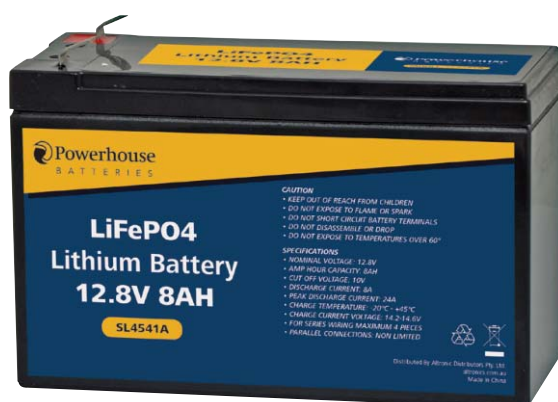


# LiFePO4 Lithium Iron Phosphate Batteries

## 12V8AH

Model:SL4541A



The latest generation in maintenance free batteries is here! LiFePO4 batteries offer longer service life than traditional lead acid batteries, plus weigh less than HALF as much as SLA batteries. LiFePO4 also provide more usable life per cycle, allowing for longer run times by holding a higher voltage until capacity is almost exhausted. These batteries will also maintain 80-90% charge when in storage - far higher than their lead acid counterparts.

Each battery is fitted with an internal battery management system to provide safe charging and discharging at all times. This system provides internal short circuit, over temperature and under/over voltage cut off. Can be wired in series and/or parallel.



### 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	8 AH	Self Discharge per Month	< 3 %
Energy Density	102.4 Wh	Max - series connections	51.2 V
Dimensions(LxWxH)	151*65*99 mm	Parallel connections	4PCS
Weight	0.8 KGS	Case IP Rating	IP50
Terminal Type	F1	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		
Recommend Charge Voltage	13.8 ±0.20V	Discharge Temperature	(-23 to 65) °C
Max Charge Voltage	14.8 ±0.20V	Charge Temperature	(-3 to 65) °C
Recommend Charge current	3 A	Storage Temperature	(-20 to 45C) °C
Max Charge Current	10 A	Bluetooth(APP)	Optional
Charge Current (0 to -10°C)	<0.1 C	LCD Screen	Optional
Charge Currrent (-20 to -10°C)	<0.05 C	Heating functions -20°C	Optional By Charger
Recommend Discharging voltage	10.6 ±0.20V	Batteryself heating function	Optional BY Cell
Max Discharging Voltage	8.8 ±0.20V		
Max Discharge Current	10 A	Shipping Classification	UN3480, CLASS 9
Pulse Discharge Current	38 A±15S	Other Certifications	CB /CE

LiFePO<sub>4</sub> Lithium Iron Phosphate Batteries**12V8AH**

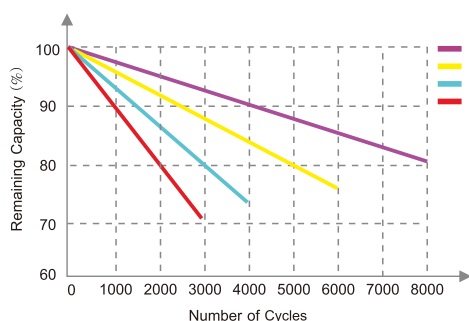
Model:SL4541A

**BMS SPECIFICATIONS**

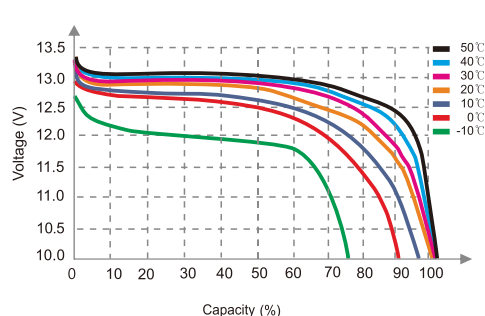
BMS Version :JWZN

BMS Protections Range:	Over (Voltage, Current, Temperaturemanagement ) and cell balance					
Over Charging Cell protection	>3.75	±0.05V	Delay		2 ±0.5S	
Over Charging Pack protection	>15.0	±0.20V	Delay		2 ±0.5S	
Over Charging Current 1	>10	±2.0A	Delay		5 ±2.0S	
Over Charging Current 2	-	±2.5A	Delay	-	±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	<2.2	±0.05V	Delay		2 ±0.5S	
Over Discharging Pack protection	<8.8	±0.20V	Delay		2 ±0.5S	
Over Discharging current 1	>38	±2.5A	Delay		15 ±2.0S	
Over Discharging current 2	--	±2.5A	Delay		±1.0S	
Over Discharging current 3	--	±2.5A	Delay		±1.0S	
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			Delay		350 ±0.5ms	
Power consumption	<100	uA	Switch-off mode			Storage & transportation
	<100	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	±36	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)

