## LFP12-50

# 12.8V 50AH LiFePO4

## Lithium Iron Phosphate
Deep Cycle Battery

Quality
Guarantee
–
5 Years




### Lighter Weight
About 40% of the weight of a comparable lead acid battery.
Easy to replace lead acid batteries.

### Higher Power
Delivers twice power of lead acid battery.
Higher discharge rate, while maintaining high energy capacity.

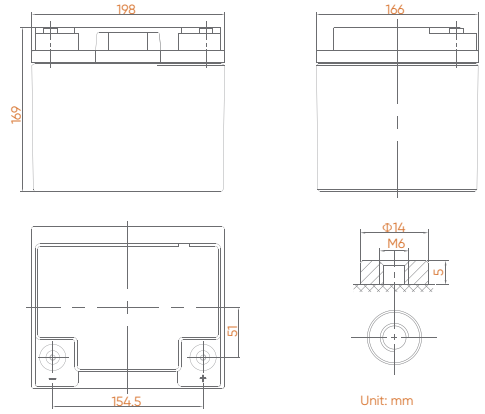
### Longer Cycle Life
Offers up to 20 times longer cycle life and
five times longer float/calendar life than lead acid battery.

### Superior Safety
Lithium Iron Phosphate chemistry eliminates the risk of explosion
or combustion due to high impact, overcharging or short circuit.

## Specification

| | |
|---|---|
| Nominal Voltage | 12.8V |
| Nominal Capacity | 50Ah / 640Wh |
| BMS | Integrated |
| Cycle Life | >5000 cycles @0.5C / 50%DOD |
| Months Self Discharge | <3% |
| Efficiency of Charge | 100% @0.5C |
| Efficiency of Discharg | 96~99% @0.5C |
| Charge Voltage | 14.2~14.6V |
| Charge Mode | 0.2C to 14.6V, then change to 0.02C (CC/CV) |
| Recommended Charge Current | 12A |
| Max. Charge Current | 50A |
| Charge Cut-off Voltage | 14.6V±0.2V |
| Max. Continuous Discharge Current | 50A |
| Peak Discharge Current | 150A (1~3S) |
| Discharge Cut-off Voltage | 10V±0.5V |
| Charge Temperature | 0°C~55°C @60±25% Relative Humidity |
| Discharge Temperature | -20°C~60°C @60±25% Relative Humidity |
| Storage Temperature | -20°C~45°C @60±25% Relative Humidity |
| Protection Class | IP65 |
| Approx. Dimensions | 198mm*166mm*169mm |
| Approx. Weight | 5.6kg |
| Terminal | M6 |
| Maximum Modules in Series | 4 |
| Monitoring Option | Bluetooth with Smartphone App |

## Physical Dimension-mm



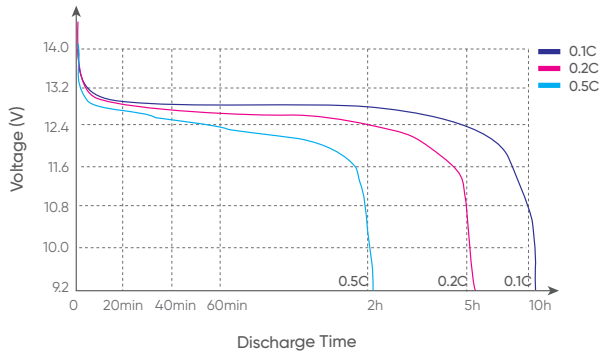

## Typical Applications

- Wheelchairs and scooters
- Solar/wind energy storage
- Back-up power for small UPS
- Golf trolleys & buggies
- Electric bikes
- Tools

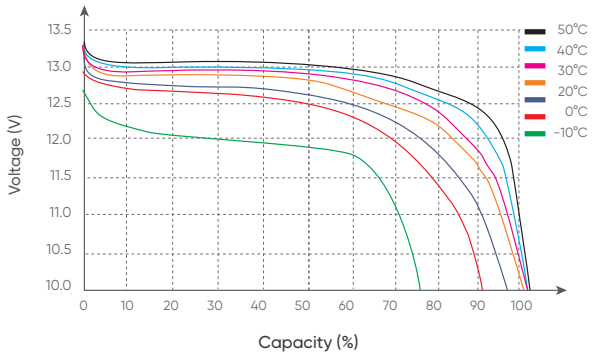
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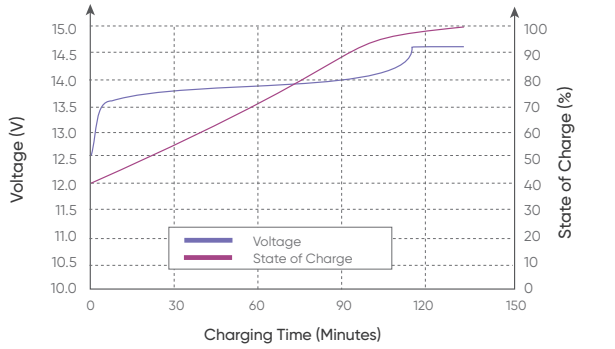
## Different Rate Discharge Curve (25°C)



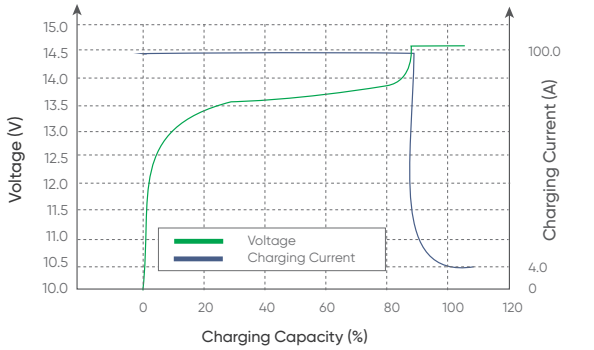

## Different Temperature Discharge Curve (0.5C)



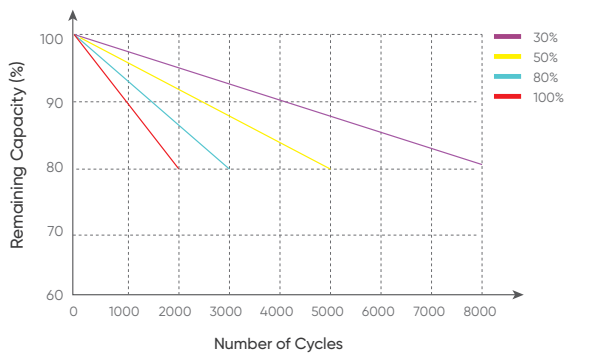

## State of Charge Curve (0.5C, 25°C)



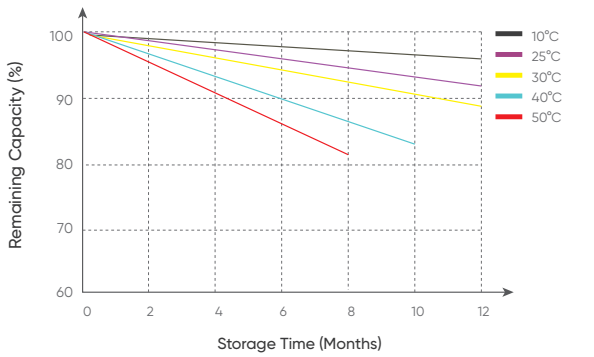

## Charging Characteristics (0.5C, 25°C)




## Different DOD Discharge Cycle Life Curve (0.5C)




## Different Temperature Self Discharge Curve




(Note) All above information shall be changed without prior notice, SunArk reserves the right to explain and update the latest information.