



SDA10-4850

**Lithium-ion battery system
for telecommunication**



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shoto



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

With market share ranking first in the mainstream of China's telecom operators for many years and have get the net certificate in many regions around the world and sell to 127 nations and districts in five continents.

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.

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".

Explore actively
To find an ever-increasing energy new world

Communication

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

Telecom

Becoming the core of constructing the future smart grid center;

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.

Converge global industry experts
and unite research institutes
Collaborate with customers to develop
the world's leading 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.

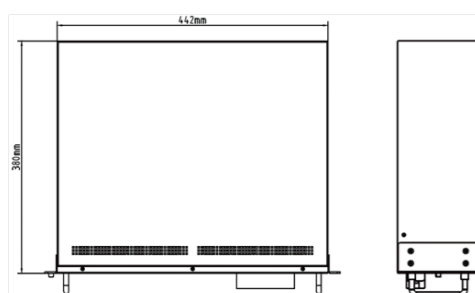
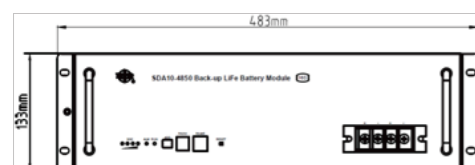
Application Scenarios

- ▣ Telecommunication
- ▣ UPS
- ▣ Renewable energy system

Product Certificates

- ☑ ISO9001
- ☑ ISO14001
- ☑ CE
- ☑ TLC
- ☑ TÜV

Drawings



The SDA-4850(A) series uses new LiFePO₄ technology, this reliable SHOTO product is safe, durable and easy to install in any new or existing telecom sites; especially suitable for outdoor cabinets.

Key advantages

- ▣ High energy density: more energy with less weight and footprint.
- ▣ High charge currents (short charge period)
- ▣ High discharge currents
- ▣ Long battery life (up to three times the battery life of a conventional battery)
- ▣ High efficiency between charging and discharging
- ▣ Higher continual power available
- ▣ Wide operating temperature

Technical Parameters

Item	Parameters	
1. Performance Parameter		
Nominal voltage	48V	
Rated capacity	50Ah (C _s , 0.2C to 40V at 25 °C)	
Operating voltage range	40V-56.4V	
Charging voltage	56.4V	
Charging current (current-limiting)	10A	
Discharge current (Maximum)	50A	
Discharge cut-off voltage	40V	
Dimensions	Width	442 mm
	Height	133mm
	Depth	380 mm
Weight	About 25.7kg	
2. Function Description		
Installation method	Rack mounted / Wall mounted	
Communication interface	RS232 / RS485	
Indicator state	ALM / RUN / SOC	
Parallel communication	Maximum support for 16 sets of parallel	
Terminal stud	M6	
Alarm and protection	Over voltage, under voltage, short circuit, overload, over current, over temperature, low temperature protection, etc.	
3. Working Condition		
Cooling mode	Automatic cold and hot	
Altitude	≤4000m	
Humidity	5%-95%	
Operating temperature	Charge	-5 C ~ +45 C
	Discharge	-20 C ~ +50 C
Recommended operating temperature	Charge	+15 C ~ +35 C
	Discharge	+15 C ~ +35 C
	Storage	-10 C ~ +35 C

Passion for Storage
and Green Energy

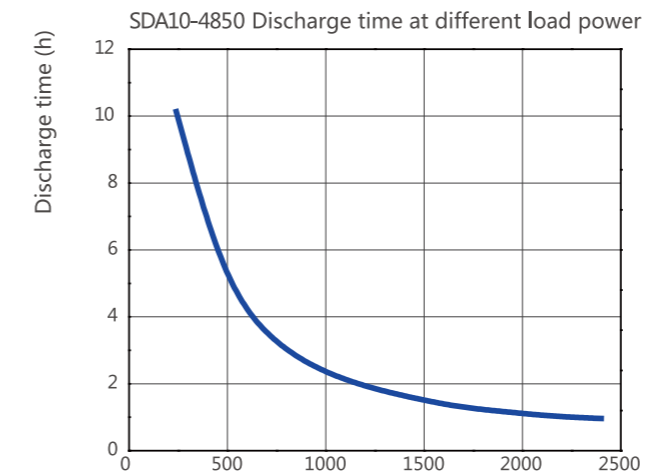
SDA10-4850(A) series Constant Current Discharge Characteristics (25°C,77°F)

Voltage	Current/A									
	0.1C	0.2C	0.3C	0.4C	0.5C	0.6C	0.7C	0.8C	0.9C	1C
46.5V	9.35	4.60	2.86	1.99	1.50	1.17	0.90	0.77	0.52	0.34
45.0V	9.89	4.77	3.10	2.24	1.75	1.44	1.17	1.03	0.85	0.77
43.5V	10.02	4.87	3.14	2.29	1.80	1.49	1.22	1.09	0.96	0.87
42.0V	10.10	4.95	3.22	2.36	1.85	1.54	1.26	1.13	0.99	0.91
40.0V	10.16	5.05	3.32	2.44	1.92	1.60	1.32	1.18	1.04	0.97

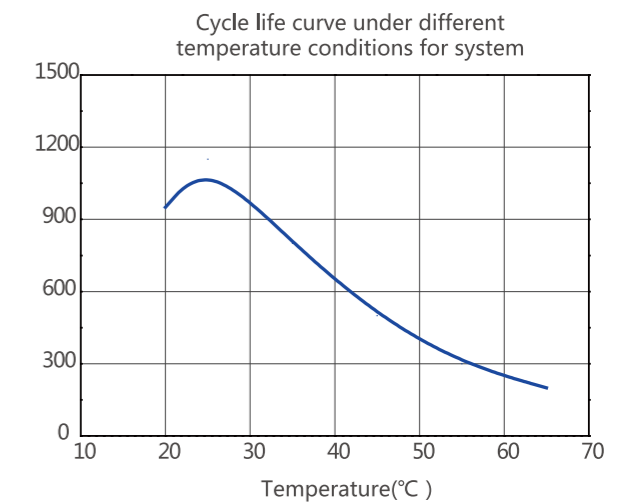
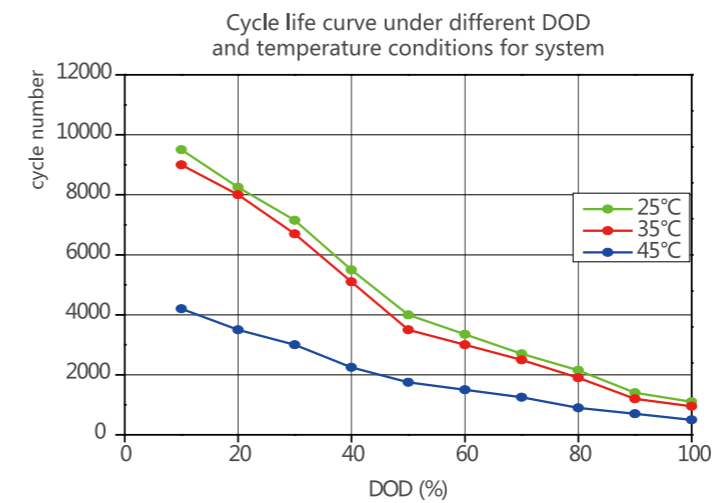
SDA10-4850(A) Constant Power Discharge Characteristics (25°C,77°F)

Voltage	Power/W									
	240	480	720	960	1200	1440	1680	1920	2160	2400
46.5V	9.32	4.56	2.82	1.97	1.49	1.15	0.88	0.75	0.51	0.34
45.0V	9.86	4.74	3.07	2.23	1.74	1.42	1.16	1.01	0.84	0.77
43.5V	9.99	4.84	3.10	2.27	1.79	1.47	1.20	1.07	0.94	0.86
42.0V	10.07	4.91	3.18	2.34	1.84	1.52	1.24	1.11	0.97	0.91
40.0V	10.13	5.02	3.28	2.42	1.91	1.58	1.30	1.16	1.02	0.96

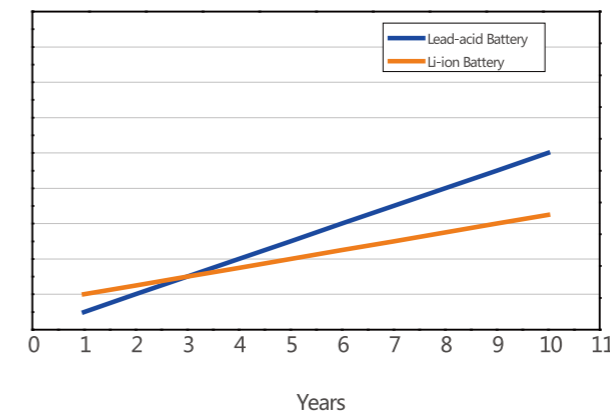
Discharge Curves



Cycle Life Curves



The TCO curve of different battery



Calendar life curve of battery design at different temperatures

