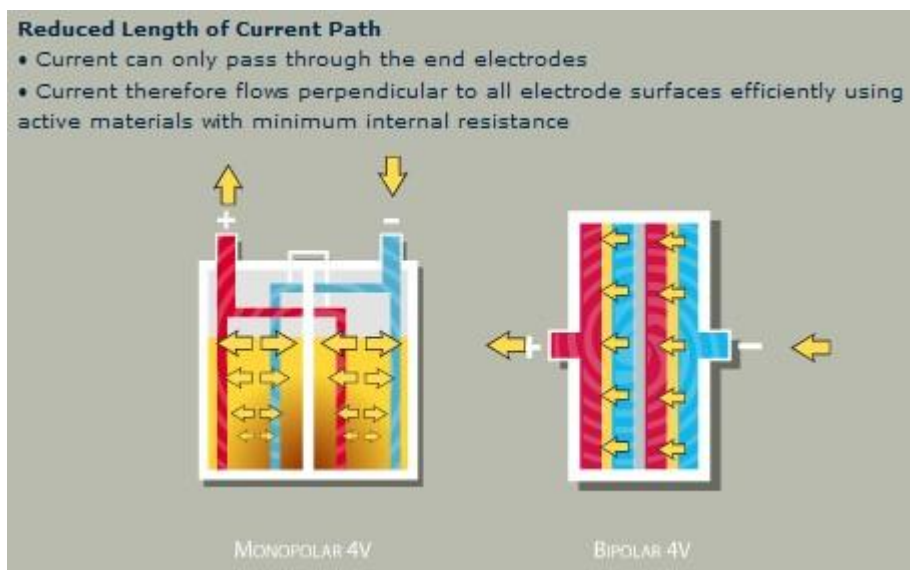


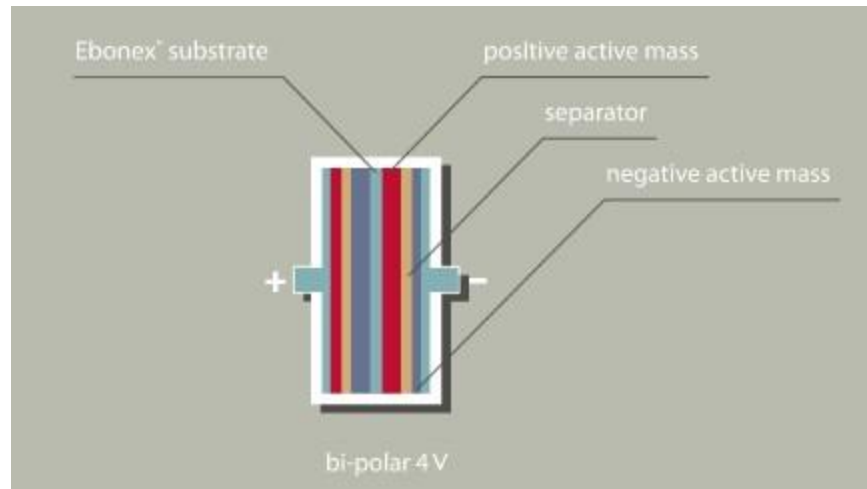
## Electrotherm Introduces Fast Charging Alpha Weaver Battery in India

- Alpha Weaver Battery – India's 1<sup>st</sup> Lead Acid batteries with Just 4 Hrs recharging time

Lead acid batteries are known to include at least one positive current collector, at least one negative current collector, an electrolytic solution of sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) and distilled water. In traditional lead acid batteries, both the positive and negative current collectors can include grid-like plates formed of lead. These batteries are heavy due to the presence of lead grids and the peripheral components (grid lug, electrode current strap, and intercell connections) needed required to support the monopolar configuration of many lead acid batteries (i.e., each battery electrode plate functions exclusively as either a positive plate or as a negative plate). Traditional lead acid batteries provide low specific energy and specific power values. Further, a notable limitation to the durability of lead acid batteries is anodic corrosion of the lead-based components of the positive current collector.



Alpha Weaver Bipolar batteries made by Electrotherm provide improved performance over traditional lead acid batteries. These are made from pure lead tin electrodes which offers less corrosion. A bipolar battery consist of a bipolar electrode plates that can function as both positive and negative electrodes within the battery. Specifically, each individual electrode plate has both a positive and a negative active face. These two faces are electrically connected and, therefore, reside at the same electrical potential. The two faces, however, are separated by a barrier that is impermeable to the electrolytic solution in the battery. Therefore, despite being physically part of a single electrode plate, the two active faces of the bipolar electrode plates reside in separate cells of the battery. As a result, the bipolar electrode plate may serve both as a negative plate in one cell and as a positive plate in an adjacent cell.



As a result of their design, Alpha Weaver bipolar batteries provide several advantages over traditional lead acid batteries.

- Fast Charging Capability due to Low Internal Resistance
- Improved Specific Energy and Specific Power as compared MonoPolar Lead acid battery.
- Alpha Weaver Batteries are lighter thus improving the range of the Electric vehicle.
- Improved performance at low temperatures.
- Suitability for 3g forces.
- There is no grid casting. Hence life increases.
- Internal connections between plates are automatic

Present rating available is 40Ah at C2 rate.

