LAVO™
FOR LIFE

Power your life with LAVO™

Introducing the next generation of energy storage.

The world's first integrated hybrid hydrogen battery that combines with rooftop solar to deliver sustainable, reliable and renewable power to your home and business.

Renewable
Stores green energy from your solar panels

Durable
Operational in conditions -10° to +50° C

Australian Made
Designed and Developed

Technical Specifications

Mechanical

Dimensions (HxWxD)	1680 x 1240 x 400 mm
Weight	196 kg
Hydride Vessels	4 vessels
Max System Pressure	35 bar_g
Vessel Weight	32 kg
Total Installed Weight	324 kg
Mounting[1]	Floor Mount/Outdoors

Environmental

Operating Temperature Range	-10° to +50° C
Recommended Temperature Range	5° to 45° C
Environmental Humidity Range	3 to 100% RH
Maximum Elevation	2000 m
Noise Level	< 45 dB
Enclosure Protection Rating	IP54

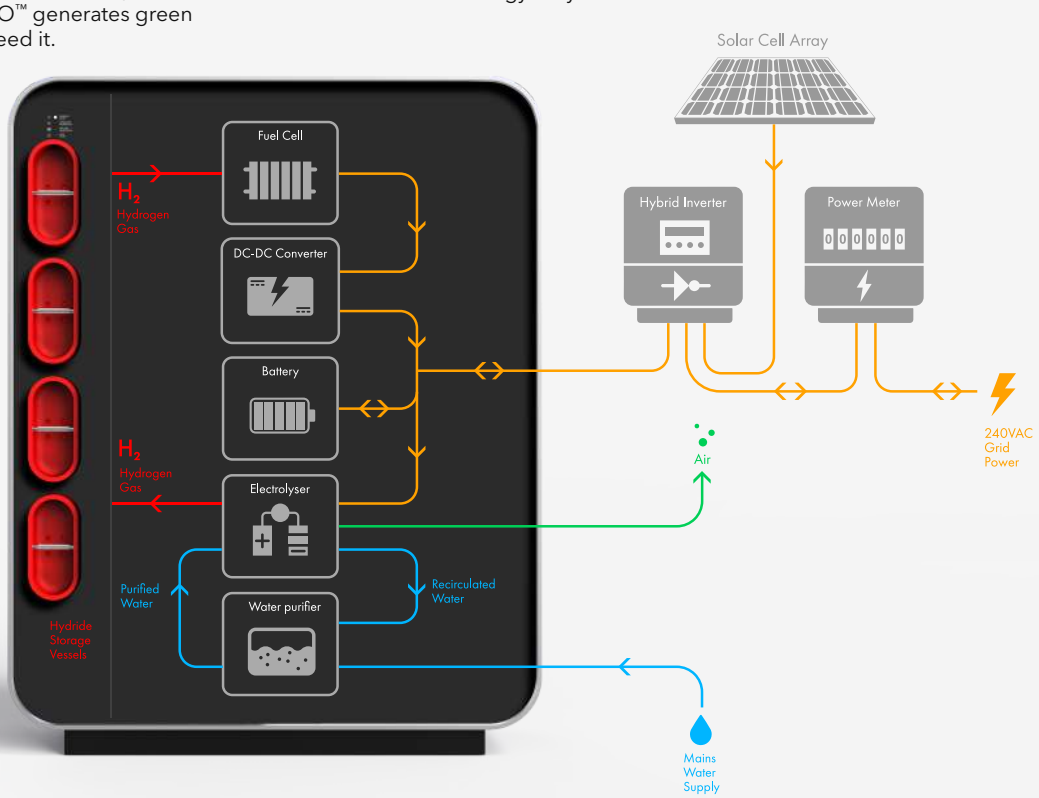
The LAVO™ Energy Storage System

Developed in partnership with UNSW and Design + Industry, LAVO™ is a hydrogen hybrid battery that stores over 40KWh of electricity – enough to power the average Australian home for 2 days. Integrating with standard rooftop solar, LAVO™ generates green hydrogen for renewable power when you need it.

The LAVO™ patented hydride absorbs hydrogen in metal alloy to enable safe, long term storage within a secure vessel. Sustainable energy for you home and business.

The Hydrogen Hydride

The LAVO™ uses innovative, patented metal hydride to produce batteries that last three times longer than lithium batteries at a similar price. This unique hydride is energy efficient, carbon neutral, safe, non-flammable, and designed for all components to be recycled.



[1] Per Australian Building Code regulations.

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LAVO™ System

LAVO™ acts as a solar sponge, integrating with rooftop solar to capture and store renewable energy for use when you need it.

Creates Hydrogen from water

Stores Hydrogen into LAVO™'s patented metal hydride

Generates Electricity by converting hydrogen into power

Delivers Power at a regulated voltage to your home

Monitors & Controls performance via the LAVO™ app

Fuel Cell

The fuel cell is used to convert energy stored in the hydrogen back into electrical energy. This electrical energy is released by combining hydrogen from the hydride storage vessels and oxygen from the air to form water.

DC-DC Converter

A power conversion system is used to regulate the electrical output from the fuel cell. The electrical output from the fuel cell is variable. The DC-DC converter regulates this by boosting the voltage from the fuel cell output up to match the voltage expected at the input of the hybrid inverter.

Battery

The LAVO™ system also includes a small traditional Lithium-ion battery for fast response time. A hybrid energy storage system provides benefits of both storage technologies.

Hybrid Inverter

The hybrid inverter manages the flow of electrical energy between the solar cell array, the LAVO™ and the household.

Electrolyser

The electrolyser converts excess electrical energy from the solar system through electrolysis, where the water is split into hydrogen and oxygen. The energy is stored as hydrogen and the oxygen is released into the atmosphere.

Water Purifier

The electrolyser requires demineralised water for the electrolysis process. The integrated water purifier treats the incoming tap water, enabling the electrolyser to run using a standard mains water supply.

LAVO™ Hydride

Patented metal alloy that stores and regulates hydrogen at a pressure of 30 bar_g 100% recyclable the hydride will deliver 20,000 cycles of storage and charge.