



PowerBrick+

48v Lithium-Ion battery pack



48V battery pack - Lithium Iron-Phosphate (LiFePO₄) - 25Ah

- **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 2 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, UN 38.3, UL and CB

Technical Specifications

Electric	Nominal voltage	51.2 V
	Nominal capacity	25 Ah
	Stored energy	1280 Wh
	Internal resistance	≤ 50 mΩ
	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
Continuous charge current / Maximum charge current		12.5 A / 25 A
BMS charge cut-off voltage		59.2 V ± 0.4V
Standard Discharge	Continuous discharge current	50 A (2.56 kW)
	Maximum discharge current (< 30s)	100 A (5.12kW)
	BMS discharge cut-off voltage	40V
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	26650 - 16S8P
	Casing material	ABS
	Dimensions	L : 260mm x P : 168mm x H : 212 mm
	Weight	13.6 kg
	Terminal	M8



APPLICATIONS

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



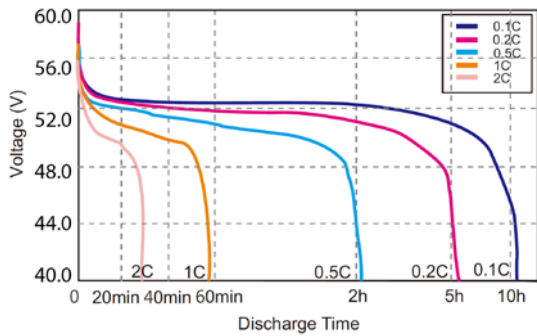
PowerBrick+

48v Lithium-Ion battery pack

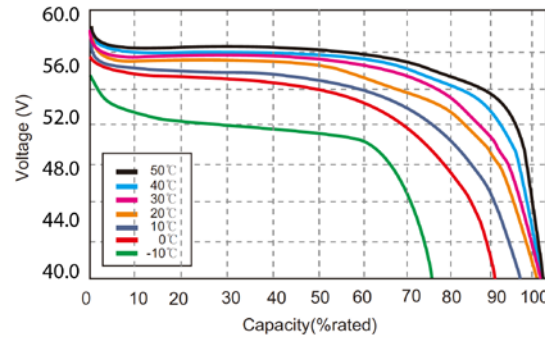


Charts and curves

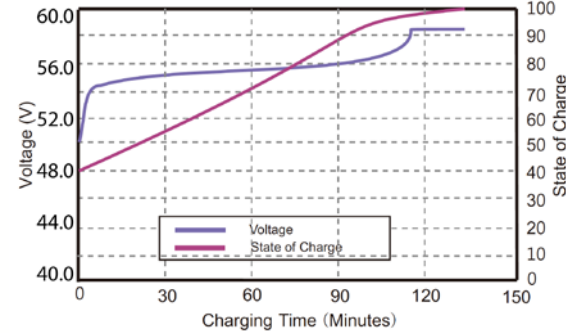
Different Rate Discharge Curve @25°C



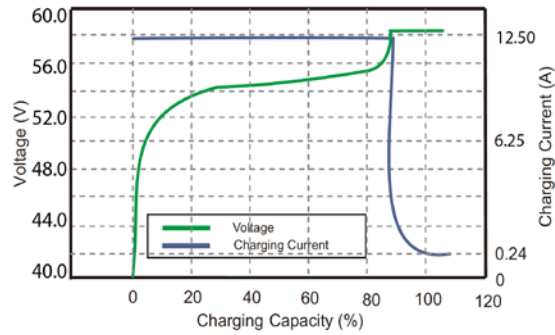
Different Temperature Discharge Curve @0.5C



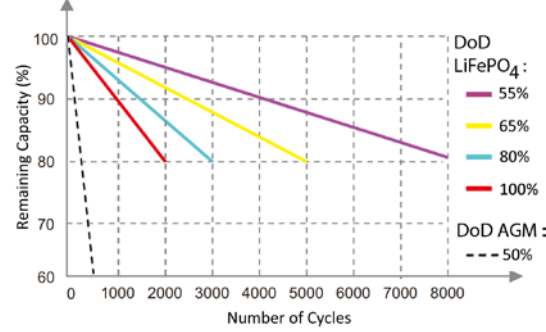
State of Charge Curve @0.5C 25°C



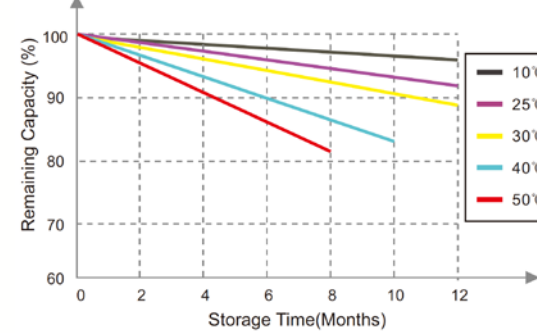
Charging Characteristics @0.5C 25°C



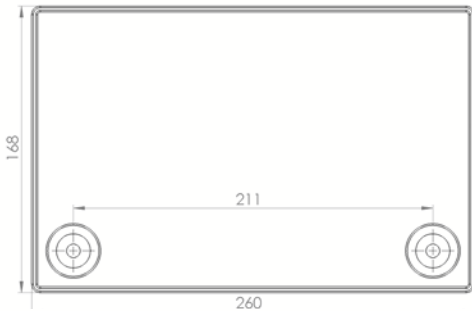
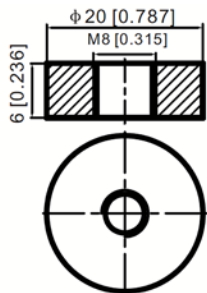
Different DoD Discharge Cycle Life @1C



Different Temperature Self Discharge Curve



Dimensions



V1.0

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

SAS au capital de 350 000 Euros
SIREN : 793926577 - TVA : FR33793926577

www.powertechsystems.eu
+33 954 051 619
contact@powertechsystems.eu