



What makes the OPE-Li3 marine lithium battery system the SAFEST?

- **The OPE-Li3 ND-DC BMS (Never-Die Dual-Channel Battery Management System):** “Dual-Channel” means that the charge side of your system can be isolated from the load side of your system by the BMS. If there is a problem on either side, it will not interrupt the performance or damage equipment on the other side.
- **ION-EXT: Ion-Extinguishing Technology** is a nano-ceramic polyamide separator coating within each cell that boosts charge and discharges rates, and forms a shut-down curtain in the event of cell failure (Including “Nail Penetration”) The Result: cells and batteries with a 100% safety record for 4 consecutive years.
- **Multi-level protection system.** The BMS pack level computers are backed up by cell-level sensors, communicating via a rugged “cell loop” (vs. the fragile communication cables of other lithium systems). The result is continuous protection at both the cell and pack levels that is resistant to both water and physical damage.

What makes the OPE-Li3 marine lithium battery system the MOST RELIABLE?

- The OPE-Li3 ND-DC BMS has **intelligently programmed high and low voltage cutoff levels** on BOTH the charge and load channels. In the case of a low voltage cutoff (LVC), this allows for the batteries to continue to charge while the loads have been cut off. Similarly, if there is a high voltage cutoff (HVC), then the charge bus will disconnect and the loads can continue running. Other lithium systems may shut off all your loads if there is an overcharge.

- **FEC (Field Effect Control) Alternator protection:** All OPE-Li3 BMS units come with a simple alternator disconnect circuit. The BMS will automatically turn off the alternator before a high voltage cutoff, thus protecting your alternator(s) in an HVC situation.
- The battery cases are **watertight** thus protecting the cell level circuitry. They have an IP rating of 64 meaning that they are totally protected against dust and are protected from water splashed from all directions
- The **rugged and simple cell loop** vs. a serial or CANbus fragile communication cables. This eliminates the possibility of a failure due to comm errors or RF interference and makes the system less sensitive to moisture.

What makes the OPE-Li3 marine lithium battery system the EASIEST TO INSTALL?

- OPE-Li3 batteries are available in a large **variety of sizes**, capacities, and configurations which allows you to get the best arrangement for your system and compartment.
- The Never-Die Dual-Channel **BMS is integrated into one module** that includes the relays and both charge & load terminals.. For installation, it is as simple as plugging in the BMS, the battery, and the alternator control, allowing full dual-channel protection yet without complicated wiring/networks or numerous peripheral devices.
- OPE-Li3 batteries have **passed the stringent UN DOT standards**, allowing reduced packing/shipping costs. Additionally, due to their extremely high level of safety and stability, they have been cleared by the FAA to go by air transport up to 4000Wh per module.

Systems are available in 12V, 24V, 48V, & 51V banks and up to 600Ah @ 12V.

Check out the [Lithionics Website](#) for more information on their expertise and products.