# SOLION S12210 LiFePO4 BATTERY SPECIFICATIONS

## 1. Preface

This specification describes the type and size, performance, technical characteristics, warning and caution of the SOLION S12210 LiFePO4 rechargeable battery pack.

## 2. Technical Data

| ITEMS | STANDARD | COMMENTS |
|---|---|---|
| **Nominal Voltage** (V) | 12,8 | LiFePO4 Prismatic Cells inside |
| **Typical Capacity** (Ah) | 210,0 | |
| **Max Cont. / Peak Disch. Current** (A) | 50 / 150 | 10 Sec |
| **Max Instantaneous Disch. Curent** (A) | 200,0 | 1-2 sec |
| **Disch. Cut-off Voltage** (V) | 10,0 | |
| **Charge Voltage** (V) | 13,6 ± 0.1 | Charge Mode: CC/CV , Use a constant current , constant voltage ( CC/CV). Please use special LFP Charger |
| **Charge Current** (A) | ≤50 | |
| **Inner Resistance** (mohm) | ≤15 | |
| **Operation Temp. Range** (C) | Charge | 0 C ~ +55 C |
| | Discharge | -20 C ~ +55 C (When the environment temperature is higher than 45℃, please pay attention to ventilation and heat rejection) |
| **Storage Temp. Range** (C) | 0 C ~ +55 C | Recommended long-term storage temperature is 15~25℃ |
| **Cooling / Heating** | NO | |
| **Shell Material / Connector** | Steel / SBH120 | |
| **Weight** (kg) | 24 ± 1 | |
| **Size** (LxWxH) (mm) | 436x264x175 | |
| **Protection Function** | Over charge protection , Over discharge Protection, Over current protection, Temperature protection , Balance | |

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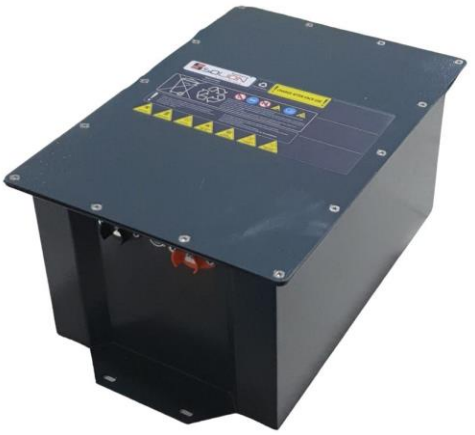
## 3. Standard Test Conditions



Battery test must within 1 month after production.
All test in this specification should be in standard atmospheric conditions:
Temperature: 25± 2℃, relative humidity: 65±10%.

## 4. Characteristics

## 4.1. Standart Charge:

Charge the battery with Lithium battery special test cabinet, supply 13.6 V, constant current 0.2C (A) current until current down to 0.02C (A)

## 4.2. Standart Discharge

Discharge the battery at 0.2C (A) to 10.0 V or battery cut off voltage.

## 4.3. Electrical Performance

| Test Items | Test Methods | Test Standards |
|---|---|---|
| **Capacity Retention Rate** | After standart charge under 4.1 specified conditions, store the cells for 28 days, then | Capacity retention rate≥80% |
| **Cycle Life** | 1) Standard charge at 0.2C（A）<br>2) Rest 0.5~1 h<br>3) Discharge at 0.2C to cut off voltage<br>4) Rest 0.5~1h repeat the above steps until 3000 cycles. | Capacity retention rate≥80% |

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## 5. Cautions

A) Charging current should be less than maximum charge current specified in the Product Specification, if the Charging current is bigger than recommended current it may damage the battery;

B) Discharging current should be less than maximum discharge current specified in the product specification; if the Discharging current is bigger than
recommended current it may damage the battery;

C) It should be noted that; the cell would be possible to be at a over-discharged state by its self-discharge characteristics in case the cell is not used for long time. In order to prevent over-discharging, the cell shall be charged periodically to maintain between 10V and 13.6V ( 2 month one cycle ), over-discharging may causes loss of cell performance, characteristics, or battery functions;

D) Please charge the battery within 24 hours after use;

E) Battery storage environment follow the above conditions and in standard atmosphere, should be without strong magnet, no power, no static;

F) Do not reverse the polarity of the pack for any reason;

G) Do not short circuit the battery pack;

H) Do not reverse polarity charging;

I) Do not immerse the battery pack in water or sea water, or get it wet;

J) Do not disassembly battery;

K) Do not expose the battery to extreme heat or flame;

L) Please use special charger for charging;

M) Do not assemble the battery pack in series or in parallel;

## 6. Product Liability

ANKO Enerji A.S  is not responsible for the  incident caused by Not obeying  the specifications. Before using the battery, you should read specifications, usage instruction and some attentions carefully to learn its application method and areas. If the phenomenon such as error using method or wrong circuit connection, or input power data, working index are inconsistent with the specifications, cause damage to product, load and its accessories, we are not responsible for it.

Our company have the right to change the content of specifications without prior notice; The Final explanation of specification belongs to our company.

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