

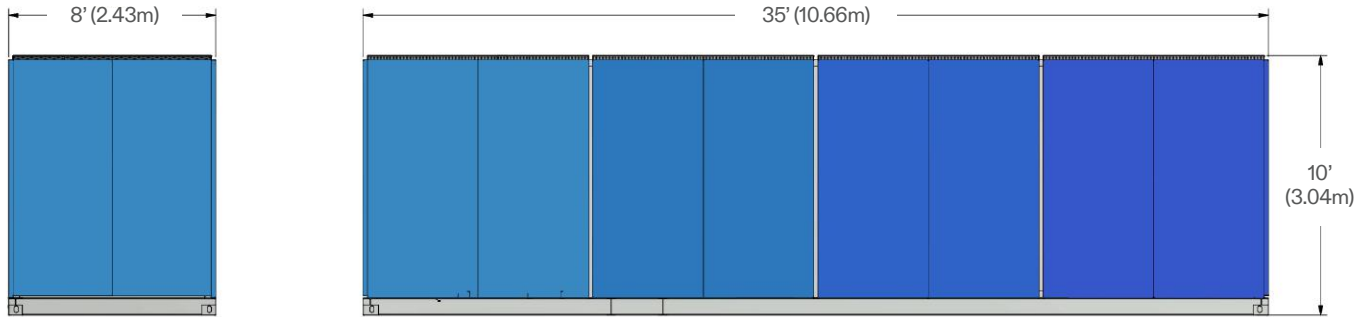
SOLID OXIDE FUEL CELL

250 kW FUEL CELL



Background

Designed for a range of on-site power applications, FuelCell Energy's Solid Oxide Fuel Cell (SOFC) plant generates 250 kW of reliable, efficient, and ultra-clean power. The fuel flexible system is capable of running on natural gas, renewable biogas, or hydrogen. The plant's superior fuel efficiency to combustion-based power generation can improve a customer's return on investment. A clean emissions profile, small footprint, and quiet operation make the plants easy to site in urban areas.



Specifications subject to change without notice.

	Natural Gas Fuel	Hydrogen Fuel
Power @ Plant Rating	250 kW	250 kW
Standard Output AC Voltage	480 V (Options Available)	480 V (Options Available)
Frequency	60 Hz Standard (50 Hz Option)	60 Hz Standard (50 Hz Option)
Electrical Efficiency (LHV)	62% +/- 2%	65% +/- 2%
Exhaust Temperature	608 +/- 68 °F (320 +/- 20° C)	332 +/- 52 °F (167 +/- 11 °C)
Exhaust Flow	3,089 lb/hr (1,404 kg/h)	3,916 lb/hr (1,780 kg/h)
Heat Recovery (to 120° F)	382,195 Btu/hr (112 kW)	202,558 Btu/hr (59 kW)
Fuel Consumption	@ 930 Btu/ft3 – 24.7 scfm (39.6 Nm3/h)	@274 Btu/ft3 – 80 scfm (129 Nm3/h)
Heat Rate (HHV)	6,092 Btu/kWh (6,427 kJ/kWh)	6,218 Btu/kWh (6,561 kJ/kWh)
Total CHP Efficiency (LHV)	90% +/- 5%	80% +/- 5%
Power Generation Mode Water Consumption	0	0
Startup Water Consumption	4 gph (364 SLPD)	1 gph (91 SLPD)
Water Production	0	26 gph (2,360 SLPD)
Sound Levels	< 72 dB(A) @ 10 Feet (< 65 Option)	< 72 dB(A) @ 10 Feet (< 65 Option)
NOx Emissions	0.01 lb/MWh (0.005 kg/MWh)	0.01 lb/MWh (0.005 kg/MWh)
SOx Emissions	0.00002 lb/MWh (0.00005 kg/MWh)	Negligible
PM10 Emissions	0.000002 lb/MWh (0.00001 kg/MWh)	0.00002 lb/MWh (0.0001 kg/MWh)
VOC Emissions	Negligible	Negligible
GHG Emissions	331 kg/MWh of CO ₂	None

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