

LV Stackable Battery Features

- LiFePO₄ Chemistry
- Built-in BMS With LCD Colour Touchscreen
- Supports Parallel Connection (51.2V)
- Range of Compatible Inverter Brands
- Supports CAN/RS485 Remote Communication
- Built-in Automatic Fire Suppression System
- Free Standing, Stackable Battery System



UN38.3

Clean Energy Council Approved Battery System

The RENOZ Energy LV-5KWH100AH is a modular, scalable Lithium Iron Phosphate (LiFePO4) Battery System designed for residential and small commercial applications. It offers scalability of up to 8 modules in a single tower, active cell balancing for extended battery longevity, and features an automatic, aerosol-based fire suppression system for enhanced safety.

LV-5KWH100AH Battery System - Technical Parameters

Parameter	Value / Description
Model	LV-5KWH100AH
Nominal DC Voltage	51.2 V
Operational DC Voltage Window	45 V to 57 V
Rated Discharge Rate	0.9 C / 4.61 kW
Lithium Cell Chemistry / Composition	Lithium Iron Phosphate (LiFePO ₄ or LFP)
Cell Format	Prismatic
Nominal Capacity	5.12 kWh / 100Ah
Usable Capacity	4.61 kWh
Depth of Discharge	Up to 90%
Cycle Life	6,000 at 80% Depth of Discharge and 25°C.
Minimum Retained Capacity at End of Life	70% of Usable Capacity after 10 years per warranty.
Battery Dimensions	640mm x 450mm x 177mm
Module Weight	53 kg
Battery Cell Certifications	UL9540A, UL1973, IEC62619, CE/EMC, MSDS, UN38.3, GB36276
Battery Module Certifications	ANSI/CAN/UL 1973:2022, UN38.3, CE (IEC 61000-6)
Warranty	10 Year Limited Product Warranty (Conditions Apply) ¹

Note 1: Refer to RENOZ Energy LV-5KWH100AH Residential Product Warranty

BMS Technical Parameters

Parameter	Value / Description
Low Voltage Cutout	45 V
Max Voltage	57 V
Max Continuous Charge	100 A
Max Continuous Discharge Current	100 A
Recommended Charge Current	50 A
Recommended Discharge Current	50 A
Active Cell Balancing Current	1.0 A
Communication	CAN / RS485
User Interface	LCD Colour Touchscreen

General Parameters

Parameter	Value / Description
Discharge Temperature Range	-20°C to 55°C
Charge Temperature Range	0°C to 45°C
Working Altitude	< 2000m (Seek manufacturers advice for installations above 2000m)
Noise	< 40 dB
Cooling	Natural Air Convection (Passive)
IP Level	IP40 (Indoor Use, Seek manufacturers advice for exposed installation conditions).
Recommended Storage Temperature	0°C to 40°C
Parallel Connection	Up to 8 modules in a single tower; up to 2 towers in a system
Series Connection	Not supported
Country of Manufacture	China
Battery Mounting	Stacked & Free Standing. No Cabinet or Wall Mounting required.
Enclosure Material	Powder Coated, Galvanised Mild Steel
In-Built Fire Suppression	Aerosol Extinguishing Agent (Strontium Nitrate & Potassium Nitrate)

Compatible Inverters

The RENOZ Energy LV-5KWH100AH is a lithium-iron phosphate (LFP) battery system designed for use with an external inverter. The RENOZ Energy LV-5KWH100AH is compatible with a wide range of leading inverter brands. For a complete and up-to-date list of compatible models, please refer to the official 'Inverter Compatibility Statement' document.

Parameter	Value / Description
Compatible Brands	Afore, Aiswei, Deye, Goodwe, Growatt, Luxpower, Noark, Selectronic, Sofar, Solis, Sunsink, Victron

LV-5KWH100AH Parallel Configurations

The RENOZ Energy LV-5KWH100AH Battery System is designed for scalability. A single LV Stackable battery tower can contain between 1-8 LV-5KWH100AH battery modules stacked in parallel, ranging from 4.61 kWh to 36.88 kWh usable capacity in one tower. Up to two towers can be connected in parallel. Seek manufacturers advice for applications requiring more than two towers.

Battery Module	RENOZ Energy LV-5KWH100AH Battery Module							
Number of Modules	1	2	3	4	5	6	7	8
Nominal Capacity (kWh)	5.12	10.24	15.36	20.48	25.6	30.72	35.84	40.96
Usable Capacity (kWh)	4.61	9.22	13.83	18.44	23.05	27.66	32.37	36.88
Nominal DC Voltage (V)	51.2							
Continuous Output Power (kW)	4.61	9.22	13.83	18.44	23.05	27.66	32.37	36.88
Maximum Output Power (kW)	4.61	9.22	13.83	18.44	23.05	27.66	32.37	36.88
Rated Discharge Current (A)	90	180	270	360	450	540	630	720
Height w.o top cover/base (mm) ¹	177	347	517	687	857	1027	1197	1367
Weight w.o top cover/base (kg)	53	106	159	212	265	318	371	424
Height w. top cover/base (mm) ¹	270	440	610	780	950	1120	1290	1460
Weight w. top cover/base (kg)	77	130	183	236	289	342	395	448

Note 1: Height of Module includes 7mm docking pins. These pins are hidden with inset of Top Cover. Refer to Installation Manual for Drawing.