Neata® Super energy

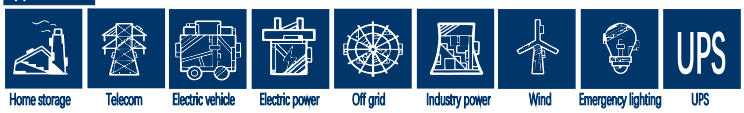
Lithium Battery Series

LFP2450(25.6V50AH)



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	25.6	V	Efficiency - round trip	> 99.5	%
Amp Hour Capacity	100	AH	Self Discharge per Month	< 3	%
Energy Density	2560	Wh	Max parallel connections	16	pcs
Dimensions(LxWxH)	442*380*88	mm	Seriesl connections	Not Allowed	
Weight	20	KGS	Case IP Rating	IP35	
Terminal Type	M8		DesignLife	20	Years
Terminal Torque		NM	Cycle Life (1C, 25℃@80%DOD)	>4000	cycles
Case Material	Metal		Cycle Life (0.2C, 25℃@80%DOD)	>6000	cycles
BMS build-in	Yes				
			Discharge Temperature	(-23 to 65)	℃
Recommend Charge Voltage	28.5	±0.20V	Charge Temperature	(-3 to 65)	℃
Max Charge Voltage	29.5	±0.20V	Storage Temperature	(-20 to 45C)	℃
Recommend Charge current	25	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	22.5	±0.20V	Batteryself heating function	Optional	BY Cell
Max Discharging Voltage	21.6	±0.20V			
Max Discharge Current	100	A	Shipping Classification	UN3480, CLASS 9	
Pulse Discharge Current	120	A±3S	Other Certifications	CB /CE	

Packing List

No	Item	Specification	Number
1	LiFePO4 Battery PACK	LFP2450 25.6V50Ah battery PACK	1 PCS
2	Power cable	0.3m Black/0.3M Red	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 :LL

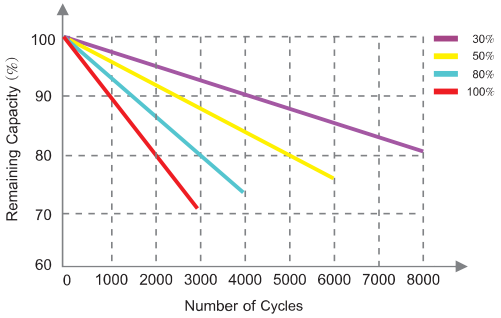
BMS Protections Range: Over (Voltage, Current, Temperaturemanagement) and cell balance

Over Charging Cell protection	>3.80	±0.05V	Delay		2	±0.5S	
Over Charging Pack Warning	>29.6	±0.20V					
Over Charging Pack protection	>30	±0.20V	Delay		2	±0.5S	
Over Charging Current Warning	>100	±2.0A					
Over Charging Current protection 1	>102<112	±2.5A	Delay		20	±1.0S	Turning to 10A
Over Charging Current protection 2	⩾112	±2.5A	Delay		3	±1.0S	
OverCharging Temp Protection 1	<-5 or>70	±3℃	Release	>0 or < 60		±3℃	Delay:2±0.5S
Over Discharging Cell protection	<2.5	±0.05V	Delay		2	±0.5S	
Over Discharging Pack protection	<21.6	±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	±3℃	Release	>-20 or < 70		±3℃	
PCB Temp protection	>95	±3℃	Release	< 80		±3℃	Delay:2±0.5S
Cell Balance Start	3.4	±0.05V	Cell voltage difference <	20mV			Passive balance
Balance Current	150	±10mA					
Short circuit			Delay		0.1	±0.2ms	

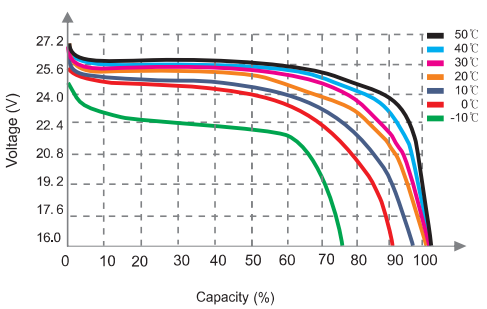
Power consumption	<300	uA	Switch-off mode	Storage & transportation
	<500	uA	Sleep mode	Protection & stand-by
	<15	mA	Operating mode	Operating
	<28	mA	Operating mode	Low voltage to start Pre-charge

Communication ports	Major CAN/RS485 opitional for Bluetooth/Dryport/SNMP		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

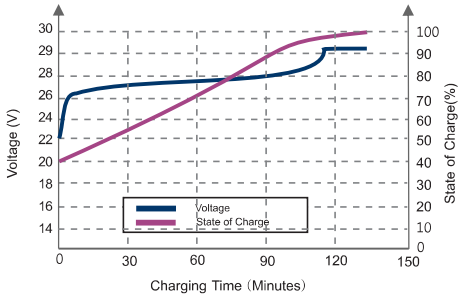
Different DOD Discharge Cycle Life Curve 1C 25℃



Different Temperature Discharge Curve(0.2C)



State of Charge Curve(0.5C, 25℃)



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