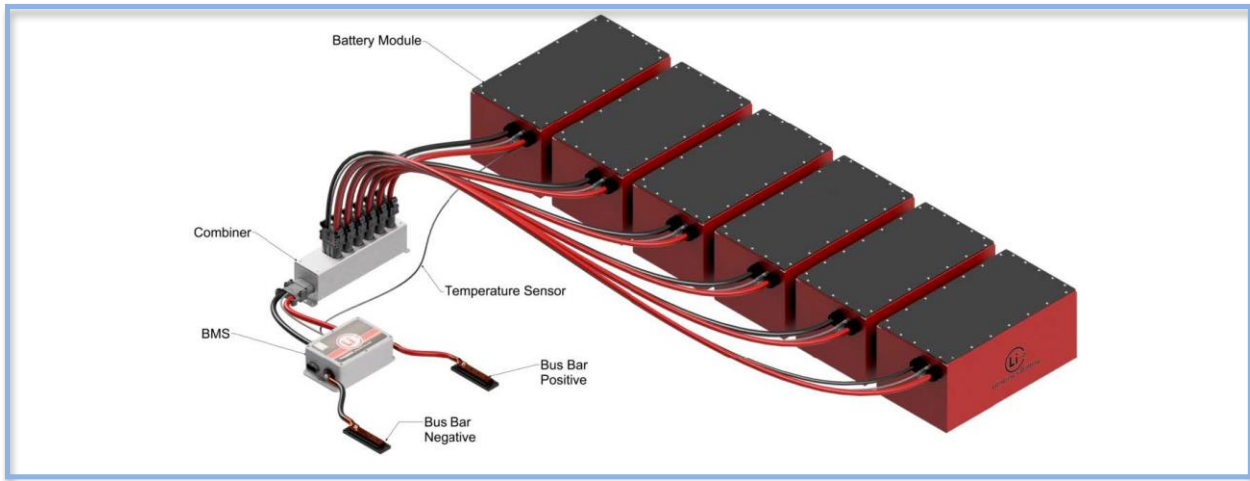


# Lithionics Battery

The World's Widest Range of Advanced Battery Systems using NeverDie® BMS Technology

## Plug & Play NeverDie® System



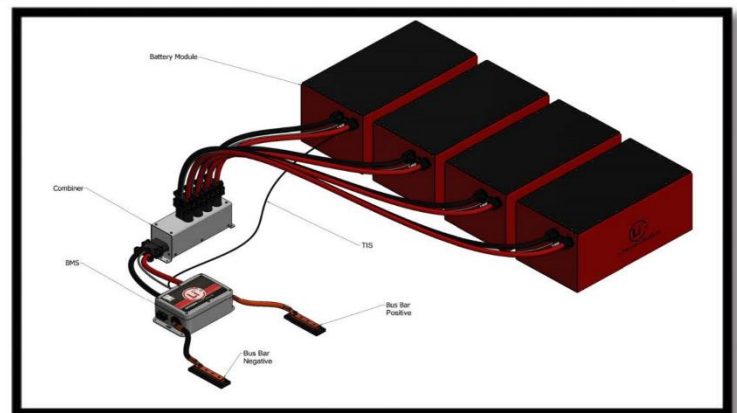
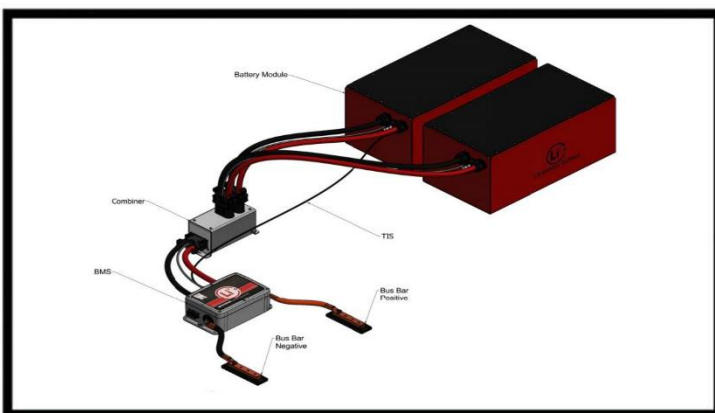
**NEVERDIE®**  
LITHIUM+ELECTRONICS = LITHIONICS BATTERY

**THE WORLD'S WIDEST RANGE OF  
ADVANCED BATTERY SYSTEMS USING  
NEVERDIE® TECHNOLOGY**



- Plug-and-Play Connectivity: Reduces Installation Time by up to 75%
- 100 Module Sizes Available in Sizes Up to 7,680 Watt Hours Each
- Integrated OptoLoop® Cell Communication
- Promotes Human-Safety for 48 to 600 Volt System Configurations
- Prevents Accidental Discharge from Modules ("Center-Tapping")
- One Convenient Connection Location: Positive and Negative Pack-Voltage Charge and Discharge Points are on the BMS
- Pre-Wired for Future Expansion of Capacity (Parallel Connection)
- The External BMS is Field-Serviceable/Replaceable, Able to be Returned for Firmware Upgrades. Avoids Costly Shipment of Class 9 HazMat Modules.

F24 UL Case Example: Each Module at 12 Volts and 600 Lithium Amp Hours (7.7 Kilowatts Each)  
12V2400A/30.8kWh | PARALLEL MODULARITY



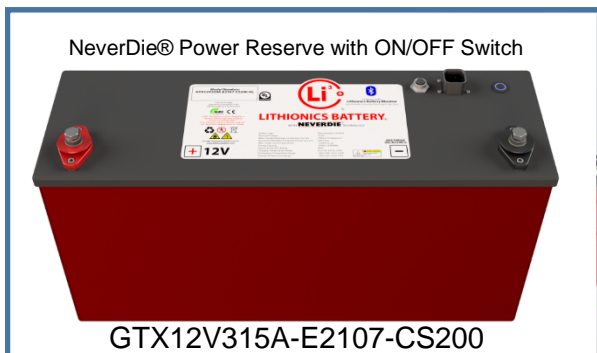
# LEAD-ACID VERSUS NEVERDIE® LITHIUM TECHNOLOGY

	Lead Acid	Li <sup>3</sup>
Battery/pack specific energy, Wh/kg	30-50	110-190
Discharge cycles 80% D.O.D.	300-600	2000-4000
Charge time, hours	2-5	0.5-2
Solar charge acceptance, round-trip	36-80%	98%
Self discharge/month, %	5	1-2
Average operating voltage per cell	2	3.2
Relative battery/pack cost	1X	2-4X
Relative safety	2	1.5
Relative environmental	3	1

OUR LITHIUM-ION-IRON PHOSPHATE CHEMISTRY IS THE SUPERIOR ELECTROLYTE FOR THESE REASONS:

- 4 TIMES STRONGER OR 4 TIMES LIGHTER (SEE NOTE)
- 6-8 TIMES LONGER LIFE THAN LEAD ACID
- 1/2 TO 2 HOUR RECHARGE TIMES: 4 TIMES FASTER!
- 2-3 TIMES MORE ENERGY HARVESTED
- MAINTAINS 75% OF ITS ENERGY AFTER 1 YEAR
- REPLACES: 6.4V, 9.6V, 12.8V, 16V, 24V, 36V, 48V, ETC.
- HIGHER INITIAL COST, LOWER COST-OF-OWNERSHIP
- SAFER THAN ANY LEAD ACID BATTERY
- FINALLY: AN ECO-FRIENDLY GREEN BATTERY!

## PARALLEL CONNECTIONS WITH INTERNAL BMS



### Internal NeverDie® Battery Management for Parallel Connection

Typical Voltages: 12V (Not for Series Connection)

Single-Case Watt Hours: 1600 to 4000

Independent and Redundant Batteries

Bluetooth Monitoring

Connect in Parallel to Expand Total System Capacity



12V130A-G31-CS100



For Marine Applications – House / Electric Propulsion / Custom – Contact:  
Annapolis Hybrid Marine • 410-353-4348 • info@annapolishybridmarine.com