



# PowerBrick+

## 12v Lithium-Ion battery pack



### 12V battery pack - Lithium Iron-Phosphate (LiFePO<sub>4</sub>) - 7.5Ah

- **High service life: 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**
- Direct replacement of **YUASA NP7-12**
- 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
- No **Lead**, no **rare earths**, no **acid**, no **degassing**
- **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 / Nominal capacity	12.8V / 7.5Ah
	Stored energy	96.0 Wh
	Volumetric energy density / Specific energy	106.3 Wh/L / 104.3 Wh/Kg
	Internal resistance	≤ 40mΩ
	Cycles	>3000 cycles (see chart)
	Self discharge	< 3% per month
	Energy efficiency	> 98%
	Standard Charge	Charge voltage
Charge mode		CC/CV : Constant Current / Constant Voltage
Continuous charge current / Maximum charge current		7.5 A / 10 A
BMS charge cut-off voltage		14.8 V ± 0.1V
Standard Discharge	Instant peak discharge current	105 A ±10 A (max 100mS)
	Continuous discharge current	15 A (192 Wh)
	Maximum discharge current (< 30s)	20 A (256 Wh)
	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 to +60°C @60±25% relative humidity
	IP protection level	IP 65
Mechanical	Type of cells	Cylindrical
	Casing material	ABS
	Dimensions	L : 151mm x P : 65mm x H : 92 mm (same as NP7-12)
	Weight	0.92 kg
	Terminal	Clip Faston 6.35mm



### APPLICATIONS

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

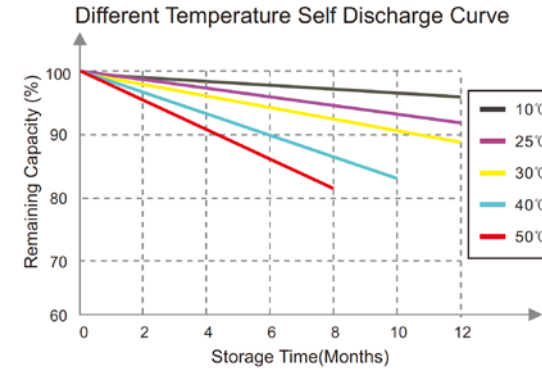
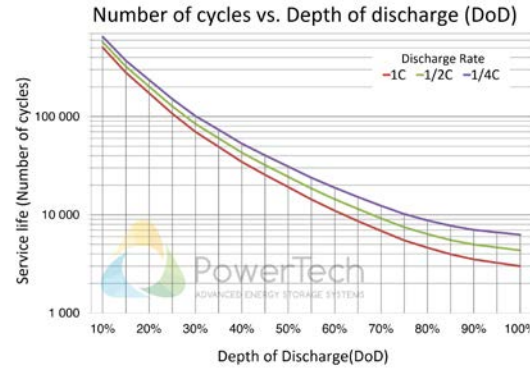
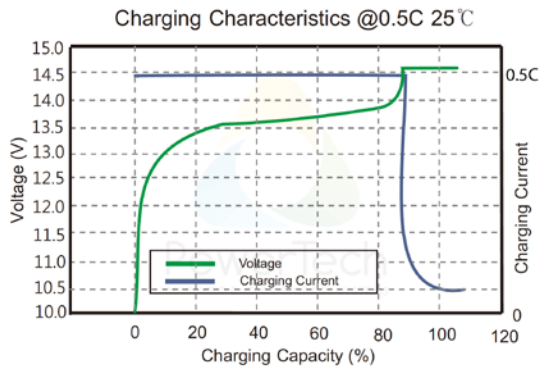
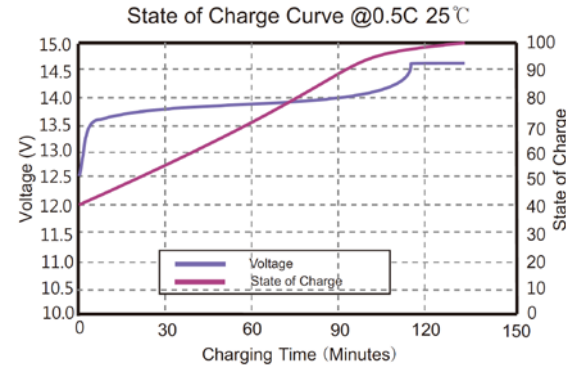
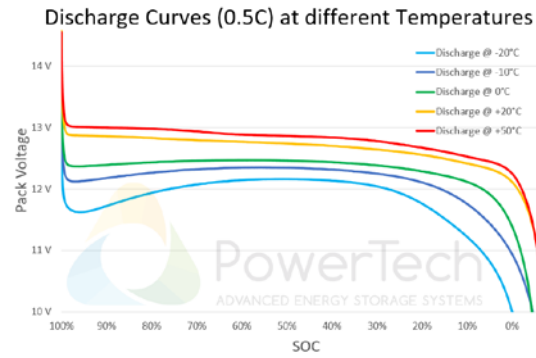
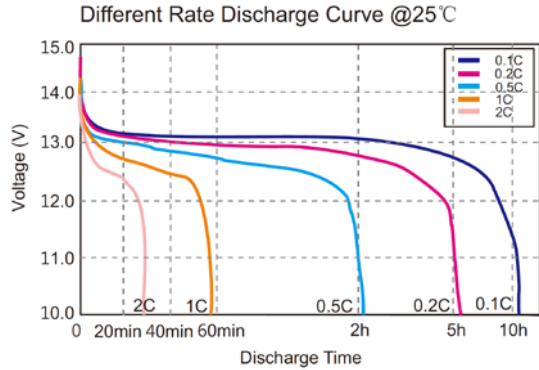


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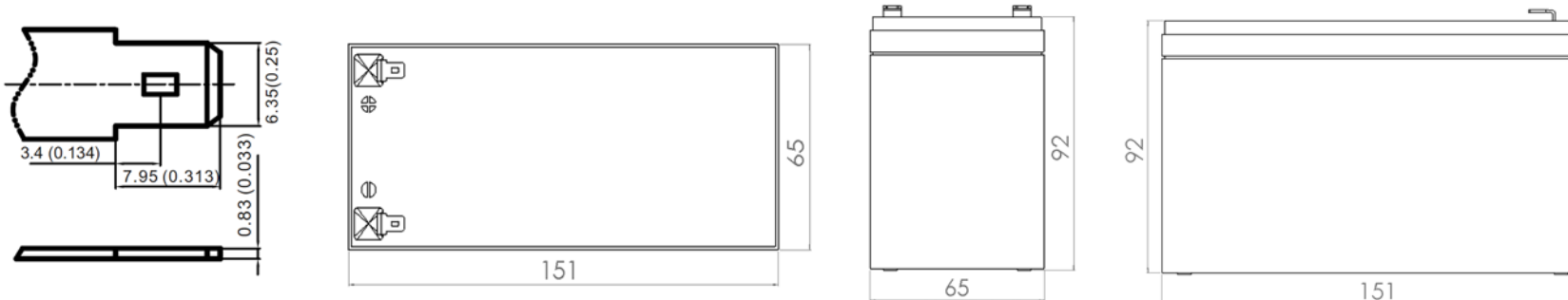
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## Charts and curves



## Dimensions



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