



PowerBrick+

24v Lithium-Ion battery pack



24V battery pack - Lithium Iron-Phosphate (LiFePO₄)

- **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

Technical Specifications

		PB+ 24V/32Ah	PB+ 24V/50Ah	PB+ 24V/150Ah
Certifications		CE, RoHS and UN 38.3		
Main Specs	Nominal voltage	25.2V		
	Nominal capacity	32 Ah	50 Ah	150 Ah
	Stored energy	819 Wh	1.92 kWh	3.84 kWh
	Cycles	>3500 cycles (see chart)		
	Self discharge	< 3% per month		
	Energy efficiency	> 96%		
Charge	Charge voltage	28.8V ± 0.4V		
	Charge mode	CC/CV : Constant Current / Constant Voltage		
	Maximum charge current	32 A	50 A	150 A
	BMS Cut-Off voltage	29.4V ± 0.4V		
Discharge	Continuous discharge current	50 A	75 A	120 A
	Peak discharge current (<30s)	75 A	115 A	180 A
	BMS Cut-Off voltage	20 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		
	IP protection level	IP 65		
Mechanicle	Casing material	ABS		
	Dimensions	L : 197 mm P : 166mm H : 169 mm	L : 212mm P : 168mm H : 212 mm	L : 500mm P : 280mm H : 217 mm
	Weight	7.8 kg	11.8 kg	32.6kg
	Terminal	M8		



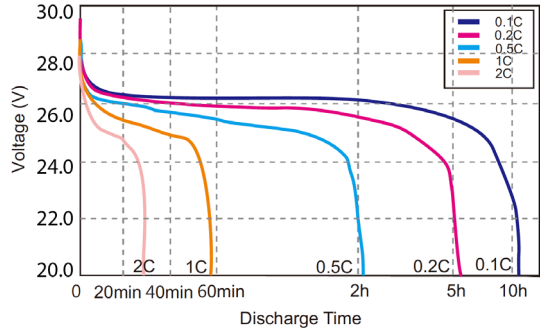
APPLICATIONS

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

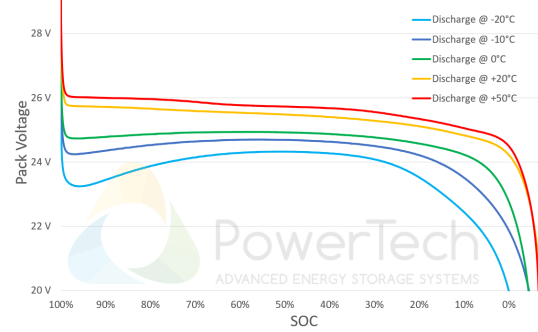
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Charts and curves

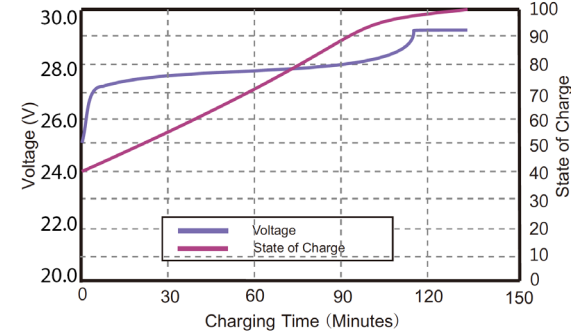
Different Rate Discharge Curve @25°C



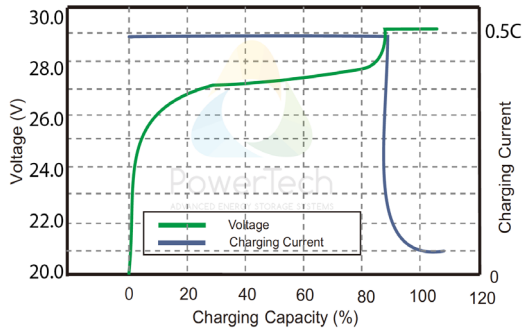
Discharge Curves (0.5C) at different Temperatures



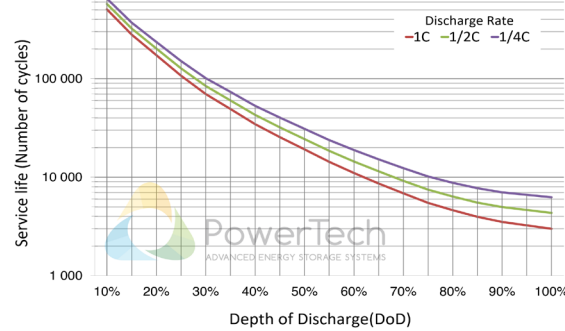
State of Charge Curve @0.5C 25°C



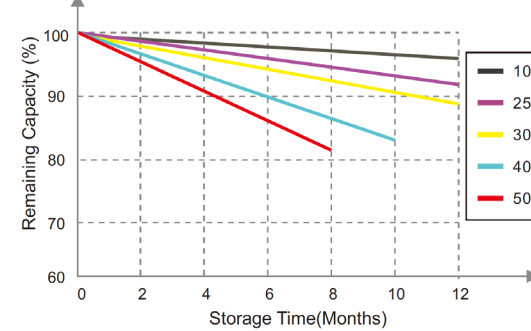
Charging Characteristics @0.5C 25°C



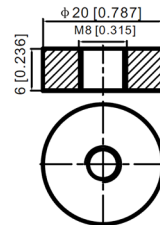
Number of cycles vs. Depth of discharge (DoD)



Different Temperature Self Discharge Curve



Terminal



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