

**SOFT PACK SERIES**
**LiFePO<sub>4</sub> Lithium Battery Pack**

# 12V 12Ah

12.8 V · 12 Ah · 154 Wh

**5-YEAR WARRANTY**
**10A SMART BMS**
**12.8 V**

Nominal voltage

**12 Ah**

Capacity

**154 Wh**

Energy

**≥ 2000**

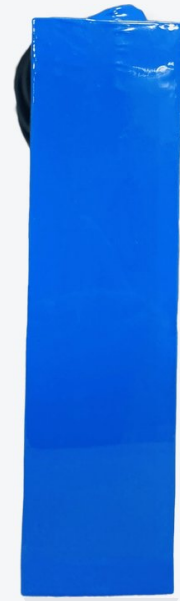
Cycles @ 80% DoD

**10 A**

Max continuous

**4S2P**

Configuration



Representative image - size and lead position vary by model

## Key Features

- ✓ **5-Year Warranty**  
5 years or 2000 cycles, whichever is earlier
- ✓ **A-Grade LiFePO<sub>4</sub> Cells**  
8 matched cylindrical 32700 cells, 4S2P
- ✓ **Integrated Smart BMS**  
Over-charge, over-discharge, over-current, short-circuit and temperature protection
- ✓ **Long Cycle Life**  
≥ 2000 cycles at 80% depth of discharge
- ✓ **Outdoor Ready**  
IP54 soft pack, operates -10 °C to +60 °C
- ✓ **Maintenance-Free**  
No acid, no topping-up; about one third the weight of lead-acid

## Applications



Solar Lighting



Solar CCTV



Automation



Remote Monitoring



Robotics

Also: telecom &amp; router backup, DC lighting and fans, small UPS, agricultural sprayers, portable power.

**DIMENSIONS (L x W x H, mm)**

|               |               |
|---------------|---------------|
| Single decker | 70 x 70 x 140 |
| Flat          | 260 x 70 x 37 |

Weight ≈ 1.2 kg · Wire leads 1.5 mm<sup>2</sup>
**CERTIFICATIONS**
**UN38.3**


## Recommended Charger & Solar Controller Settings

**LiFePO<sub>4</sub> / LFP**

Battery type

**14.4 – 14.6 V**

Bulk / absorption

**13.6 V or disabled**

Float

**11.0 V**

Low-voltage disconnect

**12.6 V**

Reconnect

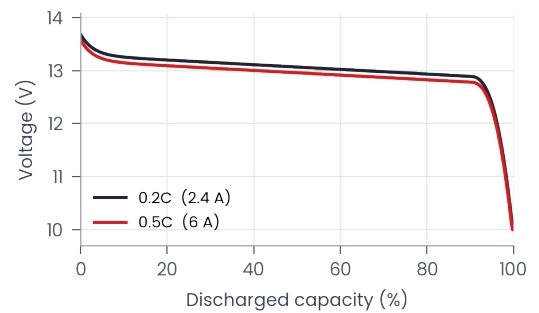
**Off**

Temp. compensation

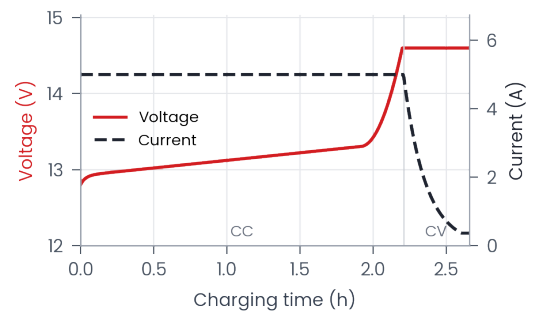
## Technical Specifications

| GENERAL                           |                                                                            |
|-----------------------------------|----------------------------------------------------------------------------|
| Product name                      | LiFePO <sub>4</sub> Battery Pack 12.8 V 12 Ah (154 Wh)                     |
| Model no.                         | LFP-1212                                                                   |
| Battery chemistry                 | Lithium Iron Phosphate (LiFePO <sub>4</sub> )                              |
| Cell type                         | Cylindrical LiFePO <sub>4</sub> 32700 (6 Ah)                               |
| Cell configuration                | 4S2P (8 cells)                                                             |
| ELECTRICAL CHARACTERISTICS        |                                                                            |
| Nominal voltage                   | 12.8 V                                                                     |
| Nominal capacity                  | 12 Ah                                                                      |
| Nominal energy                    | 154 Wh                                                                     |
| Operating voltage range           | 10.0 – 14.6 V                                                              |
| Depth of discharge (DoD)          | 80% recommended                                                            |
| Round-trip efficiency             | ≥ 96%                                                                      |
| Self-discharge                    | ≤ 3% per month                                                             |
| CHARGE                            |                                                                            |
| Charging method                   | CC-CV                                                                      |
| Full-charge voltage               | 14.6 V                                                                     |
| Standard charge current           | 5 A (0.42C)                                                                |
| Max. charge current               | 10 A (0.83C)                                                               |
| Charge temperature                | 0 °C to +45 °C                                                             |
| DISCHARGE                         |                                                                            |
| Standard discharge current        | 5 A (0.42C)                                                                |
| Max. continuous discharge         | 10 A (0.83C)                                                               |
| Discharge cut-off voltage         | 10.0 V                                                                     |
| Discharge temperature             | -10 °C to +60 °C                                                           |
| CYCLE LIFE                        |                                                                            |
| Cycle life                        | ≥ 2000 cycles @ 80% DoD                                                    |
| Test rate (charge / discharge)    | 0.42C / 0.42C                                                              |
| Expected calendar life            | ≥ 5 years                                                                  |
| BMS / PCM                         |                                                                            |
| BMS type                          | Integrated PCM, 10 A continuous                                            |
| Protections                       | Over-charge, over-discharge, over-current, short-circuit, over-temperature |
| Cell balancing                    | Passive                                                                    |
| Communication                     | Not applicable                                                             |
| MECHANICAL                        |                                                                            |
| Dimensions (L x W x H)            | 70 x 70 x 140 / 260 x 70 x 37 mm                                           |
| Weight                            | ≈ 1.2 kg                                                                   |
| Enclosure                         | Soft pack, PVC heat-shrink                                                 |
| Terminals                         | Wire leads, 1.5 mm <sup>2</sup> , 400 mm                                   |
| Ingress protection                | IP54                                                                       |
| ENVIRONMENT, STANDARDS & WARRANTY |                                                                            |
| Operating temperature             | -10 °C to +60 °C                                                           |
| Storage temperature               | -5 °C to +40 °C, at 40–60% charge                                          |
| Cooling                           | Natural                                                                    |
| Transport                         | UN38.3                                                                     |
| Safety standards                  | IEC 62133 / IEC 62619                                                      |
| Warranty                          | 5 years or 2000 cycles, whichever is earlier                               |

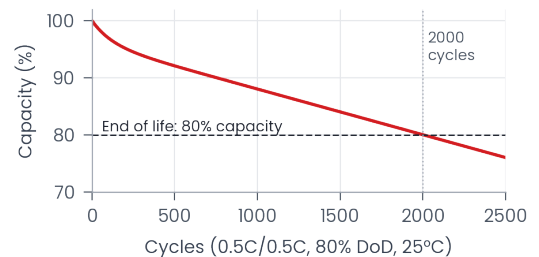
## Typical Discharge Curves



## Charging Profile (CC-CV)



## Cycle Life



Charts show typical LiFePO<sub>4</sub> behaviour at 25 °C for this 4S2P configuration and are for reference only. Charge with a LiFePO<sub>4</sub> charger or solar controller set to 14.6 V; charging above this voltage shortens battery life.

### Need help choosing a pack?

Bulk, dealer and custom-size enquiries welcome.



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