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## **SDA10-4850**

Lithium-ion battery system  
for telecommunication

shoto<sup>®</sup>



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.

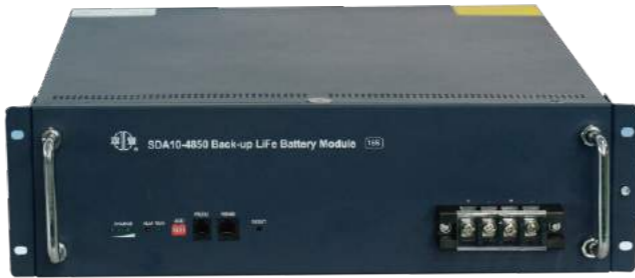
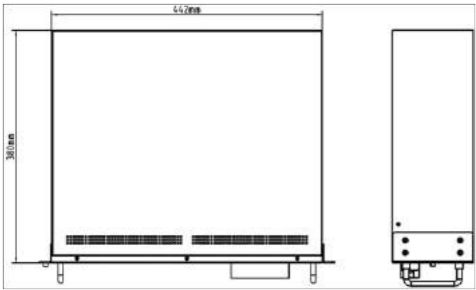
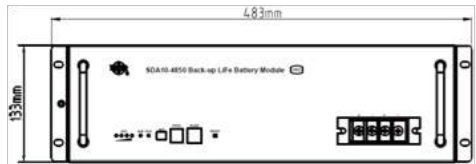
Application Scenarios

- Telecommunication
- UPS
- Renewable energy system

Product Certificates

- ISO9001
- ISO14001
- CE
- TLC
- TÜV

Drawings



The SDA-4850(A) series uses new LiFePO<sub>4</sub> 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 <sub>s</sub> , 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

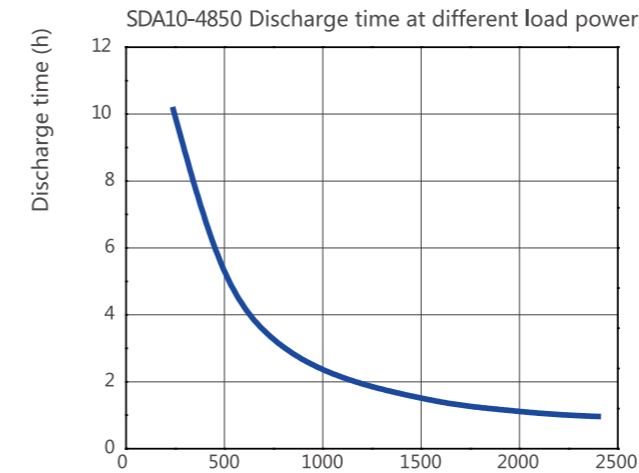
SDA10-4850(A) series Constant Current Discharge Characteristics (25°C,77°F)

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

