

ElectraGen™ System

Extended Run Backup Power Fuel Cell System for Telecom



ElectraGen™ System: Highly reliable, ultra-quiet, zero emissions

Fuel: Hydrogen
Power: 3 kW and 5 kW
Voltage: 24 Vdc or 48 Vdc

Applications

ElectraGen™ fuel cell systems are designed for telecom backup power applications:

- Wireless Base Stations
- Secure Communications Networks (TETRA)
- Wireline Remote Terminals
- Broadband
- Telecom Rooftop Application

IdaTech designs, develops and manufactures backup power fuel cell systems for telecommunications applications. IdaTech's products are clean, reliable, quiet and have been deployed worldwide for critical backup power applications.

IdaTech offers 3 kW and 5 kW ElectraGen™ Systems that provide reliable backup power with zero emissions. The ElectraGen™ operates on hydrogen and can also be integrated with IdaTech's patented XTR fuel reformer that runs on HydroPlus, liquid methanol-water fuel, providing power for the long run.

ElectraGen™ System Specifications

Power Rating	5 kW or 3 kW
Nominal Voltage	48 Vdc or 24 Vdc
Voltage Adjustable	48 to 52 Vdc, 24 to 26 Vdc
Size (W x D x H)	0.6 x 1.0 x 1.3 m (26 x 39 x 53 in)
Weight (Product)	226 kg (500 lbs)
Fuel Specification	Hydrogen (99.95% dry)
Ambient Temperature	-40°C to +50°C (-40°F to 122°F)*
Location	Outdoor Rated
Elevation	0 to 2000 m (0 to 6562 ft)**
Communications	4 Dry Contacts (relays), Ethernet, and Wireless Modem (GPRS)
Certifications	CE, ANSI/CSA FC-1, and NEBS Level 3
Typical Run Time*** 6 Bottles of Hydrogen	25 Hours @ 2 kW Output Power 10 Hours @ 5 kW Output Power

* De-rate 2.5% per °C over 43°C and full solar load. ** De-rate 1.5% per 100 m above 2000 m. *** One bottle (T-cylinder) includes 7,392 L of hydrogen. Specifications may change without notice.



Advantages

Extended Run Options – Hot swappable hydrogen cylinders or onsite hydrogen production when mated with ElectraGen™ XTR module using HydroPlus liquid fuel.

Advanced Technology – Utilizes commercially proven Proton Exchange Membrane (PEM) technology.

Compact and Lightweight – Smaller footprint and lighter than comparable battery system.

Reliable System – Dependable performance over a wide range of temperatures: -40°C to +50°C.

Scalable Systems – 1 kW to 15 kW power output.

Low Maintenance – Lower life cycle costs compared to higher maintenance diesel and propane generators.

Clean Technology – Zero emissions and significantly lower environmental impact than both generators and batteries.