ENVA

Specification Sheet

freedom WON



High Cycle Life

Up to 15 batteries in parallel

Built-in Fire Suppression

Bluetooth & Wi-Fi

Monitor via Android or iOS App

ENVA 5

ELECTRICAL PARAMETERS	
Total Energy Capacity [kWh]	5.12
Current Capacity [Ah]	100
Energy, 80% DoD [kWh]	4.1
Energy, 90% DoD [kWh]	4.6
Max/Cont. Discharge Current [A] [1]	100/≤50
Max. Discharge Power [kW] [1]	5
Max/Cont. Charge Current [A] [1]	100/≤50
Max/Cont. Charge Power [kW] [1]	5/≤2.5
Nominal Voltage [V]	51.2V, to suit 48V Inverters
Max/Min. Operating Voltage [V]	56/46
Prospective Short Circuit Current [kA]	5
Max. Parallel Configuration	15 x ENVA 5 - Custom combiner box required
COMMUNICATION & INTERFACE	
Communication	• CAN Bus (RJ45 socket x 1) - For interfacing with compatible inverters and system controllers (the ENVA 5 is fully compatible with all common CAN bus compatible brands) • RS485 (RJ45 socket x 1) - For interfacing with the Voltronics Axpert range of inverters equipped with a RS485 lithium battery interface and the applicable firmware • RS232 (RJ45 socket x 1) - For interfacing with a PC for firmware and setting updates (only by Freedom Won technicians) • RS485 (RJ45 x 2) - For the communication connection of parallel batteries (up to 15 units) • Digital outputs x 2 - For controlling external relays based on pre-set functions • Bluetooth - For local connection to Android or iOS App • Wi-Fi - For remote access to online portal via the App
Human Interface	• State of Charge Display (Indicated by colour bar) • Status LED • On LED • BMS Reset button • Main power On/Off switch • BMS On/Off switch • Serial RS232 plug for programming via PC (by Freedom Won only) • Dip Switch block for selecting module addresses • Android or iOS App

DISTRIBUTORS AND RESELLERS

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PHYSICAL PARAMETERS	
Battery Dimensions - H x W x D [mm] [2]	594x450x209
Battery Weight [kg]	53
DC Connection Power Cables [mm^2]	1 Pair 35mm^2 x 1.2m long
Enclosure	Mild Steel - Painted off-white. Wall-mount. Includes handles for easy handling.
Protection	Internal electronic protection including overcurrent, cell under and over voltage, temperature out of range, weak cell detection, minimum SoC control, active voltage based charge current limiting *DO NOT short circuit or connect in reverse polarity
Fire Protection	Thermally activated fire suppression aerosol canister for internal fire suppression
ENVIRONMENTAL PARAMETERS	
Operating Temperature [°C]	Charge: 0 to 55 | Discharge: -20 to 55
Storage Temperature [°C]	10 to 40 (<3 months) / 10 to 25 (>3 months)
Operating Humidity [%]	≤90% RH, non-condensing
GENERAL DATA	
Battery Chemistry	Lithium Iron Phosphate (LiFePO4)
Battery Standards	UN38.3, *IEC62619
Warranty	5 years (or 6 000 cycles)
Service Life	>15 years (>6 000 cycles) expected life

*In Progress

Notes to Specification Sheet

1. Max discharge and charge current duration - 5 min per 30-min cycle. Current limits rated for 10°C to 25°C. Derating applies outside this range.
2. Dimensions exclude protuberances. Refer to installation manual for recommended spacing.

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