

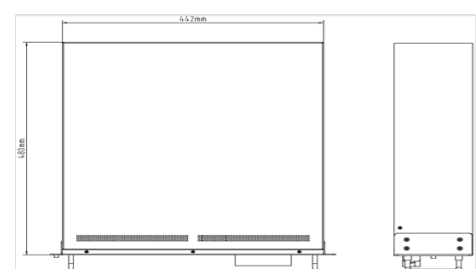
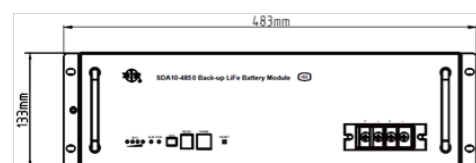
## Application Scenarios

- Off-grid & poor-grid sites
- UPS and emergency illumination
- Renewable energy system

## Product Certificates

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

## Drawings



The SDA10-4850(B) is an advanced energy storage module based on LiFePO<sub>4</sub> technology and intelligent management system. This reliable SHOTO product is safe, durable and easy to install in any new or existing telecom sites; especially suitable for off-grid& poor-grid sites.

Key advantages

- High energy density: more energy with less weight and footprint.
- High charge currents (short charge period)
- High discharge currents
- Ultra-high cycling performance (up to six times the battery life of a conventional battery)
- High efficiency between charging and discharging
- Higher continual power available
- Wide operating temperature
- Predictable end of life due BMS controller
- The lowest possible TCO

## 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	442mm
	Height	133mm
	Depth	480mm
Weight	About 28.7 kg	
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

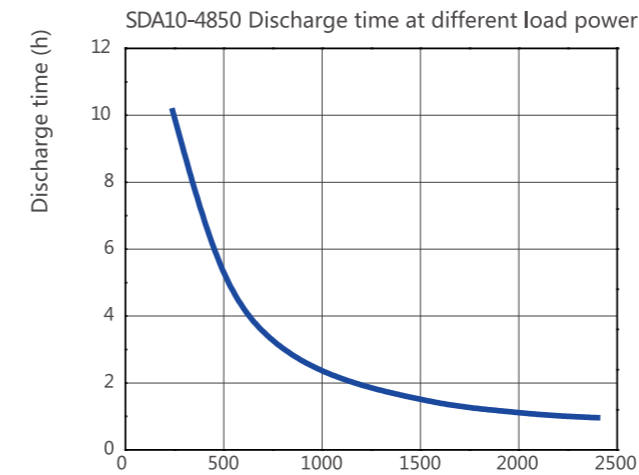
SDA10-4850(B) series Constant Current Discharge Characteristics (25°C,77°F)

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

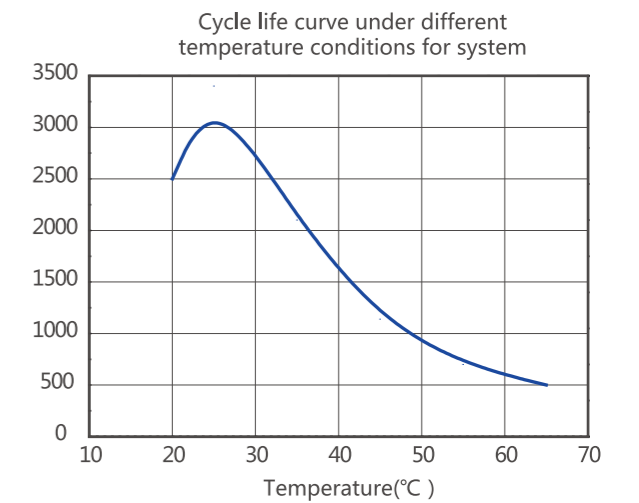
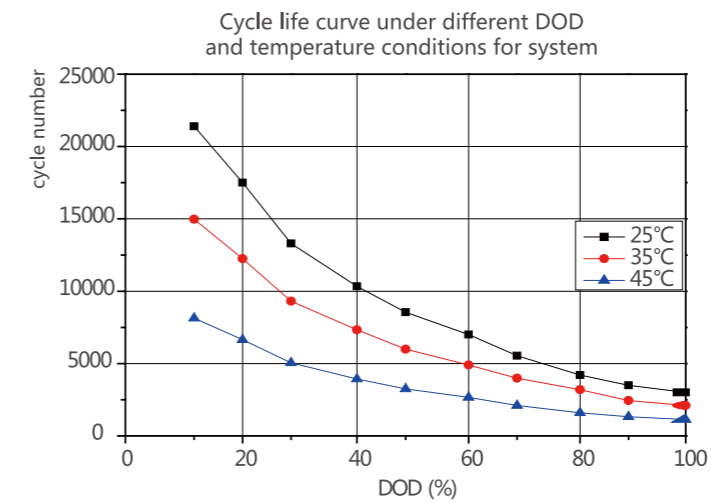
SDA10-4850(B) Constant Power Discharge Characteristics (25°C,77°F)

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

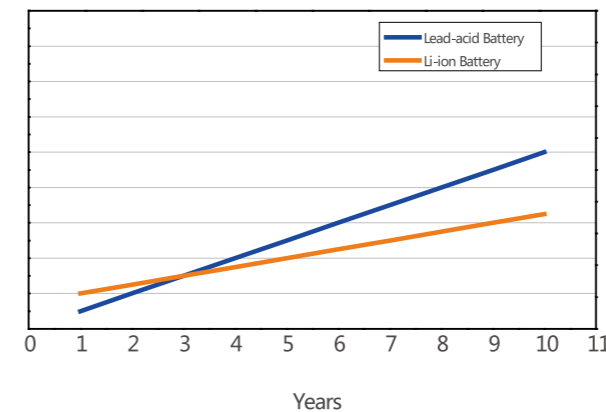
Discharge Curves



Cycle Life Curves



The TCO curve of different battery



Calendar life curve of battery design at different temperatures

