

# **3000** Carbonate Fuel Cell Power Plant



# Background

Designed for a range of on-site power applications, FuelCell Energy's 3000 plants generate 2.8 MW of reliable, efficient, and ultra-clean power. On-site power can maximize a site's production uptime by avoiding costly outages. The plant's electrochemical process results in electricity, heat, and water, with the ability to recycle  $CO_2$  into a valuable product. Operating from a compact footprint, the 3000 is ideal for sites with limited space and can combine with more modules to meet higher power demands. The system operates at high temperatures and can use its own heat to increase overall efficiency. The quiet and combustion-free process emits water, not pollutants, supporting a customer's net zero goals.



Specifications subject to change without notice.

## System Data

Power @ Plant Rating	2800 kW
Standard Output AC Voltage	13,800 V
Standard Frequency	60 Hz
Optional Output AC Voltages_	By Request
Optional Output Frequency	50 Hz
Sound Level	_72 dB(A) at 10 Feet

# **Fuel Consumption**

Natural Gas (at 930 Btu/ft3 LHV)	364 scfm
Heat Rate (at 930 Btu/ft3 LHV)	_ 7,260 Btu/kWh

#### Water

Consumption Average	9 gpm
Discharge Average	4.5 gpm
Discharge Peak During WTS Backflush	30 gpm

#### Heat

Exhaust Temperature	700 +/- 50 °F
Exhaust Flow	36,600 lb/h
Allowable Backpressure	5 iwc
Energy for Recovery to 250 °F _	4,433,000 Btu/h
Energy for Recovery to 120 °F	7,460,000 Btu/h

#### Efficiency

Initial Operation LHV\_\_\_\_Approximately 47 +/- 2%

## **Emissions**

NOx	0.01 lb/MWh
SOx	0.05g/MWh
PM10	0.009g/MWh
CO <sub>2</sub>	980 lb/MWh
CO <sub>2</sub> (with waste heat recovery)	) 520 - 680 lb/MWh

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