



FuelCell Energy

Ultra-Clean, Efficient, Reliable Power

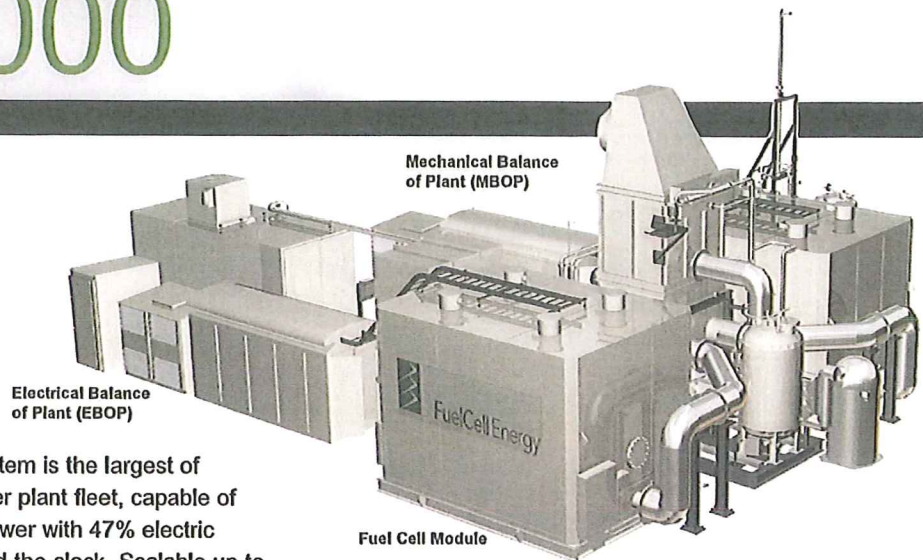
DFC3000

Key Features

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

Advantages

FuelCell Energy's DFC3000™ 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 around-the-clock. Scalable up to 50 MW, the system is especially suitable for applications with larger load requirements such as 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/ft³)	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

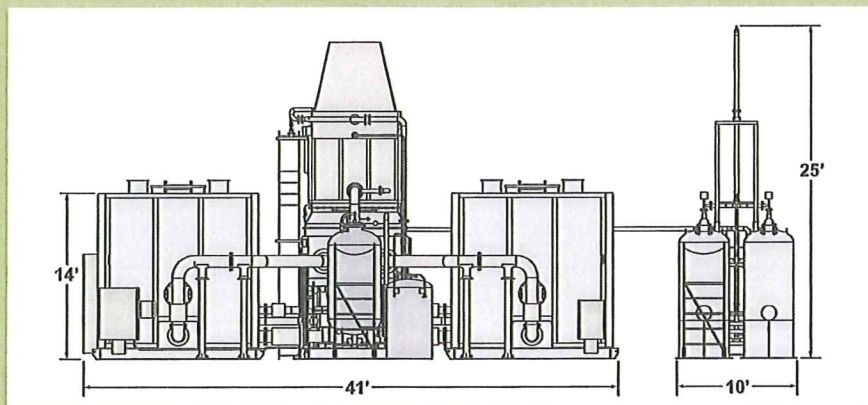
NOx	0.01 lb/MWh
SOx	0.0001 lb/MWh
PM10	0.00002 lb/MWh

Greenhouse Gas Emissions

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

Sound Level	72 dB(A) at 10 feet
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Specifications



Weights

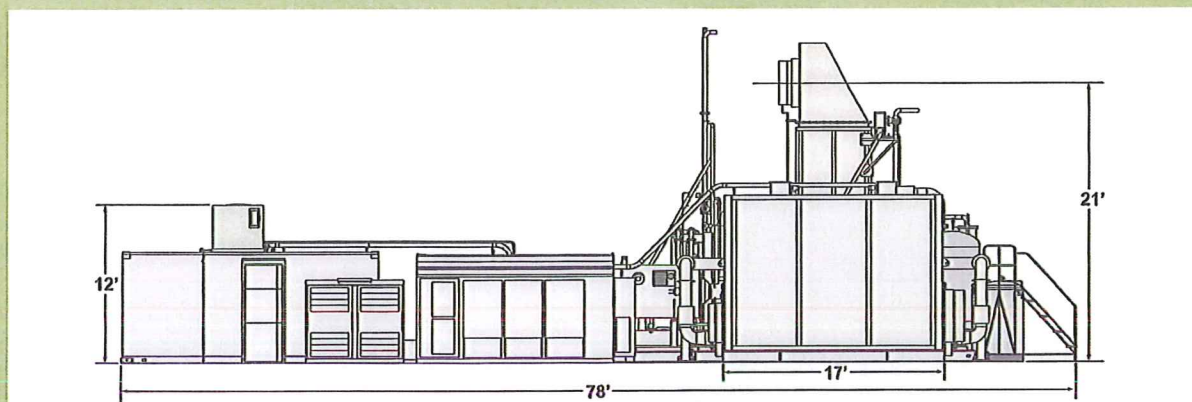
Water Treatment Skid
20,000 lb

Main Process Skid
50,000 lb

Desulfurization
15,000 lb

Electrical Balance of Plant
60,000 lb

Fuel Cell Module
107,000 lb (each module)



Experience & Capabilities

DFC® fuel cells are generating power at over 50 locations worldwide. The Company's power plants have generated over 650 million kWh of power using a variety of fuels including renewable wastewater gas, biogas from beer and food processing, as well as natural gas and other hydrocarbon fuels. FuelCell Energy has partnerships with major power plant developers and power companies around the world. The Company also receives funding from the U.S. Department of Energy and other government agencies for the development of leading edge technologies such as fuel cells. For more information please visit our website at www.fuelcellenergy.com

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 its 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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