



COMPARATIVE ANALYSIS

VOLTAGE

Lithium-ion batteries maintain their voltage throughout the entire discharge cycle. This allows for greater and longer-lasting efficiency of electrical components. Lead acid voltage drops consistently throughout the discharge cycle.

WEIGHT

Lithium-ion batteries are one-third the weight of lead acid batteries.

EFFICIENCY

Lithium-ion batteries are nearly 100% efficient in both charge and discharge, allowing for the same amp hours both in and out. Lead acid batteries' inefficiency leads to a loss of 15 amps while charging and rapid discharging drops voltage quickly and reduces the batteries' capacity.

DISCHARGE

Lithium-ion batteries are discharged 100% versus less than 80% for lead acid. Most lead acid batteries do not recommend more than 50% depth of discharge.

CYCLE LIFE

Lithium-ion batteries cycle 5000 times or more compared to just 400-500 cycles in lead acid. Cycle life is greatly affected by higher levels of discharge in lead acid, versus only slightly affected in lithium-ion batteries.

COST

Despite the higher upfront cost of lithium-ion batteries, the true cost of ownership is far less than lead acid when considering life span and performance.

ENVIRONMENTAL IMPACT

Lithium-ion batteries are a much cleaner technology and are safer for the environment.
