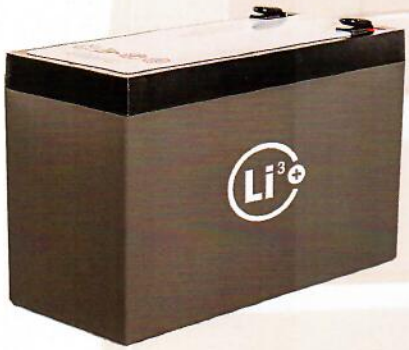


The **FREEDOM e-GEN** is a fully integrated system that offers the most reliable AC and DC power to charging lithium ion batteries from multiple sources. The most compelling benefit is the freedom



### Optional Solar Integration

- Easily integrate solar panels and solar charge controller to the **FREEDOM e-GEN**.
- Variety of options for solar panels and charge controllers



### Intelligent Battery Management System

- Reserve cranking power to jump-start vehicle batteries if needed
- Always charged and ready regardless of the length of inactivity

### Lithium Ion Battery

- Power to weight ratio is 7 times more than lead acid based batteries
- Safest lithium ion chemistry

## Safest System

*Integrated Solution With Redundant Safety Features*

- Lithium ion iron phosphate (LiFePO<sub>4</sub>) is the safest chemistry on the market today
- Ion extinguish (ION-EXT) feature will stop thermal runaway
- Reserve capacity warning to recharge
- Individual cell management makes sure each cell is treated safely
- Separate thermal controls for charging and discharging
- Battery management system controls all charging sources

## Longest Run Time and Efficiency

*Highest Quality Lithium And Components – No Short Cuts!*

- "A" grade lithium cells – not readily available in the usa
- Silver and copper throughout BMS and battery – others use aluminum (65% of copper) and nickel (22% of copper) to save cost



to run an air conditioner and other high power loads in all climate conditions and precise battery management for accurately and confidence it offers RVers to enjoy dry camping adventures without worrying about batteries or power.

### FREEDOM SW Inverter/Charger

- The heart of the electrical system, powers all electronics & appliances including air conditioners
- Features the most advanced battery charging algorithms
- Wide operating temperature range (-4°F to 140°F) for all climate conditions
- Remote system monitoring via tablet, laptop or a smart phone

Power electronics such as:



AIR CONDITIONER

+



### FREEDOM SW Combox



### Multi-Stage Voltage Regulator

- Offers precise voltage control for the auxiliary alternator
- Monitors and responds to changing temperature conditions, including reduction or discontinuation of charging voltage and current, should a catastrophic over-temperature condition occur at the alternator or the batteries

### Auxiliary Alternator

- Best-in-Class output at idle and cruising speeds increasing battery life and ability to re-charge
- 280 A capacity; 180 A idle



## Fastest-Engine Recharge Time

*Proprietary Control! To Safely Get The Most Charging Current To The Battery During Idle!*

- Proven advanced technology alternator for high output at idle
- Low drag coefficient for maximum fuel economy
- Optimal thermal design for long life
- 20% Lighter with 50% more output than traditional alternators
- Multi-step programmable-regulator

## Longest Battery Life

*LiFePO4, Cell Balancing, A-Grade Cells, And Temperature Control All Contribute To The Longest Lasting Batteries On The Market*

- Iron phosphate (LiFePO4) chemistry has twice the cycle life and calendar life than nickel cobalt based chemistries (NMC/NCA)
- LiFePO4 can be left at 100% state-of-charge (SOC) without degrading. NMC cannot or the battery will degrade rapidly
- No cell is ever overcharged!
- A-grade cells naturally have more pure materials and lower impedance and will last longer
- Temperature control protects the battery from charging and discharging at unsafe temperatures which will degrade the battery