



PowerBrick

12v Lithium-Ion battery pack



PowerTech
systems

12V battery pack - Lithium Iron-Phosphate (LiFePO₄) - 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**
- Direct Replacement of **YUASA NP7-12**
- Calendar life > **10 years**
- Excellent **temperature** robustness (-20 °C up to +60 °C)
- **Flexible** deployment : up to **4 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
Charge mode		CC/CV : Constant Current / Constant Voltage
Maximum continuous charge current		7.5 A
BMS charge cut-off voltage		14.8V ± 0.1V
Standard Discharge	Continuous discharge current	10 A (128 W)
	Maximum discharge current (< 30s)	14 A (180 W)
	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 55
Mechanical	Cell assembly	18650 - 4S5P
	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**
- • •

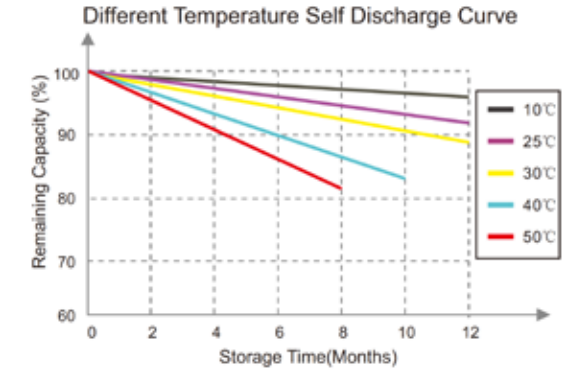
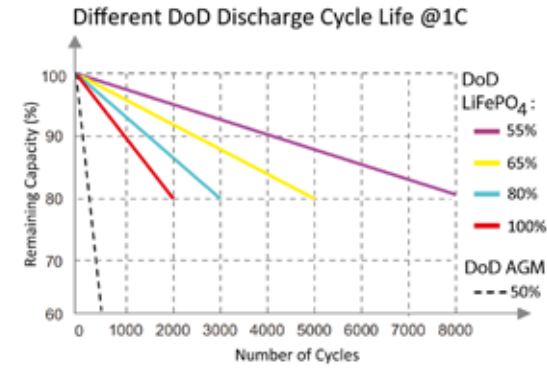
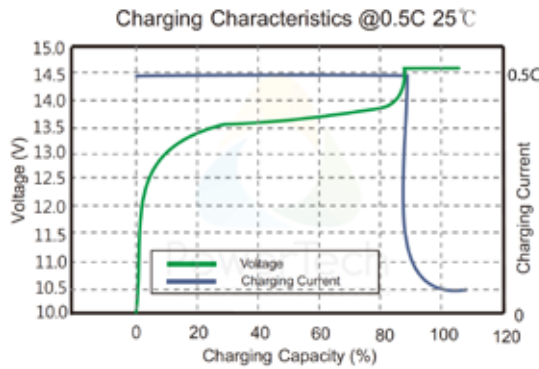
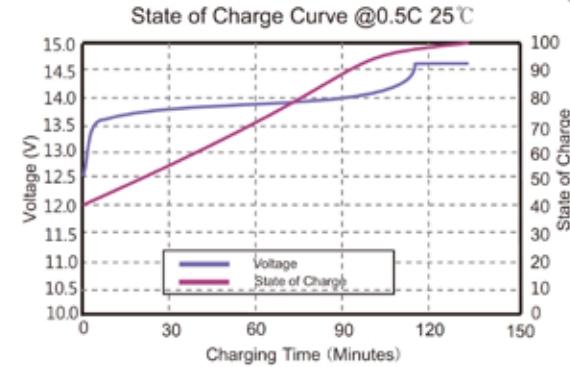
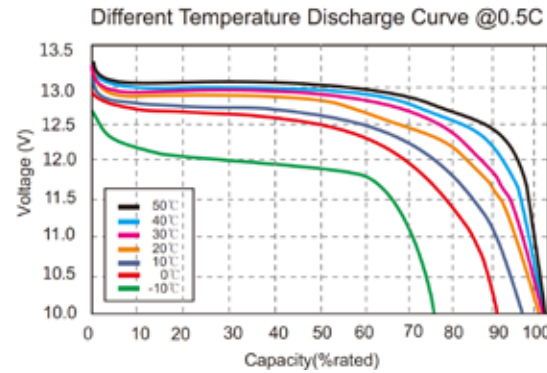
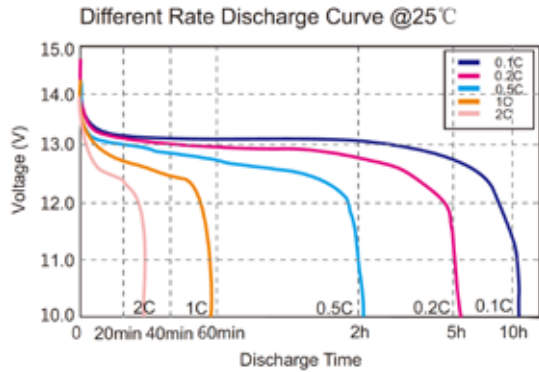


PowerBrick

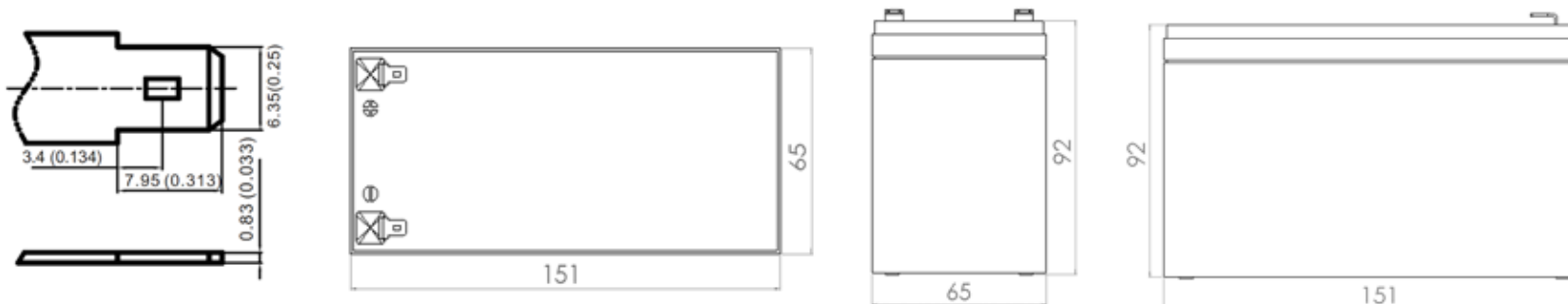
12v Lithium-Ion battery pack



Charts and curves



Dimensions



PowerTech
systems
v1.1

PowerTech Systems SAS
Technoparc - Espace Cristal
22 Rue Gustave Eiffel
78300 POISSY - France

SAS au capital de 400 000 Euros
SIREN : 793926577 - TVA : FR33793926577

www.powertechsystems.eu
+33 185 400 970
contact@powertechsystems.eu