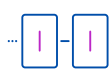




High Cycle
Life



Up to 15 batteries
in parallel



Built-in
Fire Suppression



Bluetooth
& Wi-Fi



Monitor via
Android or iOS App

ENVA 16

ELECTRICAL PARAMETERS

Total Energy Capacity [kWh]	16
Current Capacity [Ah]	314
Energy, 80% DoD [kWh]	12.8
Energy, 90% DoD [kWh]	14.5
Max/Cont. Discharge Current [A] ¹	200/≤157
Max. Discharge Power [kW] ¹	10
Max/Cont. Charge Current [A] ¹	200/≤157
Max/Cont. Charge Power [kW] ¹	10/≤8
Nominal Voltage [V]	51.2V, to suit 48V Inverters
Max/Min. Operating Voltage [V]	56/46
Max. Recommended Inverter Total Rated Power (cont.) [kVA]	10 (per ENVA 16 battery)
Prospective Short Circuit Current [kA]	16
Max. Parallel Configuration	15 x ENVA 16 - Custom combiner box required

COMMUNICATION & INTERFACE

Communication	• CAN Bus (RJ45 socket x 1) - For interfacing with compatible inverters and system controllers (the ENVA 16 is fully compatible with all common CAN bus compatible brands) • RS485 (RJ45 socket x 1) - For interfacing with the Voltronics Apxert 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

PHYSICAL PARAMETERS

Battery Dimensions - H x W x D [mm] ²	827x520x252 (height includes feet)
Crated Dimensions - H x W x D [mm]	870x585x430
Battery Weight [kg]	126
Crated Weight [kg]	142
DC Connection Power Cables [mm ²]	1 Pair 35mm ² x 1.2m long
Enclosure	Mild Steel - Painted off-white. Floor-standing height-adjustable feet with integrated wheels for initial placement. Includes handles for easy handling. Bracket included to secure battery to wall.
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 (LiFePO ₄)
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.

DISTRIBUTORS AND RESELLERS

Contact your nearest Accredited Freedom Won Distributor or Accredited EPCs for further sales and technical support.

Plug into The Current Future

www.freedomwon.co.za