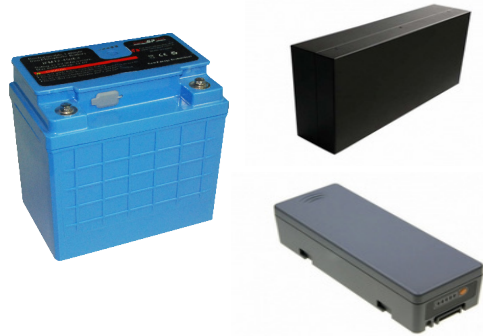
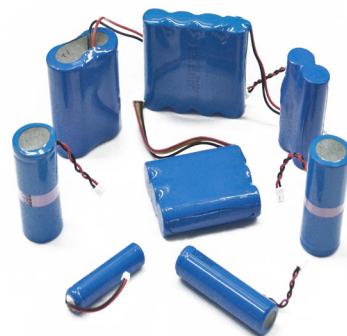


## Best Solution of Battery



Medical Battery



Lighting Battery



Portable Power Station



Home Energy Storage System



E-mobility



Lead Acid Replacement Battery

**SUPER SP PACK<sup>®</sup>**  
Best Solution of Battery

[www.super-pack.com.cn](http://www.super-pack.com.cn)

Guangdong Superpack Technology Co., Ltd.

+86-769-82260562

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**SUPER SP PACK<sup>®</sup>**  
Best Solution of Battery

**Lithium Ion Batteries & Power Solution**

# ABOUT US

Guangdong Superpack Technology Co., Ltd. is founded in 2018. It is a joint-venture of Xupai, the leading Chinese lead acid batteries manufacturer founded in 1995.

Superpack has some of the brightest minds working on developing and producing our rechargeable lithium ion batteries. Superpack is a rechargeable lithium battery maker like no other. From R&D, design to manufacturing and sales, battery management system (BMS), related battery packs and customized solutions, we set the pace.

# OUR SOLUTIONS

## Energy Storage

For Residential, Commercial & Industrial, and Utility

## Motive Power

For E-bike, E-scooter, Golf Cart, E-forklift, AGV, etc

## Lead-acid Replacement

For Marine, RV, Backup Power, Solar and others where lead-acid is used.

## What's More

Power Tool, Garden Tool, Solar Street Light, Medical, Military and others

# OUR ADVANTAGES

## Strong R&D Ability

Superpack R&D team has over 10 years of experience and many of them are experts in their fields. 10% of revenue has been invested in R&D every year, to ensure our products and service to meet the latest technology over our competitors and keep going on innovation.

## Advanced Equipment

Superpack factory is equipped with advanced machines, and the key machines are from world first-class brands, which enable us to maintain the highest quality along with the competitive price.

## Strict Quality Assurance

Successful business runs on quality. To ensure the constancy quality of all Superpack's products, Superpack implemented and certified ISO 9001-2015, Superpack has built and deployed strict quality control and assurance standards in addition to well-structured inspection procedures at each critical step of our production process.

## Customized Solutions Ability

Over years, Superpack has developed a wide range of solutions for different applications, which enable us to quickly respond to customer's demand and provide them with the best solutions with short lead time & competitive prices.

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## 12V LiFePO4 Series

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## 12V LiFePO4 Information

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## Solution for specific applications

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12V LiFePO4 Battery

Standard Type Battery

ST Series

RANGE SUMMARY

LiFePO4 batteries are an ideal replacement for a traditional lead acid battery, offering a drop-in solution for lead acid battery replacement. Superpack batteries can be used individually or connected in series or parallel to create a larger system.

The series LiFePO4 battery is fit for E-mobility, Energy Storage System, Defense & Security, telecom outdoor applications, renewable energy systems, and other harsh environment applications.

FEATURES AND BENEFITS

- Over 5 years design life
- Wide operating temperature range from -25℃ to 60℃
- Maintenance-free, no watering, plug and play
- Reliable even if partial state of charge
- Fast charge within 3 hours
- Lightweight, 50-60% less weight than lead acid equivalent
- Long life, up to 10X longer cycle life than lead acid equivalent
- Constant power available throughout discharge, as well as constant voltage, mean voltage would not decline like lead acid
- Low self-discharge, allows for worry-free storage

CHARGING PROFILE

- Constant current (CC), then constant voltage (CV) charging is recommended
- Recommended float charge voltage: 13.8V @ 25℃
- Max. charge current allowable : 0.5C<sub>5</sub>A \*

\* For the battery whose capacity is equal to or higher than 150Ah, 75A continuous charge current is recommended.



General Specifications

| Model         | Nominal Voltage (V) | Nominal Capacity (Ah) | Max discharge current (A) | Dimension (mm) | Dimension (in) | Approx. Weight (Kg) | Weight (lbs) | BCI/DIN size | Terminal | Batteries in series |
|---------------|---------------------|-----------------------|---------------------------|----------------|----------------|---------------------|--------------|--------------|----------|---------------------|
| SPF12V7.2-ST  | 12.8                | 7.2                   | 15                        | 151*65*101     | 5.9*2.6*3.9    | 0.9                 | 2.0          |              | F2       | Max 4S              |
| SPF12V10-ST   | 12.8                | 10                    | 15                        | 151*99*101     | 5.9*3.9*4.0    | 1.3                 | 2.9          |              | F2       | Max 4S              |
| SPF12V20-ST   | 12.8                | 20                    | 20                        | 181*76*166     | 7.1*3.0*6.5    | 2.6                 | 5.6          |              | NB1      | Max 4S              |
| SPF12V35-ST   | 12.8                | 35                    | 35                        | 195*131*171    | 7.7*5.2*6.7    | 4.4                 | 9.7          | U1           | T11(M8)  | Max 4S              |
| SPF12V50-ST   | 12.8                | 50                    | 50                        | 197*166*171    | 7.8*6.5*6.7    | 6.3                 | 13.9         |              | T11(M8)  | Max 4S              |
| SPF12V75-ST   | 12.8                | 75                    | 80                        | 260*168*218    | 10.2*6.6*8.6   | 9.6                 | 21.2         | 24           | T11(M8)  | Max 4S              |
| SPF12V100-ST  | 12.8                | 100                   | 100                       | 307*168*221    | 12.1*6.6*8.7   | 12.6                | 27.8         | 27           | T11(M8)  | Max 4S              |
| SPF12V100-ST  | 12.8                | 100                   | 100                       | 329*172*223    | 13.0*6.8*8.8   | 12.6                | 27.8         | 31           | T11(M8)  | Max 4S              |
| SPF12V100-DST | 12.8                | 100                   | 100                       | 318*175*190    | 12.5*6.9*7.5   | 12.6                | 27.8         | 94R/H7L4     | DIN      | Max 4S              |
| SPF12V100-DST | 12.8                | 100                   | 100                       | 355*175*190    | 14.0*6.9*7.5   | 12.8                | 28.2         | 49/H8L5      | DIN      | Max 4S              |
| SPF12V200-ST  | 12.8                | 200                   | 150                       | 520*268*228    | 20.5*10.6*9.0  | 25.8                | 56.9         | 8D           | T11(M8)  | Max 4S              |
| SPF12V260-ST  | 12.8                | 260                   | 150                       | 520*268*228    | 20.5*10.6*9.0  | 32.0                | 70.5         | 8D           | T11(M8)  | Max 4S              |
| SPF12V300-ST  | 12.8                | 300                   | 150                       | 520*268*228    | 20.5*10.6*9.0  | 35.7                | 78.7         | 8D           | T11(M8)  | Max 4S              |

APPLICATIONS

- AGV
- Marine
- Golf Car
- Power Utility
- Floor Scrubber
- Medical Cart
- Recreational Vehicle
- Outdoor Applications
- Telecom
- Renewable Energy system

COMPLIED STANDARDS

- IEC62133, IEC62619 (Cell)
- UL1642 (Cell)
- CE (Battery)
- UN38.3 (Battery)



We offer OEM, ODM & "whole life" after-sale service





12V LiFePO4 Battery

Low Temperature Charging Battery

LT Series

RANGE SUMMARY

Superpack LT series LiFePO4 batteries are specifically designed for cold temperature charging. It can be charged at temperatures down to -20°C (-4°F). It features proprietary technology which draws power from the charger itself, requiring no additional components.

The LT Series LiFePO4 battery has the same size and performance as ST Series LiFePO4 battery but can be safely charged when temperatures drop as low as -20°C using a standard charger. It is an ideal choice for use in RVs, off-grid solar, and in any application where charging in cold temperatures is necessary.

FEATURES AND BENEFITS

- Specifically designed for charging at cold temperature
- Wide operating temperature range from -25°C to 60°C
- Maintenance-free, no watering, plug and play
- Reliable even if partial state of charge
- Lightweight, 50-60% less weight than lead acid equivalent
- Long life, up to 10X longer cycle life than lead acid equivalent
- Constant power available throughout discharge, as well as constant voltage, mean voltage would not decline like lead acid
- Low self-discharge, allows for worry-free storage

CHARGING PROFILE

- Constant current (CC), then constant voltage (CV) charging is recommended
- Recommended float charge voltage: 13.8V @ 25°C
- Max. charge current allowable : 0.5C<sub>5</sub>A \*

\* For the battery whose capacity is equal to or higher 100Ah, 50A continuous charge current is recommended.



General Specifications

| Model         | Nominal Voltage (V) | Nominal Capacity (Ah) | Max discharge current (A) | Dimension (mm) | Dimension (in) | Approx. Weight (Kg) | Weight (lbs) | BCI/DIN size | Terminal | Batteries in series           |
|---------------|---------------------|-----------------------|---------------------------|----------------|----------------|---------------------|--------------|--------------|----------|-------------------------------|
| SPF12V100-LT  | 12.8                | 100                   | 150                       | 329*172*223    | 13.0*6.8*8.8   | 12.6                | 27.8         | 31           | T11(M8)  | Consult Superpack for insight |
| SPF12V100-DLT | 12.8                | 100                   | 150                       | 318*175*190    | 12.5*6.9*7.5   | 12.6                | 27.8         | 94R/H7L4     | DIN      |                               |
| SPF12V100-DLT | 12.8                | 100                   | 150                       | 355*175*190    | 14.0*6.9*7.5   | 12.8                | 28.2         | 49/H8L5      | DIN      |                               |
| SPF12V200-LT  | 12.8                | 200                   | 150                       | 520*268*228    | 20.5*10.6*9    | 25.8                | 56.9         | 8D           | T11(M8)  |                               |
| SPF12V300-LT  | 12.8                | 300                   | 150                       | 520*268*228    | 20.5*10.6*9    | 35.7                | 78.7         | 8D           | T11(M8)  |                               |



APPLICATIONS

- AGV
- Marine
- Golf Car
- Power Utility
- Floor Scrubber
- Medical Cart
- Recreational Vehicle
- Outdoor Applications
- Telecom
- Renewable Energy system

COMPLIED STANDARDS

- IEC62133,IEC62619 (Cell)
- UL1642 (Cell)
- CE ( Battery)
- UN38.3 (Battery)



We offer OEM, ODM & "whole life" after-sale service





## 12V LiFePO4 Battery

## Bluetooth Type Battery

# BL Series

### RANGE SUMMARY

Superpack BL series LiFePO4 battery has a built-in bluetooth module that lets you communicate with the battery using our free APP for smart mobile.

You can check the battery capacity or State of Charge (SoC), voltage, temperature, charge or discharge current simply by using the APP on your compatible smart mobile.

The BL series is an ideal choice for use in RVs, off-grid solar, marine, renewable energy system, etc.

### FEATURES AND BENEFITS

- Bluetooth communication capability for battery status through Superpack free APP
- Built-in BMS against abuse
- Fast charge within 3 hours
- Lightweight, 50-60% less weight than lead acid equivalent
- Up to 10X longer cycle life than lead acid equivalent
- Faster charging and lower self-discharge
- Delivers twice the power of lead acid batteries at the high discharge rate

### CHARGING PROFILE

- Constant current (CC), then constant voltage (CV) charging is recommended
- Recommended float charge voltage: 13.8V @ 25°C
- Max. charge current allowable : 0.5C<sub>5</sub>A \*

\* For the battery whose capacity is equal to or higher 150Ah, 75A continuous charge current is recommended.



### General Specifications

| Model         | Nominal Voltage (V) | Nominal Capacity (Ah) | Max discharge current (A) | Dimension (mm) | Dimension (in) | Approx. Weight (Kg) | Weight (lbs) | BCI/DIN size | Terminal | Batteries in series |
|---------------|---------------------|-----------------------|---------------------------|----------------|----------------|---------------------|--------------|--------------|----------|---------------------|
| SPF12V100-BL  | 12.8                | 100                   | 100                       | 329*172*223    | 13.0*6.8*8.8   | 12.6                | 27.8         | 31           | T11(M8)  | Max 4S              |
| SPF12V100-DBL | 12.8                | 100                   | 100                       | 318*175*190    | 12.5*6.9*7.5   | 12.6                | 27.8         | 94R/H7L4     | DIN      | Max 4S              |
| SPF12V100-DBL | 12.8                | 100                   | 100                       | 355*175*190    | 14.0*6.9*7.5   | 12.8                | 28.2         | 49/H8L5      | DIN      | Max 4S              |
| SPF12V200-BL  | 12.8                | 200                   | 150                       | 520*268*228    | 20.5*10.6*9    | 25.8                | 53.4         | 8D           | T11(M8)  | Max 4S              |
| SPF12V300-BL  | 12.8                | 300                   | 150                       | 520*268*228    | 20.5*10.6*9    | 35.7                | 78.7         | 8D           | T11(M8)  | Max 4S              |



Available on the  
**App Store**

**Bluetooth®**

ANDROID APP ON  
**Google Play**

### Mobile APP

- The Mobile phone should support Bluetooth 4.0 BLE ( Bluetooth super low energy )
- Measuring distance, up to 15m
- Selective gauge IC of total voltage or each string voltage
- Real-time remotely monitor battery status

### APPLICATIONS

- AGV
- Marine
- Golf Car
- Power Utility
- Floor Scrubber
- Medical Cart
- Recreational Vehicle
- Outdoor Applications
- Telecom
- Renewable Energy system

### COMPLIED STANDARDS

- IEC62133, IEC62619 (Cell)
- UL1642 (Cell)
- CE (Battery)
- UN38.3 (Battery)



We offer OEM, ODM & "whole life" after-sale service



**PINGAN**



**CB**

**UN38.3**





## 12V LiFePO4 Battery

## Low Temperature & Bluetooth Battery

# LB Series

### RANGE SUMMARY

Superpack LB series LiFePO4 battery has a built-in bluetooth module that lets you communicate with the battery using our free APP for smart mobile.

You can check the battery capacity or State of Charge (SoC), voltage, temperature, charge or discharge current simply by using the APP on your compatible smart mobile.

At the same time, the LB series battery can be safely charged when temperatures drop as low as -20°C(-4°F) using a standard charger.

The LB series is suited for RVs, off-grid solar, and in any application where charging in cold temperatures is necessary.

### FEATURES AND BENEFITS

- Specifically designed for cold temperature charging
- Safely charge at temperatures down to -20°C (-4°F)
- Bluetooth communication capability for battery status through Superpack free APP
- Built-in BMS against abuse
- Lightweight, 50-60% less weight than lead acid equivalent
- Up to 10X longer cycle life than lead acid equivalent
- Faster charging and lower self-discharge
- Delivers twice the power of lead acid batteries at the high discharge rate

### CHARGING PROFILE

- Constant current(CC), then constant voltage (CV) charging is recommended
- Recommended float charge voltage: 13.8V @ 25°C
- Max. charge current allowable : 0.5C<sub>5</sub>A \*

\* For the battery whose capacity is equal to or higher 100Ah, 50A continuous charge current is recommended.



### General Specifications

| Model         | Nominal Voltage (V) | Nominal Capacity (Ah) | Max discharge current (A) | Dimension (mm) | Dimension (in) | Approx. Weight (Kg) | Weight (lbs) | BCI/DIN size | Terminal | Batteries in series           |
|---------------|---------------------|-----------------------|---------------------------|----------------|----------------|---------------------|--------------|--------------|----------|-------------------------------|
| SPF12V100-LB  | 12.8                | 100                   | 150                       | 329*172*223    | 13.0*6.8*8.8   | 12.6                | 27.8         | 31           | T11(M8)  | Consult Superpack for insight |
| SPF12V100-DLB | 12.8                | 100                   | 150                       | 318*175*190    | 12.5*6.9*7.5   | 12.6                | 27.8         | 94R/H7L4     | DIN      |                               |
| SPF12V100-DLB | 12.8                | 100                   | 150                       | 355*175*190    | 14.0*6.9*7.5   | 12.8                | 28.2         | 49/H8L5      | DIN      |                               |
| SPF12V200-LB  | 12.8                | 200                   | 150                       | 520*268*228    | 20.5*10.6*9    | 25.8                | 56.9         | 8D           | T11(M8)  |                               |
| SPF12V300-LB  | 12.8                | 300                   | 150                       | 520*268*228    | 20.5*10.6*9    | 35.7                | 78.7         | 8D           | T11(M8)  |                               |



Available on the  
**App Store**

**Bluetooth®**

ANDROID APP ON  
**Google Play**

**-20°C (-4°F)**

### Mobile APP

- The Mobile phone should support Bluetooth 4.0 BLE (Bluetooth super low energy)
- Measuring distance, up to 15m
- Selective gauge IC of total voltage or each string voltage
- Real-time remotely monitor battery status
- Authorized person can change settings via Android APP

### APPLICATIONS

- AGV
- Marine
- Golf Car
- Power Utility
- Floor Scrubber
- Medical Cart
- Recreational Vehicle
- Outdoor Applications
- Telecom
- Renewable Energy system

### COMPLIED STANDARDS

- IEC62133, IEC62619 (Cell)
- UL1642 (Cell)
- CE (Battery)
- UN38.3 (Battery)



We offer OEM, ODM & "whole life" after-sale service



**PING AN**



**CB**

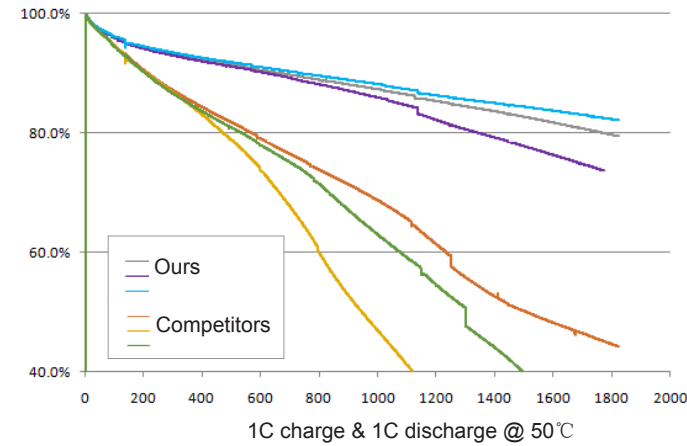
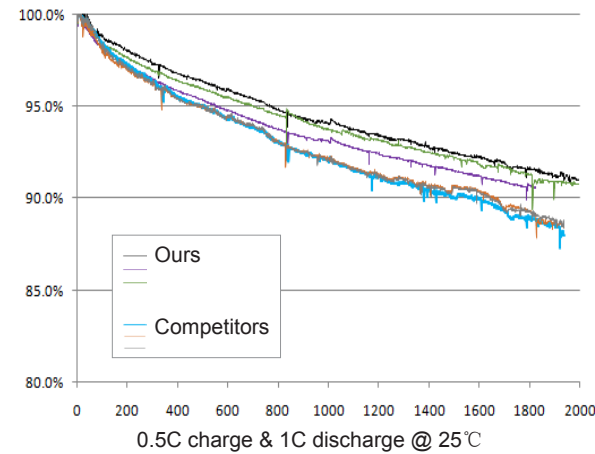
**UN38.3**



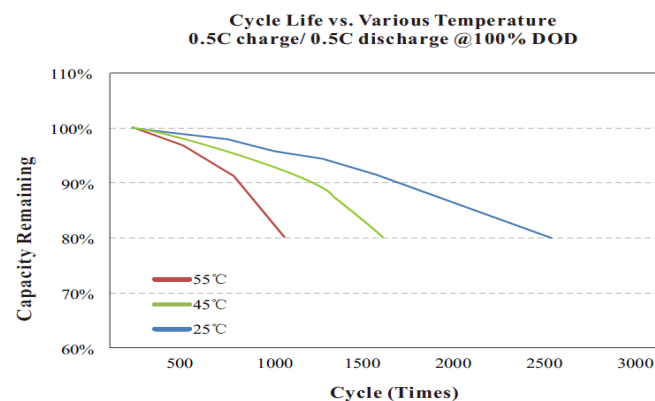
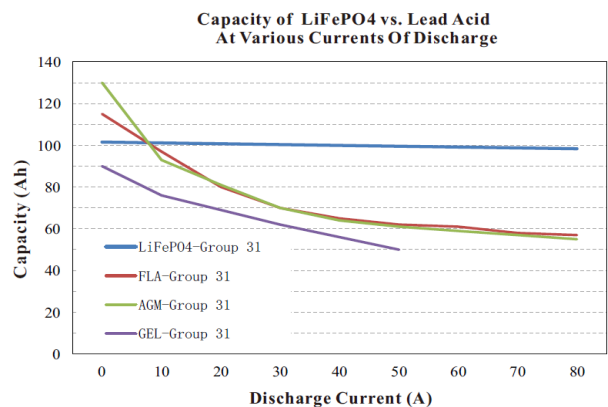
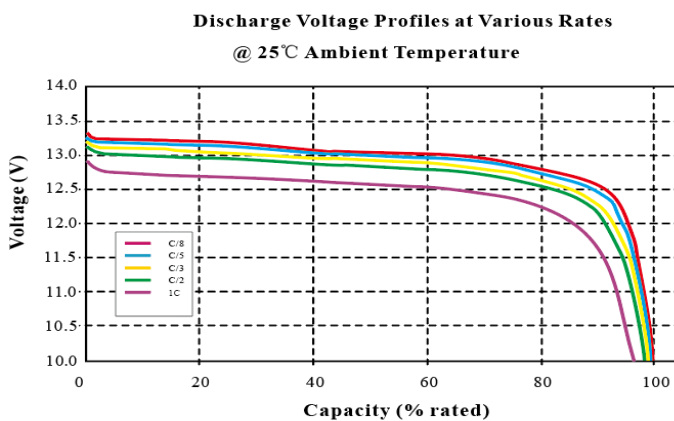
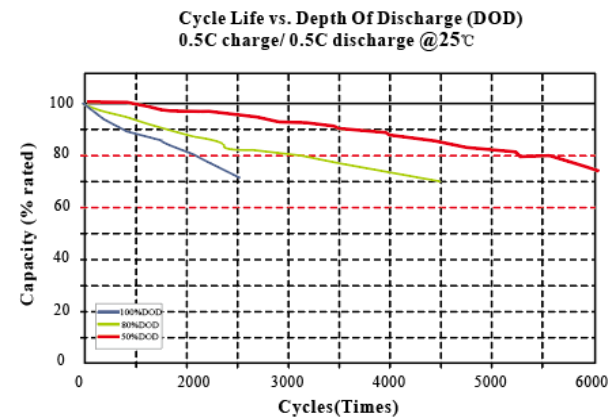
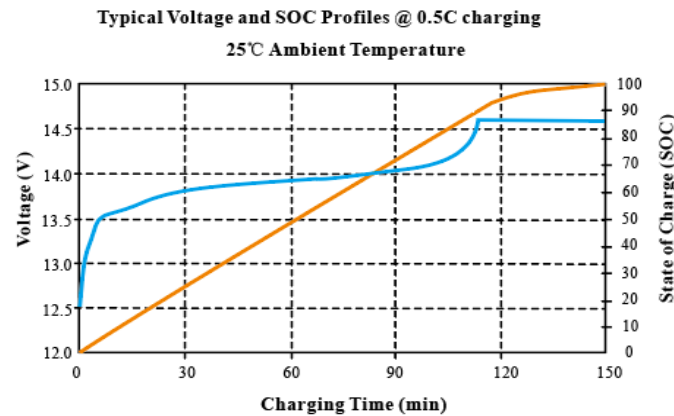
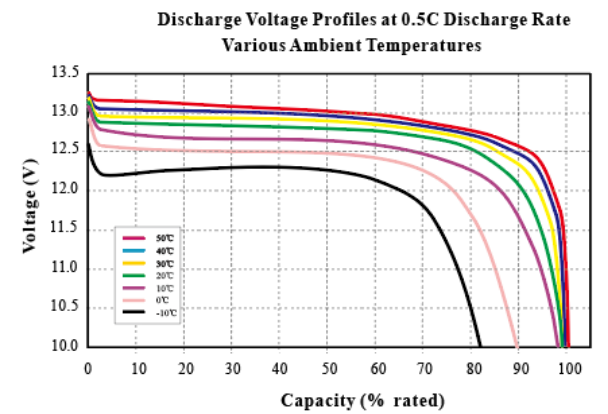


## 6000 Cycles LiFePO4 cell

We use cylindrical 26650 cells which shows perfect performance for our 12.8V LiFePO4 batteries in lead acid footprint.

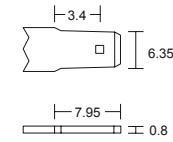


## SPF12V100-ST PERFORMANCE CHARACTERISTICS

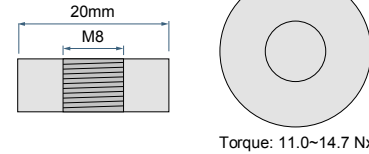


## TERMINAL DETAILS

**F2 FASTON**  
0.250" x 0.032"  
quick disconnect  
tabs.

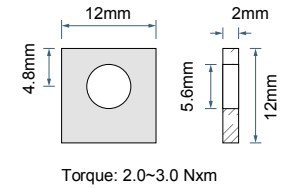


**T11 THREADED INSERT - 8mm STUD**

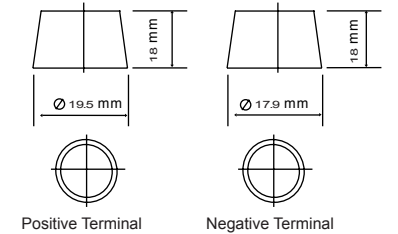


**NB1 TERMINAL**

With nut & bolt connectors



**DIN TERMINAL**

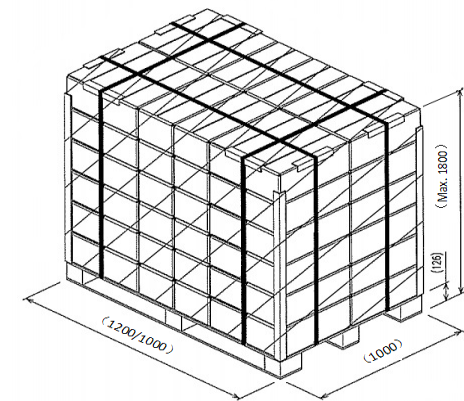
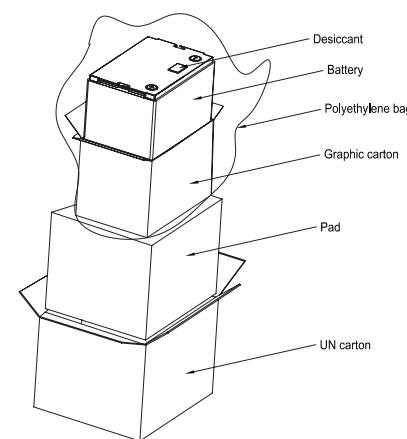


## Standard packaging method (for Seashipment only)

| Model     | Dimension (mm) | BCI/DIN size | UN Carton Packing information |                     |                       |                |             | 20' Container Packing information |                       |                          |
|-----------|----------------|--------------|-------------------------------|---------------------|-----------------------|----------------|-------------|-----------------------------------|-----------------------|--------------------------|
|           |                |              | Quantity (Pcs/Ctn)            | Net Weight (Kg/Ctn) | Gross Weight (Kg/Ctn) | Dimension (mm) | UN Mark     | Quantity (Carton/Pallet)          | Quantity (Pcs/Pallet) | Quantity (Pcs/Container) |
| SPF12V7.2 | 151*65*101     |              | 12                            | 10.8                | 12.1                  | 370*270*320    | 4G/Y17/S/21 | 45                                | 540                   | 5400                     |
| SPF12V10  | 151*99*101     |              | 8                             | 10.4                | 11.5                  |                |             | 45                                | 360                   | 3600                     |
| SPF12V20  | 181*76*166     |              | 10                            | 26.0                | 27.4                  | 490*390*210    | 4G/Y30/S/21 | 42                                | 420                   | 4200                     |
| SPF12V35  | 195*131*171    | U1           | 4                             | 17.6                | 18.8                  |                |             | 42                                | 168                   | 1680                     |
| SPF12V50  | 197*166*171    |              | 1                             | 6.3                 | 6.9                   | 248*188*252    | 4G/Y7/S/21  | 144                               | 144                   | 1440                     |
| SPF12V75  | 260*168*218    | 24           | 1                             | 9.6                 | 10.3                  | 340*280*235    | 4G/Y15/S/21 | 63                                | 63                    | 630                      |
| SPF12V100 | 307*168*221    | 27           | 1                             | 12.2                | 12.9                  |                | 4G/Y17/S/21 | 45                                | 45                    | 450                      |
| SPF12V100 | 329*172*223    | 31           | 1                             | 12.6                | 13.4                  | 370*270*320    | 4G/Y17/S/21 | 45                                | 45                    | 450                      |
| SPF12V100 | 355*175*190    | 49/H8L5      | 1                             | 12.8                | 13.6                  |                |             |                                   |                       |                          |
| SPF12V100 | 318*175*190    | 94R/H7L4     | 1                             | 12.8                | 13.6                  |                |             |                                   |                       |                          |
| SPF12V150 |                |              | 1                             | 21.0                | 23.6                  |                |             |                                   |                       |                          |
| SPF12V200 | 520*268*228    | 8D           | 1                             | 25.8                | 28.4                  | 570*320*260    | 4G/Y40/S/21 | 24                                | 24                    | 240                      |
| SPF12V300 |                |              | 1                             | 35.7                | 38.3                  |                |             |                                   |                       |                          |

\* All the batteries above use UN cartons; Pallet dimension: 1.2\*1.0m; Each 20' container can load 10 pallets

## Packing specification for shipment



UN3480  
Lithium Ion Battery

Class 9  
Label

Superpack can use cylindrical 32700 or prismatic cells to make 12.8V LiFePO4 batteries for cost-down purpose with some performance compromise. The batteries used 32700 or prismatic cells would have an "E" in the suffix.

For example,

SPF12V100-EST means the 12.8V100Ah LiFePO4 standard battery used economical cells

SPF12V300-EBL means the 12.8V300Ah LiFePO4 bluetooth battery used economical cells

FREQUENTLY ASKED QUESTIONS

What are the benefits of changing a lead acid battery with Superpack LiFePO4 battery?

- ▶ • Similar voltage to 12V lead acid battery
- Intrinsic safe lithium ion battery
- 1/2~1/3 lightweight
- Fast charge & stable output
- Slow capacity loss
- High cycle life
- Cost effective
- Environment friendly

Can Superpack LiFePO4 batteries be connected in series or in parallel?

- ▶ Although ST and BL series batteries can be in series or parallel, **we recommend using a customized battery to avoid several batteries in series or parallel.** Fill in the questionnaire on page 14 to develop a customized battery, please! For cost, space, temporarily use or other reasons, we can accept several batteries to be in series or parallel as per the following instructions although there is still risk and performance compromise,
  - Do not reverse the polarity of the LT series and LB series batteries. The charger with anti-reverse polarity is recommended.
  - The batteries should have the same SOC, voltage & impedance when connecting them in series or parallel.
  - Ensure all batteries were fully charged individually by matched chargers before connecting them in series or parallel.
  - The purpose of connecting in parallel is to increase the capacity, not to increase the discharging current to avoid some batteries cut-off discharging earlier than others. Higher capacity batteries are recommended to avoid several batteries in parallel.
  - Check "batteries in series" from Superpack's short-form specification, user guide or brochure to check how many batteries can be connected in series, please. We recommend 4 batteries in parallel at most.
  - Consult Superpack for tips if you want to use LT and LB series batteries in series or parallel.
  - Do not connect Superpack 12V LiFePO4 battery to other chemistry, lots, manufacturers, series, impedance, voltage or capacity battery.
  - Once in series or parallel configuration ensure maintenance such as voltage, impedance inspection or a full charge is completed every 6 months at least.
  - Once in series or parallel configuration, the system must be charged and discharged as a system. If one battery needs to be replaced, the whole system should be replaced.
  - **If you have special requirements on series or parallel installation, Superpack can offer you another solution.**

Can Superpack LiFePO4 battery be installed in any orientation or location?

- ▶ Yes, they can be installed in any orientation or location as your current Lead acid battery. However, please note that the Superpack LiFePO4 battery is NOT fit for under hood (Auto) applications.

Can Superpack LiFePO4 battery be charged with a lead acid battery charger?

- ▶ A standard CC-CV lead acid battery charger can be used to charge Superpack LiFePO4 battery. However, the following requirements must be met:
  - The Charger must not contain desulphation/equalization setting. If so, turned off it, please
  - Maximum charge voltage of 14.6V
  - Recommended float charge voltage 13.8V
  - Please ensure your charger is matched to the battery
  - A charger with LiFePO4 setting is recommended
  - Some "smart" or multi-stage lead acid battery chargers would detect the OCV first, so it would refuse to charge the LiFePO4 battery which is at under voltage protection mode.
  - LT and LB series batteries have a built-in heating foil, a CC-CV charger is recommended. Contact Superpack to know the charge current if CC charger is a must

Can we find other solutions since the current superpack LiFePO4 battery isn't fit for our applications?

- ▶ Fill in the questionnaire on page 14, please! We can offer OEM, ODM & "whole life" after-sale service

Questionnaire for battery pack & charger

Superpack is continuously R&D new products and our batteries are designed to meet and exceed customer requirement. For designing assistance, please simply complete and submit this form, or call us directly.

|  |  |   |  |
|--|--|---|--|
| Company Name:  |  | Contact Person:                           |  |
| Address:   |  | Email:                                    |  |
| Tel/Fax:   |  | Website:                                  |  |
| Application (If necessary, our engineers will contact you directly)                |  | Light E-Vehicle <input type="checkbox"/>  | Energy Storage System <input type="checkbox"/>             |
|  |  | Medical <input type="checkbox"/>          | Portable device <input type="checkbox"/> Other _____       |
| Battery  | Voltage  | Maximum Voltage(V):                       | or let us know the <b>Motor voltage range</b>              |
|  |  | Minimum Voltage(V):                       |  |
|  |  | Nominal Voltage(V):                       |  |
|  | Capacity   | Nominal discharge current(Amps):          | Or let us know the <b>Motor rated power and peak power</b> |
|  |  | Peak discharge current(Amps):             |  |
|  |  | Peak discharge current duration(Seconds): |  |
|  |  | Recharge time needed (Hours):             |  |
|  |  | Capacity needed (Amp Hours):              |  |
|  | Temperature range  | Maximum temperature(°C):                  |  |
|  |  | Minimum temperature(°C):                  |  |
| Working condition  | Frequency: _____times each <input type="checkbox"/> day <input type="checkbox"/> week <input type="checkbox"/> month   |   |  |
|  | Depth of discharge: <input type="checkbox"/> 10% <input type="checkbox"/> 50% <input type="checkbox"/> 80% Other _____ |   |  |
| Max. Dimension   | Length * Width *Height(mm):  |   |  |
| Max. Weight  | _____ Kg   |   |  |
| Communication  | No <input type="checkbox"/> Yes <input type="checkbox"/> If yes, detailed protocol _____                               |   |  |
| Regeneration   | No <input type="checkbox"/> Yes <input type="checkbox"/> (if yes, we need regeneration current & duration)             |   |  |
| Charger  | Input Voltage(V): 110V <input type="checkbox"/> 220V <input type="checkbox"/> 100~240V <input type="checkbox"/>        |   |  |
|  | Charge Current(A):   |   |  |
|  | Input terminal: European <input type="checkbox"/> US <input type="checkbox"/> Other _____                              |   |  |
|  | Output terminal: _____   |   |  |
| Certification: CE <input type="checkbox"/> UL <input type="checkbox"/> Other _____ |  |   |  |
| Other information:   |  |   |  |
| Prototype evaluation period ____ weeks; Prototype samples quantity ____ PCS;       |  |   |  |
| Pre-production period _____ weeks; Pre-production quantity _____ PCS;              |  |   |  |
| Production quantity _____ PCS;   |  |   |  |
| Special requirement:   |  |   |  |



The solar garden light decorates your pathway, patio or garden, all while taking advantage of solar energy.

Superpack offers a high price/performance ratio of LiFePO4 cells for solar garden light. The sun's rays would provide light for up to 8 hours on a full battery charge.



General Specifications

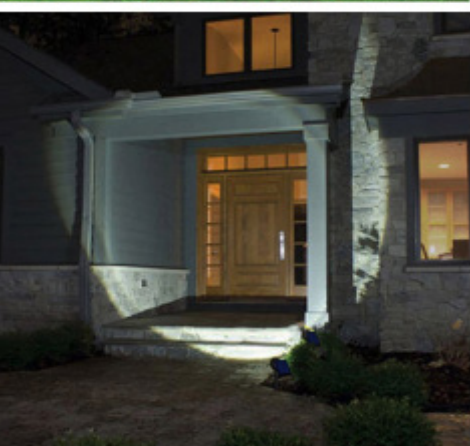
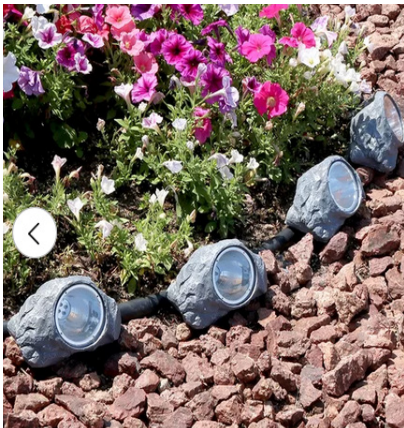
| Model    | Nominal voltage (V) | Nominal capacity (Ah) | Max discharge current (A) | Dimension (mm) | Dimension (in) | Approx. weight (g) | Approx. weight (lbs) | Cell     |
|----------|---------------------|-----------------------|---------------------------|----------------|----------------|--------------------|----------------------|----------|
| SPF3V0.4 | 3.2                 | 0.4                   | 0.4                       | Ø14*50         | Ø0.6*2.0       | 21                 | 0.05                 | IFR14500 |
| SPF3V0.6 | 3.2                 | 0.6                   | 0.6                       | Ø14*50         | Ø0.6*2.0       | 22                 | 0.05                 | IFR14500 |
| SPF3V1.0 | 3.2                 | 1.0                   | 1.0                       | Ø18*50         | Ø0.7*2.0       | 31                 | 0.06                 | IFR18500 |
| SPF3V1.5 | 3.2                 | 1.5                   | 1.5                       | Ø18*65         | Ø0.7*2.6       | 42                 | 0.09                 | IFR18650 |
| SPF3V3.3 | 3.2                 | 3.3                   | 3.3                       | Ø26*65         | Ø1.0*2.6       | 82                 | 0.18                 | IFR26650 |
| SPF3V3.6 | 3.2                 | 3.6                   | 3.6                       | Ø26*65         | Ø1.0*2.6       | 82                 | 0.18                 | IFR26650 |

FEATURES & BENEFITS

- Higher cycle life
- Better storage
- Quicker recharge
- Extreme heat tolerance
- Lightweight
- Easy to install
- Customizable

COMPLIED STANDARDS

- IEC62133,IEC62619 (Cell)
- UL1642 (Cell)
- CE (Cell)



We offer OEM, ODM & "whole life" after-sale service





The solar reading light is easy to use and environmentally friendly. It has a whole solar panel charger, just put a rechargeable battery in it and charge it in direct sunlight to provide 3 to 8 hours of power for the light.

Superpack offers a high price/performance ratio of LiFePO4 battery for solar reading light. Just a lightweight lithium battery, enough for your lighting to use for many years.



## General Specifications

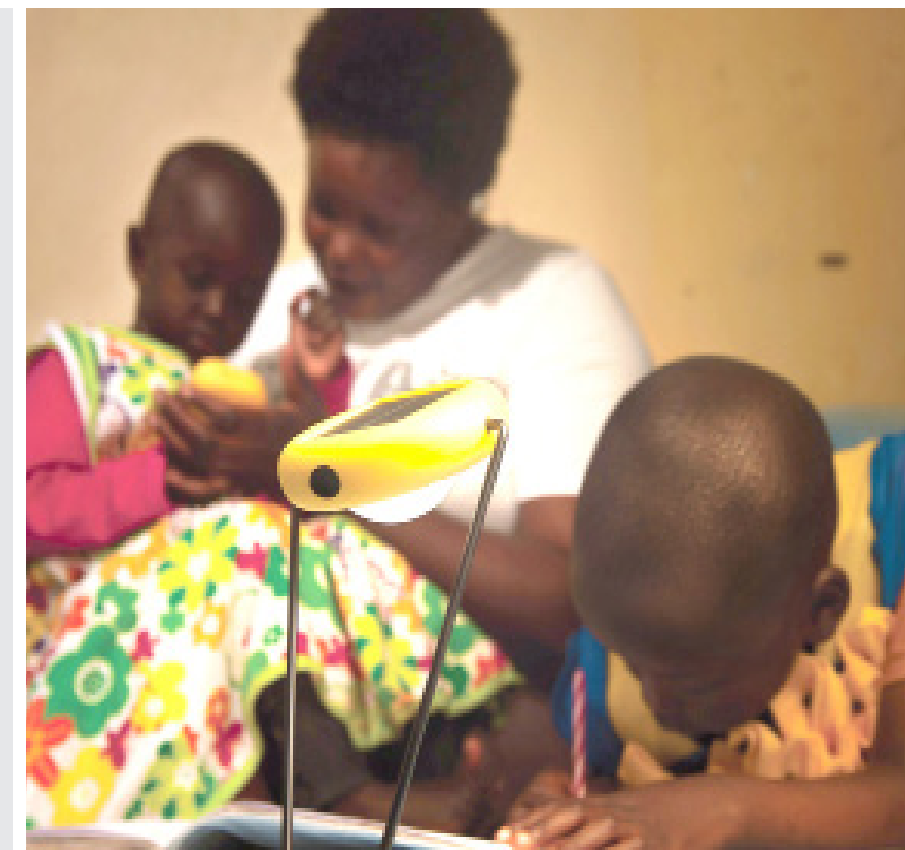
| Model    | Nominal voltage (V) | Nominal capacity (Ah) | Max. discharge current (A) | Dimension (mm) | Dimension (in) | Approx. weight (g) | Approx. weight (lbs) | Cell     |
|----------|---------------------|-----------------------|----------------------------|----------------|----------------|--------------------|----------------------|----------|
| SPF3V0.4 | 3.2                 | 0.4                   | 0.4                        | Ø15.5*52       | Ø0.6*2.0       | 21                 | 0.05                 | IFR14500 |
| SPF3V0.6 | 3.2                 | 0.6                   | 0.6                        | Ø15.5*52       | Ø0.6*2.0       | 22                 | 0.05                 | IFR14500 |
| SPF3V1.0 | 3.2                 | 1.0                   | 1.0                        | Ø19.5*52       | Ø0.8*2.0       | 31                 | 0.06                 | IFR18500 |
| SPF3V1.5 | 3.2                 | 1.5                   | 1.5                        | Ø19.5*67       | Ø0.8*2.6       | 42                 | 0.09                 | IFR18650 |
| SPF3V3.0 | 3.2                 | 3.0                   | 3.0                        | 37*19*67       | 1.5*0.7*2.6    | 86                 | 0.19                 | IFR18650 |
| SPF3V3.3 | 3.2                 | 3.3                   | 3.3                        | Ø28.5*67       | Ø1.1*2.6       | 82                 | 0.18                 | IFR26650 |
| SPF3V3.3 | 3.2                 | 3.3                   | 3.3                        | Ø28.5*67       | Ø1.1*2.6       | 82                 | 0.18                 | IFR26650 |
| SPF3V6.0 | 3.2                 | 6.0                   | 6.0                        | 75*19*67       | 3.0*0.7*2.6    | 170                | 0.37                 | IFR18650 |

## FEATURES & BENEFITS

- Higher lifespan cycle life
- Better storage
- Quicker recharge
- Extreme heat tolerance
- Lightweight
- Easy to install
- Customizable

## COMPLIED STANDARDS

- IEC62133, IEC62619 (Cell)
- UL1642 (Cell)
- CE (battery)
- UN38.3 (battery)



We offer OEM, ODM & "whole life" after-sale service



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UN38.3


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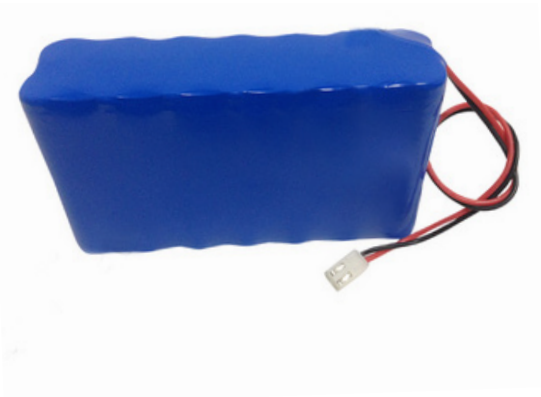
LiFePO4 battery for Solar Tracker

- 

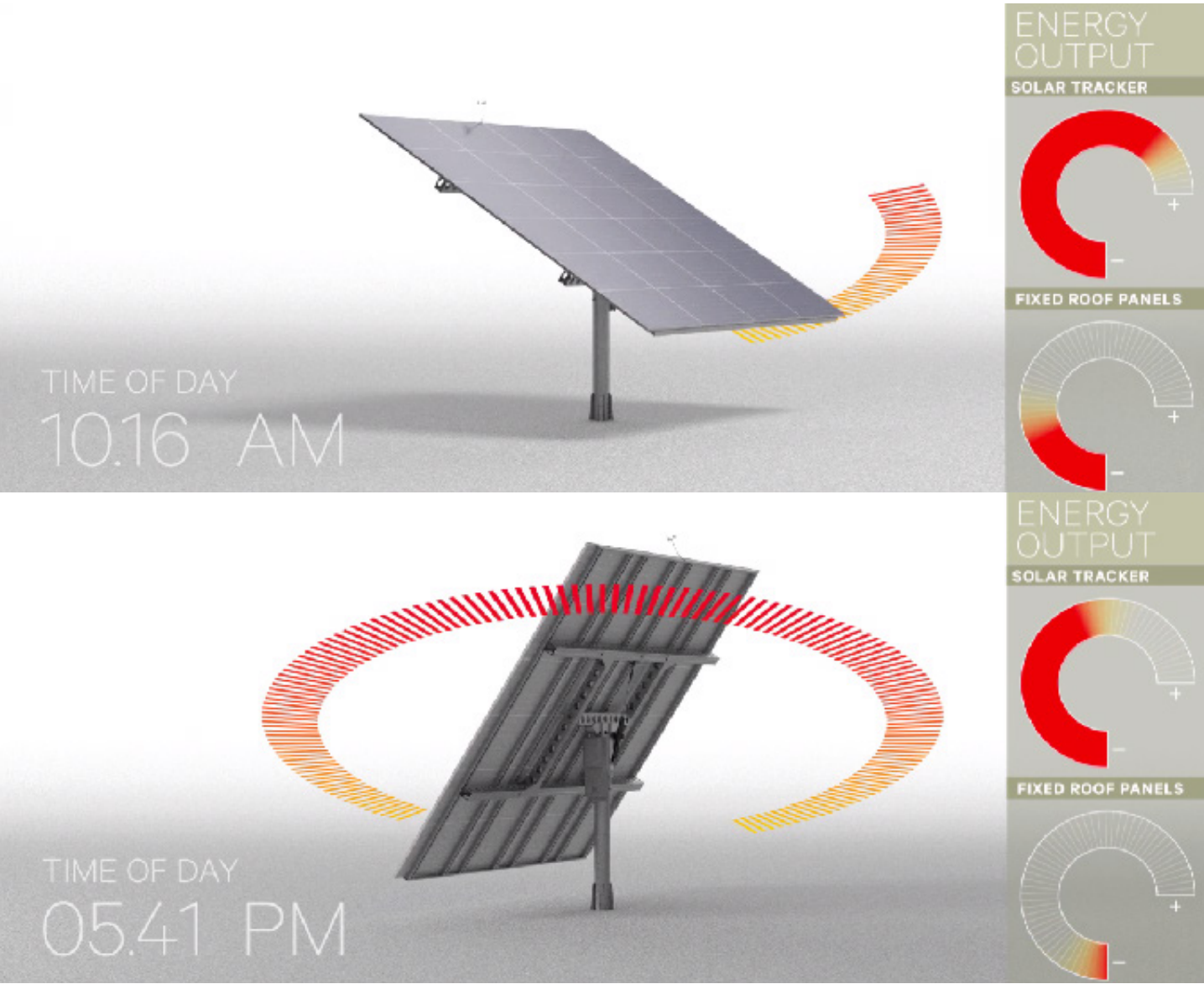
LIGHTWEIGHT  
50-60% less weight than lead acid equivalent.
- 

LONGER LIFE  
Up to 10X longer cycle life than lead-acid equivalent.
- 

RELIABLE PARTIAL STATE OF CHARGE  
Allows for worry-free storage.



Our LiFePO4 battery enables solar trackers to capture all of the energy potentials of the day, giving you more return on your solar investment. They're a simple yet powerful solution for a brighter energy future.



General Specifications

| Model     | Nominal voltage (V) | Nominal capacity (Ah) | Dimension (mm) | Dimension (in) | Approx. weight (kg) | Approx. weight (lbs) | Cell     |
|-----------|---------------------|-----------------------|----------------|----------------|---------------------|----------------------|----------|
| SPF24V3.4 | 25.6                | 3.4                   | 108*55*80      | 4.3*2.2*3.2    | 0.8                 | 1.8                  | IFR26650 |
| SPF24V6.8 | 25.6                | 6.8                   | 215*55*80      | 8.5*2.2*3.2    | 1.7                 | 3.7                  | IFR26650 |

FEATURES & BENEFITS

- Higher lifespan
- Better storage
- Quicker recharge
- Extreme heat tolerance
- Lightweight
- Easy to install
- Customizable

COMPLIED STANDARDS

- IEC62133, IEC62619 (Cell)
- UL1642 (Cell)
- CE (Battery)
- UN38.3 (Battery)



We offer OEM, ODM & "whole life" after-sale service



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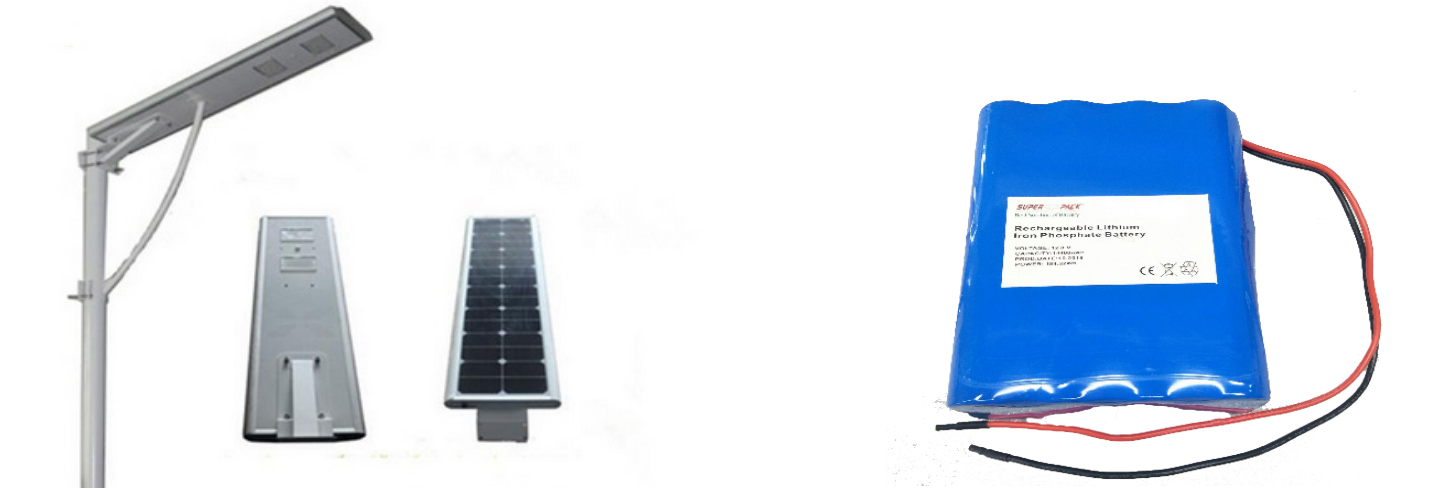
UN38.3

CE



Solar street light is such a great off-grid choice for public facilities. Solar street light is a stand-alone solar power system, all of its power supply is from batteries which must be able to undergo repeated and deep discharge.

Superpack LiFePO4 solar street batteries provide affordable, safe, accessible and reliable solar energy. Ordinary NMC batteries are not fit for solar street light because of safety, high-temperature performance, and lifespan.



General Specifications

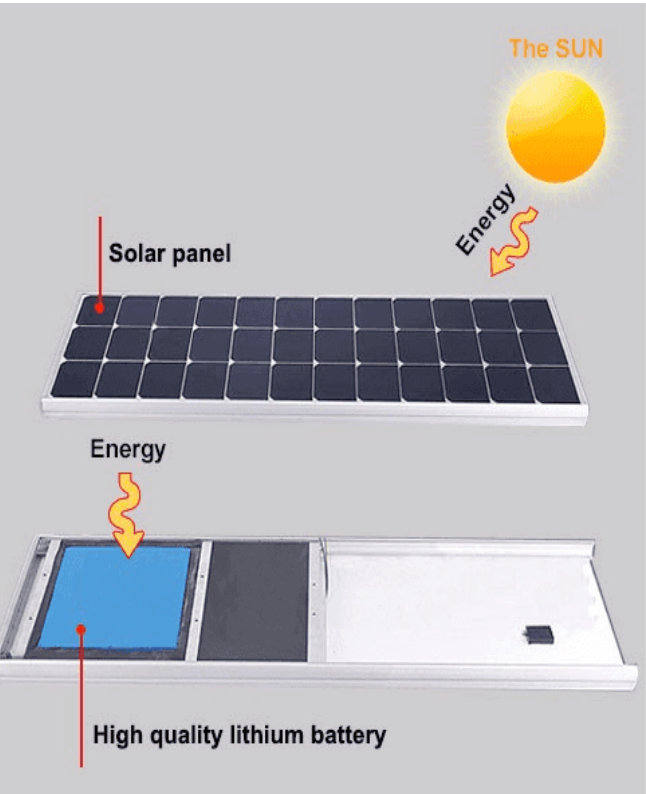
| Model    | Nominal voltage (V) | Nominal capacity (Ah) | Energy (Wh) | Dimension (mm) | Customized | Approx. weight (Kg) | Cell     | Built-in BMS |
|----------|---------------------|-----------------------|-------------|----------------|------------|---------------------|----------|--------------|
| SPF12V6  | 12.8                | 6                     | 76.8        | 110*150*30     | -          | 0.4                 | IFR26650 | Yes          |
| SPF12V9  | 12.8                | 9                     | 115.2       | 160*150*30     | -          | 0.6                 | IFR26650 | Yes          |
| SPF12V12 | 12.8                | 12                    | 153.6       | 210*150*30     | -          | 0.8                 | IFR26650 | Yes          |
| SPF12V15 | 12.8                | 15                    | 192.0       | 135*275*30     | Yes        | 1.2                 | IFR26650 | Yes          |
| SPF12V18 | 12.8                | 18                    | 230.4       | 160*275*30     | Yes        | 1.5                 | IFR26650 | Yes          |
| SPF12V21 | 12.8                | 21                    | 268.8       | 190*275*30     | Yes        | 2.2                 | IFR26650 | Yes          |
| SPF12V27 | 12.8                | 27                    | 345.6       | 210*275*30     | Yes        | 2.5                 | IFR26650 | Yes          |
| SPF12V30 | 12.8                | 30                    | 384.0       | 250*275*30     | Yes        | 3.0                 | IFR26650 | Yes          |
| SPF12V33 | 12.8                | 33                    | 422.4       | 270*275*30     | Yes        | 3.3                 | IFR26650 | Yes          |
| SPF12V40 | 12.8                | 40                    | 512.0       | 350*275*30     | Yes        | 4.4                 | IFR26650 | Yes          |
| SPF12V50 | 12.8                | 50                    | 640.0       | 460*275*30     | Yes        | 5.0                 | IFR26650 | Yes          |
| SPF12V60 | 12.8                | 60                    | 768.0       | 270*275*60     | Yes        | 6.4                 | IFR26650 | Yes          |
| SPF12V70 | 12.8                | 70                    | 896.0       | 295*275*60     | Yes        | 7.0                 | IFR26650 | Yes          |
| SPF12V80 | 12.8                | 80                    | 1024.0      | 350*275*60     | Yes        | 8.7                 | IFR26650 | Yes          |

FEATURES & BENEFITS

- Higher lifespan
- Better storage
- Quicker recharge
- Extreme heat tolerance
- Lightweight
- Easy to install
- Customizable

COMPLIED STANDARDS

- IEC62133,IEC62619 (Cell)
- UL1642 (Cell)
- CE (Battery)
- UN38.3 (Battery)



Lighter Weight

About 40% of the weight of a comparable lead acid battery  
A 'drop in' replacement for lead acid batteries.

High Rate Capability

Wide Working Temperature  
-20℃ ~ 60℃

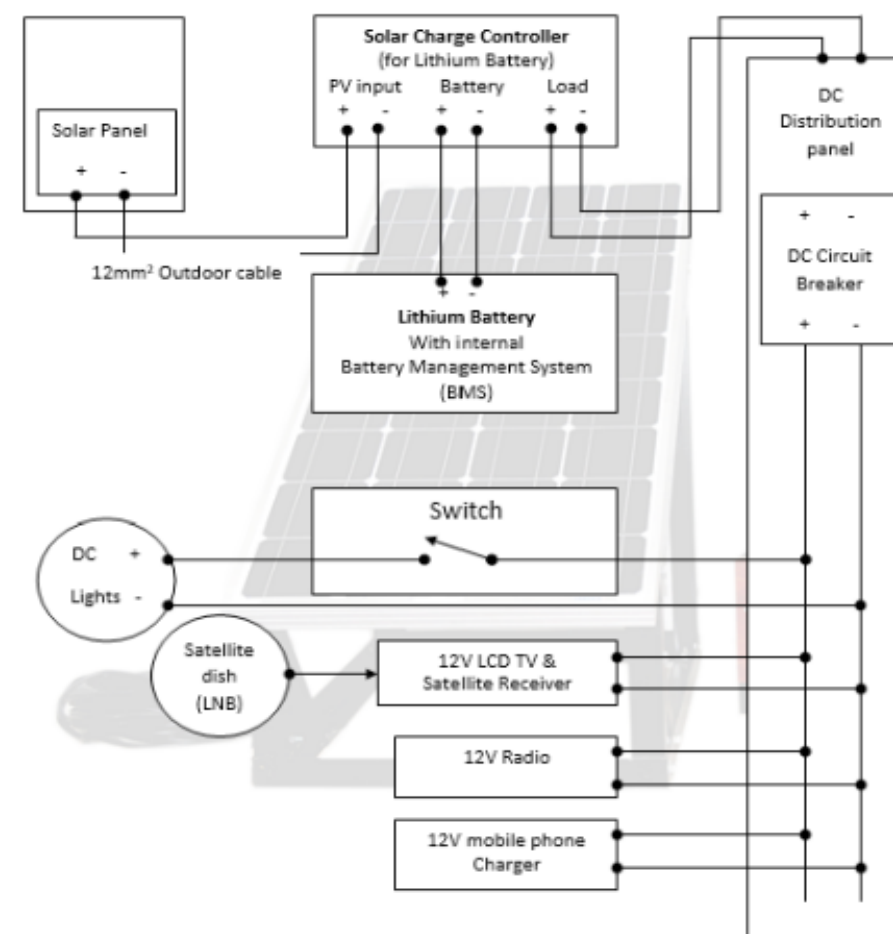
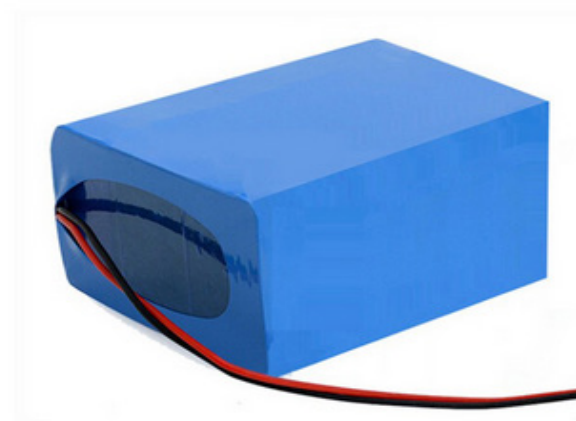
We offer OEM, ODM & "whole life" after-sale service





Solar home systems (SHS) are stand-alone photovoltaic systems that offer a cost-effective mode of supplying amenity power for lighting and appliances to remote off-grid households. In rural areas, that are not connected to the grid, SHS can be used to meet a household's energy demand fulfilling basic electric needs.

Superpack LiFePO4 battery is an ideal replacement for a traditional lead acid battery, highly suited for the solar home system. Just one battery to store energy can provide power for DC appliances such as lights, radios, e-cooker, and small TVs for about three to five hours a day.



## FEATURES & BENEFITS

- High cycle life
- Better storage
- Quickly recharge
- Longer service life
- Extreme heat tolerance
- Lightweight
- Easy to install
- Customizable

## COMPLIED STANDARDS

- IEC62133, IEC62619 (Cell)
- UL1642 (Cell)
- CE (Battery)
- UN38.3 (Battery)

We offer OEM, ODM & "whole life" after-sale service



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**UN38.3**

**CE**





Superpack developed a series of the portable power station from 100W to 500W for the consumer market. And we are developing a portable power station of 2000W for the industrial market.

We can offer flexible combo/kits which includes 12V LiFePO4 battery, portable power station and foldable solar panels for recreational vehicles. A suitable combo/kits can offer you stable power supply for up to 7 days at an off-road camping site.

## 01 LIFEPO4 BATTERY



12V100Ah Battery



12V150Ah Battery



12V200Ah Battery



12V300Ah Battery

## 02 PORTABLE POWER STATION SERIES



SPN-100-111A



SPN-150-138A

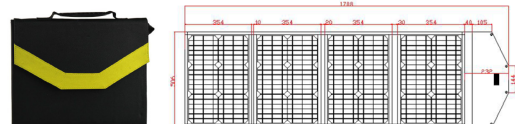


SPN-300-360A



SPN-1000-1075A

## 03 FOLDABLE SOLAR PANEL



USB: 5V/3A  
QC3.0: 5V/3A  
Type C: 5V/2A

Type C: 15V/2A

Type C: 15V/2A



Portable Devices



Portable Power Station



RV batteries

## General Specifications

| Model        | Input                        | Output |                             |     |              |       | Weight (Kg) | Dimension (mm) | Built-in Battery | Note   |
|--------------|------------------------------|--------|-----------------------------|-----|--------------|-------|-------------|----------------|------------------|--|
|              |                              | AC     | USB                         | LED | TYPE-C       | DC    |             |                |                  |  |
| SPN-100-111A | 15V3A                        | 100W   | USB1:QC3.0<br>USB2:5V2.4A   | N/A | 5~12V<br>18W | 12V8A | 1.6         | 210*144*48.5   | 111Wh<br>NMC     | 110V<br>~<br>220V<br>50Hz<br>~<br>60Hz<br><br>Pure Sine wave |
| SPN-150-138A | 15V3A                        | 150W   | USB1:QC3.0<br>USB2:5V2.4A   | N/A | 5~12V<br>18W | 12V8A | 1.2         | 220*80*80      | 138Wh<br>NMC     |  |
| SPN-350-466A | 12~24V<br>2~10A              | 350W   | USB1:QC3.0<br>USB2,3:5V2.4A | 3W  | 5~20V<br>18W | 12V5A | 5.5         | φ160*268       | 466Wh<br>NMC     |  |
| SPN-500-440A | 17~19V<br>3~4A<br>TYPE-C:60W | 500W   | USB1:QC3.0<br>USB2:5V/2.4A  | 2W  | 5~20V<br>60W | N/A   | 5.3         | 270*155*220    | 440Wh<br>NMC     |  |

\* Housing Material: Aluminum + ABS

### FEATURES & BENEFITS

- High cycle life
- Better storage
- Quickly recharge
- Longer service life
- Extreme heat tolerance
- Lightweight
- Easy to install
- Customizable

### COMPLIED STANDARDS

- IEC62133, IEC62619 (Cell)
- UL1642 (Cell)
- CE (Battery)
- UN38.3 (Battery)

We offer OEM, ODM & "whole life" after-sale service



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UN38.3





## Smart LiFePO4 Battery For Solar off-grid system



**COMPACT DESIGN**  
IP65 dust & and Robust housing



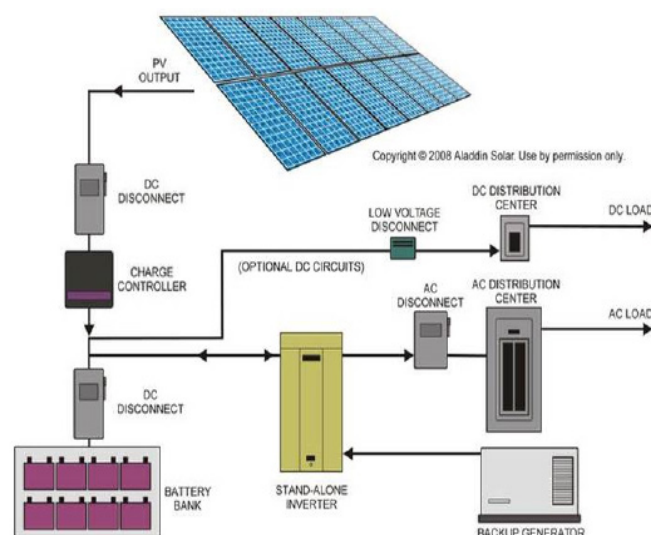
**LONGER LIFE**  
Up to 10X longer cycle life than lead-acid equivalent.



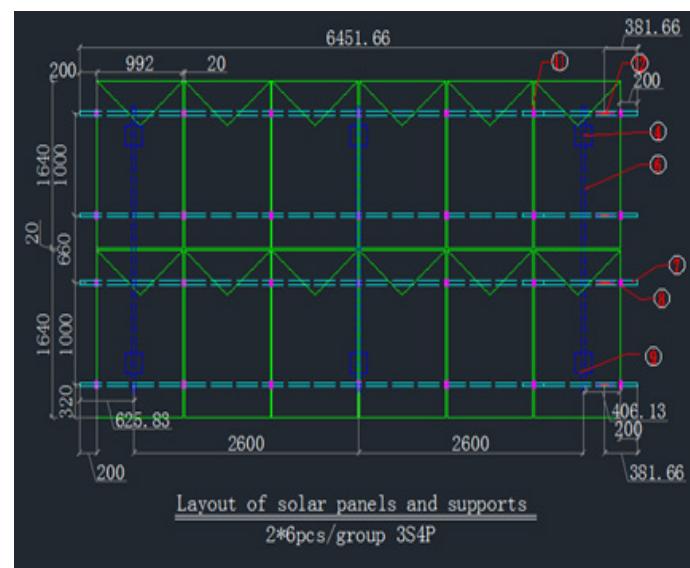
**SMART**  
Built-in smart BMS with CAN/RS485 communication



Superpack engineer team can design a reasonable Off-grid solar power system solution, also conduct on-site survey and simulation calculation of photovoltaic off-grid system engineering, conduct project feasibility analysis, then install and debugging, etc.



**Schematic**



**PV Design**



**Installation**



**Completion status**



48V150Ah LiFePO4 Battery



48V200Ah LiFePO4 Battery



48V300Ah LiFePO4 Battery

## General Specifications

| Model        | Nominal Voltage (V) | Nominal Capacity (Ah) | Max discharge current (A) | Dimension (mm) | Dimension (in) | Approx. weight (Kg) | Weight (lbs) |
|--------------|---------------------|-----------------------|---------------------------|----------------|----------------|---------------------|--------------|
| SPF48V150-ST | 51.2                | 150                   | 100                       | 600*308*320    | 23.6*12.1*12.6 | 81                  | 179          |
| SPF48V200-ST | 51.2                | 200                   | 200                       | 872*361*395    | 34.3*14.2*15.6 | 108                 | 238          |
| SPF48V300-ST | 51.2                | 300                   | 200                       | 740*506*408    | 29.1*19.9*16.1 | 158                 | 348          |

## FEATURES & BENEFITS

- Higher lifespan
- Better storage
- Quicker recharge
- Extreme heat tolerance
- Lightweight
- Easy to install
- Customizable

## COMPLIED STANDARDS

- IEC62133, IEC62619 (Cell)
- UL1642 (Cell)
- CE (Battery)
- UN38.3 (Battery)



We offer OEM, ODM & "whole life" after-sale service



**PING AN**



**CB**

**UN38.3**

**CE**





## 3KWh - 10KWh Home Energy Storage System Battery



**Easy monitoring via PC or smart phone**

### Lithium-ion batteries

Intrinsic safe LiFePO4 battery was used;  
10 years expectation service life is available;  
Based on super long cycle life LiFePO4 cells.

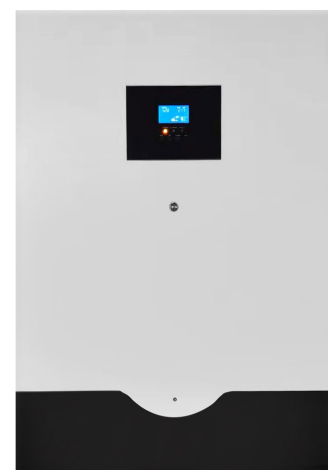
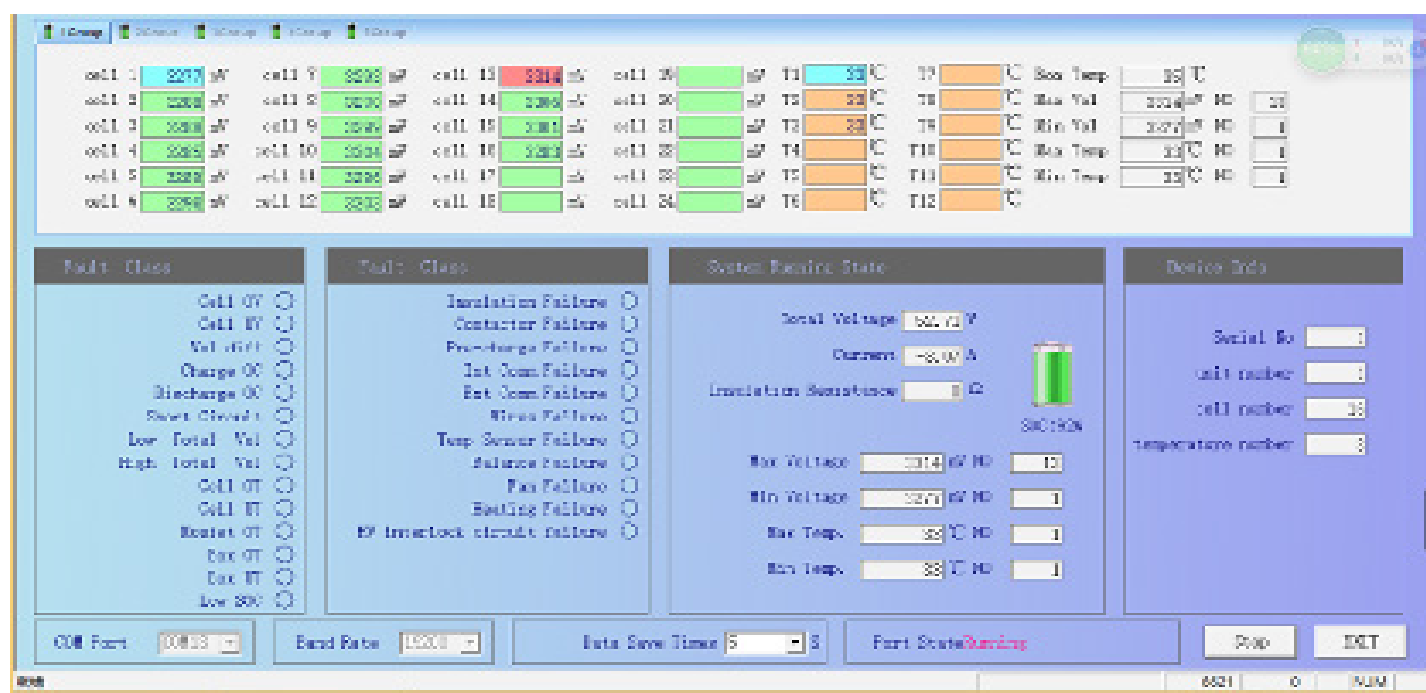
### Wireless management

Easy monitoring HESS remotely via PC or smart phone.

### Modularity

Modular design makes scalable capacity is available.

### Debugging interface



**SP-ESS-5K**



**SP-ESS-10K**

## General Specifications

| 48V LiFePO4 Battery Specification |   |                            |
|-----------------------------------|---|----------------------------|
| Function                          | SP-ESS-5K   | SP-ESS-10K                 |
| Nominal voltage                   | 51.2V   | 51.2V                      |
| Operation voltage range           | 44.8-58.4V  | 44.8-58.4V                 |
| Nominal capacity                  | 100Ah   | 200Ah                      |
| Watt-hours                        | 5KWh  | 10KWh                      |
| Dimension (L * W *H)              | 650*500*165mm   | 1200*800*170mm             |
| Approx. weight                    | 60Kg  | 150Kg                      |
| Max. continuous charge current    | 50A   | 100A                       |
| Max. continuous discharge current | 50A   | 100A                       |
| Scalability                       | 15KWh   | 30KWh                      |
|                                   | Max. 3 moudles in parallel  | Max. 3 moudles in parallel |
| Installation method               | Wall Mounted  | Floor Stand                |
| Cycle time (80% DOD,25℃ )         | 6000  |                            |
| Charge temperature range          | 0-45℃   |                            |
| Discharge temperature range       | -10-60℃   |                            |
| Communication protocol            | CAN / RS232 / RS485 / Wi-Fi (optional)                            |                            |
| Protection                        | Overcharge / overdischarge /overtemperature / overcurrent / short |                            |
| Precharge control                 | optional  |                            |
| Lifetime                          | 10 years  |                            |
| Storage time (-20℃ ~35℃ )         | 3 months  |                            |
| Environment temperature range     | 0-45℃   |                            |
| Storage temperature range         | -10-40℃   |                            |
| IP Level                          | IP21  |                            |

### FEATURES & BENEFITS

- International standard 48V system
- CAN/RS232/RS485/Wi-Fi(optional)
- Floor stand or wall mounted
- Intrinsic safety LiFePO4 cells inside
- Active balancing technology
- Robust BMS
- Easy to install
- Customizable

### COMPLIED STANDARDS

- IEC62133,IEC62619 (Cell)
- UL1642 (Cell)
- CE (Battery)
- UN38.3 (Battery)

**We offer OEM, ODM & "whole life" after-sale service**

