



# PowerBrick+

## 12v Lithium-Ion battery pack



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

- **High lifespan:** two thousand 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 **heavy metal**, no **toxic element**
- Calendar life > **10 years**
- Excellent **temperature** robustness (-20 °C up to +60 °C)
- **Flexible** deployment : up to 10 packs in parallel and 4 in serial
- **Constant power** during discharge (very low internal resistance)
- **Very low Peukert's losses** (energy efficiency >96 %)
- **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, UL, UN 38.3

### Technical Specifications

Electric	Nominal voltage	12.8V
	Nominal capacity	7.5 Ah
	Stored energy	96.0 Wh
	Internal resistance	≤ 40mΩ
	Cycles	>2000 cycles (see chart)
	Self discharge	< 3% per month
	Energy efficiency	> 96%
Standard Charge	Charge voltage	14.4V ± 0.2V
	Charge mode	CC/CV : Constant Current / Constant Voltage
	Continuous charge current / Maximum charge current	7.5A / 10 A
	BMS charge cut-off voltage	14.8V ± 0.1V
Standard Discharge	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 à 45°C @60±25% relative humidity
	Discharge temperature range	-20°C à 60°C @60±25% relative humidity
	Storage temperature	0°C à 40°C @60±25% relative humidity
	IP protection level	IP 66
Mechanical	Cell assembly	18650 - 455P
	Casing material	ABS
	Dimensions	L : 151mm x P : 65mm x H : 92 mm (same as NP7-12)
	Weight	1.08 kg
	Terminal	Clip Faston 6.35mm



### APPLICATIONS

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

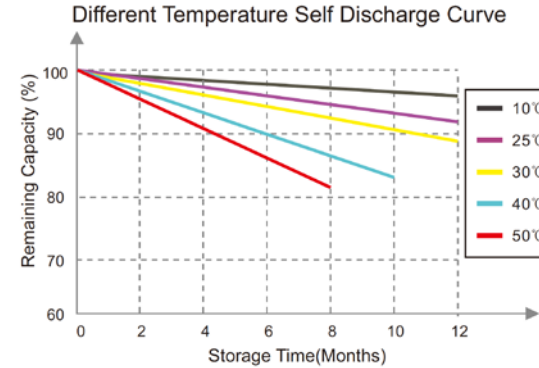
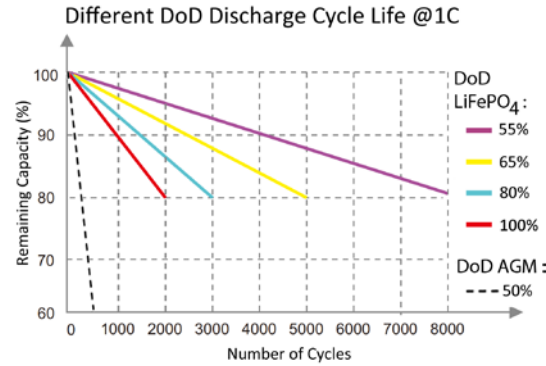
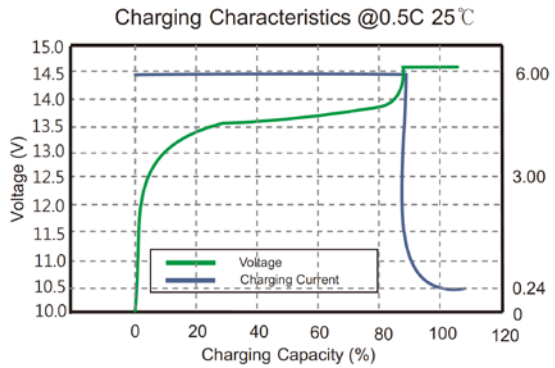
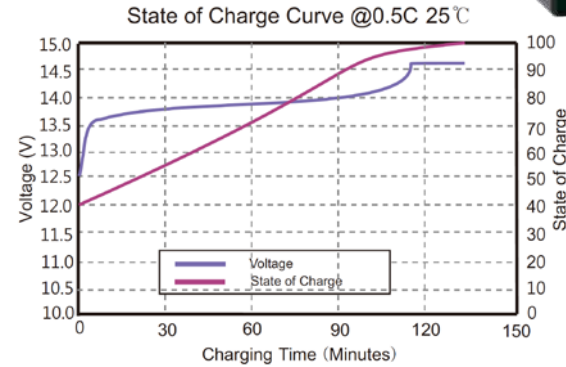
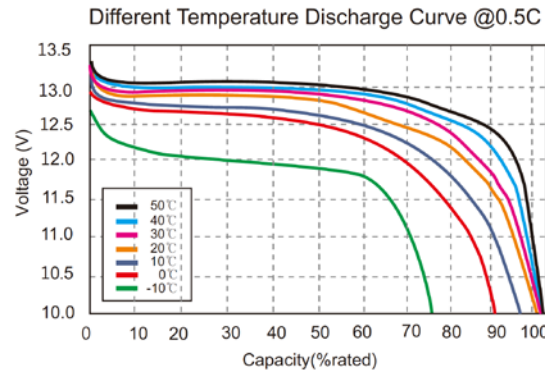
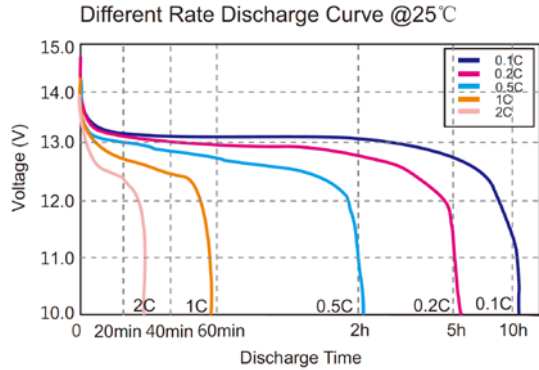


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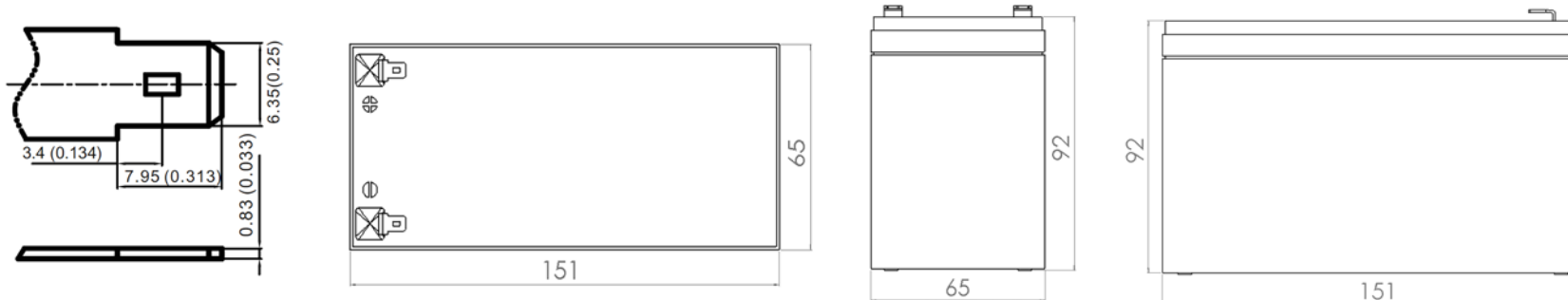
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## Charts and curves



## Dimensions



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systems

V1.0

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