OEM&ODM **Lithium Battery Pack**

12.8V 200Ah/300Ah

TÜV CE ISO RoHS UL MSDS

Product Overview

• LiFePO4 battery has a stable and high output voltage platform, which can effectively guarantee its output power.

• LiFePO4 battery has higher thermal stability and chemical stability, which can better guarantee its safety.

• LiFePO4 battery has a long life and low overall cost of maintenance and use.

Product Features

• Large current, continuous discharge current up to 250A

• Allowable for series and parallel connection

• Wide operating temperature range

• Light weight, Easier to transport and Simple operation

• High security, advanced BMS protection

• Low self-discharge rate

• Environmentally friendly & Green energy source

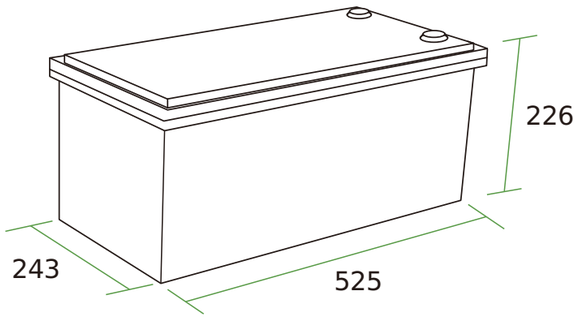
Applications

Lithium Iron Phosphate can be used in most applications that use Lead Acid, GEL or AGM type batteries.

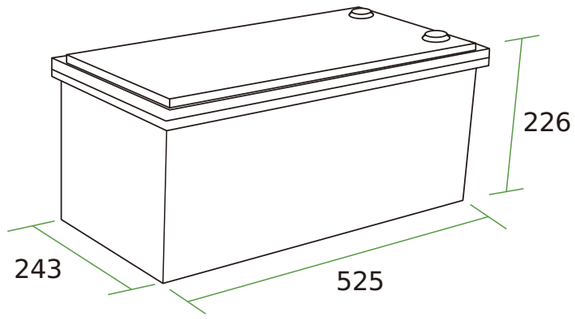
Suitable applications include:
• Caravan • Marine • Golf Car • Buggies • Solar Storage
• Remote Monitoring • Switching applications and more

Product Parameters

Note unit: **mm**



NG02-12200



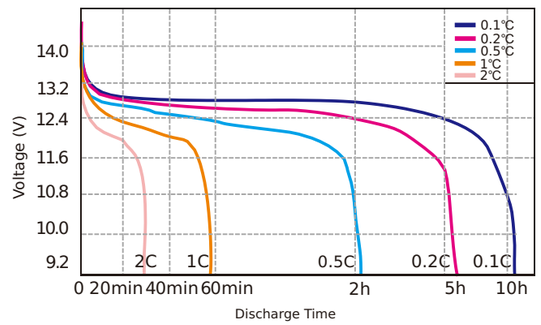
NG02-12300

Product Model	NG02-12200	NG02-12300
Nominal voltage	12.8V	
Nominal capacity	200Ah/2560Wh	300Ah/3840Wh
Cell type	LiFeP04	
Composition	4S2P	4S2P
Charging cutoff voltage	14.6V	
Discharge Cut-off Voltage	10V	
Maximum continuous discharge current	150A	150A
Instantaneous discharge current	300A	300A
Display	LCD	
Standard charging current	﹤75A	﹤75A
Standard discharge current	150A	150A
Charge suitable temperature	0℃~45℃	
Discharge suitable temperature	-20C～65℃	
Battery pack size	525*243*226mm	525*243*226mm
Package size	590*305*295mm	590*305*295mm
Net weight of battery pack	23Kg	28Kg
Gross weight of battery pack	24Kg	29Kg
Communication method	Bluetooth RS485 RS232 CAN (can be added)	
Cooling method	Natural cooling	
Transport classification	UN38.3/MSDS/Sea/Air	
Battery protection function	Overcurrent, overvoltage, overcharging, overdischarge, short circuit, etc	

Charging And Discharging Chart

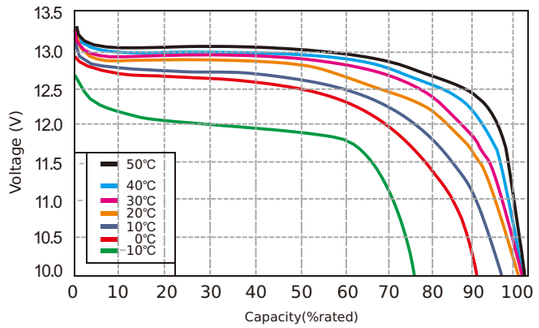
Different Rate Discharge Curve

Different Rate Discharge Curve @25℃



Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



State of Charge Curve

State of Charge Curve @0.5C 25℃

Charging Characteristics

Charging Characteristics @0.5C 25℃

Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C

Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve

Caution

Lithium-ion cells and battery packs may get hot, explode or ignite and cause serious injury if exposed to extreme conditions. Be sure to follow the safety warnings listed below:
• Do not connect the positive terminal and negative terminal of the battery to each other with any metal object (such as wire)
• Only use approved LiFePO4
battery chargers
• Do not carry battery while wearing necklaces, rings, bracelets, hairpins or other metal objects
• Do not pierce the battery with nails, strike the battery with a hammer, step on the battery or otherwise subject it to strong impacts or shocks
• Do not expose battery to water or salt water, or allow the battery to get wet
• Do not use LiFePO4 battery with any other types of batteries
• Do not use as starting battery of vehicle
• Do not connect to an alternator or non-smart charging system
• Do not smoke around or near the battery
• Be careful not to drop heavy tools on the battery
• Keep away from children.

Do not place the battery in or near fire, on stoves or other high temperature locations. Do not place the battery in direct sunlight, or use/store the battery inside cars in hot weather. Doing so may cause the battery to generate heat, explode or ignite. Using the battery in this manner may also result in a loss of performance and a shortened life expectancy.

Do not disassemble or modify the battery. The battery contains safety and protection devices, which, if damaged, may cause the battery to generate heat, explode or ignite.
Immediately discontinue use of the battery if, while using, charging or storing the battery, the battery emits an unusual smell, feels hot, changes color or shape, or appears abnormal in any way. Contact AIMS Power if any of these situations occur.

Do not place the battery in a microwave oven, high-pressure container or on induction cookware.
Inspect battery for any damage, cracks, corrosion on terminals. DO NOT USE if you find any damage to the battery.

Use good quality and proper size cables for your application.

Safety Characteristics

Short circuit protected
Physical damage to battery case will not cause fire
Excessive thermal exposure will not cause a fire
Able to withstand over-charge/over-discharge
without damage to the battery
Sophisticated Battery Management System (BMS)

Maintaining The Battery

Battery should be inspected often.
Ensure cables and terminals are kept clean and free from corrosion, dirt or build-up of any kind. Use dry cloth to clean.
When possible keep batteries at a moderate temperature.
Dispose of batteries properly. Must be recycled.
Store battery at 50% SOC.
Charge and discharge according to battery specifications.

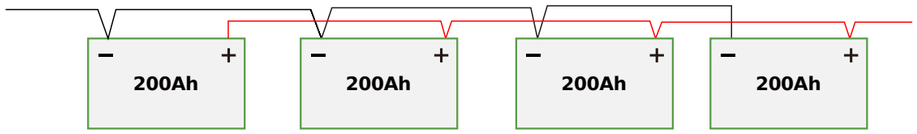
Warranty

The period of warranty is 5 years from the date of shipment.
We guarantee to give a replacement in case of cells with defects proven due to manufacturing process instead of the customer abuse and misuse.

Installation and Operating

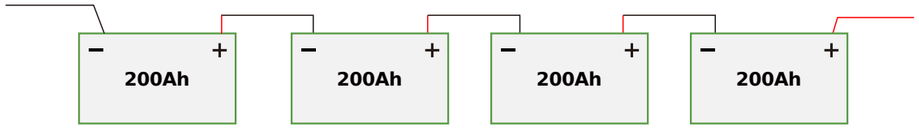
Mounting - The batteries can be positioned and secured in any direction; bottom or side. There is nothing to leak out. The area around the batteries should be ventilated for heat dissipation.

Wiring – Up to four batteries may be wired in series or parallel. See wiring diagrams below:
Parallel – parallel not limited,recommend max 10pcs,Up to four batteries may be connected in parallel to increase the current capacity of the battery bank. When batteries are connected in parallel, the voltage of the system does not change, but the current capacity of each battery is additive. For example, two 200 Amp batteries connected in parallel can deliver 400A continuously. All cables and connections MUST be able to accommodate the high currents that can be delivered by the battery bank. Appropriate fuses and circuit breakers are also highly recommended to protect downstream appliances.



Parallel - 12.8V 800 A Draw Capacity 720 Ah Capacity at 90%

Series - Up to four batteries may be connected in series to increase the voltage of the battery bank up to a 48V system. When batteries are connected in series, current capacity remains the same, and the system voltage is additive. For example, three 200 Amp batteries connected in series can deliver 200 A continuously at a nominal 24V.



Series - 51.2V 200 A Draw Capacity 180 Ah Capacity at 90%

It is important that all batteries be of equal charge greater than 70% before connecting them in series or parallel.

Operating and Storage Temperature Range - LiFePO4 batteries can be stored in temperatures of -10°F (-20°C) to 100°F (+38°C). It is recommended they not be charged and discharged at temperature below 0°F (-18°C) It is recommended that the negative terminals be disconnected for winter or long term storage so there is no chance of draining the batteries while in storage. Complete discharge of LiFePO4 batteries for an extended period of time will likely damage the cells. LiFePO4 batteries should be recharged every 6 months.

Disposal - LiFePO4 batteries marked with the recycling symbol must be processed via a recognized recycling agency. Batteries must not be mixed with domestic or industrial waste.

Charging - For the Bulk/Absorption stage, the ideal voltage is 14.2V to 14.6V ± .5V. Our batteries do not require a float stage for charging, however, a float voltage of 13.4V to 13.8V can be used. Equalization is not recommended for our batteries. If equalization cannot be turned off, a maximum voltage of 14.6V is acceptable. The recommended charging amperage is 40A continuous (.2C to MAX .5C).
Note: It is recommended that batteries wired in series be charged individually to ensure proper charging of each battery. Batteries wired in parallel may be charged as a group across the bank.

Temperature Compensation - Temperature compensation is not needed or recommended with our LiFEPO4 batteries.