



PowerBrick+

48V Lithium-Ion battery pack



48V 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+ 48V/25Ah	PB+ 48V/32Ah	PB+ 48V/72Ah	PB+ 48V/105Ah
Certifications		CE, RoHS and UN 38.3			
Main Specs	Nominal voltage	51.2V			
	Nominal capacity	25 Ah	32 Ah	72 Ah	105 Ah
	Stored energy	1.28 kWh	1.638 kWh	3.69 kWh	5.38 kWh
	Cycles	>3500 cycles (see chart)			
	Self discharge	< 3% per month			
	Energy efficiency	> 96%			
	Charge	Charge voltage	57,6 V ± 0.8V		
Charge mode		CC/CV : Constant Current / Constant Voltage			
Maximum charge current		25 A	32 A	72 A	100 A
BMS Cut-Off voltage		59.2 V ± 0.4V			
Discharge	Continuous discharge current	50 A	65 A	90 A	120 A
	Peak discharge current (<30s)	100 A	100 A	130 A	200 A
	BMS Cut-Off voltage	40 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 : 260mm P : 168mm H : 212 mm	L : 260mm P : 168mm H : 212 mm	L : 500mm P : 280mm H : 217 mm	L : 500mm P : 280mm H : 217 mm
	Weight	12.6 kg	13.2 kg	31.6.g	37.5 kg
	Terminal	M8			



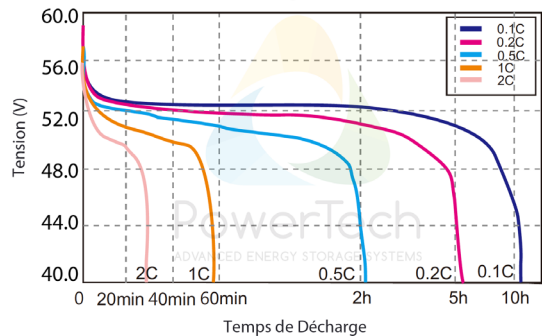
APPLICATIONS

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

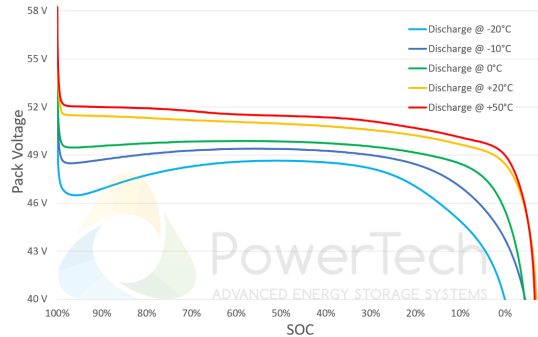
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Charts and curves

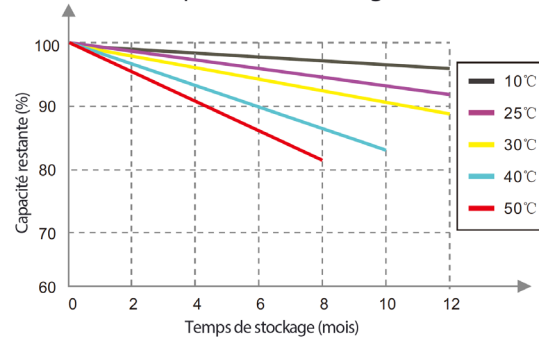
Courbes de Décharge à 25°C



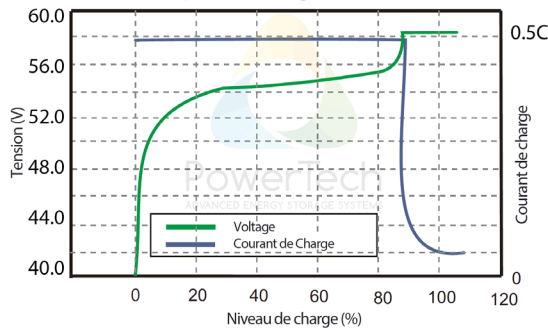
Courbes de décharge (0.5C) à différentes températures



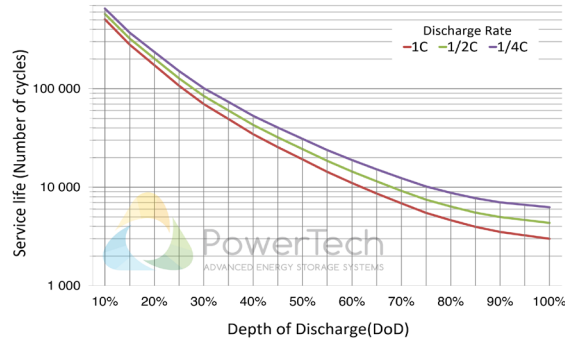
Caractéristiques d'auto-décharge



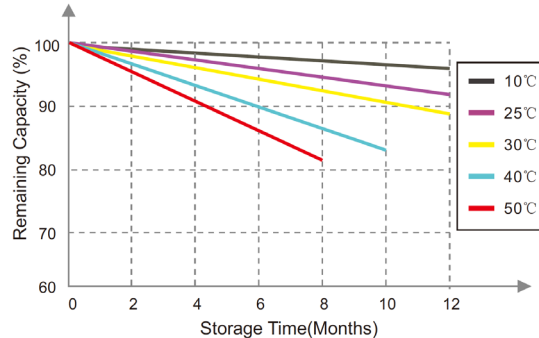
Caractéristiques de charge @0.5C, 25°C



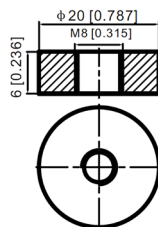
Number of cycles vs. Depth of discharge (DoD)



Different Temperature Self Discharge Curve



Terminal



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