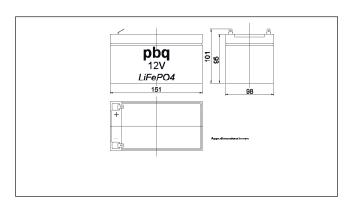


## **Lithium Ferro Phosphate Batteries**

## pbq 12-12 / 15-12 LiFe General Purpose Battery



Pbq

Pbq

Pbq

Pbq

IFe PDA Battery

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Voltage : 12.8 Volt

Appr. dimensions : 151x98x95/101 mm (LxWxH)

Terminal : Faston 250

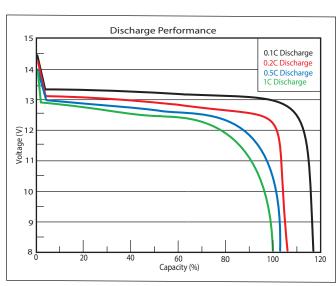
Container & lid : Flame Retardant ABS

Operating temperature

Charge :  $-30^{\circ}$ C ~  $60^{\circ}$ C Discharge :  $-30^{\circ}$ C ~  $60^{\circ}$ C Storage :  $-30^{\circ}$ C ~  $50^{\circ}$ C

| Specifications |                    | pbq 12-12<br>LiFe | pbq 15-12<br>LiFe |
|----------------|--------------------|-------------------|-------------------|
| Nominal        | Capacity           | 12 Ah             | 15 Ah             |
| Weight         | (appr.)            | 1.6 Kg            | 1.9 Kg            |
| Internal       | Resistance         | <45mΩ             | <38mΩ             |
| Specific       | Energy             | 96 Wh/Kg          | 101 Wh/Kg         |
| Standard       | Max. Cont. Current | 20A               | 20A               |
| Discharge      | Max. 30 sec. pulse | 30A               | 30A               |
| at 25°C        | Cut off Voltage    | 8.0V              | 8.0V              |
|                | Charge Voltage     | 14.8V             | 14.8V             |
| Standard       | Float              | 13.8V             | 13.8V             |
| Charge         | Style              | CC/CV             | CC/CV             |
|                | Recommended        | 6A                | 7.5A              |
|                | Charge Time        | 2.5h              | 2.5h              |

Note: Do not use more than three batteries in series



The rechargeable pbq LiFe battery employs lithium iron phosphate as its cathode and carbon as its anode. The electrolyte salt dissolves in organic compound solvent and the electrolyte system is absorbed by the separators and the plates. All batteries of this type have a special oneway valve to allow the disaggregate-tire solvent gases to escape.

Each individual cell is spiral wound and formed to a prismatic cell. The nominal cell voltage is 3.2V. Four cells are placed in series in order to create 12.8V.

To protect the battery from over charging and over discharging the battery is equiped with a internal battery management system (BMS). The BMS also takes care of the balance between the internal cell.

To avoid overheating of the battery, a special insertion, called PTC, is added to the electrolyte. This additive neutralizes the electrolyte and disables the battery permanently if the internal temperature exceeds 80°C.

## **General features**

- More than 2000 deep cycles, pbq LiFe offers the lowest life-cycle costs, using a grafite anode.
- The battery may be installed in any direction, upside down is not recommended
- Excellent high-rate discharge an recharge capabilities
- Third the weight of an equivalent lead acid battery
- Long service life in floating application
- Maintainance free operation
- Excellent safety
- Environmental friendly due to the absence of heavy metals

