



PowerBrick+

12v Lithium-Ion battery pack



12V battery pack - Lithium Iron-Phosphate (LiFePO₄) - 12Ah

- **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

Technical Specifications

Electric	Nominal voltage	12.8V
	Nominal capacity	12 Ah
	Stored energy	153.6 Wh
	Internal resistance	≤ 50mΩ
	Cycles	>2000 cycles (see chart)
	Self discharge	< 3% per month
	Energy efficiency	> 96%
Standard Charge	Charge voltage	14.6V ± 0.1V
	Charge mode	CC/CV : Constant Current / Constant Voltage
	Continuous charge current / Maximum charge current	6 A / 12A
	BMS charge cut-off voltage	14.8V ± 0.1V
Standard Discharge	Continuous discharge current	24 A
	Maximum discharge current	30 A (< 5s)
	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 - 4S8P
	Casing material	ABS
	Dimensions	L : 151mm x P : 98mm x H : 95 mm
	Weight	1.55 kg
	Terminal	Clip Faston 6.35mm



APPLICATIONS

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

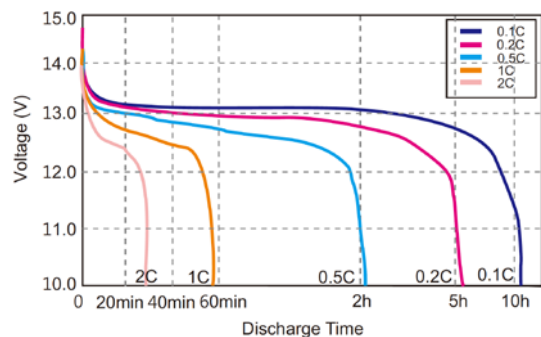


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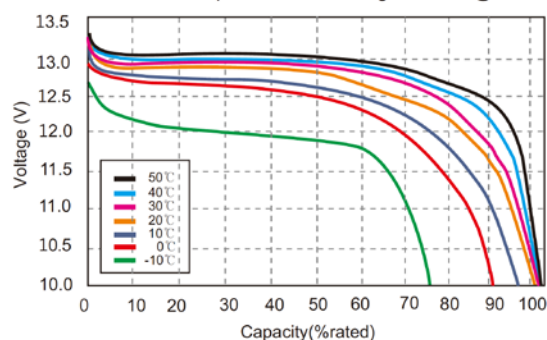
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Charts and curves

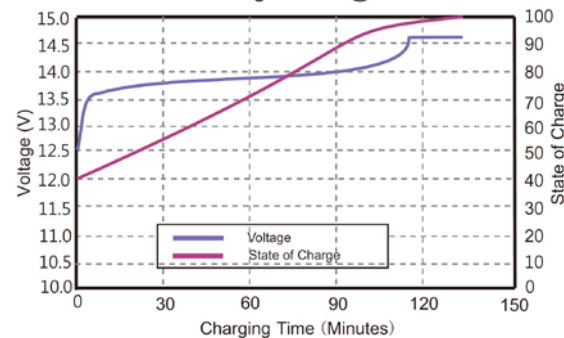
Different Rate Discharge Curve @25°C



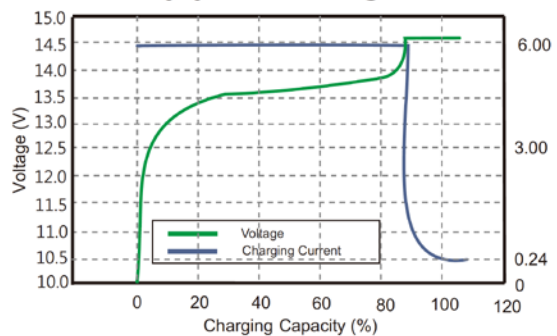
Different Temperature Discharge Curve @0.5C



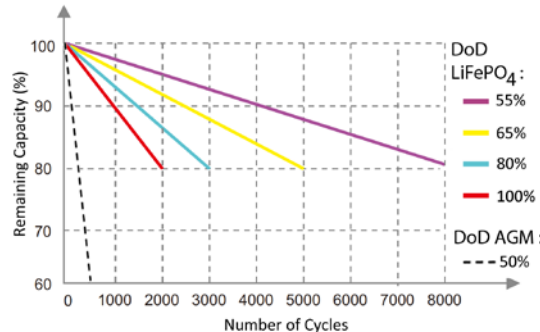
State of Charge Curve @0.5C 25°C



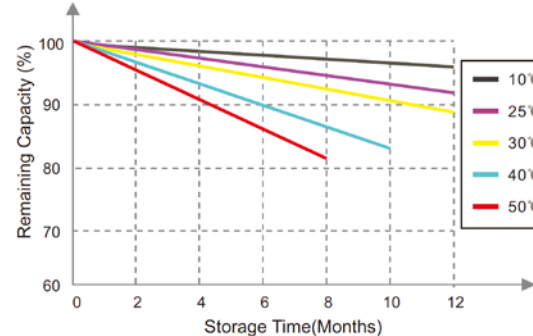
Charging Characteristics @0.5C 25°C



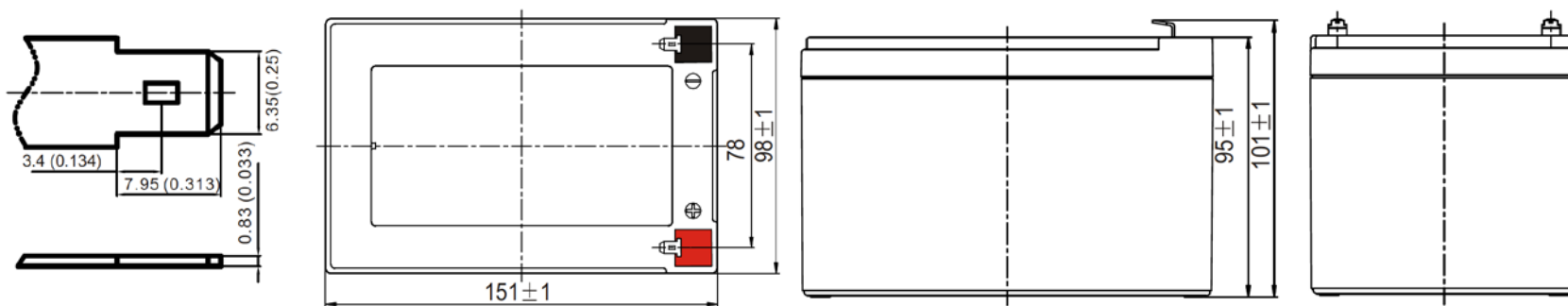
Different DoD Discharge Cycle Life @1C



Different Temperature Self Discharge Curve



Dimensions



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