

eSMART LiFe-576Wh



576Wh Lithium-iron phosphate battery with eSMART technology.

The eSMART LiFe-576wh is directly compatible with our smart power distributors. Plug-in your battery on an AUDIOROOT eSMART compatible power distributor and benefit from real time battery State Of Charge informations !

LiFePO4 batteries can replace SLA (lead acid) batteries with many benefits. The LiFePO4 battery uses a lithium-ion-derived chemistry and shares many of its advantages and disadvantages with other lithium ion battery chemistries. The key advantage for LiFePO4 when compared with LiCoO2 is higher current or peak-power rating.

While LiFePO4 cells have lower voltage and energy density than LiCoO2 Li-ion cells, this disadvantage is offset over time by the slower rate of capacity loss (aka greater calendar-life) of LiFePO4 when compared with other lithium-ion battery chemistries (such as LiCoO2 cobalt or LiMn2O4 manganese spinel based lithium-ion polymer batteries or lithium-ion batteries).

As LiFePO4 batteries can handle deep charge/discharge cycles a 45Ah battery will have the same lifetime and capacity of an 80 pounds SLA battery. Every LFP battery has a protection circuit (BMS) that handles the following functions :

- 1) Overcharge protection
- 2) Over-discharge protection
- 3) Short circuit protection
- 4) Over-current protection
- 5) Over-temperature protection Balanced protection
- 6) Balanced protection

Every Audioroot eSMART battery (li-ion and LiFePO4) embeds a micro controller which handles and records the main parameters of the battery such as : identification, type of elements, cycle count, build date, serial numbers and many other parameters. The micro controller monitors the battery's status and behaviour (power consumption, temperature, voltage, etc...) and can directly communicate these informations to our smart power distributors. Our eSMART LiFePO4 batteries are directly compatible with the following power distributors for plug and play operations :

- ✓ eSMART BG-DU – Power distributor / universal fuel gauge
- ✓ eSMART BG-DU-REG – Regulated power distributor / universal fuel gauge
- ✓ eSMART K-ART – Dual battery location sound cart power distributor

This battery can be recharged with our eLC-PO4 and eLC-PO10 low cost travel chargers.

Technical specifications :

- Dimensions : 300 x 249 x 196mm
- Weight : 7.6Kg
- Specific energy : 76Wh/kg
- Nominal voltage : 12.8V
- Max voltage : 14.8V
- Voltage cutoff : 10V
- Max battery total current output : 30A
- Max current per XLR output : 10A
- Cycle lifetime : 85% capacity at 1200 Cycles

Features :

- Lead acid battery direct replacement
- Protection PCB built-in
- Internal cell balancing
- Maintenance free
- Rugged design
- Can be charged with most lead-acid chargers

As of January 1st 2018 the eSMART LiFe-576Wh battery is sold exclusively in a rugged PeliCan IM2075 Storm Case with 2 integrated XLR4 sockets for battery output and charger input.