

PSystem



Fuel Cell System

PS5-PS15/PS20 /PS40/PS60



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nature**

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PSystem

Protio's PSsystem is a fuel cell power module designed to offer seamless integration into a wide range of electrification needs.

Each module consists of fuel cell stacks assembled together with essential balance-of-plant elements. Housed in a compact enclosure, these modules feature an easy-to-use single-sided interface, streamlining integration and operation processes.

PSsystem gives different power solutions for mobility and stationary systems and it offers flexibility in design to suit individual customer needs.



Main Parameters

Net system power
Operating system voltage
Operating system current

PS5- PS15

5 to 15 kW
19-105 VDC
0-320 A

PS20

20 kW
47- 94 VDC
0-450 A

PS40

40 kW
94-187 VDC
0-450 A

PS60

60 kW
140-280 VDC
0-450 A

Physical

Dimensions [L x W x H]
Weight
Environmental protection
Humidity
Minimum start-up temperature

TBD	500x820x700	500 x 820 x 700	620 x 900 x 700
~40-80 kg	~95 kg	~120 kg	~150 kg
IP 55	IP 55	IP 55	IP 55
5%-95%	5%-95%	5%-95%	5%-95%
-20°C to 40°C	-20°C to 40°C	-20°C to 40°C	-20°C to 40°C

Reactants and Coolant

Hydrogen pressure required
Hydrogen quality [ISO 14687]
Oxidant
Air supply pressure level

8-15 barg	8-15 barg	8-15 barg	8-15 barg
99,995 %	99,995 %	99,995 %	99,995 %
Air	Air	Air	Air
< 150 kPa g	< 150 kPa g	< 150 kPa g	< 150 kPa g

Cooling Line

Coolant

De-ionized water or glycol mix

Communication Line

Interface

Modbus TCP/IP

It includes:

- ⚡ Humidifier
- ⚡ Intercooler
- ⚡ Air compressor
- ⚡ Hydrogen manifold
- ⚡ Temperature, pressure, and mass air flow sensors
- ⚡ Integrated condensate trap
- ⚡ 24 to 12 V DC-DC converter
- ⚡ Check valve, isolation valve, drain valve manifold
- ⚡ Air inlet and outlet manifolds
- ⚡ Solenoid valves
- ⚡ Level sensor

All specifications are subject to change without notice.

±5% tolerance on power measurements
 IP protection can be increased.
 DC/DC and DC/AC not included.
 System delivered with FAT documents and operational manual.

