



Capstone MicroTurbine™

**CAPSTONE C60
High Pressure
Natural Gas**

The Product

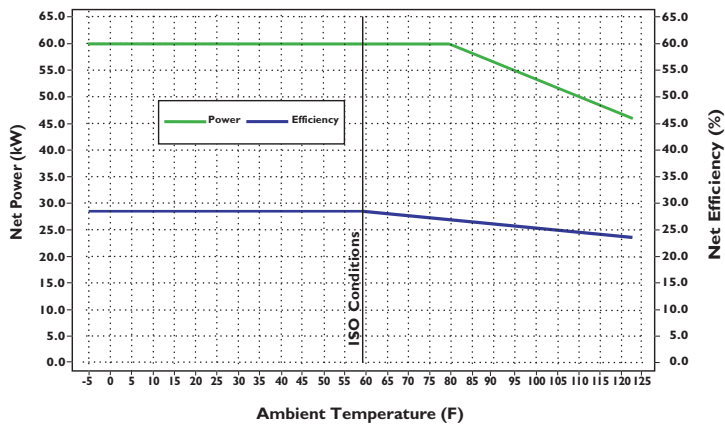
Features

- Load-following 0-60 kW
- 360-528 VAC, 50/60 Hz
(Stand-alone 360-480 VAC, 10-60 Hz)
3-phase, 3- or 4-wire wye (4-wire for stand-alone)
100ARMS/phase max continuous
- Grid-connect and/or stand-alone
- Maintenance-free air bearings
- No liquid lubricants
- No liquid coolants
- Digital power controller
- Built-in display and user interface
- Built-in protective relays
- Built-in MultiPacking of 2-20-units
(unlimited via grid connect)

Benefits

- Ultra-low emissions
- Minimal maintenance
- Direct2Grid™ interconnection
- No fluid storage, changes, disposal
- Uncontaminated exhaust heat for CHP
- Phase-to-phase balance (0-100%)
on stand-alone units
- Small footprint
- Vibration-free, quiet operation
- Easy indoor/outdoor/rooftop siting
- Zero hardware arraying (up to 1.2 MW)
- Optional remote monitoring

**C60 Net Power and Efficiency
at Ambient Temperature, Sea Level**



Compliances

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



Full-Load Specifications @ ISO Conditions (15°C / 59°F @ sea level)

Performance

Natural gas (75-80 psig)**

Power

60 kW net (+0/-2)**
83 kVA max @ 480 VAC

Efficiency (LHV)

28% (± 2)

Heat Rate (LHV)

12,900 kJ (12,200 Btu) / kWh

Emissions:

NO_x

<9 ppmV @ 15% O₂ (<0.49 lb/MWh)

Dimensions

H: 2108mm (83")
W: 762mm (30")
D: 1956mm (77")

Weight

758 kg (1671 lb)
Add 363 kg (800 lb) for stand-alone

Sound

70dBA @ 10 m (33 ft)
65dBA @ 10 m (33 ft) (small)
CE L_{WA} 99 compliant

Intake/Exhaust

Fuel flow (natural gas-HHV) 849,000 kJ/hr (804,000 Btu/hr)
Exhaust gas temperature 305°C (580°F)
Mass flow 0.49 kg/s (1.07 lb/s)
Total exhaust energy 571,000 kJ/hr (541,000 Btu/hr)

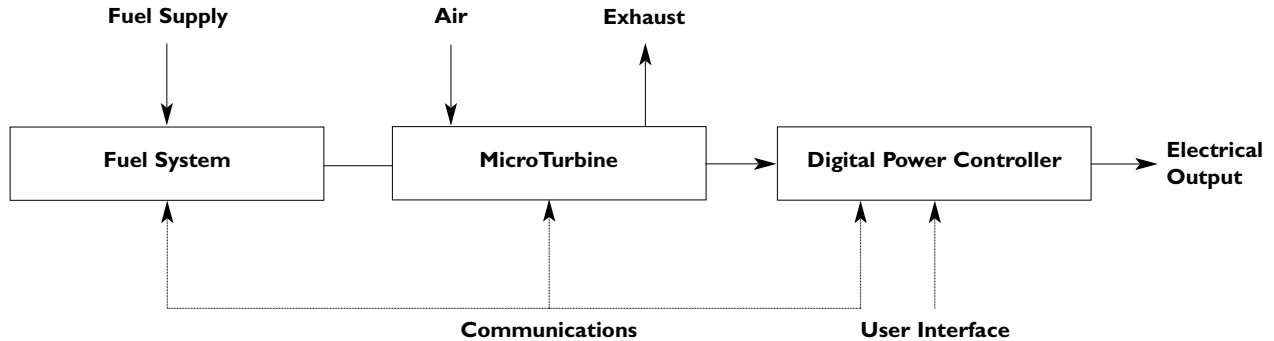
* See www.microturbine.com/compliance for detail

**Without gas compression option. Inlet 0.5 psig with external fuel gas booster.

Fuel heat content: 36.1 to 42.1 MJ/m³ (970 to 1130 Btu/scf) HHV; natural gas, 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. Warranted specifications are documented separately.

Capstone C60 MicroTurbine™ System



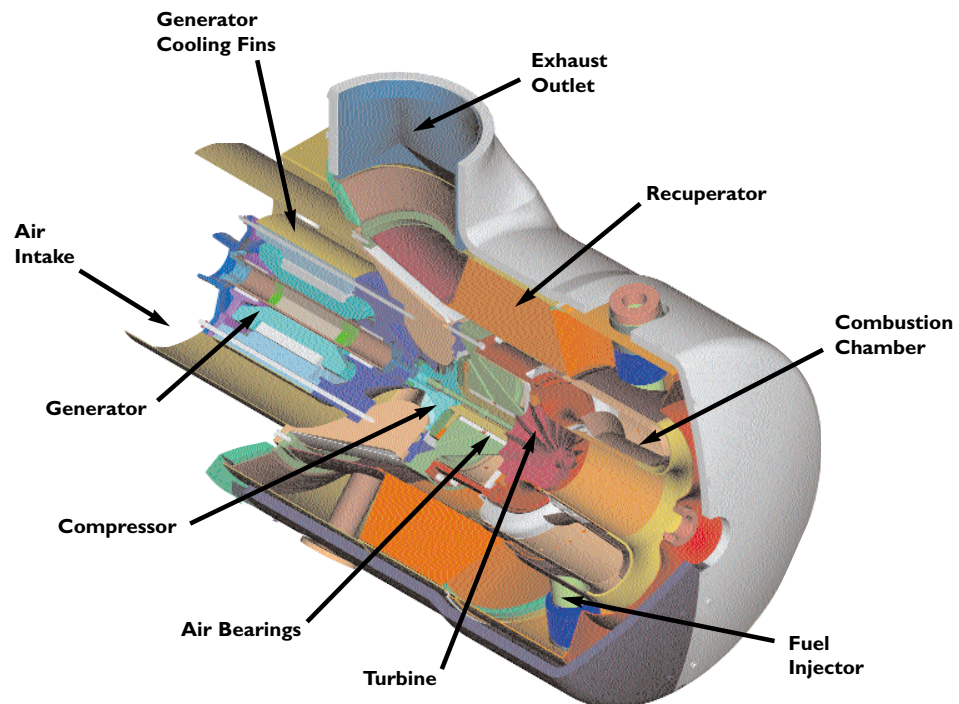
The Capstone C60 MicroTurbine system is a compact, ultra-low-emission generator providing up to 60 kW of power and 150 kW of heat for combined heat and power applications. Solid-state patented power electronics permit 0-60 kW load following, safe zero-hardware Direct2Grid™ interconnection, advanced communications and 2-to-20-unit stand-alone MultiPacking with no external hardware except computer cables. Automatic grid/stand-alone switching, 100-unit PowerServer™ networking, remote monitoring/dispatch and other functionalities are available Capstone 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, no lubricants, no coolants and has no pumps, gearbox or other mechanical subsystems. The system achieves ultra-low NO_x performance with no post-combustion catalysts or other exhaust cleanup devices. System output is variable frequency (50/60 Hz) 3-phase AC power.

Several liquid and gaseous fueled 30-kW models are also available.



The Capstone C60 MicroTurbine Generator



CAPSTONE TURBINE CORPORATION
REGISTERED TO ISO 9001
FILE NUMBER A9549



CAPSTONE TURBINE CORPORATION

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