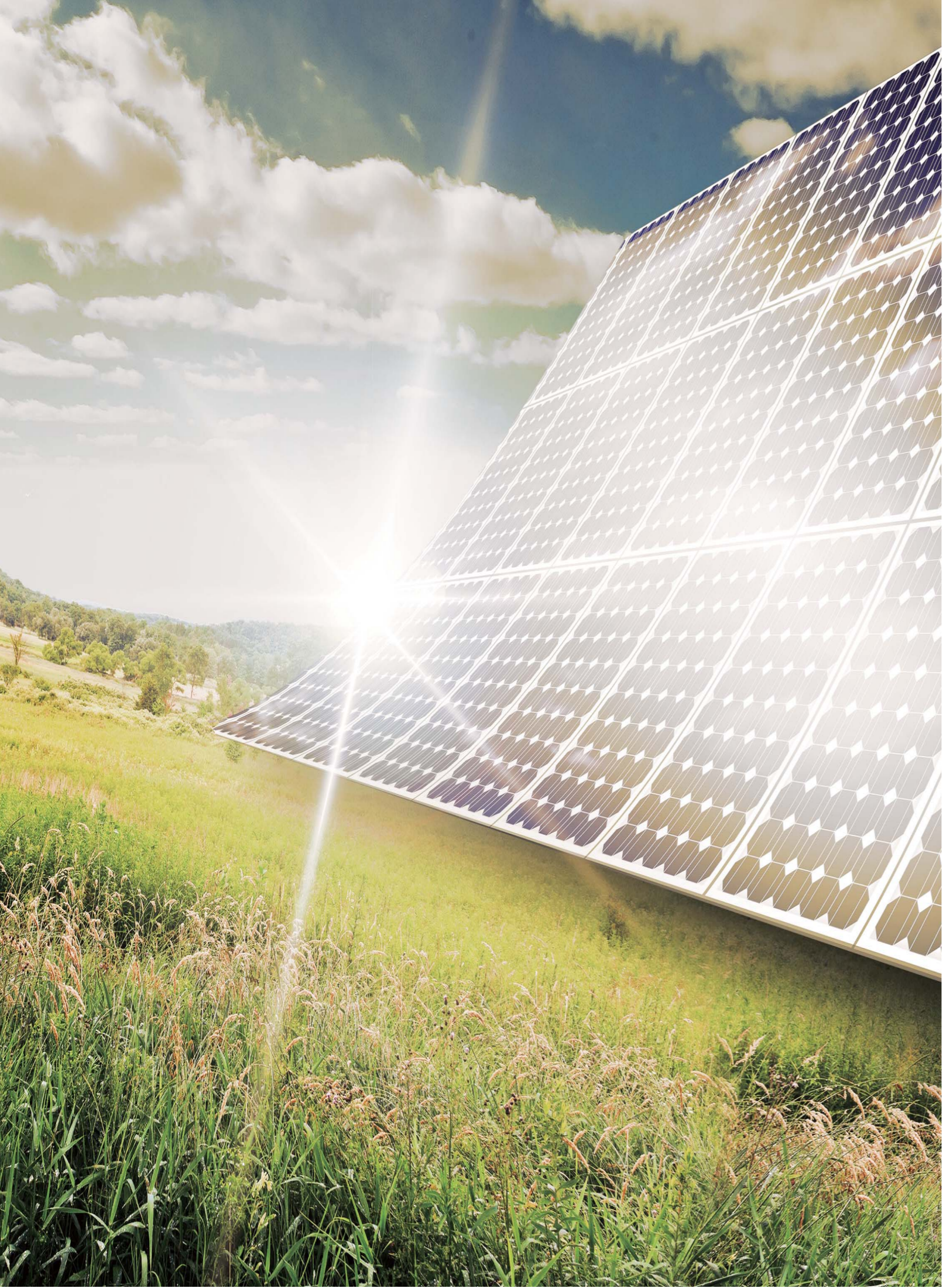


## LLC Series Lead-Carbon Battery



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shoto<sup>®</sup>



Make full use of internet platform  
Big Data cloud storage  
Service for customers worldwide

Shoto firmly promote green low-carbon career and always fulfill the concept of “new energy, circularity and high-tech”, to manage from the five link key aspects: design, development, green purchasing, system management, recycling, energy conservation and emissions reduction to create green model for the industry, to create a green life for human beings and store a green future for the earth.

Explore actively  
To find an ever-increasing energy new world

**Telecom**

Becoming the core of constructing the future smart grid center;

**Communication**

Possess all series of energy storage solutions and provide firm green energy security;

**Power**

New clean and efficient power energy, to provide endless power for the social development;

**Recycling**

Take the lead in building circulation industry chain, make renewable energy, restore a healthy earth.

Pursue the perfection  
To build up a strong  
and sustainable enterprise

Shoto has owned several honors such as “National environment friendly enterprise”, “National key high-tech industry group”, “China's top 100 electronic information enterprises”, “Global 500 new energy enterprises”.

Converge global industry experts  
and unite research institutes  
Collaborate with customers to develop  
advanced energy storage systems

The establishment of the Chinese Academy of Sciences in cooperation with the establishment of the Advanced Energy Development Research Center, academicians workstation, post-doctoral research station, state-level enterprise technology center have take on the 863 and other national research projects and research and develop the world forward-looking high-end new energy projects.

## Main Applications

- Renewable energy (wind & solar ) storage system
- Peak shifting of electrical power system
- Frequency regulation and load following service
- Smart-grid & micro-grid sites
- Off-grid & poor-grid sites

## Benefits

- Extra long life design, design life is 20 years
- Superior PSoC and deep cycling performance
- Excellent quick charge performance, reduce charging time by 30%
- High potential fuel savings when used with hybrid genset applications

## Technical Features

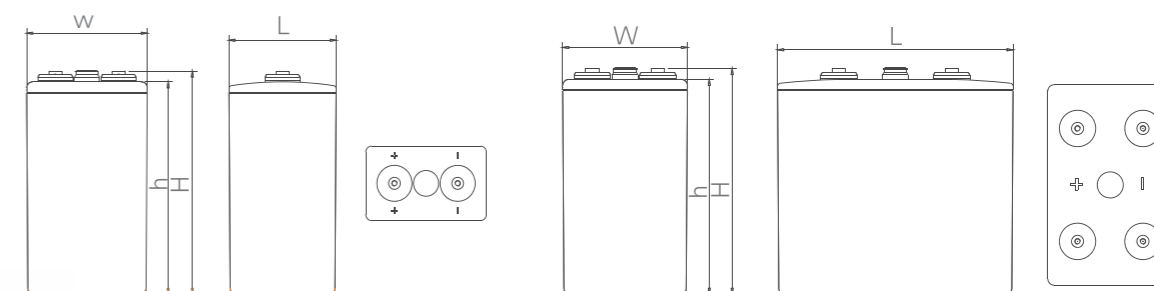
- Adopt lead- carbon capacitance technology, reduce the cathode sulphation, ideal for PSoC cycle application and can deliver 4~5 times better cyclic life compared with normal VRLA
- Better charge acceptability and faster recharge performance
- Exquisite design for premium quality, high reliability and stability



Shoto lead-carbon battery has been specially designed for renewable energy sources such as solar and wind power storage system, based on advanced lead-carbon capacitance technology.

Grid alloy and structure, active material formula, battery case material and electrolyte compositions are optimized. With premium quality, superior PSoC cycle life, better charge acceptability and faster recharge performance, LLC lead-carbon battery devotes itself to protect our Environment and Human with green clean energy and natural resources used effectively.

## Drawings



LLC-300~600

LLC-800~1000

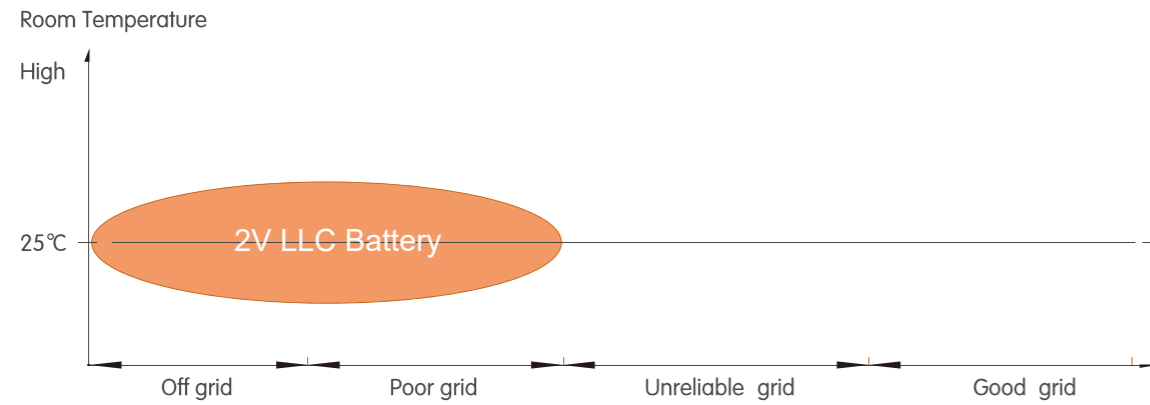
## Specification



	LLC-300	LLC-400	LLC-500	LLC-600	LLC-800	LLC-1000
Nominal Voltage(V)	2	2	2	2	2	2
Length(mm)	125	154	183	212	299	357
Width(mm)	207	207	207	207	211	211
Height of Monobloc(mm)	358	358	358	358	358	358
Total Height(mm)	372	372	372	372	372	372
10hr Capacity(Ah , 25°C)	300	400	500	600	800	1000
Terminal	M8	M8	M8	M8	M8	M8
Terminal Torque(Nm)	15~17	15~17	15~17	15~17	15~17	15~17
Internal Resistance (m Ω )	0.42	0.38	0.30	0.29	0.25	0.24
Short Circuit Current(A)	6400	6800	7300	7500	8800	9100
Weight(kg)	21.8	28.3	34.3	40.6	56.2	69

Passion for Storage  
and Green Energy

### Grid and Temperature

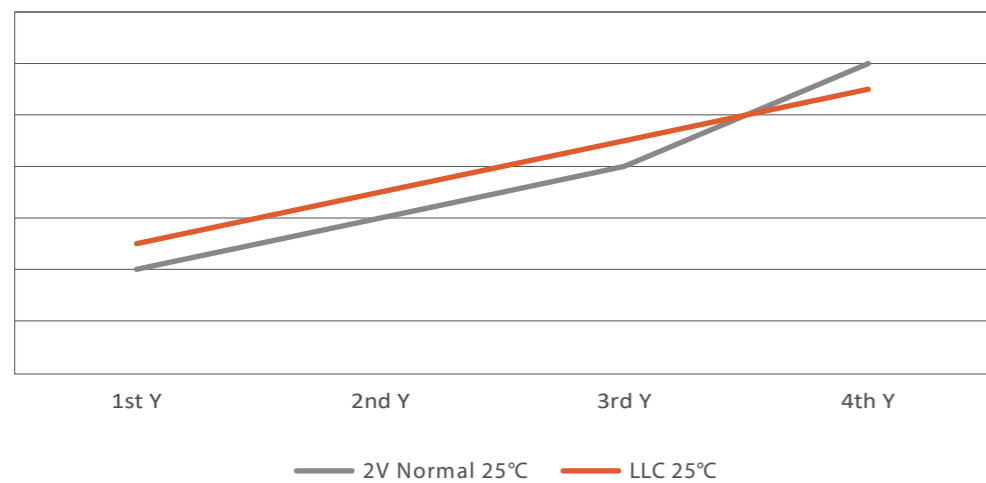


Note: Batteries shown above can be used for various grid and temperature scenes, but they are better suitable in given application compared to other battery types.

**Passion for Storage  
and Green Energy**

Shoto, as the leading green storage integration service supplier in Big Data age, using the forward-looking energy technology to share the green earth with our customers.

### TCO under Poor Grid



Note: Saving operational cost from the reduction of air-conditioner operation and longer cycles life. And the difference is allowed for various sites.