

# SOLARKING

## 120AH 12.8V Lithium Battery LiFePO4 USER MANUAL

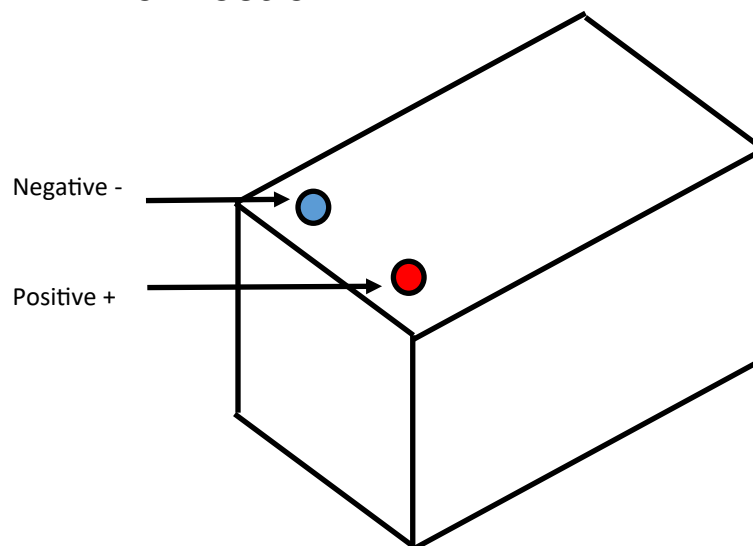
Thanks for choosing this lithium iron phosphate battery (LiFePO4). Please read this manual carefully before use.

This lithium battery is a perfect replacement for existing lead acid batteries. This unit is far lighter and more efficient. Cycle life is also much longer than lead acid batteries, so care for your battery and your battery will reward you!

### Specifications

Battery Type:	Lithium Iron Phosphate LiFePO4
Capacity:	120AH
Output Voltage:	12.8V (13.8 Nominal, 14.2 Max)
Input Voltage:	14.8V Max
Charge Current:	100AH (5AH min, 30AH Recommended)
Cycle Life:	2000 Min @100% DOD, 8000 Min @ 20% DOD
BMS:	SolarKing Advanced Management Module
Cell Balancing:	Active 5AH Charge/Discharge (8AH Peak)
Dimensions:	365x185x245mm
Weight:	17.90kg

### Connection



## Warnings:

- When using this battery do not short the positive and negative terminals, this will create a spark and cause the unit to shut down.
- Don't submerge unit in water as the battery is weather proof not waterproof.
- Don't open unit
- Don't mount up-side down
- Don't place near high power magnet
- Whilst lithium iron is very safe compared to lithium ion for shipping purposes the unit needs to be treated as "class 9 dangerous goods". Don't air freight.
- Protect battery from impact
- Operate product within temperatures of  $-20^{\circ}$  to  $60^{\circ}\text{C}$

## Usage Recommendations:

- Re-Charge battery every 3 months (6 months min)
- Keep battery ventilated.
- If connecting to an inverter use good quality cabling between battery and inverter, even use two sets of cables.
- If connecting to an inverter keep the cables as short as possible to limit power loss.
- When installing the battery in either series or parallel (need to be same model) make sure multiple batteries are charged separately first to get the voltage of the batteries as close as possible to each other, then install.
- This model battery uses active cell balancing, when either in storage or charging the battery is internally balancing to give you the best efficiency.
- The battery will work with all types of chargers that meet the specifications for the battery. If the mains or DC charger has a lithium setting this is even better as this will allow charging up to 15 volts. Solar systems already charge up to these voltages so no need to make any changes. Mains or DC Chargers with no lithium setting are still fine just getting the battery to 100% capacity will take longer.