LiFePO4 Lithium Iron Phosphate Batteries
12V 200AH
Model: SL4584A

Powerhouse BATTERIES

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.

CE in Europe · RoHS in Europe · UL in US · UN38.3 in Europe · REACH in Europe · IEC Certificates

Battery Module Specification

Item		Specification	Conditions
Nominal	Voltage	12.8V	25C°,0.2C
	Capacity	200Ah	
Module weight		22kg	±0.1kg
Dimensions(W*D*H), mm		483X170X240	±2mm
Operating parameters	Charging Voltage	13.8-14.4V	
	Discharging Voltage	11.8V Recommended	9.2~15.4V
	Charging current	Max constant charge: 200A	Recommended 50A
	Discharging current	Max constant discharge:200A	
		Pulse discharge: 1540A for 50mS	
Temperature	Charge range	0C°~45C°	
	Discharge range	-20C°~60C°	
	Storage range	-20C°~45C°	
BMS	Built-in BMS	Voltage, current, temperature management & cell balance	
Service life	Design life	>10years	0.2C, 25C°
	Cycle life (100%DOD to 80% end)	>2000 times	
	Cycle life (100%DOD to 50% end)	>4000 cycles	@0.5C, 25C°

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Battery Management System Specification

Item		Parameters		Condition
Charge	Cell voltage protection	3.9V	Delay 1~2S	Recover when discharge current >1A or Cell voltage<3.38V or module voltage<13.52V
	Module voltage protection	15.6V	Delay 1~2S	
	Over charging current 1	200A	Delay 20~30S	Turn to pre-charge mode and try to recover in every 3min
	Over charging current 2	--	--	
	Temperature protection	<-10C° or >70C°	Delay 1~2S	Recover when >0C°or <60C°
Discharge	Cell voltage protection	2.2V	Delay 500mS	Recover when charge current >1A or Cell voltage>2.6V or module voltage>10.4V
	Module voltage protection	8.8V	Delay 1~2S	
	Over discharging current 1	670~770A	Delay 500~1500mS	Recover when charging current>1A, or recover in every 60S
	Over discharging current 2	1340~1540A	Delay 50~150mS	
	Short circuit	-	200~700 us	
	Temperature protection	<-20C° or >75C°	Delay 1~2S	Recover when >-10C°or <65C°
BMS	PCB Temp protection	>115C°	Delay 1~2S	Recover when <80C°
	Cell balance	25~45mA	Passive balance	Cell voltage difference > 45mV
	Temperature accuracy	±2C°	Cycle measurement	Measuring range -40~100C°
	Voltage accuracy	±20mV	Cycle measurement	For cells and module
	Current accuracy	FSC±5%	Cycle measurement	Measuring range -200~+200
	SOC	5%		Integral calculation
	Power consumption with different condition	<300uA	Switch-off mode	Storage & transportation
		<100uA	Sleep mode	Protection & stand-by
		<15mA	Operating mode	Operating
		NA	Pre-charge mode	Low voltage to start Pre-charge
	Communication ports	NA		Can be customized to match the device

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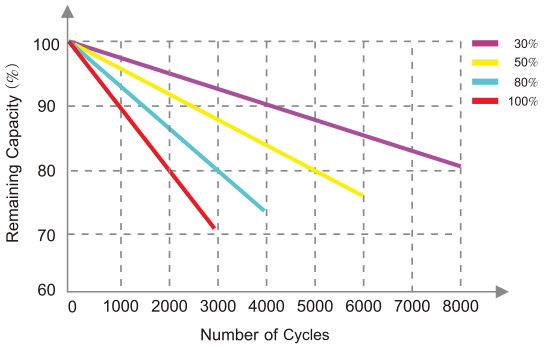
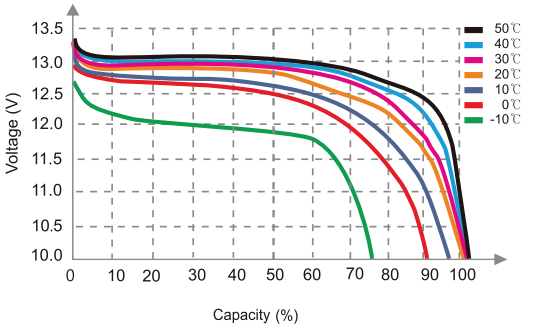
Performance

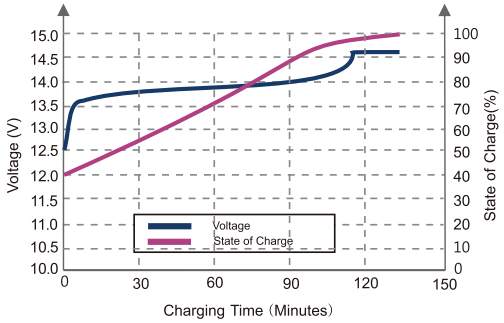
Different DOD Discharge Cycle Life Curve 1C 25C



Different Temperature Discharge Curve(0.2C)



State of Charge Curve(0.5C, 25℃)



Battery & Connection Specifications

Item	Specification
Dimensions:	483 x 170 x 240mm
Overall Weight:	22kg
Terminal Type:	M8
Terminal Torque:	12.4NM
Connection:	12-48V max 4 in series, no limit in parallel.
Case Material:	ABS
Case IP Rating:	IP56
Cell Type:	Prismatic
Certification:	CB/CE, UN38.3, UL1642 @ cell.
Shipping Class	UN3480, Class 9