

## Basic Specifications

|                        |  |
|------------------------|--|
| Voltage:               | 12.8 V   |
| Capacity:              | 1 hour rate: 20Ah  |
| Cycles:                | 4000 (80% DoD)   |
| Appr. dimensions:      | 181*76*166mm (LxWxH) (±2mm)  |
| Terminal:              | M5 insert  |
| Container & lid:       | ABS  |
| IP Rating:             | IP55   |
| Charge voltage         | 14.6V  |
| Charge style           | CC/CV  |
| Approximate weight:    | 3.0kg  |
| Max charge current:    | 20A  |
| Max discharge current: | 20A (continuous)<br>80A (pulse 3 sec.)                               |
| Operating temp. range: | Discharge -20 to 60°C<br>Charge 0 to 45°C<br>0.1C Charge -20 to 60°C |

## Typical Applications

- Wheelchairs and scooters
- Golf trolleys & buggies
- Lifts, elevators & hoists
- Electric bikes / steps
- Solar and wind energy
- Tools

## Lithium LiFePO4 series

The pbq Lithium Ferro Phosphate battery is a product with great performance. It is even more. It is a total concept, serving all the parties downstream; from the very first production step, to the user, to transportation and even to the recycler. The pbq LiFePO4 concept embraces a long service life, optimal energy density in both volume as well as in weight and a high grade of safety. The battery contains everything you need in a closed blue casing. Just connect it to your application without worrying about the safety features.

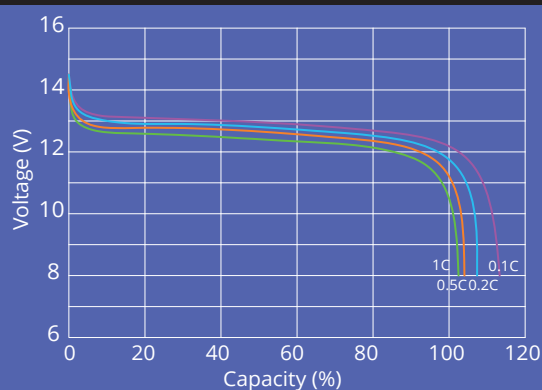
### LiFePO4 battery applications

LiFePO4 batteries are ideal for deep cycle applications such as; electric scooters and vehicles, steps, golf carts, energy storage and tools. High power pbq LiFePO4 batteries has light weight and optimized size. Light weight means energy would be saved due to total weight reduced, and weight reduced also means long driving distance. Optimized size batteries are suitable to replace lead acid batteries. LiFePO4 batteries enlarges your range of your applications!

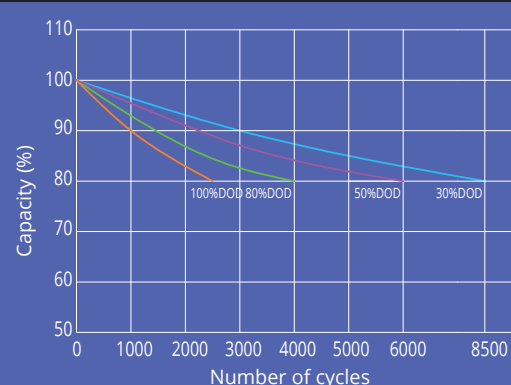
### Service life of pbq LiFePO4 batteries

The pbq LiFePO4 battery has a service life of more than 2000 cycles at 100% depth of discharge and a remaining capacity of 80%! This long lasting cyclic use offers an uninterrupted use of the application. It also reduces service costs, downtime of the equipment and replacements of the battery. Just calculate what this will save over time and see that it is worth to invest in.

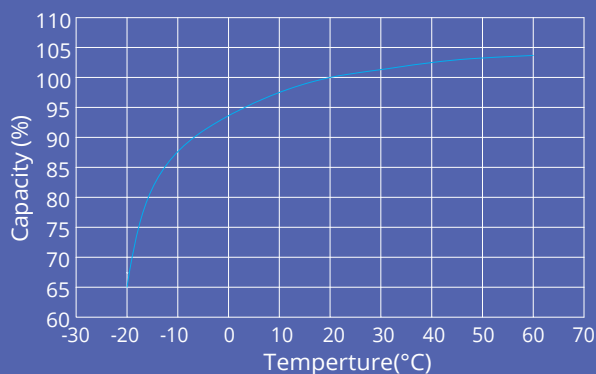
Discharge Time VS. Discharge Current (25°C)



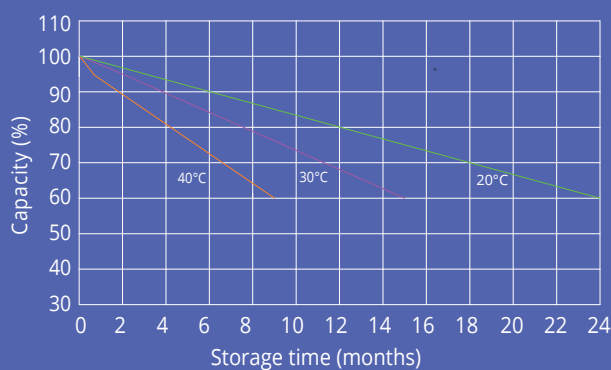
Cycle Service Life



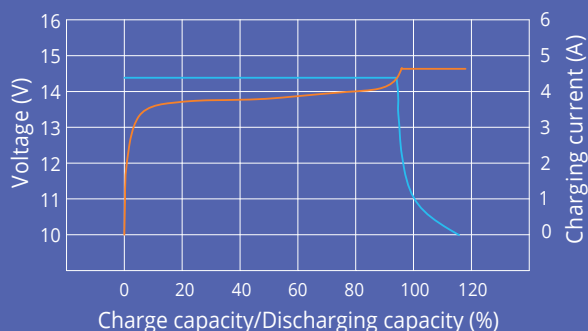
Temperature effects on capacity



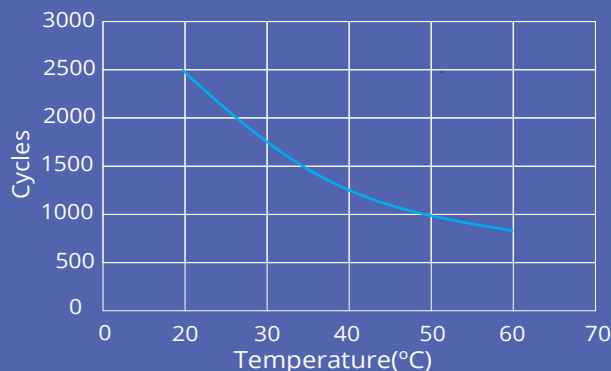
Self-discharge characteristic



Battery charging characteristics



Cycle life in relation to temperature



Models available

| Model<br>pbq   | Capacity<br>in Ah | Dimensions (±2mm)<br>(LxWxH) | Weight  |
|----------------|-------------------|------------------------------|---------|
| pbq LF 5-12    | 5                 | 90x70x101mm                  | 0.8 kg  |
| pbq LF 7.5-12  | 7.5               | 151x65x94mm                  | 1.3 kg  |
| pbq LF 10-12   | 10                | 151x65x94mm                  | 1.5 kg  |
| pbq LF 15-12   | 15                | 151x98x95mm                  | 1.9 kg  |
| pbq LF 20-12   | 20                | 181x76x166mm                 | 3.0 kg  |
| pbq LF 30-12   | 30                | 166x175x125mm                | 4.6 kg  |
| pbq LF 40-12 H | 40                | 198x167x170mm                | 6.5 kg  |
| pbq LF 50-12   | 50                | 229x138x213mm                | 8.0 kg  |
| pbq LF 60-12   | 60                | 229x138x213mm                | 9.4 kg  |
| pbq LF 80-12   | 80                | 258x166x215mm                | 12.8 kg |
| pbq LF 100-12  | 100               | 330x172x220mm                | 14.5 kg |
| pbq LF 200-12  | 200               | 520x269x208mm                | 31.9 kg |



Certificates



Features

- Internal cell balancing
- Low self discharge
- Can be used or stored in any position
- Lightweight
- Interim charging possible