

# HIGH-PERFORMANCE FUEL CELLS FOR A ZERO-EMISSION FUTURE

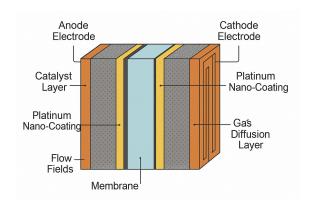
The next generation of mobility and energy supply demands solutions that are clean, efficient, and long-lasting. Platinum, as a catalytic material, plays a central role in modern hydrogen fuel cell technology. BLOOH Solution offers a high-performance product line of platinum-based fuel cells designed to meet the growing global demand for clean, scalable energy.

These systems deliver high power density, low degradation, and excellent efficiency under demanding operating conditions.

As part of global decarbonization efforts, fuel cells provide a scalable and modular pathway to a sustainable energy future. This product line offers an effective and sustainable platform for energy conversion, designed for everything from urban mobility to off-grid systems.

# TECHNOLOGICAL EDGE OF BLOOH SOLUTION

BLOOH Solution draws on deep expertise in materials science, electrochemistry, and energy systems engineering. Our fuel cell systems rely on the precise interplay of catalyst materials, membrane integrity, and stack configuration—delivering a balanced, reliable power source optimized for modern energy demands.



Our platinum-based electrodes utilize nano-coating technology to enhance surface reactivity and improve efficiency at lower operating voltages. Combined with thermal and chemical stability, these features ensure long-lasting performance—even under challenging conditions.

All systems are tested and validated under real-world conditions to meet the highest standards of performance and sustainability—from dynamic driving scenarios to grid-integrated building applications.

#### **KEY ADVANTAGES**



High energy density in a compact form factor



Zero emissions and virtually silent operation



Low maintenance requirements, long service life



Platinum sourced from a sustainable supply chain

Our modular systems are low-maintenance and scalable—ideal for new mobility concepts, decentralized energy infrastructures, and high-load industrial applications.



#### PC-STACK 50 - COMPACT STACK MODULE FOR VEHICLES

A robust, compact fuel cell system designed for hydrogen-powered passenger cars and light commercial vehicles. Engineered for dynamic driving profiles while delivering high energy output and system stability.



# **TECHNICAL SPECIFICATION**

Rated Power. 50 kW Operating Temperature: 65–85°C

Number of Cells: 380 Voltage Range: 150–300 V

System Weight: < 42 kg Service Life: >5,000 hours under real driving cycles

Application: Passenger cars, light commercial vehicles

This model is particularly well-suited for vehicle fleets that prioritize long range, fast refueling, and zero-emission operation. Its compact design allows for efficient use even in tight installation spaces.



#### PC-GEN 200 - STATIONARY FUEL CELL SYSTEM

A high-performance stationary system for clean power supply in buildings, backup systems, or as a buffer power plant. Includes integrated cooling and power electronics for grid-compatible operation.



# **TECHNICAL SPECIFICATION**

Rated Power. 200 kW Cooling: Liquid circulation system

Stack Efficiency (LHV): >60% Voltage Range: 400-700 V

Grid Connection: Three-phase, 400 V AC

Application: Building power supply, energy storage integration, microgrids

This system provides a reliable and emission-free energy source for off-grid installations or as a supplementary backup solution in buildings with critical infrastructure such as data centers or hospitals.



# PC-RANGE 20 - MOBILE OFF-GRID ENERGY SYSTEM

Air-cooled, mobile hydrogen fuel cell system for self-sufficient off-grid applications. Designed for operation in harsh conditions, it delivers fast, clean energy directly on-site.



# **TECHNICAL SPECIFICATION**

Output Power: 20 kW (peak up to 25 kW) Cooling: Air-cooled, plug-and-play

Operating Time: >10,000 hours at partial load Housing: Stainless steel, protection class IP65

Operation: Autonomous, no external infrastructure required

Application: Construction sites, disaster relief, military operations

Thanks to its rugged design, this system is ideal for demanding field deployments where immediate, emission-free power is needed—such as during natural disasters or in remote locations.

# DRIVING INNOVATION FORWARD!

