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PRODUCT
SPECIFICATION

EcoPower Fuel Cell Cabinet

The environmentally friendly EcoPower Fuel Cell Cabinet offers significant operational cost savings over the life of the cabinet

The EcoPower Fuel Cell Cabinet provides an environmentally friendly dc backup power solution for wireless and wireline networks with a cabinet design that is modular and flexible to meet the most stringent backup power needs.

The cabinet's proton exchange membrane (PEM) hydrogen fuel cells, housed in a secure, weather resistant cabinet for outdoor deployment, offer a smaller footprint and more dense power backup than what is available in the market.

The EcoPower cabinet, at 63"H x 45"W x 52"D, is the highest capacity integrated fuel cell system available, providing up to 16 kW in a single cabinet. With power supplied by two 8 kW fuel cells, the EcoPower cabinet is cooled without use of outside air in a sealed compartment to keep out dust, contaminants, and condensation, thereby helping to prevent deterioration of equipment housed inside.

- Superior eco-friendly power supply offers significant operational cost savings over the life of the cabinet
- High reliability—uptime of 99.99 percent, well-suited for telecom applications
- Addresses the mandated 8 hours of power backup at cell sites
- Reduces power consumption as fuel cells do not require trickle charging
- Greater power density of a fuel cell reduces the amount of pad space
- Supports up to 16 kW; the highest capacity fuel cell on the market
- A single fuel cell can simultaneously backup multiple BTS
- Eliminates expensive generator and battery maintenance

CommScope®

SPECIFICATIONS

EcoPower Fuel Cell Cabinet

- Modular design for incremental 8 kW growth provides affordable initial investment
- Field proven, environmentally rugged powder coat paint virtually eliminates cabinet maintenance costs
- Eliminates Lead Acid battery disposal
- Superior environmental protection reduces costs to replace equipment
- Fully integrated cabinets reduce installation time at the site
- Fully tested to conform to thermal, seismic, UL, salt fog, and heavy rain requirements, thus reducing testing costs
- Lower total cost of ownership—No static degradation over time as compared to batteries and diesel generators

Height, in (cm)	**63 (160)**
Width, in (cm)	**45 (114)**
Depth, in (cm)	**52 (132)**
Mounting Options	**Pad mount, Earth anchor mount**
Electrical Output	
Power	**8 kW nominal with one fuel cell module 16 kW nominal with two fuel cell modules**
Current	**0 to 150 amps @ –48 Vdc with one fuel cell module 0 to 300 amps @ –48 Vdc with two fuel cell modules**
Voltage	**–48 Vdc nominal (–42 to 60 Vdc adjustable)**
Efficiency	**55 percent peak operating (for fuel cell power module)**
Operating Environment	
Temperature	**–40° C to +46° C (in EcoPower cabinet)**
Relative Humidity	**0 to 95 percent non-condensing**
Altitude	**–197 ft to 6000 ft (–60 m to +1829 m)**
Fuel	
Gaseous Hydrogen	**≥ 99.99 percent**
Consumption	**≤ 115 SLPM per 8 kW fuel cell**
Altitude	**500–700 KPa**
Air	**1000 SLPM (maximum per fuel cell)**
Coolant, De-ionized Water	**≥ 200 KΩ cm**
Emissions	
Noise	**< 65 dBA @ 1.5 m**
Water	**≤ 108 ml per minute**
Alarm Outputs	**Visual (LEDs), dry contacts, SNMP**
Alarm Interface	**Ethernet, USB, wire-wrap pins**
Design Compliance	
Physical	**Telcordia GR-63, Telecordia GR-487**
Electrical	**Telcordia GR-1089**
Safety	**UL, CSA, CE**

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