



# Lithium Battery Series

## LFP1218(12V18AH)



Lithium Series Batteries provide superior performance, capacities and reliability. Using state of high power cell technology the lithium series is designed for environmentally sensitive areas that require enhanced cycle life capabilities in commercial, industrial, residential, and private applications. The maintenance free construction and advanced design features makes the lithium Series the definitive choice for a wide variety of markets; Solar and Renewable Energy Storage; Electric Vehicle and Golf cart; Industrial equipment, Floor Machines, Forklifts, Aerial lifts, and Robotics; Marine, RV, and no-idle solutions; Mobility and Medical Equipment; Telecom, Broadband and Cable TV; UPS systems.



### Applications



## BATTERY SPECIFICATIONS

Battery Type - Chemistry	LiFePO4	Internal Resistance - Milliohms	< 50 mΩ
Nominal Voltage	12.8 V	Efficiency - round trip	> 99.5 %
Amp Hour Capacity	18 AH	Self Discharge per Month	< 3 %
Energy Density	230.4 Wh	Max - series connections	512 V
Dimensions(LxWxH)	181*77*167 mm	Parallel connections	Not Suggest
Weight	2 KGS	Case IP Rating	IP65
Terminal Type	M5	DesignLife	20 Years
Terminal Torque	NM	Cycle Life (1C, 25°C@80%DOD)	>4000 cycles
Case Material	ABS	Cycle Life (0.2C, 25°C@80%DOD)	>6000 cycles
BMS build-in	Yes		
		Discharge Temperature	(-23 to 65) °C
Recommend Charge Voltage	13.8 ±0.20V	Charge Temperature	(-3 to 65) °C
Max Charge Voltage	14.8 ±0.20V	Storage Temperature	(-20 to 45C) °C
Recommend Charge current	3 A		
Max Charge Current	6 A	Bluetooth(APP)	Optional
Charge Current (0 to -10°C)	<0.1 C	LCD Screen	Optional
Charge Current (-20 to -10°C)	<0.05 C	Heating functions -20°C	Optional By Charger
Recommend Discharging voltage	11.2 ±0.20V	Batteryself heating function	Optional BY Cell
Max Discharging Voltage	10 ±0.20V		
Max Discharge Current	30 A	Shipping Classification	UN3480, CLASS 9
Pulse Discharge Current	90 A±3S	Other Certifications	CB /CE





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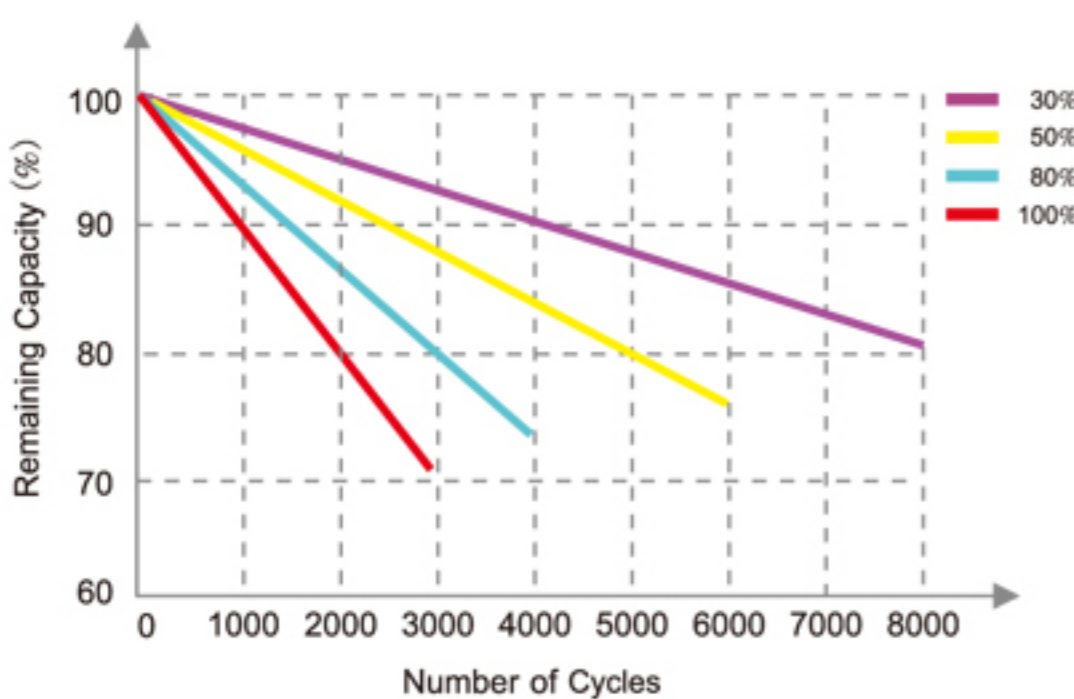
## LFP12128(12V18AH)

### BMS SPECIFICATIONS

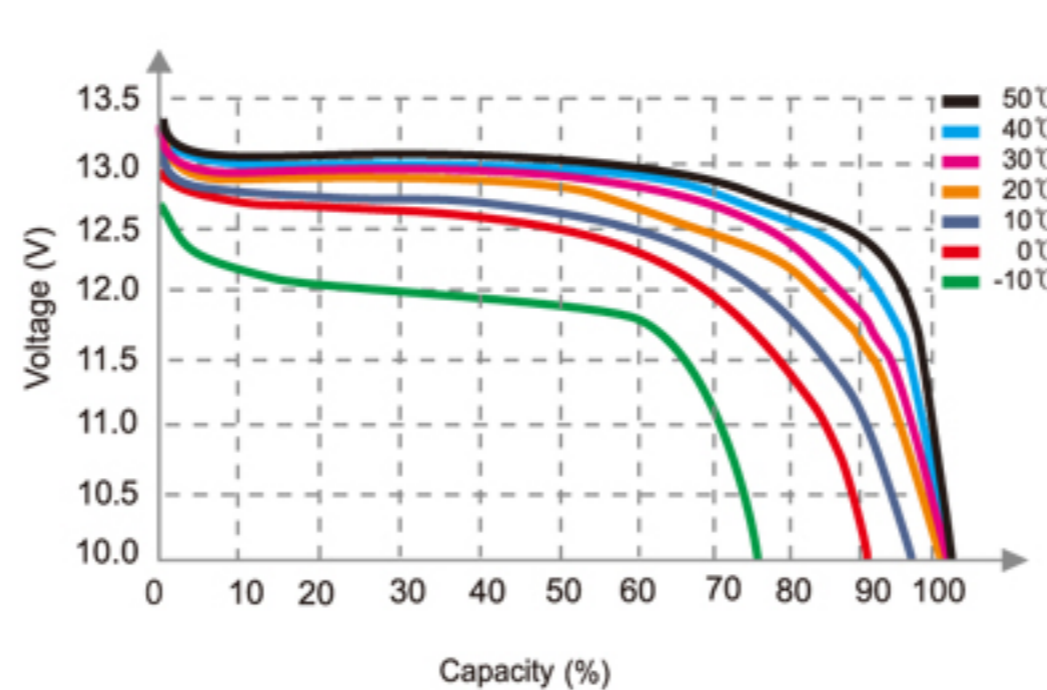
BMS Version :PC

BMS Protections Range:	Over (Voltage, Current, Temperaturemanagement ) and cell balance					
Over Charging Cell protection	>3.70	±0.05V	Delay	2 ±0.5S		
Over Charging Pack protection	>14.8	±0.20V	Delay	2 ±0.5S		
Over Charging Current 1	>6	±2.0A	Delay	5 ±2.0S		
Over Charging Current 2	>10	±2.5A	Delay	2 ±1.0S		
OverCharging Temp Protection 1	<-0 or>65	±3°C	Release	>3 or < 60	±3°C	Delay:2±0.5S
Over Discharging Cell protection	<2.5	±0.05V	Delay	2 ±0.5S		
Over Discharging Pack protection	<10	±0.20V	Delay	2 ±0.5S		
Over Discharging current 1	>90	±2.5A	Delay	5 ±2.0S		
Over Discharging current 2	NA	±2.5A	Delay	2 ±1.0S		
Over Discharging current 3	NA					
Over Discharging Temp Protection 1	<-20 or>65	±3°C	Release	>-15 or < 60	±3°C	
PCB Temp protection	>95	±3°C	Release	< 75	±3°C	Delay:2±0.5S
Cell Balance Start		3.5 ±0.05V				
Balance Current		100 ±20mA				
Short circuit	320A		Delay	1 ±0.5ms		
Power consumption	<300	uA	Switch-off mode	Storage & transportation		
	<500	uA	Sleep mode	Protection & stand-by		
	<15	mA	Operating mode	Operating		
	<28	mA	Operating mode	Low voltage to start Pre-charge		
Communication ports	Opitonal for CAN/Bluetooth/RS485/Dryport/SNMP				Can be customizeddevice	
Temperature accuracy	±2	°C	Measuring range -40~100°C			
Voltage accuracy	±20	mv	For cells and module			
Current accuracy	FSC	±5%	Measuring range -200~+200A			
SOC	±5%		Integral calculation			

Different DOD Discharge Cycle Life Curve 1C 25C



Different Temperature Discharge Curve(0.2C)



State of Charge Curve(0.5C, 25°C)

