Lithium-Ion battery

12V Solid-State battery pack - LiFePO4 - 212Ah - 2.71kWh

- High lifespan: 4500 cycles and more (see chart)
- **Communication by CAN Bus + RS 485** to retrieve all aggregated informations from battery pack (**up to 16 packs in parallel**)
- 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 consistancy. Laser cell welding

Technical Specifications

- Precharge system for high capacitance loads
- No Cobalt, no Manganèse, no Nickel, no rare earth
- Calendar life > 10 years
- Excellent **temperature** robustness (-20 °C up to +60 °C)
- Constant power during discharge (very low internal resistance)

Power

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- 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

Electric	Nominal voltage / Nominal capacity	12.8V / 212Ah
	Stored energy	2714 Wh
	Volumetric energy density / Specific energy	121.2 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	14.4 V \pm 0.2 V (Optional floating voltage : 26.72V max)
	Charge mode	CC/CV : Constant Current / Constant Voltage
	Continuous charge current / Maximum charge current	180A / 200A
	BMS charge cut-off voltage	$14.8V \pm 0.1V$
Standard Discharge	Instant peak discharge current	800A (300 ms)
	Continuous discharge current	180A
	Maximum discharge current (< 30s)	220A
	BMS discharge cut-off voltage	10V
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 LiFePO4 cells
	Casing material	ABS
	Dimensions	505x185x242 mm
	Weight	19.0 kg
	Terminal	M8 for power - IP67 M12 connector for CAN / RS485



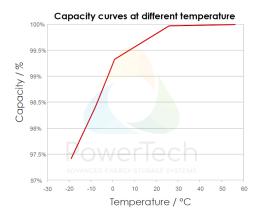
Solid-State Technologu

🗊 Active Balancing

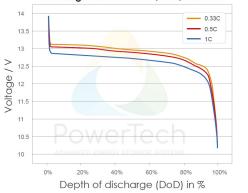
💻 CAN BUS

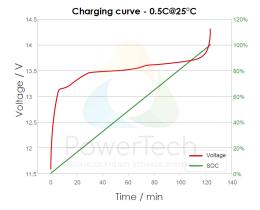
PowerBrick solid state Lithium-Ion battery

Charts and curves

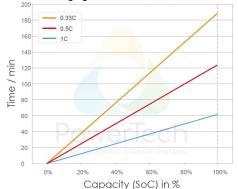


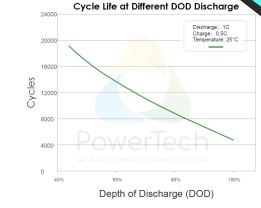
Discharge curve - 0.33C,0.5C,1C@25°C





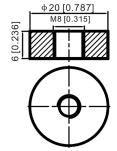
Charging time - 0.33C,0.5C,0.8C@25°C

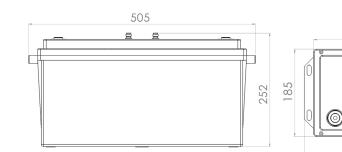


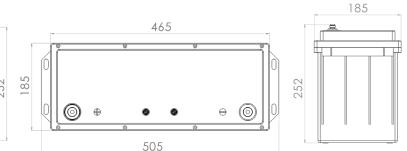


Self Discharge vs Storage Temperature

Dimensions









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