



# DRIFTECO

LIFEPO4 LEISURE BATTERY

## DRIFT ECO 460

### QUICK SPECS

|                                                                                                         |                                                                                                |                                                                                          |                                                                                                     |                                                                                                        |                                                                                                    |                                                                                                    |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <br>LiFePO4<br>Lithium | <br>460<br>Ah | <br>12V | <br>3500<br>Cycles | <br>250A<br>Discharge | <br>5888<br>Watts | <br>IP67<br>Rated |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|

### FULL SPECIFICATIONS

| CELL INFORMATION            |                             |
|-----------------------------|-----------------------------|
| Cell Configuration          | 4S2P                        |
| Nominal Capacity            | 460Ah                       |
| Energy                      | 5888Wh                      |
| Cell Chemistry              | Lithium Iron Phosphate      |
| Cell Nominal Voltage        | 3.2V (12.8V)                |
| Cycle Life                  | 3500 @ 80% DOD              |
| Maximum Discharge           | 1C (250A)                   |
| Maximum Charge              | 250A                        |
| Nominal Voltage             | 12.8V                       |
| Discharge Cut Off Voltage   | 10V                         |
| Discharge Temperature Range | -20C to 60C                 |
| Charge Temperature Range    | 0C to 60C                   |
| Storage                     | 10C to 35C @ 50% SOC        |
| Measurements (HxLxW) in mm  | L 522mm x W 240mm x H 220mm |
| Weight                      | 38Kg                        |
| Housing Material            | ABS Plastic                 |
| Conformity                  | UN38.3, ROHS, CE, UL        |

| BMS INFORMATION          |      |
|--------------------------|------|
| Maximum Discharge        | 250A |
| Temperature Protection   | Yes  |
| OverCurrent Protection   | Yes  |
| OverDischarge Protection | Yes  |
| Max Charging Current     | 250A |



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## Storing your Battery

We strongly suggest your batteries are stored at room temperature, charged to about 30% to 50% of capacity.

We recommend that batteries be charged once every three months to prevent over discharge.

## Battery Performance

Because Lithium Iron Phosphate batteries utilise a chemical reaction, battery performance will deteriorate over time even if stored for long periods of time without being regularly used.

In addition, if the various usage conditions such as charge, discharge, ambient temperature, etc. are not maintained within the specified ranges, the life expectancy of the battery may be shortened, or the device in which the battery is used may be damaged by electrolyte leakage.

If the batteries cannot maintain a charge for long periods of time, even when they are charged correctly, this may indicate it is time to change the battery.

## Battery Safety

- Do not disassemble your battery.
- Do not short the battery.
- Do not store your batteries in direct sunlight.
- Store the battery in a cool and well ventilated area.
- Keep batteries away from flammable objects and materials.
- Never leave a battery unattended whilst charging.
- Keep batteries away from static electric charges.
- Keep out of reach from animals and children.
- Do not immerse your battery in water.
- Do not crush, incinerate or modify your battery.
- Only use batteries within the manufacturers specifications.
- Recycle your batteries correctly.

## Battery Series and Parallel Mode

All 12V batteries can be connected either four (4) in series OR sixteen (16) in parallel.

## Charging

Your battery should be charged using a lithium iron phosphate battery charger.

Bulk Charge : 14.2V - 14.4V

Float Charge : 13.5V - 13.8V

Charging Current : up to 250A

## Battery Warranty

- Fogstar offers a 6 year warranty on all Fogstar Drift ECO Leisure batteries.
- Warranties only apply to the original owner and are non-transferrable.
- Fogstar will verify your purchase prior to processing any warranty claims or returns.
- Please contact us at [customerservice@fogstar.co.uk](mailto:customerservice@fogstar.co.uk) as soon as you encounter any issues.
- Our warranty does not cover items that have been damaged due to gross negligence, normal wear and tear, damage due to accident or collision, abuse or incorrect installation.

## Temperature Considerations

- Charging: This battery does not contain an internal heating element for low-temperature operation. To ensure optimal battery health and lifespan, avoid charging the battery below 0°C (32°F).
- Discharging: The Drift ECO battery performs well in cold environments, with a discharge temperature range down to -20°C (-4°F).
- JBD BMS Protection: Even though charging at low temperatures is not recommended, the integrated JBD BMS safeguards the battery by preventing charging if the temperature falls below the safe operating range. This BMS protection ensures the battery is not damaged by accidental charging in cold conditions.

## Battery Monitoring

The Drift ECO battery prioritises reliability and longevity over Bluetooth connectivity. While it doesn't have built-in Bluetooth, you can effectively monitor its state of charge (SOC) using two reliable methods:

- Battery Shunt: This is a hardware device installed in-line with the battery cables. It measures current flow and calculates the remaining capacity based on the charged and discharged amp-hours. Shunts are a simple and accurate way to track SOC.
- Battery Monitor: This is a dedicated display unit that provides a user-friendly interface to view various battery parameters like SOC, voltage, current, temperature, and cycle count. Battery monitors offer a more comprehensive overview of the battery's health.