



Power Brick

Lithium-Ion battery

Solid State

Smart



48V Solid-State battery pack - LiFePO₄ - 53Ah - 2.71kWh

- **High lifespan: 4500 cycles** and more (see chart)
- **New Solid-State cell technology** for better performance and safety
- **Active Balancing** for fast, efficient cell voltage equalization
- **Remote monitoring by Bluetooth** (SOC, cell voltage, SOH, etc.)
- **Fast recharge** in less than one hour
- **Ultra safe Solid-State Lithium Iron Phosphate** chemistry (no thermal run-away, no fire or explosion risks)
- **Embedded BMS** (Battery Management System) : **improve lifespan and safety of the battery**
- **Strict cell matching** for pack consistency. Laser cell welding
- **Precharge system** for high capacitance loads
- **No Lead, no rare earths, no acid, no degassing**
- Calendar life > **10 years**
- Excellent **temperature** robustness (-20 °C up to +60 °C)
- **Flexible** deployment : up to 16 packs in parallel
- **Constant power** during discharge (very low internal resistance)
- **Very low Peukert's losses** (energy efficiency >98 %)
- **Very low self discharge** (<3 % per month)
- **Deep discharge** allowed up to 100 %
- **No memory effect**
- About **50 % lighter** and **40% smaller** than equivalent Lead-AGM battery with same usable energy
- **Certification : CE, RoHS, UN 38.3, Cell : IEC 62619**

Technical Specifications

Electric	Nominal voltage / Nominal capacity	51.2 V / 53Ah
	Stored energy	2714 Wh
	Volumetric energy density / Specific energy	121.0 Wh/L / 142.8 Wh/Kg
	Internal resistance	≤ 10mΩ
	Cycles	> 4500 cycles (see chart)
	Self discharge	< 3% per month
	Energy efficiency	> 98%
Standard Charge	Charge voltage	57.6 V ± 0.8 V (Optional floating voltage : 53.44V max)
	Charge mode	CC/CV : Constant Current / Constant Voltage
	Continuous charge current / Maximum charge current	80A / 100A
	BMS charge cut-off voltage	59.2 V ± 0.4V
Standard Discharge	Instant peak discharge current	600A (300 ms)
	Continuous discharge current	80A
	Maximum discharge current (< 30s)	120A
	BMS discharge cut-off voltage	40V
Environment	Charge temperature range	0°C to +55°C
	Discharge temperature range	-20°C to 60°C
	Storage conditions	0°C to +50°C @60±25% relative humidity
	IP protection level	IP65
Mechanical	Type of cells	Solid-State LiFePO ₄ cells
	Casing material	ABS
	Dimensions	505x185x242 mm
	Weight	19.0 kg
	Terminal	M8

 **Solid-State Technology**

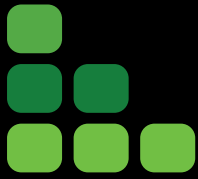
 **Active Balancing**

 **BlueTooth**

APPLICATIONS :

-  **Electrical vehicles and utilities**
-  **Industrial carts and forklifts**
-  **Marine applications**
-  **Street lightning**
-  **CCTV and security camera**
-  **Robotics and AGVs**
-  **Solar and wind energy storage**

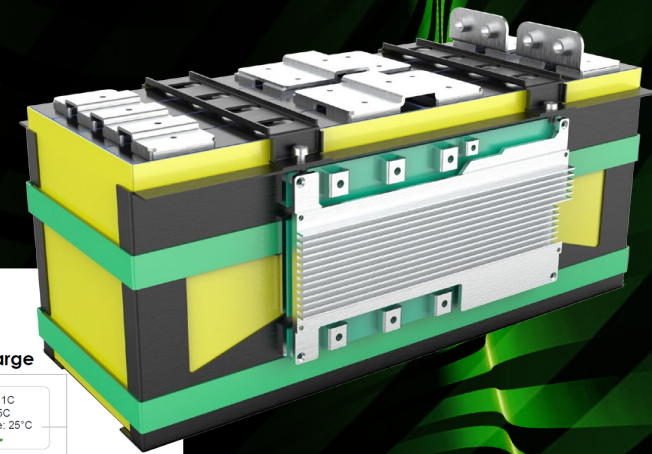
and much more...



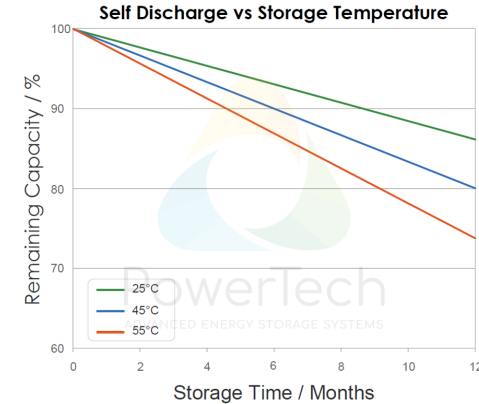
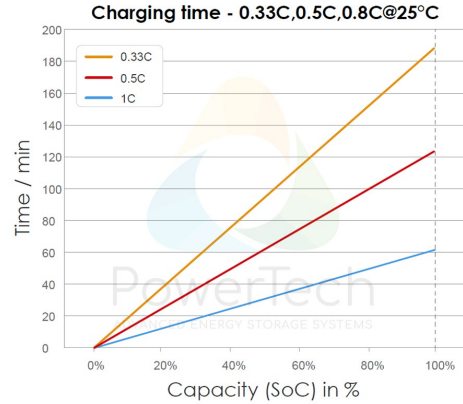
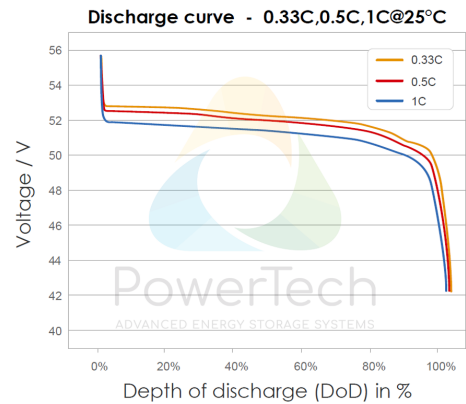
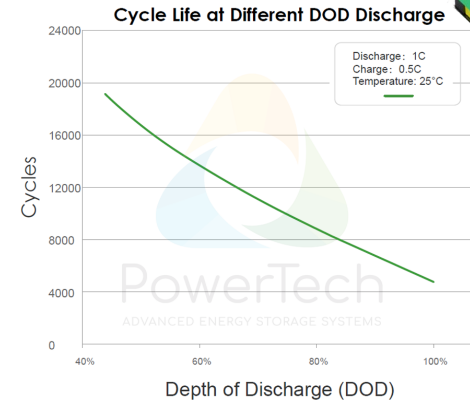
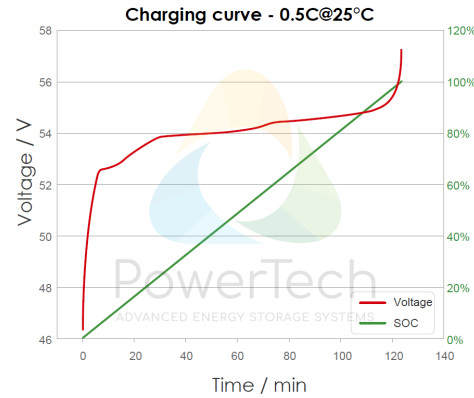
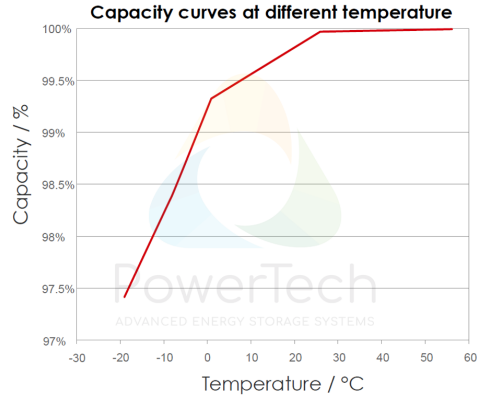
PowerBrick Solid State

Lithium-Ion battery

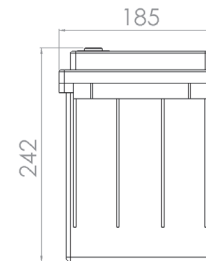
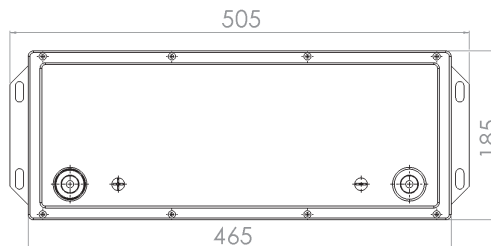
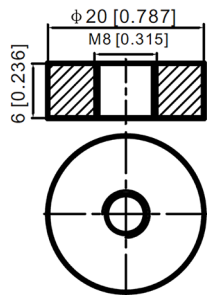
Smart



Charts and curves



Dimensions



- Solid-State Technology
- Active Balancing
- BlueTooth



PowerTech systems

V1.5

PowerTech Systems SAS
ZA Charles Renard - Batiment A1
6 Bld Georges Guynemer
78210 ST CYR L'ECOLE - France

SAS au capital de 1 000 000 Euros
SIREN : 793926577 - TVA : FR33793926577

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