

# Small Cell Power System



Power module: SDA11-48-2000-D; SDA11-48-3000-D

Battery module: SDA10-4820; SDA10-4850

## Application scenario

- ❑ Distributed 5G micro base station;
- ❑ Distributed small-capacity terminal site;
- ❑ Transmission site;
- ❑ Small cells;
- ❑ Other low-power sites.

## Product characteristics

### Power system and monitoring

- ❑ Power efficiency up to 96%;
- ❑ Power distribution for DC Output;
- ❑ Lightning protection design for input, output and communication interface;
- ❑ Multiple communication methods: RS485, CAN, wireless NB-IOT / 4G, Bluetooth, dry contact interface;
- ❑ Complete signal detection, which can realize local and remote monitoring and upload site data at any time; the management platform has the characteristics of centralized monitoring and unified management;
- ❑ Support mobile phone APP to display and set parameters of voltage, current, temperature, alarm and protection; support multiple power sleep and wake-up modes;
- ❑ Store and display real-time data and historical data of system operating status;
- ❑ Upload geographic information via GPS.

### Battery

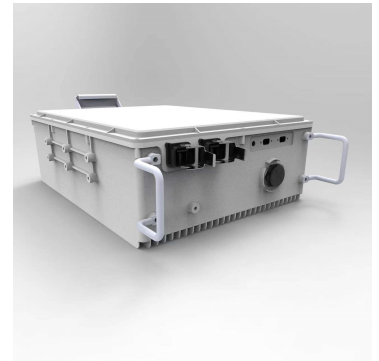
- ❑ Excellent cycle life (6 times of lead-acid batteries), reducing operation and maintenance costs;
- ❑ Charging efficiency  $\geq 97\%$ ;
- ❑ Wide operating temperature range:  $-40\text{ }^{\circ}\text{C} \sim 55\text{ }^{\circ}\text{C}$ .

### Working environment and installation

- ❑ Application scenarios: wall, street pole, lattice tower, mono pole, etc.;
- ❑ Fast and easy installation (plug-and-play), waterproof and anti-reverse connectors;
- ❑ IP65 protection level, cast aluminum housing;
- ❑ Natural cooling design, no fan, no noise, no maintenance, long lifespan;
- ❑ Small size, light weight, easy to handle.



Power module



Battery module

## Introduction

5G communication network is characterized by lower latency, large bandwidth and multiple accesses however it presents customers with new problems: High location density, higher power consumption and higher operating costs. As a customer-focused company, the ShotoGroup has developed an integrated power supply system that will support the introduction of 5G in terms of cost and speed.

This system includes independent power supply module (rectifier, monitoring, power distribution and a wireless communication unit) and lithium battery module. It is highly efficient, compact, lightweight, easy to install. It doesn't need setting, and its maintenance free. It also supports capacity expansion. It is specially designed for 5G micro base station.

The power supply system uses an aluminum casing with excellent heat dissipation capacity, and is suitable for harsh working environments such as: high and low temperature, dust, and humidity. Support wall and pole mounting and it is suitable for a variety of scenarios such as indoor and outdoor. It can help our customer achieve rapid networking, reduce site energy consumption, and reduce site operation and maintenance costs.

## Installation diagram



Installation diagram of power module



Installation diagram of battery module

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## System parameters

### Power module

Model	SDA11-48-2000-D	SDA11-48-3000-D
<b>Basic parameters</b>		
Operating temperature	-40°C ~ +55°C (Temperature outside the aluminum case)	
Cooling method	Natural conduction cooling	
Audio noise	<45 dB	
Dimensions (width * height * depth mm)	304*390*100 mm	
Total Weight	≤8.5KG	
Installation method	Can be installed on walls, poles, angle steel towers; supports banner or tile installation, etc.	
Protection level	IP65	
<b>AC input</b>		
Input voltage	Rated input voltage: AC 220V , Input range: AC 85 ~ 300V	
Input frequency	45 ~ 55Hz	
Input current	< 15A	< 22.5A
Power Factor	≥0.99	
AC Surge	20KA	
<b>DC Output</b>		
Rated output voltage	DC 48V	
Rated output power	2000W	3000W
Load output	30A × 3	
Battery input	50A × 1	
DC surge	10KA	
Power Efficiency	96%	
<b>Other functions</b>		
Human-computer interaction	Serial communication; mobile APP	
Dry contact	3 (Configurable)	
Communication interface	RS485;CAN	
Wireless communication	NB-IOT/4G;Bluetooth	

### Battery module

Model	SDA10-4820	SDA10-4850
<b>Basic parameters</b>		
Battery type	Iron lithium battery, 16 series	
Operating temperature	-40°C ~ +55°C (Ambient temperature)	
Cooling method	Natural conduction cooling	
Dimensions	350*450*150mm	
Total Weight	≤25Kg	≤31Kg
Installation method	Can be installed on walls, poles, angle steel towers; supports banner or tile installation, etc.	
Protection level	IP65	
<b>Performance parameter</b>		
Rated battery voltage	48V	
Battery capacity	20Ah	50Ah
Working voltage range	40V-57.6V	
Max. charging voltage	57.6V	
Charging current	20A (Current limited mode: 10A)	25A (Current limited mode: 10A)
Discharge current	20A	50A
<b>Communication Interface</b>		
Parallel communication	Supported	
Communication Interface	RS485*2	
Alarm and protection	Over voltage, under voltage, short circuit, overload, over current, over temperature, low temperature protection, etc.	

Declaration: This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs/specifications are subject to modification without notice. Contact CHINASHOTO for the latest information.

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