

BALLARD™

FCwave™-PowerGen

Fuel Cell Power Module for Stationary Applications

Ballard's 200kW DC electric power generator, FCwave™-PowerGen, is the efficient, quiet, zero-emission energy alternative to diesel generators. The PEM fuel cell technology is well suited for intermittent power applications, cycling and rapid ramp up, making the FCwave™-PowerGen a strong fit for decentralized zero-emission power generation, including challenging environments, as well as standby for critical infrastructure applications. The system is scalable from 200kW to MWs and offers exceptional durability and low maintenance.



Features

Modular, Scalable Power

Available in 200kW increments, FCwave™-PowerGen facilitates scalable power output and flexible integration in stationary applications.

Low Lifecycle Cost

Low total-cost-of-ownership, achieved through product performance optimization, common components across product platforms and low maintenance requirements.

Long Lifetime

Powered by Ballard's FCgen®-LCS heavy duty liquid cooled stack and designed to deliver long term performance.

Ease of Integration

The system is integrated into a clean-lined cabinet with easy access doors and all interfaces accessible from the front for service and maintenance.

Safe Operation

Designed to withstand the rigors of the environment, FCwave™-PowerGen is developed, tested and prepared for installation with an uncompromising focus on safety.

Remote Diagnostics

Diagnostics connection allows the customer to monitor performance data remotely and plan for preventative maintenance.

Technology Leadership

The same Ballard fuel cell technology powering FCwave™-PowerGen is already proving itself in more than 3,600 fuel cell electric trucks and busses deployed in China, Europe and North America.

Product Specifications

Performance

Rated power	200kW
Minimum power	55kW
Peak fuel efficiency	53.5%
Operating voltage	350 - 720 V DC
Rated current ¹	2 x 300 A or 1 x 550 A
System cooling output	Max 65° C

Stack technology

Heat management	Liquid cooled
H ₂ Pressure	3.5 - 6.5 barg

Physical

Dimensions (L x w x h) ²	1209 mm x 741 mm x 2195 mm
Weight (estimate) ³	1000 kg
Environmental protection	IP44
Minimum start-up temperature	0°C
Short-term storage temperature	-40°C - +60°C

Reactants and Coolant

Type	Gaseous hydrogen
Composition	As per SAE spec. J2719 and ISO 14687:2019 Type I, Type II - Grade D
Oxidant	Air
Composition	Particulate, Chemical and Salt filtered
Coolant ⁴	Water or 50/50 glycol

Safety Compliance

Certifications	CE certified
Enclosure	Sealed secondary barrier for hydrogen

Monitoring

Control interface	Ethernet, CAN
-------------------	---------------

Emissions

Exhaust	Zero-emission
---------	---------------

¹ System Output (1x550A output pending tests). ² Target size. ³ Includes: framed skid base, fuel cell stacks, plumbing and wiring, H₂ enclosure, cooling system, air system, electrical panel, and miscellaneous (sensors, cable tray, etc.). ⁴ Customer coolant type.