

**BALLARD**™

**FCgen**®-H2PM



## FCgen®-H2PM 1.7kW/48V

The FCgen®-H2PM 1.7kW is an electric power generator that uses hydrogen as fuel and fuel cell technology to provide up to 1.7kW of reliable backup DC power on demand. The intended application of this system is backup power for critical power applications. The FCgen®-H2PM system continuously monitors the DC bus voltage in standby mode and operates during power outages with no delay when the DC bus voltage drops to a customer defined set point.

The FCgen®-H2PM 1.7 kW is designed for a 19" rack installation. The system can be delivered in two configurations: either as a standard solution with an ultracap module add-on for battery free backup, or with customer supplied batteries.

### Features

- Self test features integrated
- Instant backup in case of power outage – no delay
- Compact and modular solution
- Backup duration dependent on how much hydrogen is available
- Hydrogen storage divided in three alarm monitored strings emptying one at the time
- Light weight
- Very low noise
- No toxic waste
- Zero emissions

### Configurations

- 19" rack mount
- Exhaust air must be directed outside
- Can be configured in parallel with other modules to get higher capacity
- Can be installed in outdoor cabinets, shelters or similar solutions

## Product Specifications

Specification	Value
Power Rating	1.7kW
Nominal Voltage	48 Vdc
Voltage Adjustable	47 to 57 Vdc or -47 to -57 Vdc
Voltage ripple	<100mVpp @ 30MHz
Overall Size (WxDxH)	430 x 610 x 350 mm (16.93" x 24.02" x 13.78")
Product Weight	40 kg (88 lbs.)
Fuel Storage	External hydrogen cylinders
Fuel Connection	Valve Block with 3 inlet strings
Fuel inlet pressure	5 bar(g) (Ballard supplied pressure regulator)
Fuel Specification	Hydrogen 99.95% purity (Grade 3.5 or higher)
Fuel Consumption	13.4 NLPM of hydrogen per kW
Fuel monitoring	Dry contact alarm when a fuel string is empty
Enclosure Material	Alu-Zink Coated Sheet Metal and Aluminum
Indoor Installation Environment	Pollution degree 2
Sound Level	50 dBA at 1 meter at 1.7 kW
Temperature Range	-20°C to +46°C (-4°F to +115°F) Ambient Temperature (Process Air) +5°C to +46°C (41°F to +104°F) Room/Indoor Temperature
Relative Humidity	5%-95% Non-Condensing
Alarms	Dry Contacts
Parallel Operation	FCgen®-H2PM Systems can be operated in parallel
Start-Up Time	System provides seamless response to grid loss with DC bus battery or UltraCap Module add-on
Standby Power	Approximately 9W (DC) / 59.5W (AC) with UltraCaps 0W to 300W (AC) Freeze Protection
AC Power Input	110/230 VAC (90-264 VAC) 50/60Hz
Certifications	CE
Alarms	Dry Contacts / SNMP via Eltek Smartpack S
Fuel Consumption	20.1 NLPM of hydrogen @ 1.5kW power output

  

Includes	Description
4000520	FC Unit, FCgen®-H2PM 1.7kW/48V
4000915	Controller, FCgen®-H2PM 1.7kW/48V
4000637	Valve Block, FCgen®-H2PM 1.7kW/48V
4001102	Cable, AC-line 2m