

# FCgen<sup>®</sup>-H2PM 5.0 kW

**5000020****Description**

The FCgen<sup>®</sup>-H2PM 5.0 kW is an electric power generator that uses hydrogen as fuel and fuel cell technology to provide up to 5 kW of reliable backup DC power on demand. The intended application of this system is backup power for critical power applications. The FCgen<sup>®</sup>-H2PM System continuously monitors the DC bus voltage in a standby mode and operates during power outages when the DC bus voltage drops to a customer defined set point. The FCgen<sup>®</sup>-H2PM 5.0 kW is designed for 19" rack installation.

The FCgen<sup>®</sup>-H2PM System can be delivered in two configurations; as standard with an UltraCap Module add-on for battery free backup, or with customer supplied batteries. It is possible to configure multiple FCgen<sup>®</sup>-H2PM 5.0 kW Systems in parallel for higher loads than 5.0 kW (maximum 12 systems in parallel for up to 60 kW output).

**Features**

- 12 yearly 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 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 to outside
- Can be configured in parallel with other modules to get higher capacity
- Can be installed in outdoor cabinets, shelters or similar



# Product Specification

Specification	Value
Power Rating	5.0 kW
Nominal Voltage	48 Vdc
Voltage Adjustable	48 to 55 Vdc or -48 to -55 Vdc
Voltage ripple	< 100mVpp @ 30MHz
Overall Size (WxDxH)	500 x 567 x 617 mm (19.69" x 22.32" x 24.17")
Product Weight	75 kg (165 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 (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 5 kW
Temperature Range	-20° to +46°C (-4° to +115°F) Ambient Temperature (Process Air) 5° to +46°C (41° to +115°F) Room/Indoor Temperature
Relative Humidity	5-95% Non-Condensing
Alarms	Dry Contacts
Parallel Operation	Up to 12 FCgen®-H2PM Systems can be operated in parallel for up to 60 kW of power output
Start-Up Time	System provides seamless response to grid loss with DC bus battery or UltraCap Unit add-on
Standby Power	32 Watts (DC) and 61 Watts (AC & DC) including UltraCap option 0 to 200 Watts (AC heater) 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	53,6 NLPM of hydrogen @ 4.0 kW power output
Includes	Description
4001700	FC Unit, FCgen®-H2PM 5.0kW/48V
4001750	Controller, FCgen®-H2PM 5.0kW/48V
4000870	Valve Block, FCgen®-H2PM 5.0kW/48V



**We deliver fuel cell power  
for a sustainable planet**



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