Neata® Super energy

Lithium Battery Series

LFP48180(48V180AH)



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	180 AH	Self Discharge per Month	< 3 %
Energy Density	8640 Wh	Max parallel connections	16 pcs
Dimensions(LxWxH)	442*550*226 mm	Seriesl connections	Not allowed
Weight	72 KGS	Case IP Rating	IP35
Terminal Type	M6	DesignLife	15 Years
Terminal Torque	8.5 NM	Cycle Life (1C, 25℃@80%DOD)	>4000 cycles
Case Material	ABS	Cycle Life (0.2C, 25℃@80%DOD)	>6000 cycles
BMS build-in	Yes		
		Discharge Temperature	(-23 to 65) ℃
Recommend Charge Voltage	52.5 ±0.20V	Charge Temperature	(-3 to 65) ℃
Max Charge Voltage	54 ±0.20V	Storage Temperature	(-20 to 45C) ℃
Recommend Charge current	50 A		
Max Charge Current	100 A	Bluetooth(APP)	Optional
Charge Current (0 to -10℃)	<0.1 C	LCD Screen	Optional
Charge Currrent (-20 to -10℃)	<0.05 C	Heating functions -20°C	Optional By Charger
Recommend Discharging voltage	42 ±0.20V	Batteryself heating function	Optional BY Cell
Max Discharging Voltage	40 ±0.20V		
Max Discharge Current	100 A	Shipping Classification	UN3480, CLASS 9
Pulse Discharge Current	160 A±3S	Other Certifications	CB /CE

Packing List

No	Item	Specification	Number
1	LiFePO4 Battery PACK	LFP48180 48V180Ah 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

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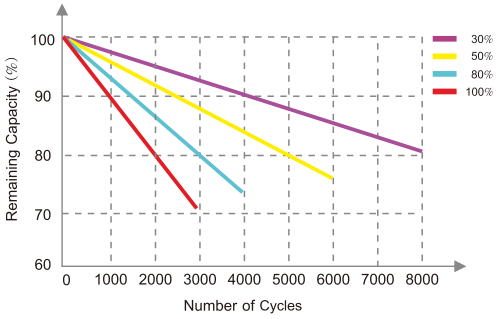
BMS SPECIFICATIONS

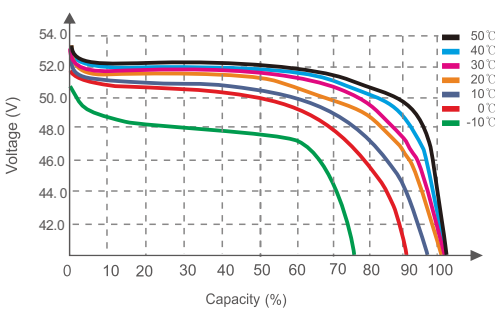
BMS Version :TB

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	>54	±0.20V				
Over Charging Pack protection	>54.76	±0.20V	Delay		3 ±0.5S	
Over Charging Current Warning	>110	±2.0A				
Over Charging Current protection 1	>120	±2.5A	Delay		10 ±1.0S	
Over Charging Current protection 2	0~150	±2.5A	Delay		0.5 ±1.0S	
OverCharging Temp Protection 1	<-0 or>65	±3℃	Release	>3 or < 60	±3℃	Delay:2±0.5S
Over Discharging Cell protection	<2.5	±0.05V	Delay		2 ±0.5S	
Over Discharging Pack protection	<40	±0.20V	Delay		2 ±0.5S	
Over Discharging current Warning	>110	±2.5A				
Over Discharging current protection 1	>120	±2.5A	Delay		10 ±1.0S	
Over Discharging current protection 2	>160	±2.5A	Delay		0.5 ±1.0S	
Over Discharging Temp Protection 1	<-20 or>65	±3℃	Release	>-15 or < 60	±3℃	
PCB Temp protection	>110	±3℃	Release	< 100	±3℃	Delay:2±0.5S
Cell Balance Start	3.4	±0.05V	Cell voltage difference <		20mV	Passive balance
Balance Current	100	±20mA				
Short circuit	560A		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,opitional for CAN/Bluetooth/Dry port/SNM Can be customized					
Temperature accuracy	±2	℃	Measuring range -40~100℃			
Voltage accuracy	±15	mv	For cells and module			
Current accuracy	FSC	±5%	Measuring range -200~+200A			
SOC	±5%		Integral calculation			

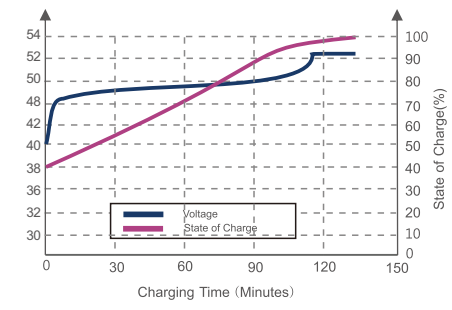
Different DOD Discharge Cycle Life Curve 1C 25C



Different Temperature Discharge Curve(0.2C)



State of Charge Curve(0.5C, 25℃)



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