



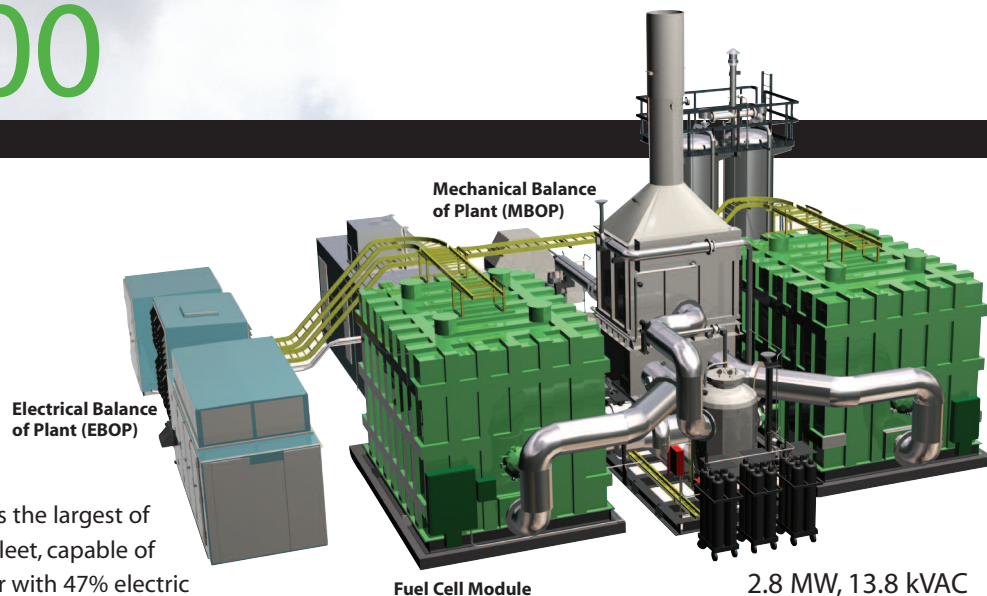
DFC3000

Key Features

- High Efficiency
- Low Environmental Impact
- Fuel Flexibility
- High Reliability
- Quiet Operation

Advantages

FuelCell Energy's DFC[®]3000™ system is the largest of the Direct FuelCell (DFC) power plant fleet, capable of providing high-quality baseload power with 47% electric power generation efficiency 24/7. Scalable up to 50 MW, the system is especially suitable for applications with larger load requirements such as hospitals, universities, manufacturing facilities, wastewater treatment plants, and utility/grid support.



2.8 MW, 13.8 kVAC
3,110 kVA, 50 or 60 Hz

Performance

Power Output

Power @ Plant Rating	2,800 kW
Standard Output AC Voltage	13,800 V
Standard Frequency	60 Hz
Optional Output AC Voltages	12,700, 4,160 V
Optional Output Frequency	50 Hz

Efficiency

LHV	47 +/- 2 %
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Available Heat

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

Fuel Consumption

Natural gas (at 930 Btu/ft ³)	362 scfm
Heat Rate, LHV	7,260 BTU/kWh

Water Consumption

Average	9 gpm
Peak during WTS backflush	30 gpm

Water Discharge

Average	4.5 gpm
Peak during WTS backflush	30 gpm

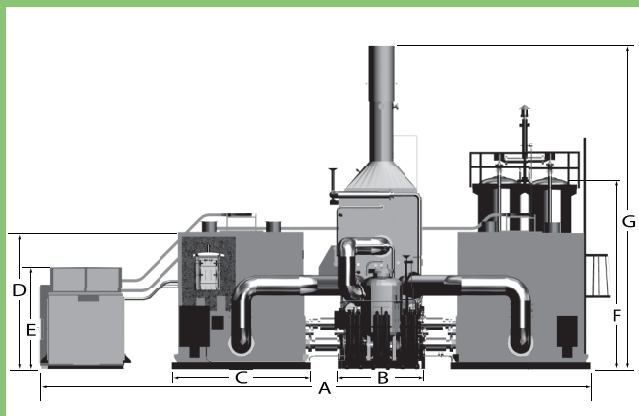
Pollutant Emissions

NOx	0.01 lb/MWh
SOx	0.0001 lb/MWh
PM10	0.00002 lb/MWh

Greenhouse Gas Emissions

CO ₂	980 lb/MWh
CO ₂ (with waste heat recovery)	520-680 lb/MWh

Specifications



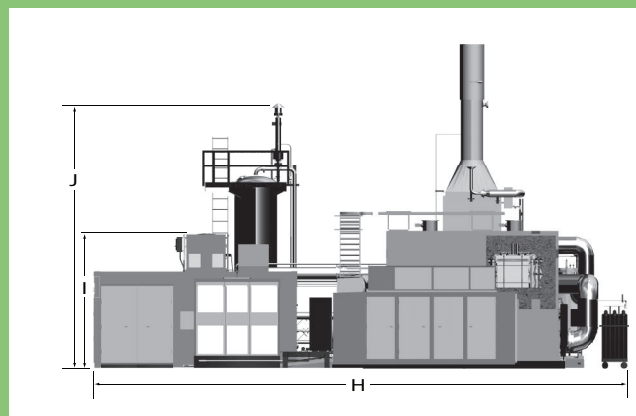
Dimensions

Front View

A	Overall Width	55.0 ft
B	Width of Process Skid	8.5 ft
C	Width of Module	12.6 ft
D	Height of Module	13.7 ft
E	Height of EBOP	10.0 ft
F	Elevation of Desulfurizer Platform	17.7 ft
G	Height of Exhaust Stack (Required on units with no heat recovery)	31.0 ft

Weights

Water Treatment Skid	20,000 lb
Main Process Skid	50,000 lb
Desulfurization	15,000 lb
Electrical Balance of Plant (Total weight of 3 pieces)	60,000 lb
Fuel Cell Module (Quantity 2, weight each module)	115,000 lb



Side View

H	Overall Length	50.8 ft
I	Height of Water Treatment Skid	13.0 ft
J	Height of Discharge Vent	25.0 ft

Noise Level

Standard	72 dB(A) at 10 feet
Optional	65 dB(A) at 10 feet

Experience & Capabilities

With more than 35 years of experience, FuelCell Energy is recognized as a world leader in the development, manufacture, and commercialization of fuel cells for stationary electric power generation. The result of years of research and the investment of more than \$530 million, our patented, carbonate Direct FuelCell products have generated more than 200 million kilowatt hours of electrical energy to date at more than 50 locations worldwide.

This brochure provides a general overview of FuelCell Energy products and services. This brochure is provided for informational purposes only. Warranties for FuelCell Energy products and services are provided only by individual sales and service contracts, and not by this brochure. This brochure is not an offer to sell any FuelCell Energy products and services. Contact FuelCell Energy for detailed product information suitable for your specific application. FuelCell Energy reserves the right to modify our products, services, and related information at any time without prior notice.

FuelCell Energy's fleet of Direct FuelCell power plants are certified to or comply with a variety of commercial and industrial standards: ANSI/CSA America FC-1, UL 1741, CARB 2007, OSHA 29 CFR Part 1910, IEEE 1547, NFPA 70, NFPA 853, and California Rule 21.

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Ultra-Clean, Efficient, Reliable Power