

## Lithium Iron Phosphate (LiFePO4) Battery

12.8V, 100AH/100A BMS

### Features of LiFePO4 Battery

- **Longer Cycle Life:** Offers up to 20 times longer cycle life and five times longer float/calendar life than lead acid battery, helping to minimize replacement cost and reduce total cost of ownership.
- **Lighter Weight:** About 40% of the weight of a comparable lead acid battery. A 'drop in' replacement for lead acid batteries.
- **Higher Power:** Delivers twice power of lead acid battery, even high discharge rate, while maintaining high energy capacity.
- **Wider Temperature Range:** -0 C~60 C.
- **Superior Safety:** Lithium Iron Phosphate chemistry eliminates the risk of explosion or combustion due to high impact, overcharging or short circuit situation.
- **Increased Flexibility:** Modular design enables deployment of up to four batteries in series and max 20 batteries in parallel.



### Application

- Electric vehicles,Boats,Caravan,
- electric mobility Solar/wind energy
- storage system UPS, backup power
- Telecommunication
- Medical equipment
- Lighting

### Specification of battery pack

Leadyo offers 2-year warranty . It is the benefit of years of continuous engineering improvement and proven experience with all of our batteries in the harshest environment .Compared to conventional lead-acid batteries,This 12V 100Ah Lithium us more light in weight ,saving space and has has extremely efficient and high performance.

Our Deep Cycle has 12 volts (12.8V) and a 100Ah capacity and is perfect for powering your deep cycle systems, this lithium battery a strong, safe and easy to use energy storage solution,This is a very safest Lithium technology available now,with our unique BMS and electronics further increase safety and durability.

Can be connected in parallel for increased capacity, and connected in series for increased voltage Max 48V.

#### ELECTRICAL SPECIFICATIONS

Nominal Voltage	12V
Nominal Capacity	100Ah
Nominal Energy	1280Wh
Internal Resistance	≤30 @50% SOC
Capacity	@ 25A: 240minutes(4hours)
Self Discharge	5% /per month
Maximum In Serie	4pcs
Maximum In Parallel	Recommended max 12pcs

#### MECHANICAL SPECIFICATIONS

Terminal Type	Standard
Weight	13.5kg
Case Dimension(L*W*H)	330*173*215mm
Case Type	ABS IP54
Cell type / Chemistry	Prismatic -LiFePO4 chemistry
LCD or Bluetooth Function	Optional
BMS:low voltage,high voltage,over temperature,	
Over current,short-circuit protection ,Balancing .etc	



## Discharge Current and Voltage Specifications

MAX Continuous Discharge Current	100A
Peak Current	250A (10s)
Discharge pulse current	400A±50A (31±10ms)
BMS Low Voltage Cut-off	8V (2.0V±0.05v) pc)
BMS Reconnect Voltage	8.8V (2.5V±0.05v) pc)
Short Circuit Protection	200-800 $\mu$ s Auto recover or charge release

## Temperature Ranges

Discharge Temperature	-20 ~ +65°C
Charge Temperature	0 ~ +45°C
Storage Temperature Range	-20 ~ +45°C
BMS High Temperature Protection	90°C
Battery High Temperature Protection	60°C

## Packing Pictures



## Charge Current and Voltage Specifications

Max Charge Current	100A
Recommended Charge Current	5A - 50A
End of Charge voltage	14.4V±0.2V
End of discharge voltage	8V
BMS Over Charge Voltage Cut-off	15V(3.75V±0.05v pc)
Balancing Voltage	3.6V±0.05v pc

## COMPLIANCE SPECIFICATIONS

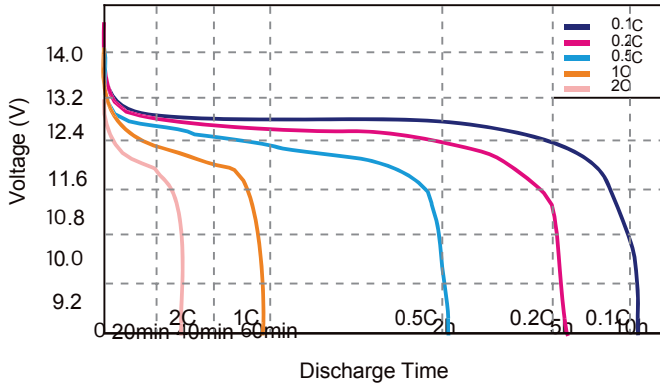
Certifications	CE for Battery Pack UN38.3 for Battery Pack UL1642 & IEC62133 & BIS for cells
Shipping classification	UN 3480



# PERFORMANCE CHARACTERISTICS

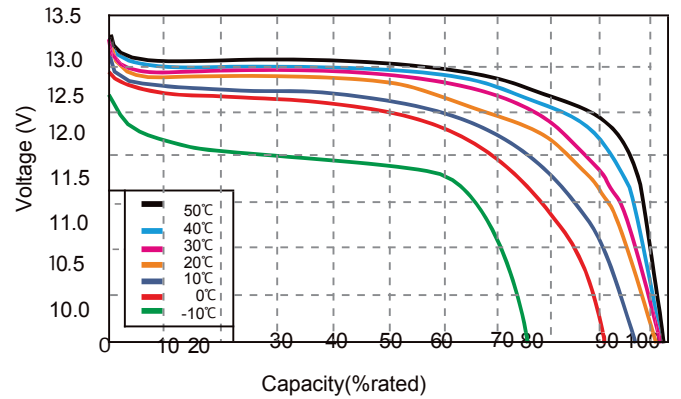
## Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



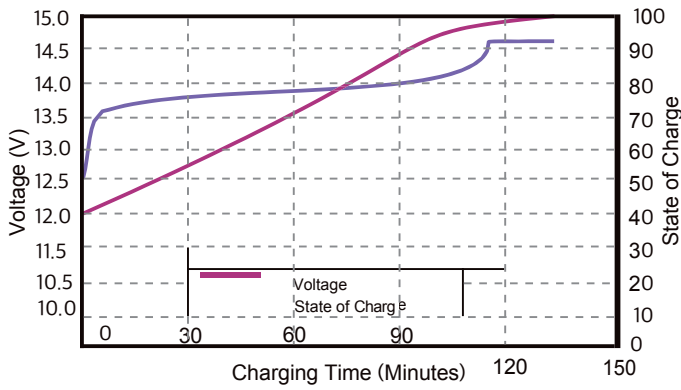
## Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



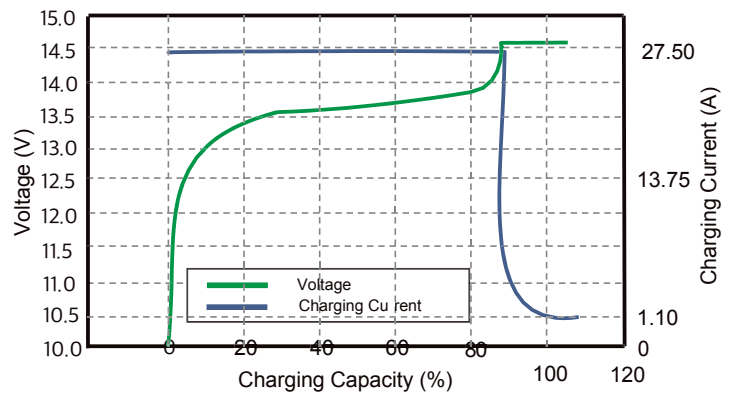
## State of Charge Curve

State of Charge Curve @0.5C 25°C



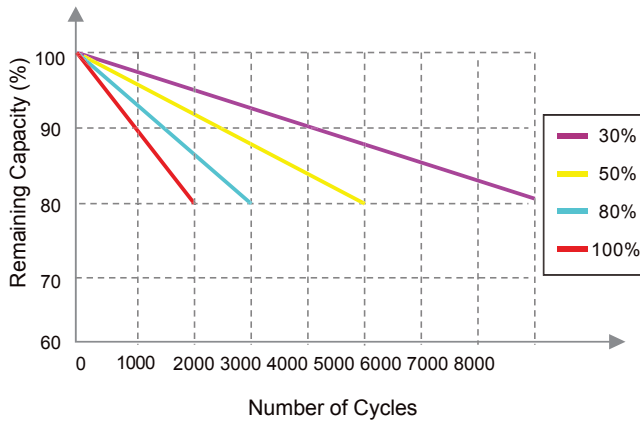
## Charging Characteristics

Charging Characteristics @0.5C 25°C



## Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



## Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve

