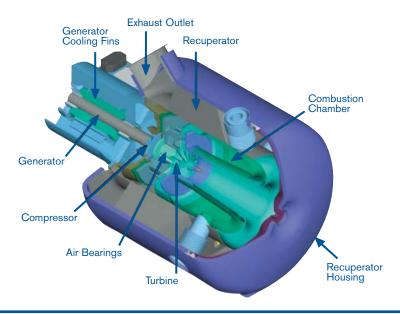
## **Capstone C30 MicroTurbine System**



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 15-30 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, fuel treatment equipment, 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. 30-kW models for liquid and gaseous fuels and a 60-kW natural gas model are also available.

## **Capstone C30 MicroTurbine Generator**





The microturbine generator for power on or beyond the grid:

- Ultra-Low Emissions Air-Cooled
- Designed for Ultra-Low Maintenance One Moving Part
- Fuel-Flexible No Lubricants or Coolants

Visit www.microturbine.com or call 818-407-3770 or, toll free, 866-4-capstone (866-422-7786)

**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:

Landfill or digester gas @ 55-75 psig HHV 457,000 kJ/hr (433,000 Btu/hr)

\* Without gas compression option.

Fuel heat content: 12.8 to 42.1 MJ/m<sup>3</sup> (350 to 1130 Btu/scf) HHV methane.

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 warranty the data on this document. Warrantied specifications are documented separately.



Capstone C30

to find your authorized Capstone distributor.