BASEN®

Lithium iron Phosphate (LiFePO4) Battery

LFP SERIES LITHIUM BATTERY

LFP12-230

(LiFePO4 12.8V 230Ah, 2944.0Wh)

Brief Introduction

BASEN is offering ODM/ODM service in lithium ion battery field, the application various from power tool, caravan, solar storage and etc. Strive our best effort to provide the optimum solution per clients' requirements.

Key Features

- Attractive cycle life
- Extended safety performance
- Wide operating temperature range
- Unrivalled high temperature performance
- Green energy without metal contaminant
- High capacity
- Steady output voltage
- Little self-discharge
- Module design
- Withstanding very high level of vibrations and shocks

Safety Characteristics

- Over-charge/Over-discharge Ability to withstand over-charge/withstand over- discharge, and there is no fire, no exploding and work well
- Short circuit Ability to withstand short circuit, and there is no fire, no exploding Acupuncture Ability to withstand nail puncturing, and there is no fire, no exploding
- Thermal shock Ability to withstand thermal shock, and there is no fire, no exploding

Electrical Characteristic

Nominal Voltage	12.8V
Nominal Capacity (at 0.5C, 25 degC)	230Ah
Min. Capacity (at 0.5C, 25 degC)	228Ah
Expected Cycle Life	More than 5000 cycles, with 0.2C charge and discharge rate, at 25 ℃, 80%DOD

Mechanical Characteristics

Length	345±1mm
Width	190±1mm
Height	245±1mm
Net Weight	~25Kg

Operation Conditions

Charge Method	CC-CV
Max. Charge Voltage	14.6V
Continuous Charge Current	Max. 150A
Charge Temperature	0℃45℃
Continuous Discharge Current	Max. 150A
Peak Instant Discharge Current(5 Seconds)	200A
Discharge Cut-off Voltage	10.0V
Discharge Temperature	-20℃~65℃
Charge Temperature	0℃45℃
Storage Temperature	-10℃~45℃
Self-Discharge (Stored at 50% SOC)	<= 3%/month

BMS Specification

Six protections are available：

1、Charge Protection, Seiko IC effectively controls MOS to prevent battery overcharge. 2、Discharge Protection, prevent battery from dying and increase the lifespan.
3、Over current Protection, Prevent battery from being damaged by excessive instantaneous current.
4、Short Circuit Protection, Automatic protection during abnormal short circuit.
5、Temperature Protection, the NTC temperature control probe is added to prevent the damage caused by the spontaneous combustion of the battery when the temperature is too high.
6、Drop Protection, prevent the sampling line from falling off, and no output from PCB.

Item	Content	Criterion
Over Charge Protection	Over charge detection voltage	3.75±0.05V
	over charge detection delay time	0.96∽1.4s
	Over charge release voltage	3.80±0.05V
	Maximum charge voltage	3.65±0.05V
	Maximum charge current	**≤150A**
Over Discharge Protection	Over discharge detection voltage	2.3V±0.10V
	Over discharge detection delay time	20ms
	Over discharge release voltage	2.3V±0.10V
Over Current Protection	Maximum continuous current	**≤150A**
	Over current detection current	**200A**
	Over current detection delay time	5s±2ms
	Over current release condition	Cut load
Short Circuit Protection	Short Circuit release condition	Cut load
	Over current detection delay time	250 us
Balance	Balance current	Optional
	Start Voltage	Optional
Over Temperature Protection	65±5℃	
Impedance	<10 m	

Storage and Transportation

1. Based on the character of cell, proper environment for transportation of LiFePO4 battery pack need to be created to protect the battery.
2. During transportation, 50% SOC must be kept to ensure that short circuit, appearance of liquid in the battery or immersion of battery in liquid never occur.
3. Battery should be kept at -20℃～45℃ in warehouse where it's dry, clean and well-ventilated.
4. During loading of battery, attention must be paid against dropping, turning over and serious stacking

In order to prevent the battery leaking, getting hot and exploding, please pay attention to preventing measure as following:

Warning!

Never throw the battery into water, keep it under dry, shady and cool circumstance when not use.

Never upside down the positive and negative.

Never connect the positive and negative of battery with metal.

Never ship or store the battery together with metal

Never knock, throw or trample the battery.

Never cut through the battery with nail or other edge tool.

Tips!

Never use or keep the battery under the high temperature. Otherwise it will cause battery heat, get into fire or lose some function and reduce the life. The proposed temperature for long-term storage is 10-45℃.

Never throw the battery into fire or heating machine to avoid fire, explosion and environment pollution; scrap battery should be returned to the supplier and handled by the recycle station.

Never use the battery under strong static and strong magnetic field, otherwise it will destroy the protecting device.

If battery leaked, the electrolyte get into eyes, please don't knead, please wash eyes by water and send to hospital. Otherwise it will hurt eyes.

If battery emit peculiar smell, heating, distortion or appear any unconventionality during using, storage or charging process, please take it out from device or charge and stop using.

Never cut the battery in socket directly; please use the stated charger when charging.

Check the voltage of battery and relevant connectors before using the battery. It can't be used until everything turns out to be normal.

Prior to charging, fully check the insulativity, physical condition and ageing status, since breakage and ageing are never allowed; the pack voltage must not be less than the cutoff voltage, if not, it's abnormal and that battery needs to be labeled. The user should contact our Customer Service Dept and it can't be charged until repaired by our staff.

The battery should be stored in 50% SOC. It needs to be charged once if out of use for as long as half a year.

Clean the dirty electrode, if any, with a clean dry cloth, or poor contact or operation failure may occur

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