

LiFePO₄

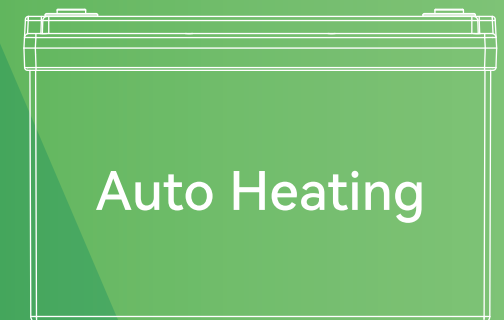
Lithium Iron Phosphate Battery



PRODUCT MANUAL

Lithium Iron Phosphate
(LiFePO₄) Battery

38.4V
67Ah
2572Wh

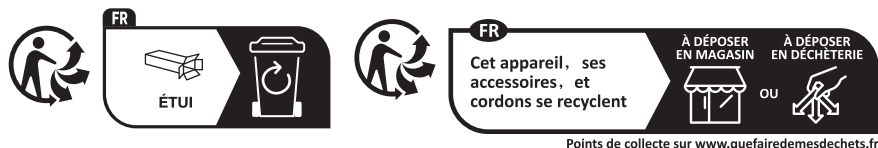


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FCC ID: 2BTED-38-4V67AH



MADE IN CHINA

APP INTRODUCTION

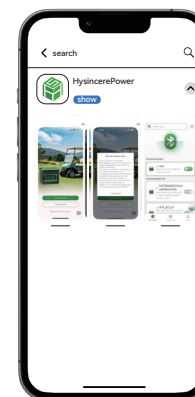
EN

Step 1

This application is developed and designed by HysincerePower®. It specializes in monitoring lithium batteries, providing real-time status readings such as the voltage, charging and discharging current, alarm prompts, protection status, etc. This allows users to clearly understand the status of lithium batteries and ensure safe use.

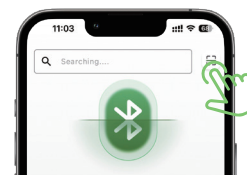


You can search "HysincerePower" in the Apple or Google Play Store to download and install.

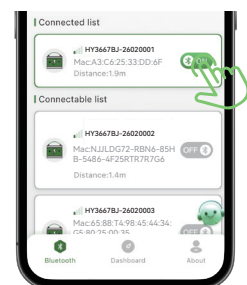
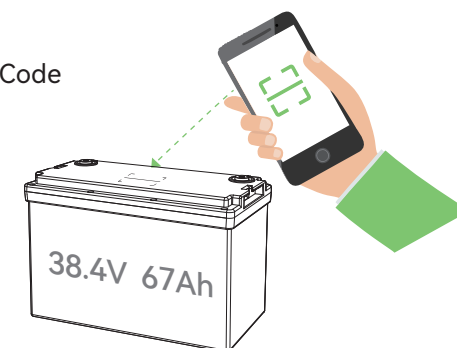


Step 2

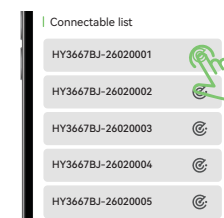
Pair the battery with the HysincerePower APP and effortlessly keep track of the battery's real-time status.



Scan QR Code



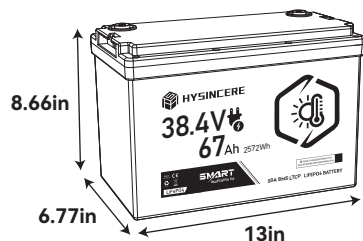
Search Device



PRODUCT OVERVIEW

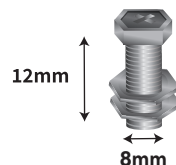
Battery

Combination: 38.4V 67Ah
Dimension: L33.2*W17.2*H22.0cm
Weight: 17.3kg



Terminal & post bolts

Terminal Size: M8 * 1mm Metric Thread
Post Bolts: M8 * 1mm Metric Thread * 12mm Bolt Length
(The bolts can be replaced with M8 bolts of other lengths based on actual needs.)



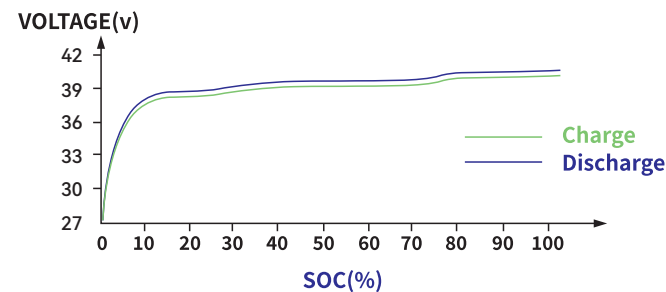
Item	Parameter
Cell	LifePO4 Battery
Nominal Voltage	38.4V
Nominal Capacity	67Ah
Usable capacity	67Ah
Energy	2572Wh
Max. Output Power Rate	1920W
Battery Management System (BMS) Board	50A
Max.Continuous Charge Current/Discharge current	50A
Charge Voltage	29.2A
Cycle life	4000 Times
Recommend Charging Current	13.4A (Within 0.2C)
Max.Discharge Current (5S)	100A
Dimension	L33.2*W17.2*H22.0cm
Weight	17.3Kg
Battery Pack Case	ABS
Temperature Range	Charge: -20°C ~ 55°C Discharge: -20°C ~ 60°C Storage: 0°C ~ 40°C (the best storage temperature is 15°C ~ 25°C, dry storage) Heating Temperature: -20°C ~ 5°C
Terminal & Post Bolts Information	
Terminal Size	M8* 1mm Metric Thread
Post Bolts	M8* 1mm Metric Thread * 12mm Bolt Length

THE BATTERY CAPACITY

State of charge (soc)

The battery capacity could be roughly estimated by its rest voltage (not charging/discharging voltage). As there are subtle differences in the voltage of each battery, the below parameters are for reference only.

Rest Voltage: The voltage needs to be tested at rest (with zero current) after 30 mins of disconnecting from the charger & loads.



Voltage-Capacity Cheat Sheet		
38.4V System		
43.8V	100%	Charging Resting
40.8V	100%	
40.2V	99%	
39.9V	90%	
39.6V	70%	
39.3V	40%	
39.0V	30%	
38.7V	20%	
38.4V	17%	
37.5V	14%	
36.0V	9%	
30.0V	0%	

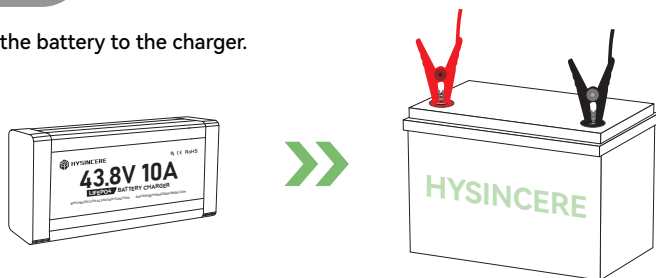
AUTOMATIC SELF-HEATING FUNCTION

The automatic self-heating function is activated by the BMS when the battery is connected to a charger at -20°C to 5°C. The heating will stop when the battery temperature reaches the set value, which normally takes about 20-30 minutes from -10°C and about 40 minutes from -20°C. After heating is complete, the battery is charged normally.

HOW DOES IT WORK?

➤ Step ①

Connect the battery to the charger.



➤ Step ②

The temperature sensors detect the battery temperature.



-20°C and 5°C

① When the battery temperature is between -20°C and 5°C, the BMS will start to heat the battery by the heating pads, and the battery will not be charged during the heating process. And it will proceed to step 3.

Or ② If the battery temperature is > 5°C, the battery will be charged normally and the heating function will not be activated.

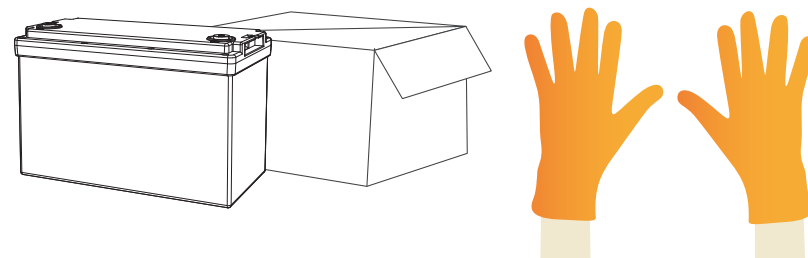
➤ Step ③

When the battery temperature has reached the set value, the heating is stopped and the battery is charged.

HOW TO CONNECT BATTERIES

Step 1 Wear Insulating Gloves

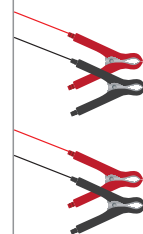
Wear insulating gloves before connecting. Please pay attention to operation safety in the process of connection.



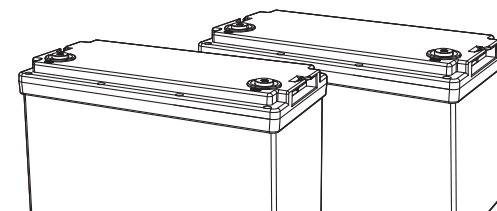
Step 2 Voltage Balancing Before Connection

Below two steps are necessary to reduce the voltage difference between batteries and let the battery system perform the best of it in series or in parallel.

➤ Step ①

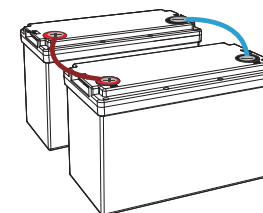


Fully charge the batteries separately. (Voltage at rest: $\geq 40.8V$)



➤ Step ②

Connect the batteries one by one in parallel, and leave them together for 12~24 hrs.

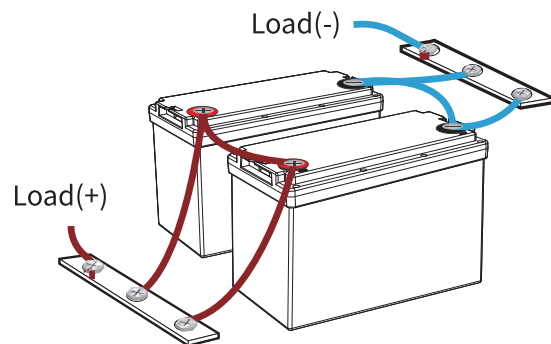


Step 3 Battery - to - Battery Connection

#1 Connect Batteries in Parallel

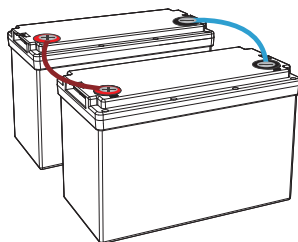
⊕ to ⊕

⊖ to ⊖



After parallel connection, the capacity of the battery system will be doubled according to the number of batteries you connect.

Rebalancing Every 6 Months



It is recommended to rebalance the battery voltage every six months following Step 2 on Page 3 if you're connecting multiple batteries as a battery system, as there might be voltage differences after six months of the battery system running.

ATTENTION

CAUTION: RISK OF FIRE, EXPLOSION OR BURNS

DO NOT Short circuit.

DO NOT Heat above 70°C.

DO NOT Reverse connections from charger to battery.

DO NOT Disassemble.

DO NOT Throw into fire or incinerate.

WARNING

BATTERY DISPOSAL

The electrodes of the waste battery should be wrapped with insulating paper to prevent fire and explosion.

PROHIBITION OF DISASSEMBLY

Never disassemble the cells.

The disassembling may generate an internal short circuit in the cell, which may cause gassing, firing, explosion, or other problems.

THE ELECTROLYTE IS HARMFUL

Li-Fe battery should not have liquid from electrolyte flowing, but in case the electrolyte comes into contact with the skin, or eyes, physicians shall slush the electrolyte immediately with fresh water and medical advice is to be sought.

PROHIBITION OF DUMPING OF CELLS INTO WATER

Do not soak the battery in which the liquid, like water, seawater and non-alcoholic drinks, fruit juice, coffee or other drinks.

PROHIBITION OF USE OF DAMAGED CELLS

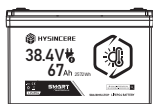
If any abnormal features of the cells are found such as damages in a plastic envelope of the cell, deformation of the cell package, smelling of an electrolyte, an electrolyte leakage and others, the cells shall never be used anymore.

The cells with a smell of the electrolyte or a leakage shall be placed away from the fire to avoid firing or explosion.

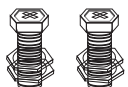
PROHIBITION OF USING IN BELOW PLACES

Do not use the battery in a place with strong static electricity and a strong magnetic field, otherwise, it is easy to damage the battery safety protection device and bring hidden danger.

PACKING LIST



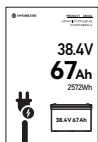
1* 38.4V 67Ah



2* M8 bolts



2* Insulating Caps



1* Product Manual

FCC STATEMENT

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

- 1) This device may not cause interference.
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

Note: 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 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.

Changes or modifications not expressly approved by the party responsible for Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device must operate with a minimum distance of 20 cm between the radiator and user body.

Step 1

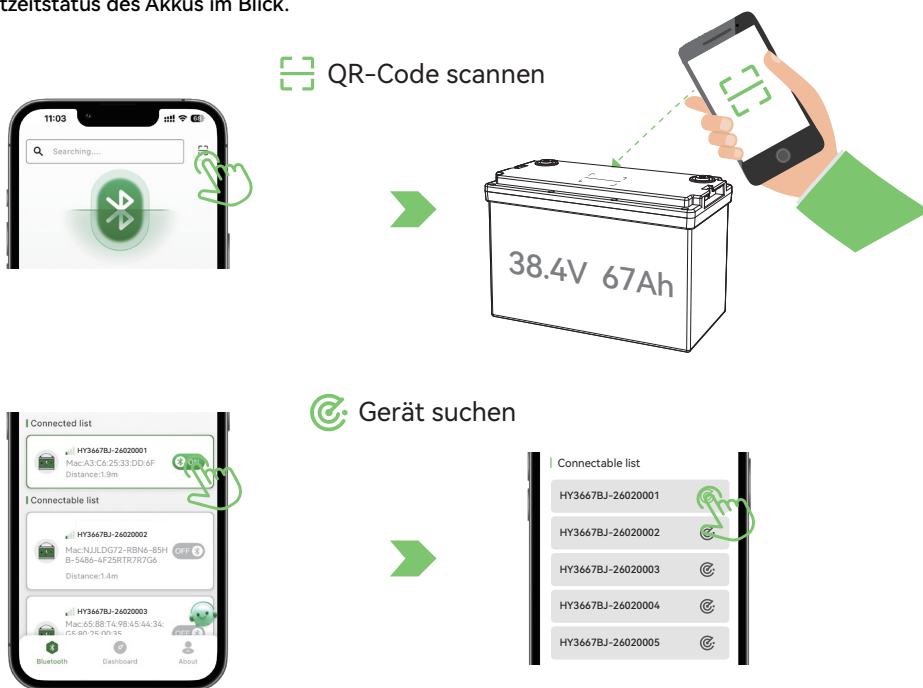
Diese Anwendung wurde von HysincerePower® entwickelt und gestaltet. Sie ist auf die Überwachung von Lithiumbatterien spezialisiert und liefert Echtzeit-Statuswerte wie Spannung, Lade- und Entladestrom, Alarmmeldungen, Schutzstatus usw. So können Benutzer den Status von Lithiumbatterien klar nachvollziehen und eine sichere Verwendung gewährleisten.



Sie können im Apple oder Google Play Store nach „HysincerePower“ suchen, um die App herunterzuladen und zu installieren.

Step 2

Koppeln Sie den Akku mit der HysincerePower-App und behalten Sie mühelos den Echtzeitstatus des Akkus im Blick.

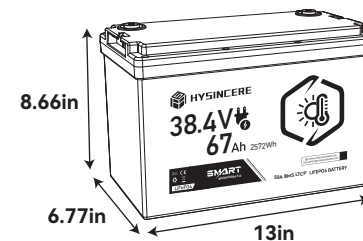


Batterie

Kombination: 38.4V 67Ah

Abmessungen: L33.2*W17.2*H22.0cm

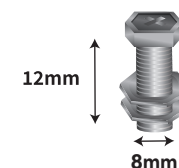
Gewicht: 17.3kg



Terminal & Pfostenbolzen

Terminal Größe: M8 * 1mm metrisches Gewinde

Pfostenbolzen: M8 * 1mm metrisches Gewinde * 12mm Bolzenlänge
(Die Schrauben können je nach Bedarf durch M8-Schrauben anderer Längen ersetzt werden.)



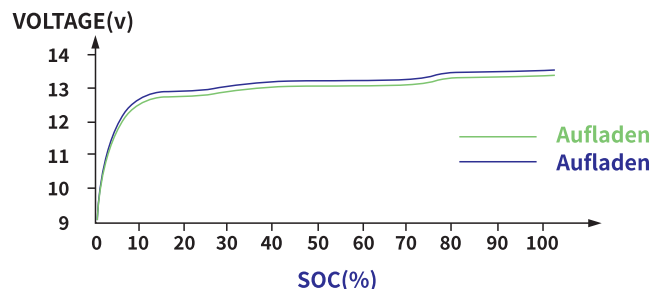
Artikel	Parameter
Zelle	LiFePO4 Batterie
Nennspannung	38.4V
Nominale Kapazität	67Ah
Nutzbare Kapazität	67Ah
Energie	2572Wh
Max. Ausgangsleistung Rate	1920W
Batterie-Management-System (BMS) Karte	50A
Max. kontinuierlicher Ladestrom/Entladestrom	50A
Ladespannung	29,2V
Zyklus Lebensdauer	4000 Times
Empfohlener Ladestrom	13.4A (Within 0.2C)
Max. Entladestrom 5 Sekunden	100A
Abmessungen	L33.2*W17.2*H22.0cm
Gewicht	17.3Kg
Akku-Pack-Gehäuse	ABS
Temperaturbereich	Ladung: 0°C-55°C Entladung: -20°C-55°C Lagerung: 0°C-40°C (die beste Lagertemperatur ist 15°C ~25°C, trockene Lagerung) Heiztemperatur: -20 °C bis 5 °C
Informationen zu Klemmen und Pfostenbolzen	
Größe der Klemme	M8* 1mm metrisches Gewinde
Pfostenbolzen	M8 * 1mm metrisches Gewinde * 12mm Bolzenlänge

DIE BATTERIEKAPAZITÄT

Ladezustand (soc)

Die Batteriekapazität kann anhand der Ruhespannung (nicht der Lade-/Entladespannung) grob geschätzt werden. Da die Spannungen der einzelnen Batterien sehr unterschiedlich sind, dienen die folgenden Parameter nur als Anhaltspunkte.

Ruhespannung: Die Spannung muss im Ruhezustand (ohne Strom) geprüft werden, nachdem sie 30 Minuten lang vom Ladegerät und den Verbrauchern getrennt wurde.



Voltage-Capacity Cheat Sheet			
25.6V System	48V/51.2V System		
29.2V	58.4V	100%	Charging Resting
27.2V	54.4V	100%	
26.8V	53.6V	99%	
26.6V	53.2V	90%	
26.4V	52.8V	70%	
26.2V	52.4V	40%	
26.0V	52.0V	30%	
25.8V	51.6V	20%	
25.6V	51.2V	17%	
25.0V	50.0V	14%	
24.0V	48.0V	9%	
20.0V	40.0V	0%	

AUTOMATISCHE SELBSTHEIZFUNKTION

Die automatische Selbstheizfunktion wird vom BMS aktiviert, wenn die Batterie bei einer Temperatur zwischen -20 °C und 5 °C an ein Ladegerät angeschlossen wird.

Die Heizung wird ausgeschaltet, sobald die Batterietemperatur den eingestellten Wert erreicht hat.

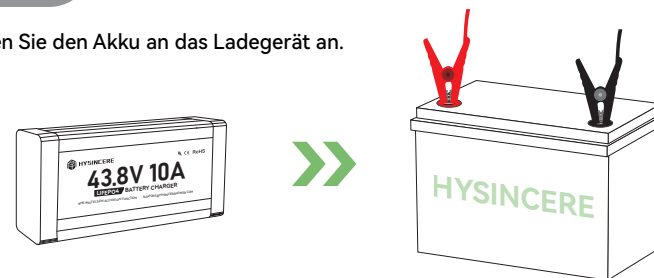
Dies dauert normalerweise etwa 20 bis 30 Minuten bei einer Temperatur von -10 °C und etwa 40 Minuten bei einer Temperatur von -20 °C.

Nach Abschluss des Aufheizvorgangs wird die Batterie normal geladen.

WIE FUNKTIONIERT ES?

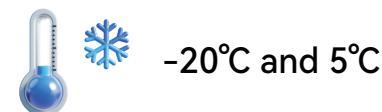
➤ Step ①

Schließen Sie den Akku an das Ladegerät an.



➤ Step ②

Die Temperatursensoren erfassen die Batterietemperatur.



① Wenn die Batterietemperatur zwischen -20 °C und 5 °C liegt, beginnt das BMS, die Batterie über die Heizpads zu erwärmen, und die Batterie wird während des Erwärmungsprozesses nicht geladen. Anschließend wird mit Schritt 3 fortgefahren.

Oder ② Wenn die Batterietemperatur > 5 °C beträgt, wird die Batterie normal geladen und die Heizfunktion wird nicht aktiviert.

➤ Step ③

Wenn die Batterietemperatur den eingestellten Wert erreicht hat, wird die Heizung abgeschaltet und die Batterie wird geladen.