

# LiFePO4 Battery Replace VRLA Battery

LFP Series with VRLA Case  
LiFePO4 Lithium Cell + Smart BMS  
For Solar, PV, Boat, Back Up ...



## LFP Series Brief Introduce

Safety

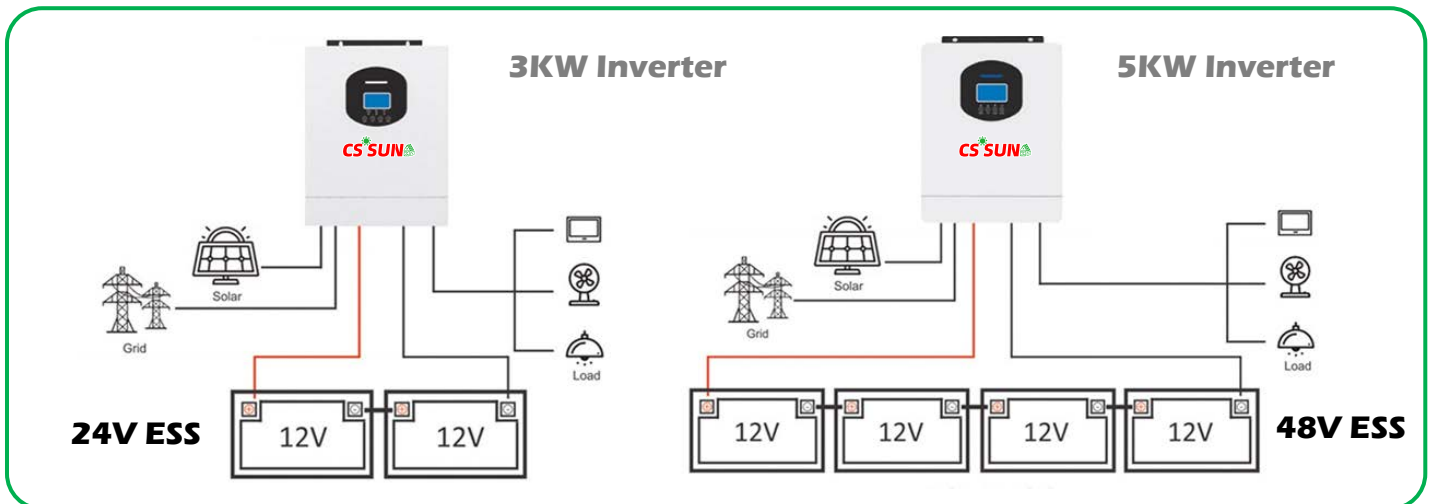
Long Life

ECO

LFP Series rechargeable Battery Pack for Replace VRLA Battery are ideal applications to RVS, solar energy, boats, and power equipment. These lithium batteries offer a safe and lightweight solution, with higher efficiency, longer lifespan, and deep discharge capabilities compared to traditional sealed lead-acid batteries. Designed with advanced LiFePO4 technology, they provide benefits such as temperature protection and superior recharge and discharge efficiency. Despite higher costs, these batteries are more cost-effective in the long term due to their extended life span. LFP Series LiFePO4 batteries provide a reliable and worry-free energy solution for a range of applications.



## Application Block Diagram



# LiFePO4 Battery

## Replace VRLA Battery

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### Technical Specifications

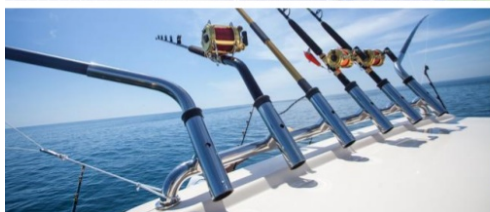
Model	Voltage (V)	Capacity (Ah)	Dimension (mm)			Weight (kgs)	Connect	Cell Cycle
			L	W	H			
LFP12V7.0	12.8V	7Ah	151	65	94	0.71kgs	4S1P C	≥6000 50%DoD
LFP12V12	12.8V	12Ah	151	99	99	1.50kgs	4S2P C	≥6000 50%DoD
LFP12V20	12.8V	20Ah	181	77	170	3.50kgs	4S3P C	≥6000 50%DoD
LFP12V40	12.8V	40Ah	267	77	172	5.40kgs	4S6P C	≥6000 50%DoD
LFP12V50	12.8V	50Ah	223	150	177	6.50kgs	4S1P S	≥6000 80%DoD
LFP12V60	12.8V	60Ah	223	150	177	7.20kgs	4S10P C	≥6000 50%DoD
LFP12V75	12.8V	75Ah	256	165	210	9.40kgs	4S13P C	≥6000 50%DoD
LFP12V100	12.8V	100Ah	330	173	216	11.5kgs	4S1P S	≥6000 80%DoD
LFP12V120	12.8V	120Ah	406	173	236	16.0kgs	4S1P S	≥6000 80%DoD
LFP12V150	12.8V	150Ah	490	171	240	20.0kgs	4S1P S	≥6000 80%DoD
LFP12V200	12.8V	200Ah	520	240	224	21.5kgs	4S2P S	≥6000 80%DoD
LFP12V300	12.8V	300Ah	522	269	218	32.0kgs	4S4P S	≥6000 80%DoD
LFP12V400	12.8V	400Ah	522	269	218	36.5kgs	4S4P S	≥6000 80%DoD
LFP24V10	25.6V	10Ah	181	77	170	3.5kgs	8S2P C	≥6000 50%DoD
LFP24V20	25.6V	20Ah	223	120	175	6.0kgs	8S3P C	≥6000 50%DoD
LFP24V50	25.6V	50Ah	330	173	216	11.5kgs	8S1P S	≥6000 80%DoD
LFP24V100	25.6V	100Ah	520	238	218	21.5kgs	8S1P S	≥6000 80%DoD
LFP24V150	25.6V	150Ah	522	269	218	32.0kgs	8S1P S	≥6000 80%DoD
LFP24V200	25.6V	200Ah	522	269	218	36.6kgs	8S1P S	≥6000 80%DoD
LFP48V50H	51.2V	50Ah	520	240	224	21.5kgs	16S1P S	≥6000 80%DoD
LFP48V100H	51.2V	100Ah	522	269	224	36.5kgs	16S1P S	≥6000 80%DoD

### Applications

- Solar Energy/Off-Grid Solar System
- BTS Stations, Telecom System, BT Tower
- Wind Energy System, Pump, Marine
- UPS System, EPS System
- Wheel chair, Golf Car, Sweeper
- Caravan, AGV, Forklifts,
- Electric Powered Vehicles

### General Features

- Build in Smart BMS
- Able to operate at -20~60°C
- ≥ 6000 times Cycles Prismatic Cell
- ≥ 4000 times Cycles Cylinder Cell
- Robust Casing with Flame-retarded plastic UL94-Vo,
- Water Prove: IP21 OPT(IP56)
- Long life high stability under high-temp.



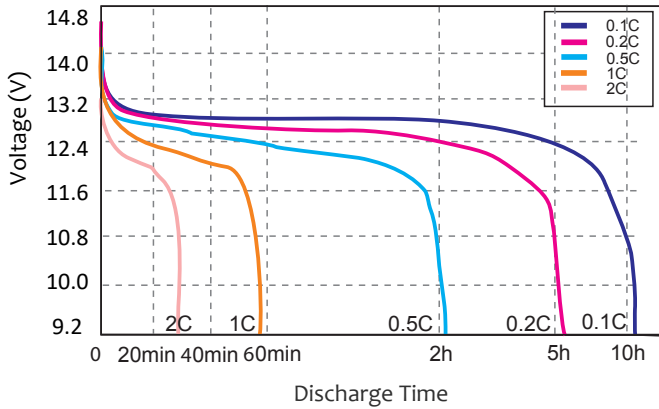
**Note:** All above information shall be changed without prior notice, CSSUN reserves the right to explain and update the latest information. Welcome inquiry us!

### Battery BMS Specifications

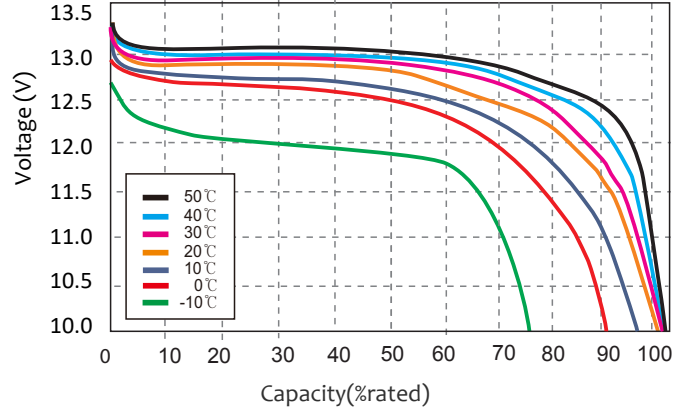
- Overcharge detection function
- Over discharge detection function
- Over current detection function
- Temperature protection
- Cell Voltage balance function
- Short detection function

### Battery Performance Characteristics (Data test from 4 Series Cell)

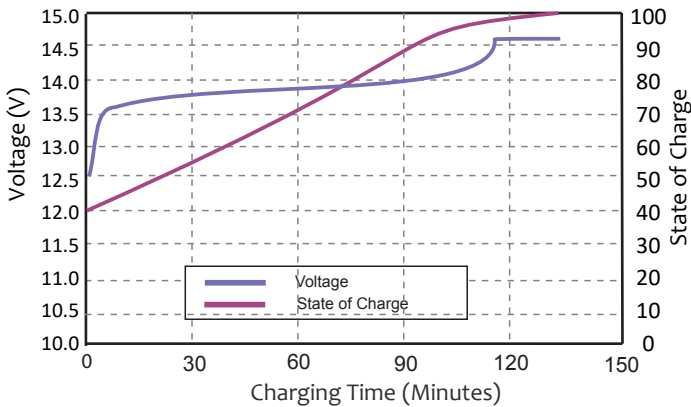
#### Different Rate Discharge Curve (25°C)



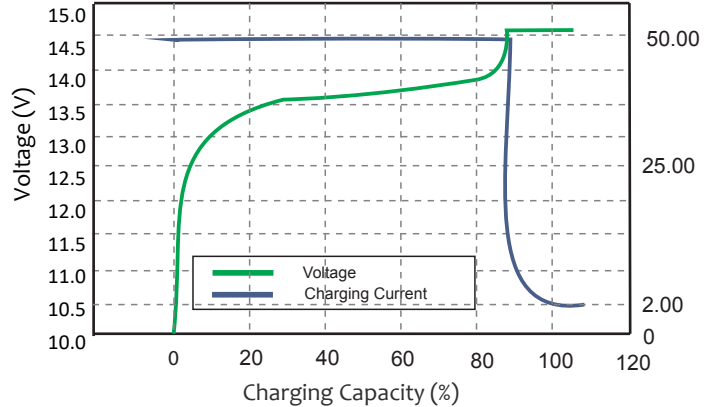
#### Different Temperature Discharge Curve At 0.5c



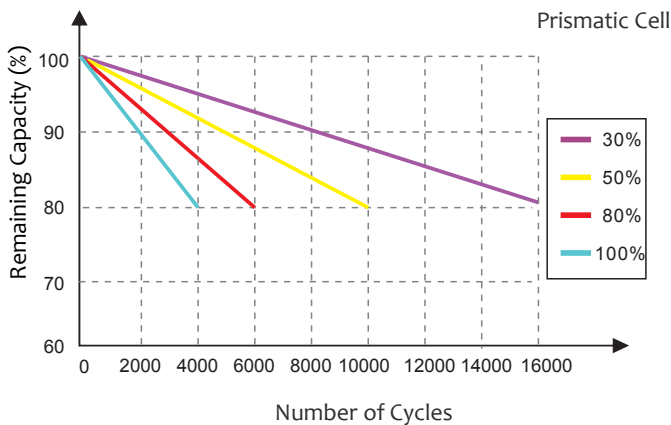
#### State Of Charge Curve At 0.5c (25°C)



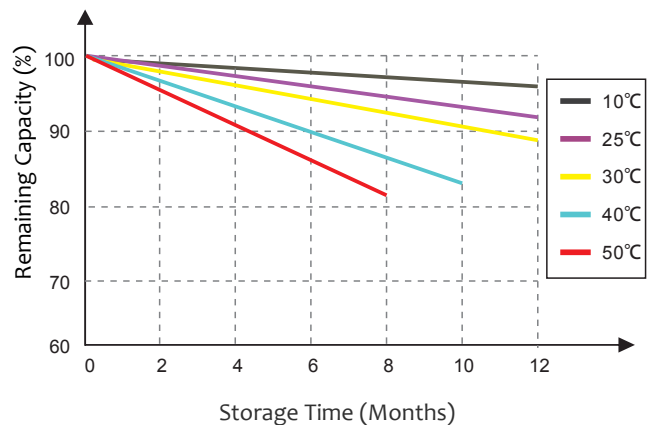
#### Charging Characteristics At 0.5c (25°C)



#### Cycle Life Curve At 1c According DoD



#### Self Discharge Characteristics Curve



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**SAFETY WARNING:** Use only within the allowed parameters. Do not short circuit or over-load the battery. Charge only using an approved charger designed specifically to charge this battery. Do not heat above maximum temperatures indicated. Never crush, mutilate, puncture or abuse the battery. Do not dismantle the pack or disable any of the protective devices or circuits. Do not use the battery if you suspect it may be faulty or damaged.

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