

SARP-EPS4850



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	< 80 mΩ
Nominal Voltage	48 V	Efficiency - round trip	> 99.5 %
Amp Hour Capacity	50 AH	Self Discharge per Month	< 3 %
Energy Density	2400 Wh	Max parallel connections	16 pcs
Dimensions(LxWxH)	442*390*88 mm	Series connections	Not allowed
Weight	24 KGS	Case IP Rating	IP35
Terminal Type	M6	DesignLife	15 Years
Terminal Torque	8.5 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	52.5 ±0.20V	Charge Temperature	(-3 to 65) °C
Max Charge Voltage	54 ±0.20V	Storage Temperature	(-20 to 45C) °C
Recommend Charge current	25 A	Bluetooth(APP)	Optional
Max Charge Current	100 A	LCD Screen	Optional
Charge Current (0 to -10°C)	<0.1 C	Heating functions -20°C	Optional By Charger
Charge Current (-20 to -10°C)	<0.05 C	Batteryself heating function	Optional BY Cell
Recommend Discharging voltage	43.2 ±0.20V	Shipping Classification	UN3480, CLASS 9
Max Discharging Voltage	42 ±0.20V	Other Certifications	CB /CE
Max Discharge Current	100 A		
Pulse Discharge Current	160 A±3S		

Packing List

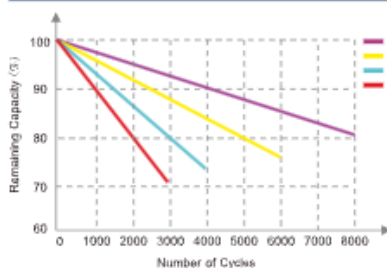
No	Item	Specification	Number
1	LiFePO4 Battery PACK	LFP4850 48V50Ah battery PACK	1 PCS
2	Power cable	1m Red +1m Black	2 PCS
3	communication cable	1M Internet cable	1 PCS
4	LCD Screen (Optional)	Integrated on the battery	1 PCS

BMS SPECIFICATIONS

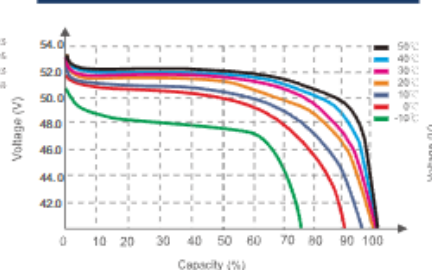
BMS Version :LL

BMS Protections Range:	Over (Voltage, Current, Temperaturemanagement) and cell balance				
Over Charging Cell protection	>3.80	±0.05V	Delay	2 ±0.5S	
Over Charging Pack Warning	>56	±0.20V			
Over Charging Pack protection	>57	±0.20V	Delay	3 ±0.5S	
Over Charging Current Warning	>102<112	±2.0A	Delay	20 ±0.6S	Trun to 10A charging
Over Charging Current protection 1	>112	±2.5A	Delay	3 ±1.0S	
Over Charging Current protection 2	0~150	±2.5A	Delay	0.5 ±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	<42	±0.20V	Delay	2 ±0.5S	
Over Discharging current Warning	>102	±2.5A			
Over Discharging current protection 1	>102 < 122	±2.5A	Delay	30 ±1.0S	
Over Discharging current protection 2	>122	±2.5A	Delay	3 ±1.0S	
Over Discharging Temp Protection 1	<-25 or>75	±2°C	Release	>-15 or < 65 ±2°C	
PCB Temp protection	>95	±3°C	Release	< 80 ±3°C	Delay:2±0.5S
Cell Balance Start		3.4 ±0.05V	Cell voltage difference <	20mV	Passive balance
Balance Current		150 ±10mA			
Short circuit	500A		Delay	0.1 ±0.2ms	
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	Major RS485,optional for CAN/Bluetooth/Dryport/SNM Can be customized				
Temperature accuracy	±2	°C	Measuring range -40~100°C		
Voltage accuracy	±15	mv	For cells and module		
Current accuracy	FSC	±5%	Measuring range -200~+200A		
SOC	±5%		Integral calculation		

Different DOD Discharge Cycle Life Curve 1C 25°C



Different Temperature Discharge Curve(0.2C)



State of Charge Curve(0.5C, 25°C)

