



# PowerBrick+

## 12v Lithium-Ion battery pack



### 12V battery pack - Lithium Iron-Phosphate (LiFePO<sub>4</sub>) - 150Ah

- **High lifespan: 3000 cycles** and more (see chart)
- **Deep discharge** allowed up to 100 %
- Ultra safe **Lithium Iron Phosphate** chemistry (no thermal run-away, no fire or explosion risks)
- **Embedded BMS** (Battery Management System) : **improve lifespan AND secure the battery**
- No **Lead**, no **rare earths**, no **acid**, no **degassing**
- Calendar life > **10 years**
- Excellent **temperature** robustness (-20 °C up to +60 °C)
- **Flexible** deployment : up to 16 packs in parallel and 4 in series
- **Constant power** during discharge (very low internal resistance)
- **Very low Peukert's losses** (energy efficiency >98 %)
- **Very low self discharge** (<3 % per month)
- **No memory effect**
- About **50 % lighter** and **40% smaller** than equivalent Lead-AGM battery with same usable energy
- **Certification** : CE, RoHS, UN 38.3

### Technical Specifications

|                    |                                                    |                                                         |
|--------------------|----------------------------------------------------|---------------------------------------------------------|
| Electric           | Nominal voltage                                    | 12.8 V                                                  |
|                    | Nominal capacity                                   | 150 Ah                                                  |
|                    | Stored energy                                      | 1920 Wh                                                 |
|                    | Internal resistance                                | ≤ 50mΩ                                                  |
|                    | Cycles                                             | >3000 cycles (see chart)                                |
|                    | Self discharge                                     | < 3% per month                                          |
|                    | Energy efficiency                                  | > 98%                                                   |
|                    |                                                    |                                                         |
| Standard Charge    | Charge voltage                                     | 14.4 V ± 0.2 V (Optional floating voltage : 13.36V max) |
|                    | Charge mode                                        | CC/CV : Constant Current / Constant Voltage             |
|                    | Continuous charge current / Maximum charge current | 75 A / 150 A                                            |
|                    | BMS charge cut-off voltage                         | 14.8 V ± 0.1V                                           |
| Standard Discharge | Instant peak discharge current                     | 650 A ±50 A (max 150ms)                                 |
|                    | Continuous discharge current                       | 150 A (1.92 kW)                                         |
|                    | Maximum discharge current (< 30s)                  | 250 A (3.2 kW))                                         |
|                    | BMS discharge cut-off voltage                      | 10 V                                                    |
| Environment        | Charge temperature range                           | 0°C to +60°C                                            |
|                    | Discharge temperature range                        | -20°C to +60°C                                          |
|                    | Storage temperature                                | 0°C o +50°C @60±25% relative humidity                   |
|                    | IP protection level                                | IP 65                                                   |
| Mechanical         | Type of cells                                      | Cylindrical                                             |
|                    | Casing material                                    | ABS                                                     |
|                    | Dimensions                                         | L : 307mm x P : 167mm x H : 212 mm                      |
|                    | Weight                                             | 15.8 kg                                                 |
|                    | Terminal                                           | M8 bolt                                                 |



### APPLICATIONS

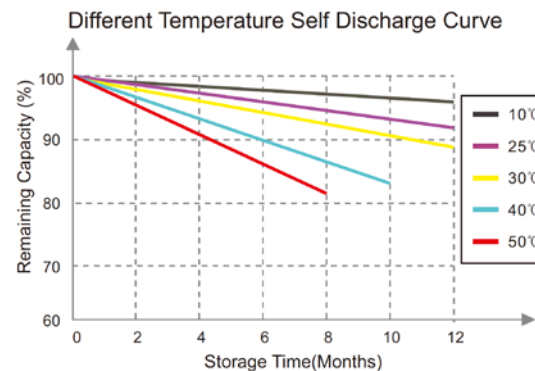
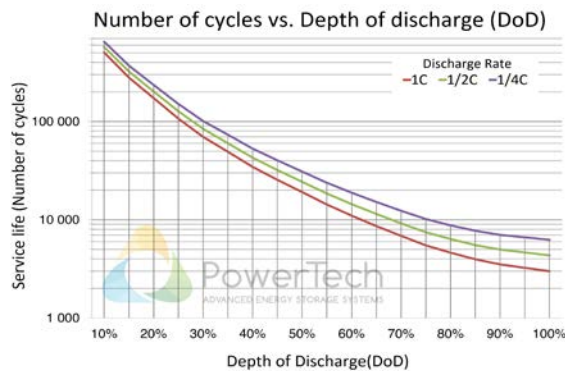
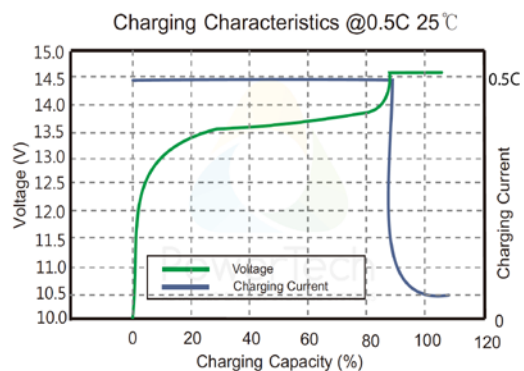
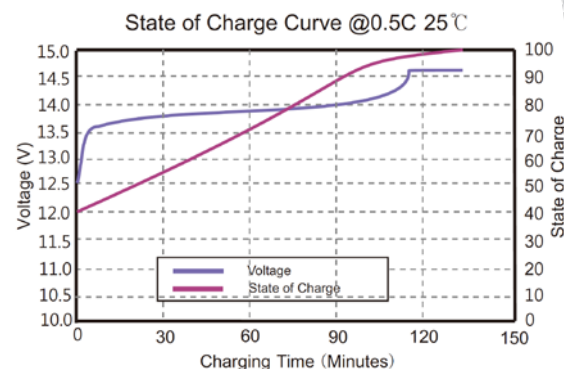
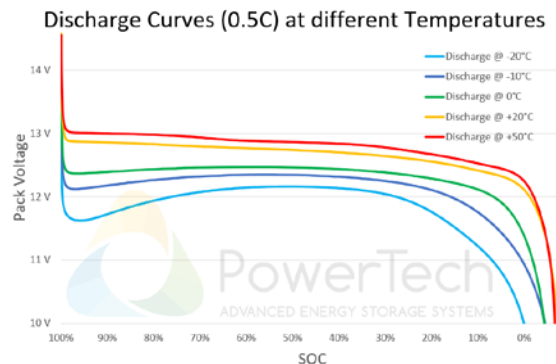
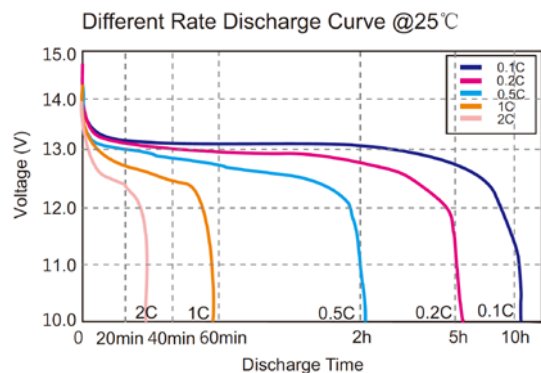
- **Electrical vehicules and utilities**
- **Robotics and AGVs**
- **Solar and wind energy storage**
- **Marine**
- **Street lightning**
- **CCTV and security camera**
- **UPS, electric back-up**
- **Telecom**
- **Medical equipments**
- ...



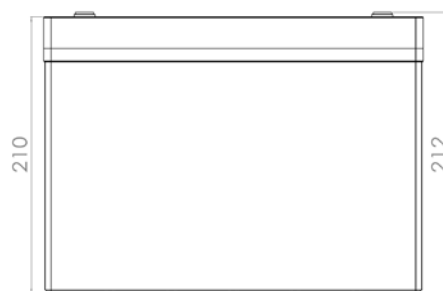
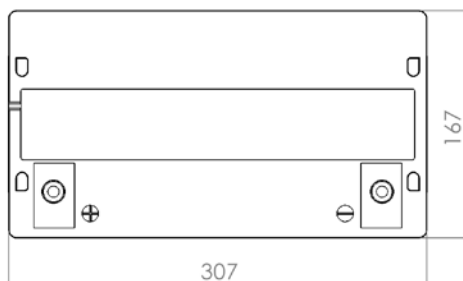
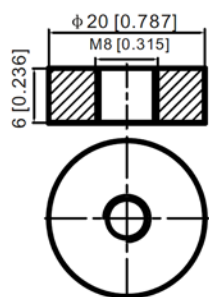
# PowerBrick+

12v Lithium-Ion battery pack

## Charts and curves



## Dimensions



PowerTech Systems SAS  
ZA Charles Renard - Batiment A1  
6 Bld Georges Guynemer  
78210 ST CYR L'ECOLE - France

SAS au capital de 1 000 000 Euros  
SIREN : 793926577 - TVA : FR33793926577

[www.powertechsystems.eu](http://www.powertechsystems.eu)  
+33 185 400 970  
[contact@powertechsystems.eu](mailto:contact@powertechsystems.eu)