



# HPB Solid-State Battery

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High Performance Battery Technology GmbH (HPB) has developed an advanced solid-state battery that offers safety (non-flammability), a tremendous battery lifetime and up to a 50 % better environmental balance. The HPB Solid-State Electrolyte – based on an inorganic system – is introduced into the cell in a liquid state. It hardens through a chemical reaction within the cell to form the HPB Solid-State Electrolyte. This allows manufacturing to be scaled up industrially without the need to develop completely new production technologies.

**Engineered to store energy in a safer and more sustainable way.**  
**This product is ideal for applications requiring a very long lifetime and/or multiple uses.**



**Safer.**  
 non-flammable electrolyte



**Longer lasting.**  
 10x longer cycle life\*  
 at 1C/1C, 0 – 100 SOC



**Greener.**  
 Up to 50 % better environmental balance\*\*

### Main Applications

Home Storage / Solar Energy / Wind Energy / Charging Infrastructure / Control Energy / Quarter Solutions / Data Centres / Ships

Item	Characteristic	Unit
Chemistry	LFP/Graphite	-
Cell Capacity	50	Ah
Nominal Voltage	3.2	V
Voltage Range	2.5 – 3.6	V
Cell Dimensions	(LxWxH) 130x24.5x170 – 180***	mm
Cell Weight	1 – 1.5***	kg
Total Energy (BOL)	160	Wh
Usable Energy (BOL)	160	Wh
Gravimetric Energy Density	110 – 160***	Wh/kg
Volumetric Energy Density	300 – 350***	Wh/l
Usable SOC Range	0 – 100	%
Usable Temperature Range	-40 to +60	°C
Cycle Life	Currently 6,000 guaranteed****	cycles (1C/1C, 0 – 100 % SOC, RT)
Charge Current	continuous 2C/peak 6C	- /60 s
Discharge Current	continuous 2C/peak 6C	- /60 s

\* compared to conventional lithium-ion batteries under comparable stresses  
 \*\* calculated by external experts  
 \*\*\* depending on development optimisation path  
 \*\*\*\* corresponds to 50 % of the cycles completed today



**High Performance Battery  
Technology GmbH**

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Register entry:  
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