

HBox

HBox 1000 | HBox 3000 | HBox-PV | HCore

HBox is based on a novel high efficiency proton-exchange membrane (PEM) electrolyser and is available in four formats:

- **HBox 1000**
Producing 1000cc/min H₂ at 15 bar
- **HBox 3000**
Producing 3000 cc/min H₂ at 15 bar
- **HBox-PV**
For direct coupling to a PV array of up to 1,300W peak power output, producing up to 0.21kg/day H₂ at 15 bar
- **HCore**
Bare unit for hydrogen system integrators producing up to 3000cc/min H₂ at 15 bar

The HBox range has been designed for hydrogen system integrators, fuel cell developers and experimenters. HBox is suitable for charging standard cylinders and hydride stores.

In particular, HBox-PV provides an off-grid solution for those interested in generating truly “green” hydrogen for charging hydrogen stores in stationary applications (including solar hydrogen homes and back-up power applications).

Key Features

- Simple to use
- Failsafe
- Silent operation
- Passive water/gas separation
- Passive cooling of electrolyser cells
- High efficiency
- Negligible auxiliary power requirement
- Robust construction

A passive hydrogen generator suitable for a wide variety of applications



Technical Specification	HCore	HBox 1000	HBox 3000	HBox-PV
Hydrogen Flow Rate	Up to 3000 cc/min (6.4 scfh)	1000 cc/min (2.1 scfh)	3000 cc/min (6.4 scfh)	0.21 kg/day (peak)
Hydrogen Pressure	15 bar (218 psi, 1.5MPa)			
Hydrogen Purity	99.50%	99.99%	99.99%	99.99%
Atmospheric Dew Point	35°C	-60°C	-60°C	-60°C
Oxygen Flow Rate	Up to 1500 cc/min	500 cc/min	1500 cc/min	50% of H ₂ flow
System Efficiency	4.7 – 4.9 kWh/Nm ³ (dependent on system configuration)	4.7 kWh/Nm ³	4.9 kWh/Nm ³	Function of solar irradiance
Electrical Power Supply	230/110V AC 50/60Hz			
Power Rating	300 – 1000W	300W	1000W	1,300W (peak)
DI Water Requirement	Deionised ASTM Type 2, Autofill pressure 10psi min.			
Dimensions (H x W x D)	Dependent on installation	515 x 480 x 650 mm	515 x 480 x 650 mm	Dependent on installation
Operating Conditions	Indoors, well ventilated	Indoors, well ventilated	Indoors, well ventilated	Indoors well ventilated, or outdoors if shielded from direct sunlight
Ambient Temperature	5 – 30°C (41 – 86°F)			
User interface	Push button with LCD screen			

HCore can be configured with the following options: (i) O₂ and H₂ delivery at pressure, and (ii) 25 bar operating pressure.

All values are for reference only and are subject to change.



Product Range (left-right): HCore, HLab 600, HLab 1000, HBox 1000, HBox 3000, HFlame, HPac