

LFP12100(12.8V100AH)

Document: Lithium Battery datasheet

Doc. Version: V4.0

Issue Date: 1-1-2024

Overview

NEATA Lithium iron phosphate battery module which designed for storage and power supply system application.

This battery module integrated with intelligent BMS with big advantages on safety, cycle life, energy density, temperature range and environmental protection.

This product specification describes the type, size, structure, electrochemistry performance, service life, and BMS characteristics.

The specification will be updated based on different customer requirement.

Advantages

The battery module consists of LFP cells, wire, BMS and ABS container.

- Packed with high performance LFP single cell, long life, safety and wide temperature range
- High energy density, small size, light weight, no pollution;
- Packing with single cell container, fire retardant wire and copper connecting bar, stable and safe.
- Built-in BMS, with battery voltage, current, temperature and health management.
- LCD(optional) indicate the battery SOC and operating status.
- Support Max 4pcs in series.
- Flexible customization of dimensions
- More than 15 years design life, Stable performance, maintenance-free

Battery Images



Safety



Multipurpose



Simple Maintenance



Fast Charge/Discharge

Customization Functions



SHENZHEN NEATA POWER TECH CO.,LTD Reminder:

Note 1: Please always refer to the latest edition of our technical datasheet that published on our website to ensure safe and efficient operation.

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Battery specification

ELECTRICAL SPECIFICATIONS		BMS SPECIFICATIONS	
Cell Type - Chemistry	LiFePo4	Version	Softversion
Nominal Voltage	12.8V	Code	J-B04S100
Amp Hour Capacity	100AH	Primary Charge Current Protection	120±10A 10S±5S
Dimensions	258*166*215mm	Second Charge Current Protection	NA
Weight	9.9±0.2kgs	Third Charge Current Protection	NA
Terminal Type	M8	High Voltage Protection	15±0.2V 2S±1S
Case Material	ABS-Sealed	Reconnect Voltage	14.2V
Case IP Rating	IP65	Primary Discharging Current Protection	120±10A 10S±3S
Series connections	Max to 51.2V	Second Discharging Current Protection	330±80A 0.3S±0.2S
Parallel connections	No limited	Third Discharging Current Protection	NA
Storage Temperature	(-10 to 40°C)	Low Voltage Protection	8.8±0.4V
Resistance - Milliohms	< 15	Reconnect Voltage	10.4±0.4V
Self Discharge per Month	< 2%	High Temp Protection	65±3°C
CHARGE SPECIFICATIONS		Reconnect Temp	50°C
Floating Charge Voltage	≤13.8V	Balancing voltage	13.2±0.2V
Boost Charge Voltage	≤14.2V	Balancing current	200±50mA
Recommend Charge Current	≤20A	Shortage current	1320±300A
Max Charge current	≤100A		
Charge current (0 to -10°C)	<0.1C		
Charge current (-20 to -10°C)	<0.05C		
Charge Temperature	(0 to 45°C)		
DISCHARGE SPECIFICATIONS			
Recommend Discharge current	≤100A		
Max Cont Discharge current	≤120A		
Max Discharge Voltage	≥10.4V		
Discharge Temperature	(-20 to 60°C)		

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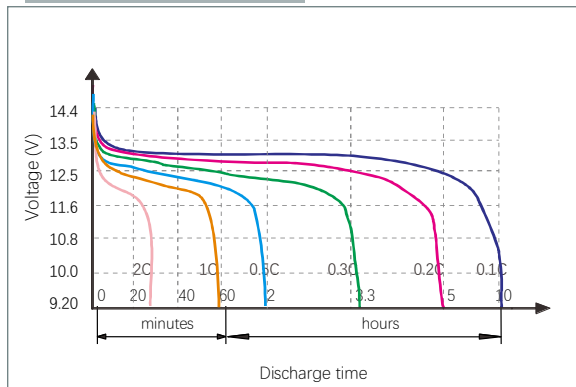
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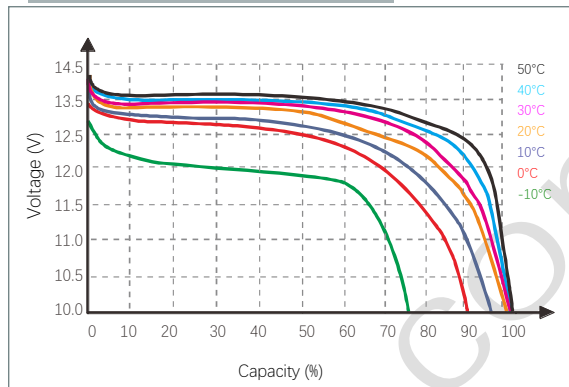
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Performance curve

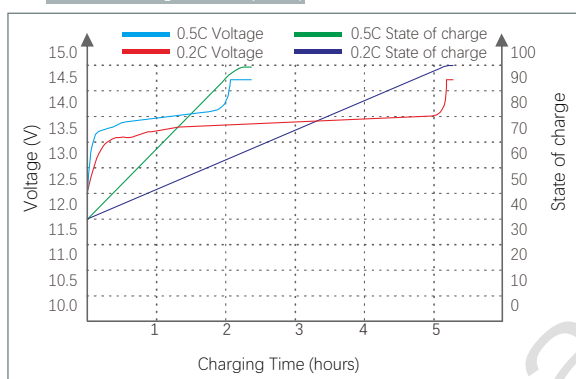
Discharge characteristics (25°C)



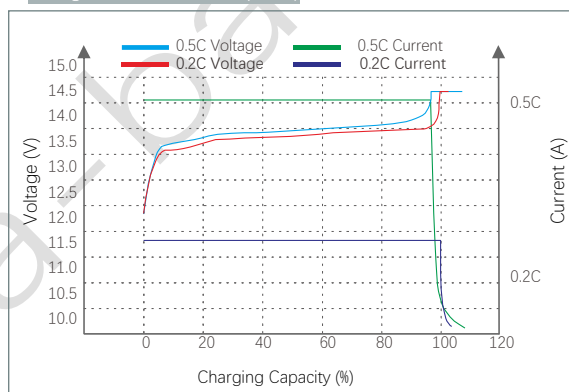
Temperature effect on discharging (0.5C)



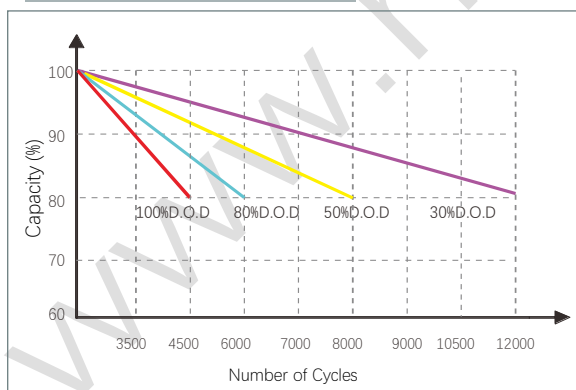
State of Charge Curve (25°C)



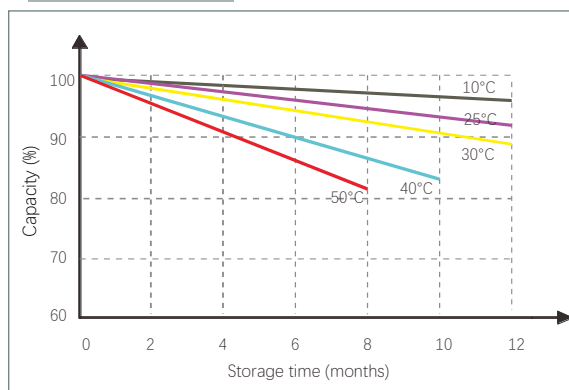
Charge characteristics (25°C)



Cycle Life On D.O.D 0.2C Rate (25°C)



Self-Discharging Curve



Note 2: The above curves are based on laboratory testing data @ 25°C 40%RH

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FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.