

ERVA 60 HV

TECHNICAL BROCHURE



The ENVA 60 HV

A modular high-voltage battery solution built for commercial energy storage and operational continuity.

The Freedom Won ENVA 60HV is the standard configuration, with other configurations available to match your energy storage requirements.

Designed for scalability and performance, it supports demanding environments with intelligent management and commercial-grade reliability.

ENVA Naming Convention:

The ENVA 60HV follow the pattern: [Category] + [Capacity] = Model



ENVA 60HV

61.4 kWh

614 V high-voltage, 12 modules
stackable high-voltage

614 V

Up to 4 banks



The USPs



Self-stacking

Self-stacking modular design for quick assembly, easy scalability, and simplified installation



Bluetooth & WiFi

Local connectivity for UI access
WAN connectivity for remote access



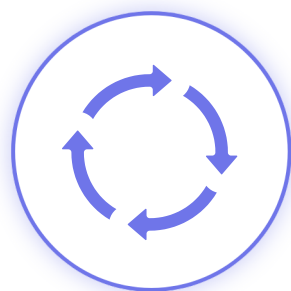
Scalable

Modular capacity that grows in steps as demand rises



Android & iOS app

Real-time monitoring
Direct access to tech support



High cycle life

5 Years (or 6 000 warranty cycles)
>15 years (>6 000 cycles) expected life



Local expert support

Reliable local support backed by trusted energy storage expertise

ENVA

Safety & Protection

ENVA is engineered around inherently stable chemistry and layered protection - so the system stays safe through every charge and discharge.

Certified & Tested

UN38.3

*IEC62619

LiFePO₄ chemistry

Inherently stable lithium iron phosphate cells – the safest mainstream lithium chemistry.

Electronic protection

Over-current, cell over/under-voltage, temperature, weak-cell detection and minimum-SoC control.

**IEC62619 certification is pending*

Intelligent Monitoring & Control

The ENVA range allows users to remotely monitor battery performance, system health and energy usage through a user-friendly mobile application and remote connectivity platform.



Real-Time Battery Monitoring



Remote Diagnostics



Battery Analytics



State of Charge Indication



Mobile Connectivity

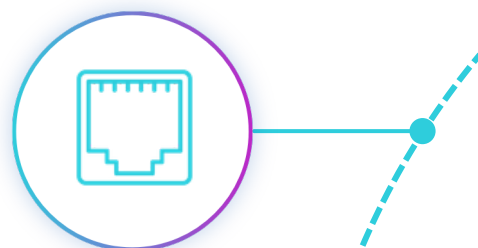


Remote System Access

Intelligent Connectivity

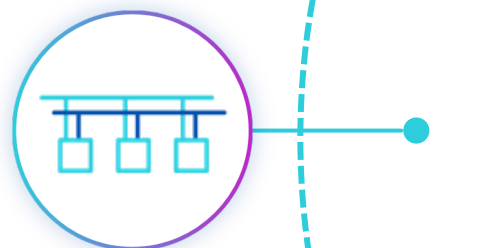
CAN Bus (RJ45)

For interfacing with CAN-compatible inverters



RS485 PORT (RJ45)

For communication with RS485 compatible inverters e.g., Voltronic



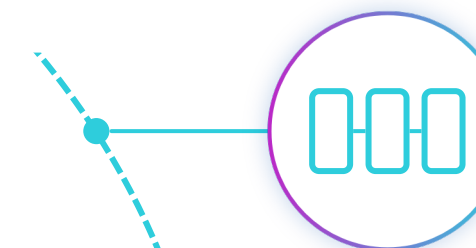
RS232 (RJ11)

For connection to PC (Freedom Won authorized technicians only)



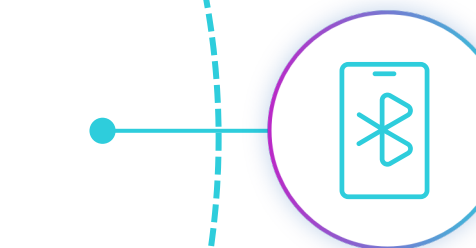
Parallel Communication (RJ45 x 2)

For the communication of batteries in a parallel link



Bluetooth

Local wireless connection to Android or iOS app for monitoring and configuration



Wi-Fi

Connect to your home network for remote monitoring via the Android or iOS app



State of Charge Display



Status LED (LED display indication)



Main Power Breaker



BMS On/Off Switch



child-safe power connectors

Compact Commercial Storage

The ENVA 60HV is a modular, stackable high-voltage battery solution engineered for commercial energy storage, operational continuity and advanced backup applications.

Designed for scalability and performance, the ENVA 60HV supports demanding energy environments with intelligent management, long cycle life and dependable commercial-grade reliability.

Key Features

- 61.44kWh energy capacity
- High-voltage architecture
- Modular stackable system
- Commercial scalability
- Advanced LiFePO4 chemistry
- Integrated fire suppression
- Smart monitoring and diagnostics
- Long cycle life and reliability



ELECTRICAL PARAMETERS		
Cell Chemistry	Lithium Iron Phosphate (LiFePO4)	
Cell Capacity [Ah]	100	
Battery Module Cell Configuration	1P16S	
Battery Module Rated Energy [kWh]	5.12	
Ideal Charge/Discharge Current [A]	≤25/≤50	
Max. Charge/Discharge Current [A]	50/100	
short Circuit Current [kA]	6	
SYSTEM PARAMETERS		
Rated Energy [kWh]	61.44	Specs for 12-module configuration (see installation manual for other configuration specs)
Nominal Voltage [V]	614.4	
Voltage Range [V]	518.4 ~ 691.2	
Battery PACK Modules	12 (1P16S each)	
Cycle Life	≥6000 cycles @ 90% DoD @ 25°C	
Max. DoD - Off-grid / Back-up	90%	
Max. Parallel Battery Banks	4	
Installation Method	Stackable with brackets	
Ingress Protection	IP20	
Inverter Communication Interface	CAN	
ENVIRONMENTAL PARAMETERS		
Charge Temperature Range [°C]	0 ~ 50	
Discharge Temperature Range [°C]	-20 ~ 55	
Optimal Temperature Range [°C]	15 ~ 30	
Relative Humidity [%]	5 ~ 95 (no condensation)	
Max. Operating Altitude [m]	≤4000	
PHYSICAL PARAMETERS		
Dimensions - H x W x D [mm]	1960x550x596 (for 12-module configuration)	
Weight [kg]	720	
Battery PACK Modules	12 (1P16S each)	
GENERAL DATA		
Standards & Certifications	IEC62619, IEC62040, IEC61000, UN38.3	
Warranty	5 years (or 6000 cycles)	
Service Life	>15 years (>6000 cycles) expected life	

Contact Us

Tech Support

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Technical queries and product support



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Where to Buy

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Hereford Rd
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