

Lithium ion Battery Pack Spec

P/N : EKP-12.8V12

Nominal Voltage: 12.8V

Capacity: 12Ah

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1. Application

For replacement the 12V lead-acid battery in power backup system.

2. Basic Information

Description :	Rechargeable LiFePO4 battery pack
Cell Type :	LTF IFR32700 6000mAh
Chemistry :	LiFePO4
PCM :	Yes
Cell configuration :	2P4S
Voltage Nominal :	12.8V
Capacity Nominal :	12Ah
Rated Capacity :	11.7Ah(0.2C discharge to cut-off voltage25°C 0.2C 25°C) Energy : 153.6Wh
Additional Function :	
Protection :	A. Over Charge Protection B. Over Discharge Protection C. Over Current Protection D. Short Protection

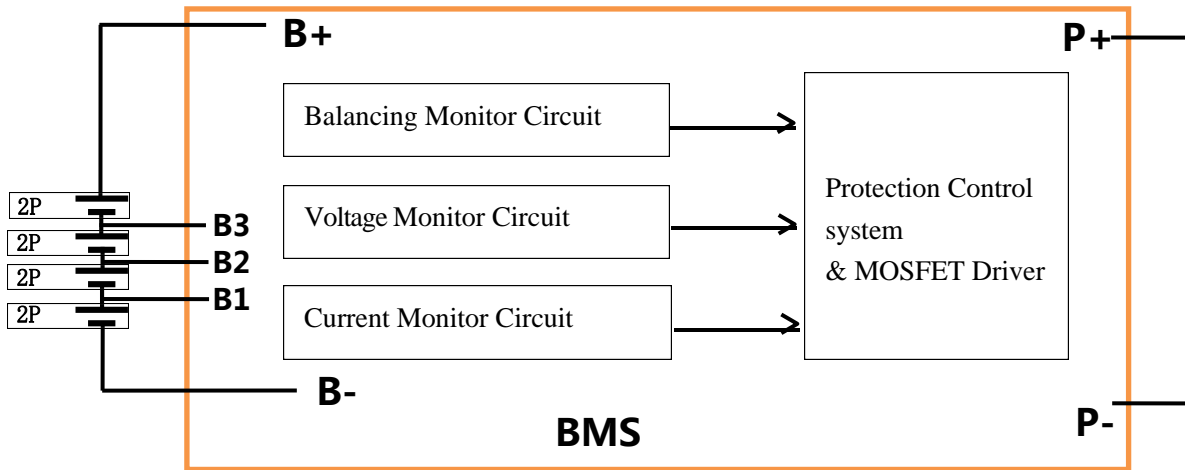
3. Electrical Characters

Items	Parameter
Charging Method	CC-CV
Charging Voltage	14.4±0.2V
Over Charging Protect	3.65±0.025V
Standard Charging Current	2.4A (0.2C)
Max. Charging Current	12A
Cut-off Charging Current	0.24A (0.02C)
Standard Discharging Current	2.4A (0.2C)
Max. Discharging Current	12A
Discharging cut-off Voltage	10V
Over Discharge Current	36±5A
Over Discharging Protect	2.5±0.08V
Internal Resistance	<180mOhm
balancing voltage	3.60±0.05V
balancing current	36±5mA
Standard Charge Temperature	0~45°C

4. Certification

T.B.D.

5. System Block Diagram



6. Mechanical Information

6.1. Sample Picture



L () /mm	Max:151mm	W () /mm	Max :99mm	H () /mm	Max :100mm
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6.2. Drawing of Label

Color stick, pearlescent paper covering subfilm,146*175mm.

12V 12Ah

Max. Charge Current: 12A

Continues Discharge Current: 12A

Charge Temperature: 0~45°C

Discharge Temperature: -20~60°C

WARNING:

1. Do not connect the battery pack in series or in parallel
2. Do not use or store the battery pack at 60°C
3. Do not put battery into water or fire
4. No impact or short circuit of battery pack
5. The battery shall be fully charged before storage for a long time, and it shall be charged every 6 months
6. Do not disassemble the battery pack



Made in China

Warning label, pearl paper covered with sub-membrane, 60*40mm.

警告/WARNING

1. 电池组严禁串并使用

1. Do not connect the battery pack in series or in parallel

2. 电池组严禁在高温60°C下工作或存储

2. Do not use or store the battery pack at 60 °C

3. 电池组严禁投入水中、火中

3. Do not put battery into water or fire

4. 电池组严禁撞击、短路

4. No impact or short circuit of battery pack

5. 电池组长时间储存需先将电池充满电，每隔6个月充一次电

5. The battery shall be fully charged before storage for a long time, and it shall be charged every 6 months

6. 电池组严禁拆解

6. Do not disassemble the battery pack

PET dumb silver label requirements; label length 70mm, width 50mm, date changes with shipping time, format example is as follows:

6.3. Drawing Packing

T.B.D.

7. Caution and prohibition

Before using and handling the pack, see carefully attached “Handling Instruction for Rechargeable Lithium ion battery Pack”.

For safety reasons rechargeable batteries are not shipped in a low remaining capacity state. Charge before using.

Do not connect multiple battery packs as parallel or serials for using. This might damage the battery pack, even your equipment's.

8. Warranty

Manufacturer will be responsible for replacing the battery pack against defects or poor workmanship for 12 months from the date of shipping. Any other problem caused by malfunction of the equipment or misuse of the battery is battery is not covered under this warranty.

9. Handling Instruction Guide for Li-ion Battery Pack

9.1. General

Battery packs supplied have to be handle carefully according to the specification. Here are some more to be followed.

9.2. Storage of pack

The packs are requested to be stored under the following conditions: :

- a. Indoor storage in a cool circumstances without direct sun light on the packs or cartons.
- b. Store batteries in a dry location with low humidity, and a temperature range of - 20°C to +30°C. In case of the long term storage.
- c. As long-term storage can accelerate battery self-discharge and lead to the deactivation of the batteries. To minimize the deactivation effect, store battery packs in a temperature range of +10°C to +30°C.
- d. When charging for the first time after long-term storage, deactivation of the packs may have led to decreased capacity. Recover such packs to original performance through repeating several cycles of full charging and discharging.
- e. When store packs for more than 6 month, charge at least once charring require per 6 months to prevent leakage and deterioration in performance due to self-discharging.

9.3. Charging pack

- a. Use suitable charger with the specified voltage and current. We strongly recommend smart battery charger. We can recommend the usage or specification of the charger manufacturing. If you want to get the information about it, please contact us.
- b. Never attempt reverse charging. Charging with polarity reversed can cause a reversal in battery polarity, causing gas pressure inside of the battery to rise, which can lead to leakage of the batteries in the pack.
- c. Avoid overcharging. Repeated overcharging can lead to deterioration in pack performance. And Over-heat occurred.
- d. Charging efficiency drops at temperatures above 40°C.

9.4. Protection from unexpected damaged to pack

- a. (+) and/or (-) terminals must not be connected in metal wire, necklace, chains.
- b. Do not drop packs from height in order to prevent them from possible malfunction or damage.
- c. Do not twist or bend packs in order to prevent possible damage.

9.5. For Safety

- a. Do not disassemble packs.
- b. Do not use pack when something abnormal found such as smells, deformation, discoloration, and so on.
- d. Do not re-use LiFePO4 cells or other parts after removing from the packs.
- e. When the electrolyte leakage occurs, do not touch the liquid.
- f. Once watered, packs may have potential malfunctions. Do not use those packs.
- g. Do not have packs in the hot-temperature (60°C or more).
- h. Do not put packs into fire.
- i. Do not crush/nail pack.
- j. Do not apply solder directly to packs.