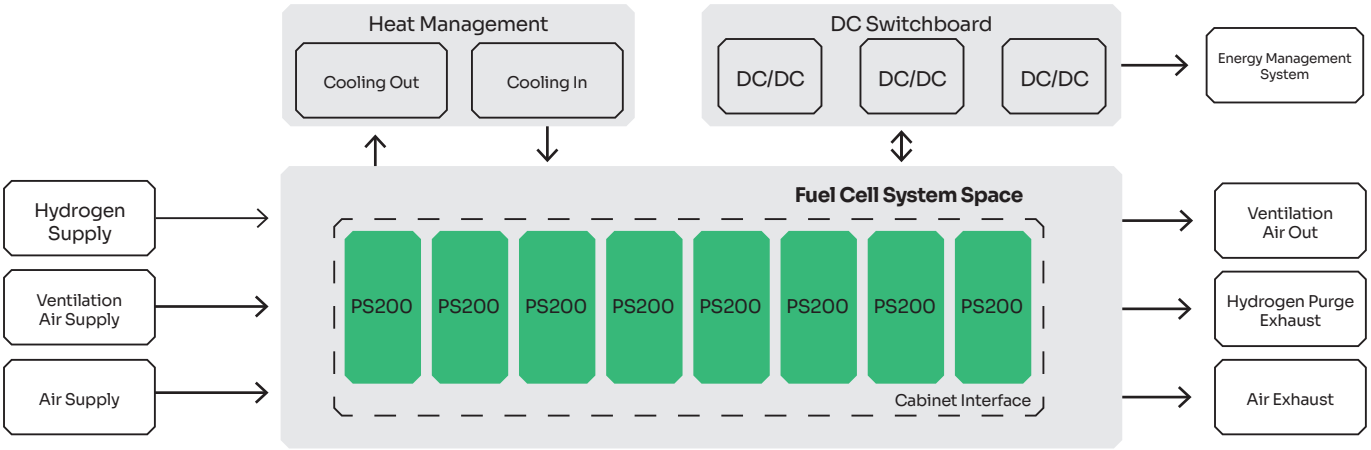
STATIONARY

PowerCellution Power Generation System 200

PowerCell Groups products create electric power based on fuel cells using hydrogen. All of our solutions have minimal environmental impact through the use of zero emission hydrogen electric technology.

Power Generation System 200 is a powerful yet compact fuel cell system with a net electric output of 200 kW operabale at a wide range of hydrogen inlet pressures. With the possibility of operating at a very low inlet pressure the system is compatible with equipment which in turn enables use of different renewable fuels.

Power Generation System 200 offers high system efficiency and delivers silent and emission-free electricity.



SCOPE OF DELIVERY

Scope of supply for standard configuration

PS200	A building block for multi-megawatt fuel cell systems which are scaled according to individual customer use cases.
Heat Management	System heat exchangers allow heat management either for recovery or rejection.
DC Switchboard	The principal electrical integration towards the DC grid shall be done via one or more DC/DC converters.
Energy Management	The energy management is responsible for distributing the power between the different systems.
Air Supply	Air filtrered from particles intended for the fuel cell stack cathode supply.
Ventalation Air	Air intended for ventilation of the fuel cell system cabinets.
Hydrogen Supply	Our system can cope with a range of gas pressures, from 0.5 up to 12 Bar.
Air Exhaust	Hot and humid exhaust gas consisting of depleted air and water.
Hydrogen Purge Exhaust	Hot and humid exhaust gas removing inert gases, nitrogen and purged hydrogen from the fuel cell stack.

PowerCellution Power Generation System 200

Specifications

Net power (DC Supply)	185 or 200 kWe
Dimensions (width x depth x height)	730 x 900 x 2200 mm
Weight	1070 kg

Performance

Max net power	185 kWe	200 kWe
Gross output (rated power)	534 V / 400 A	580 V / 400 A
Voltage output	440 - 800 VDC	550 - 1000 VDC
Current output stack	50 - 450 A	
Heat output	< 300 kW	< 330 kW
Fuel quality	Pure hydrogen: ISO 14687:2019	
Fuel inlet pressure [i]	0.5 - 3 bar (g) / 3 - 8 bar (g) / 8 - 12 bar (g)	
Fuel efficiency	54%	
Communication and control	CAN 2.0 500 kbps	

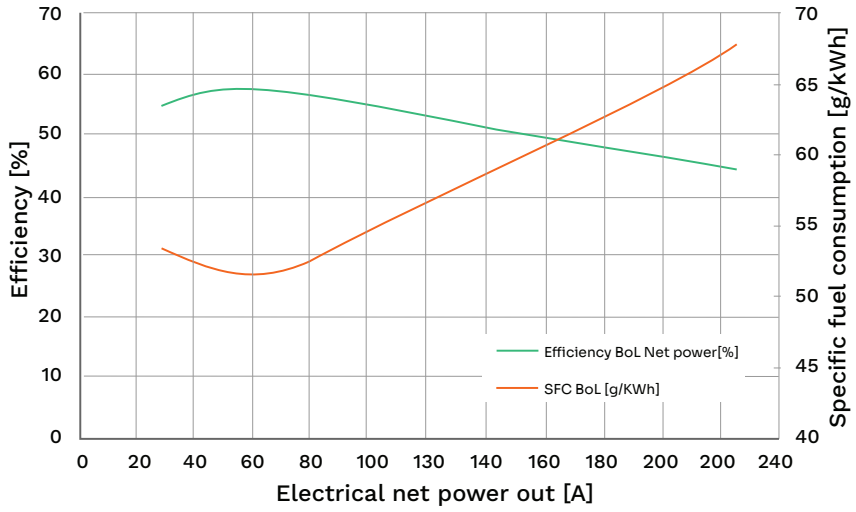


Figure: Performance measured at reference conditions and BOL

Environment

Ambient temperature	Indoors with Pollution Degree 3 or higher
Temperature	5 to 45 °C
Zone classification	Non-hazardous zone (Zone 2 NE), IEC 62282-3-200, IEC-60079-10-1
IP classification	IP44

i Standard inlet pressure is between 3 to 8 bar (g)