



Experience and Proven Performance In Fuel Cell Power

International Fuel Cells, a unit of United Technologies Corp. (NYSE: UTX), is the world leader in fuel cell production and development for stationary, transportation, residential and space applications.

IFC is the sole supplier of fuel cells for U.S. space missions and is the only company in the world producing commercial stationary fuel cell systems.

The PC25™ system is the world's only commercially available fuel cell power system. Each PC25 unit generates 200 kW of electricity, enough to power more than 100 homes, and provides more than 900,000 BTUs per hour of usable heat.

IFC and its licensees have delivered more than 200 PC25 systems and have installed units in 15 countries on four continents. PC25 systems provide clean, reliable power at a range of locations from a New York City police station to a major postal facility in Alaska to a credit card processing system facility in Nebraska to a science center in Japan.

The systems also power schools, high-rise office buildings, and manufacturing sites and generate electricity from the emissions of sewage treatment facilities and breweries. The PC25 fleet of fuel cells has accumulated more than 4.0 million hours of operational experience.

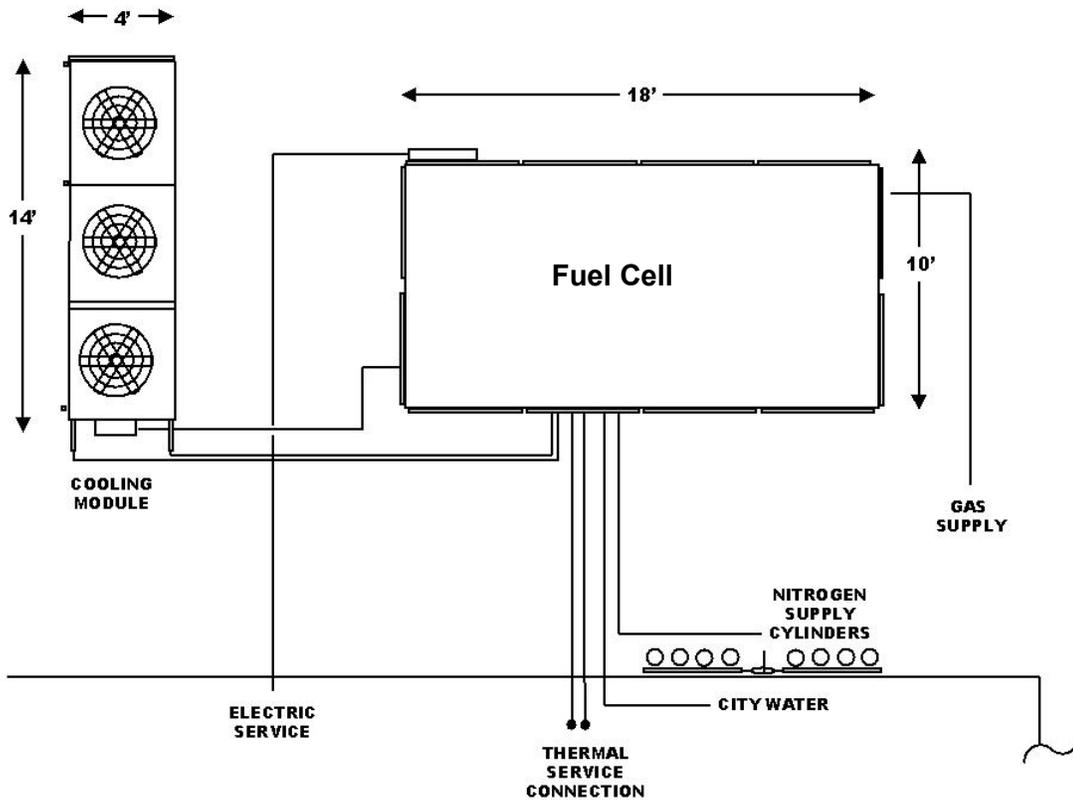
International Fuel Cells has the proven experience to meet your power needs.

BENEFITS OF THE PC25™ FUEL CELL POWER PLANT

- **Highly Efficient** -- 37 percent electrical efficiency; 90 percent with heat recovery.
- **Low Operating Cost** -- The efficiency of the PC25 will reduce the operating costs (energy bill) of the building.
- **High Quality Power** -- The electrical output is computer grade power. Meet critical power requirements without interruption. Minimize lost productivity, lost revenue, product loss or opportunity cost.
- **Reduced Peripherals** -- No need for UPS systems, rooms of lead-acid batteries, diesel generators, storage tanks, secondary containment vessels, or additional HVAC requirements.
- **Green Power** -- Fuel cell power installations are exempt from air emission permitting requirements in many U.S. states and provide flexibility under many federal, state and local air pollution standards.
- **Operates in Diverse Climates** -- PC25 units have operated in a range of climate condition and in temperatures ranging from -20°F to 110°F.
- **Flexible Siting Options** -- Fuel cells can be sited indoors or outdoors. Valuable indoor space normally occupied by batteries and UPS systems can be eliminated, translating into more available high rent space.
- **Low Emissions** -- Fuel cells are the cleanest fossil-fueled generating technology available today. Well below air emission standards in every state, including California. Each PC25 unit, when operating at its rated power, eliminates more than 40,000 pounds of air pollutants including NOx and SOx and two million pounds of CO₂ emissions per year compared with typical US combustion-based generators.
- **Quiet Operation** -- (60 dB at 30 ft.) comparable to an outside air-conditioner.
- **Modular and Scalable** -- As building needs change additional fuel cells can be added, optimizing up-front expense.

PC25C Performance Data

Feature	Characteristics
Rated Electrical Capacity	200 kW/235kVA
Voltage and Frequency	480/277 V, 60 Hz, 3 phase 400/230 V, 50 Hz, 3 phase
Fuel Consumption	Natural gas: 2050 cft/h @ 4-14" water pressure Anaerobic digester gas: 3200 cft/hr at 60% CH ₄
Efficiency (LHV Basis)	87% Total: 40% Electrical, 50% Thermal
Emissions	< 2 ppmv CO, < 1 ppmv NOx and negligible SOx (on 15% O ₂ , dry basis)
Thermal Energy Available	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Standard: High heat options: </div> <div style="width: 50%;"> 900,000 Btu/hr @ 140F 450,000 Btu/hr @ 140F and 450,000 Btu/hr @ 250F </div> </div>
Sound Profile	Conversational level (60dBA @ 30 ft.), acceptable for indoor installation.
Modular Power	Flexibility to meet redundancy requirements as well as future growth in power requirements.
Flexible Siting Options	Indoor or Outdoor installation, Small footprint
Power Module: Dimensions and Weight	10' x 10' x 18' 40,000 lbs.
Cooling Module: Dimensions and Weight	4' x 14' x 4' 1700 lbs.



OPTIONAL OPERATING MODES

Option	Characteristics
Grid connected operating mode	Constant power output operation in parallel with electric grid. Automatically synchronizes with the electric grid.
Grid independent operating mode	Independent, automatic operation. Output tracks the electric load.
Grid-connected/grid-independent operating mode	Constant power output operation. When grid fails or is out of tolerance the PC25 automatically disconnects from the grid and provides independent, automatic operation.
Load shed	If the grid fails the optional load shed equipment can provide a signal to power off individual non-critical loads.
Grid-connect circuit breaker enable control signal	Enables remote disconnect of powerplant from grid.
Grid-connected/grid-independent parallel operating mode	Enables multiple PC25s installed in parallel to share load.

PC25 POWER PLANT OPTIONS

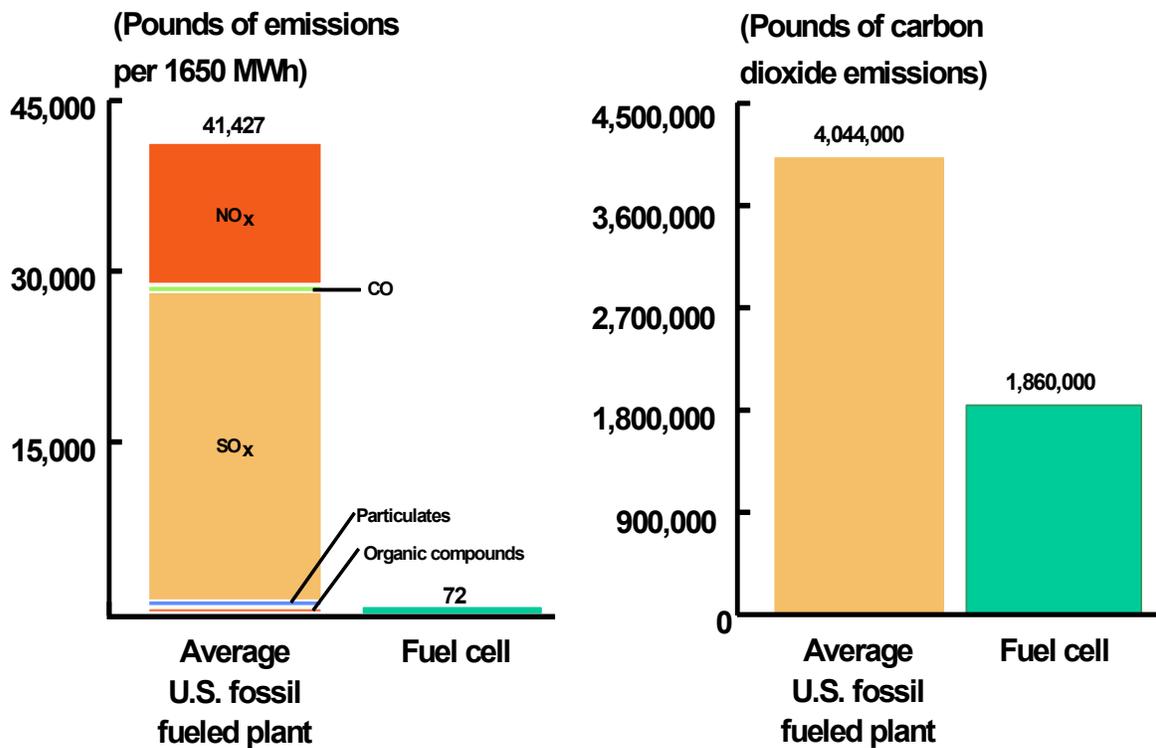
Option	Characteristics
High grade heat recovery	450,000 Btuh at 250 F 450,000 Btuh at 140 F
Double wall heat recovery heat exchanger	Domestic water applications.
Remote data acquisition and control	Remote access and control of PC25.
Choice of operating fuel	Natural Gas or Anaerobic Digester Gas.
Dual fuel operation	PC25 will automatically change from one fuel to another as required.

FUEL CONSUMPTION RATES FOR RATED POWER (200 kW)

Fuel	Flow (cft/hr)	Flow (lbs/hr)
Natural gas	2050	84
ADG with 60% CH4	3200	229

EMISSIONS

Fuel Cell Air Emissions PC25 Emissions From One Year of Operation



The information contained in this document is intended to be representative of the PC25 configuration, however, the materials and characteristics are subject to change.