

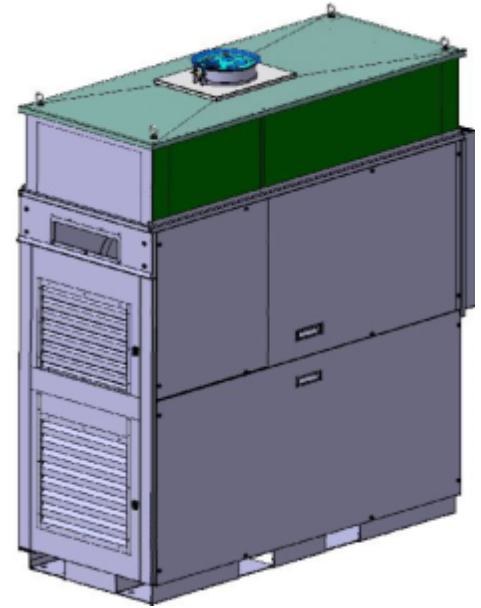


Capstone MicroTurbine™

**CAPSTONE C60
Integrated CHP
High Pressure
Natural Gas**

The Product

Features	Benefits
<ul style="list-style-type: none"> 60kW three phase electrical output with high efficiency heat recovery Air bearing/ air cooled construction Ultra low-emissions exhaust All other features and benefits of the C60 microturbine Compact microturbine and hot water heat recovery packaged in NEMA 3R Enclosure Integrated CHP system monitors: <ul style="list-style-type: none"> ✓ water inlet temperature ✓ water outlet temperature ✓ water flow status Multiple thermal control modes: <ul style="list-style-type: none"> ✓ thermal priority - electric output follows thermal load ✓ electric priority with thermal tracking - diverter follows thermal load Multiple I/O control: <ul style="list-style-type: none"> ✓ 4-20mA (0-5V) inputs for electric control, external water temperature, and water flow rate ✓ relay outputs for external pump control and flow shutoff valve No integral water pump 	<ul style="list-style-type: none"> Suitable for commercial and industrial applications Qualifies for many CHP financial incentives and rebates Designed for low maintenance No hazardous lubricant storage or costly waste disposal Simplified air permitting Simplified utility interconnection No additional floor space beyond the standard C60 microturbine Only 20 inch added height above the standard C60 microturbine Indoor / outdoor installation – avoids additional building costs Simple and cost-effective integration with thermal loads, manufacturing processes, and building control systems Lower greenhouse gas emissions than traditional energy production More energy efficient than traditional separate heating and electric power systems Flexibility in pump selection and placement; ease of service



Dimensions	
H:	2,390mm (94 inches)
W:	762mm (30 inches)
D:	1,956mm (77 inches)
Weight	
Grid Connect:	1,000kg (2,200 lbs)
Dual Mode:	1,364kg (3,000 lbs)
Sound	
70 dBA @ 10m (33 ft)	

Compliances: UL 2200; UL 1741; UL 795; UL 1995; CSA (all pending)
CEC/CPUUC Rule 21 Certified; CARB 2003 DG Certified
IEEE 519; rated NEMA 3R Enclosure

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

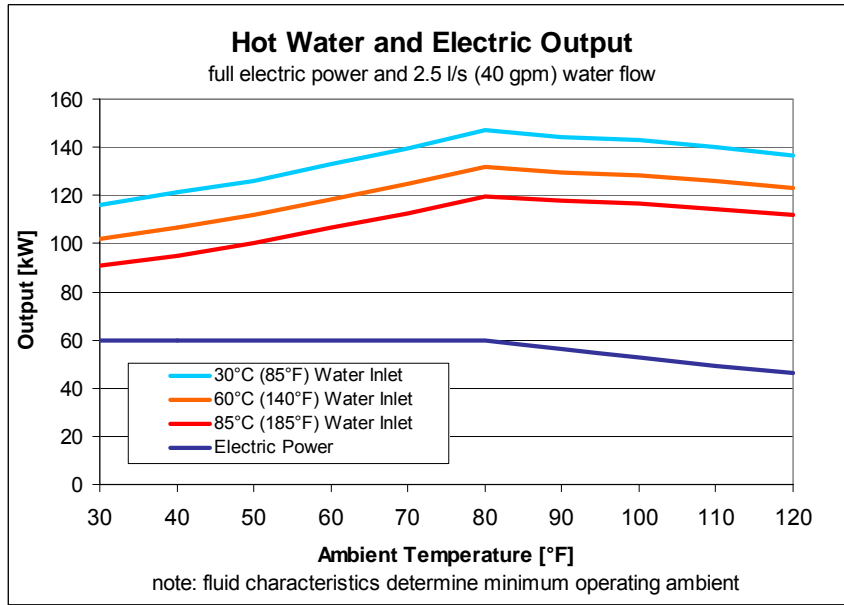
Fuel	Power Output	Efficiency (LHV)	Heat Rate (LHV)
Natural gas (75-80 psig)* (an external gas compressor for inlet pressures as low as 0.2 psig is an available option)	60kW net (+0/-2)** 83kVA max @ 480V	28% (+/- 2)**	12,900kJ (12,200 Btu) / kWh**
	115kW thermal output (+/-5)*** (392,000 Btu/hr)	82% (+/- 4) CHP total electric plus thermal	
Emissions – certified to California Air Resources Board (CARB) 2003 DG emissions requirements			
NOx	<9 ppmV @ 15% O ₂		
Intake/Exhaust			
Fuel Flow (natural gas - HHV)	849,000 kJ/hr (804,000 Btu/hr)		
Exhaust Gas Temperature	370°C (700°F) max		
Exhaust Gas Mass Flow	.48 kg/s (1.06 lb/s)		

* Fuel heat content: 36.1 to 42.1 MJ/m³ (970 to 1130 Btu/scf) HHV; natural gas, methane ** not including optional gas booster for lower inlet gas pressures
*** with 60°C (140°F) inlet water temperature and 2.5 l/s (40 gpm) flow

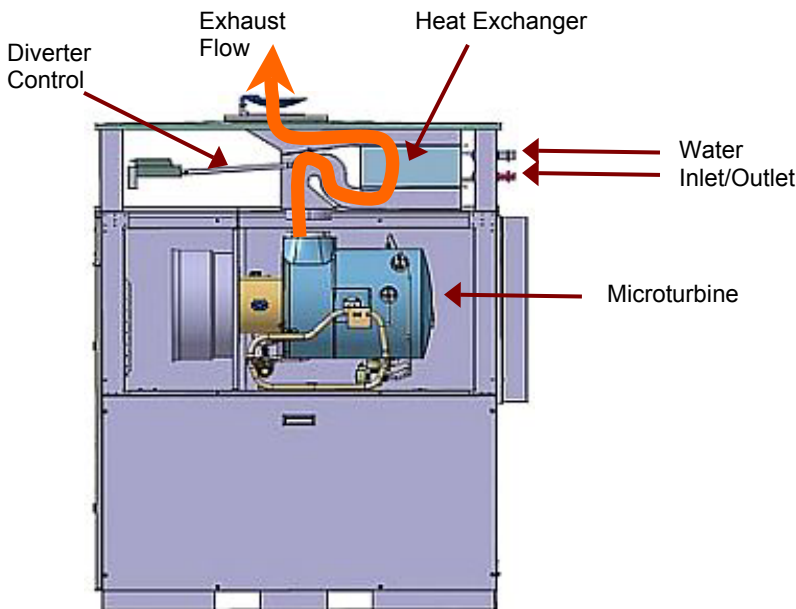
The manufacturer reserves the right to change or modify, without notice, the design or equipment specifications without incurring any obligation either with respect to equipment previously sold or in the process of construction. The manufacturer does not warranty the data on this document. Warranted specifications are documented separately.

Capstone Turbine Corporation
www.microturbine.com

Performance



Cross Section of C60 Integrated CHP System



Typical Applications

Application	Fluid Temperatures	Fluid Types
Domestic Hot Water	60-70°C (140-160°F)	Potable Water
Laundry	60-70°C (140-160°F)	Potable Water
Swimming Pool / Spa	25-45°C (75-115°F)	Chlorinated Water (with intermediate HX)
Boiler Preheat	60-95°C (140-200°F)	Closed Loop Water
Building Space Heat	60-80°C (140-180°F)	Water or Glycol Mix
Hot Water Fired Chiller	85-95°C (185-200°F)	Water or Glycol Mix
Industrial Process	10-95°C (50-200°F)	Water or Glycol Mix

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