

Zhongfu PV Off-grid solar power system

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中府光电
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Company profile



Wuhu Zhongfu PV Co., Ltd. is a hi-tech enterprise engaged in R&D、 manufacture and sales of solar modules and photovoltaic systems. The company was established in 2009 and located in the national Development zone, machinery industrial park, Wuhu city, Anhui province, China.

The headquarters of Zhongfu PV covers an area of more than 20 thousand square meters, with over 7 thousand square meters factory workshop. The company introduces the most advanced automatic production equipment among the photovoltaic industry, and has more than 100 qualified and skilled employees including experienced engineers, technicians. The company has passed ISO9001/14001 certification. Zhongfu PV endeavors in providing new energy power products, and continues its development. The company aims to reach a factory capacity of 100 MW per year in 2011. Our products, which passed TUV and CE certifications, have entered into Europe , North America and other areas and have received a high reputation by masses of customers.

Wuhu Zhongfu PV Co., Ltd. is committed to clean energy of human race and sincerely expects to win together through cooperation with you.

Off-grid system summary

Off-grid solar power system is composed of

- PV modules: transforms sunlight to electricity
- PV controller: manage the battery charge & discharge , and provide power to the DC load
- Inverter: provide power for the AC load by transform the electricity from DC to AC.

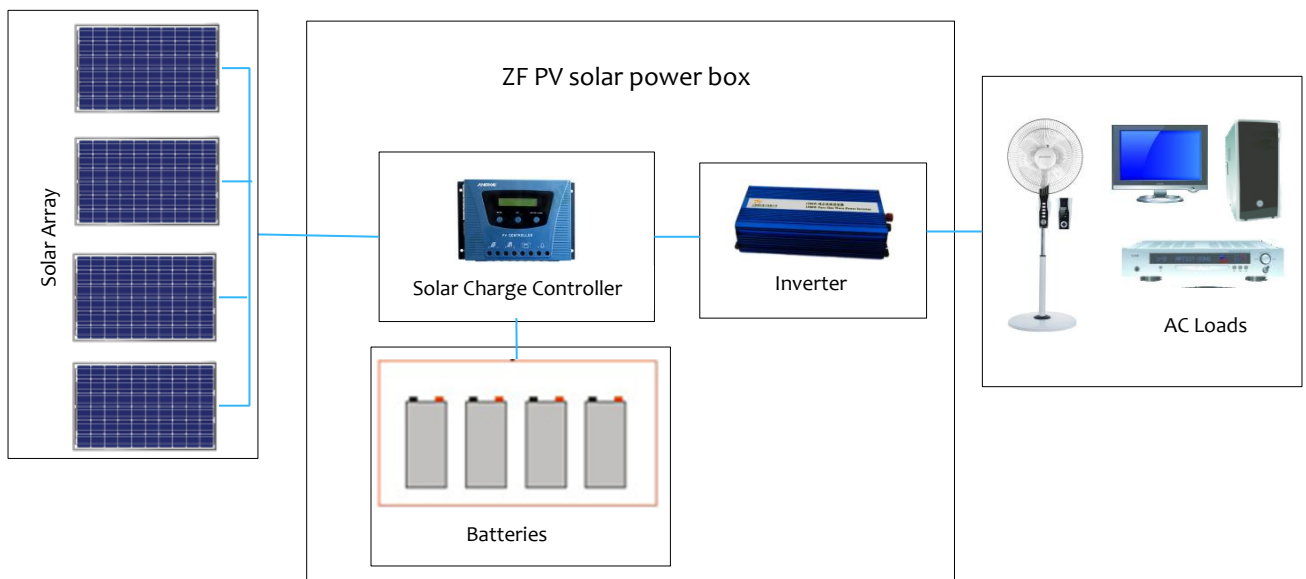
Off-grid solar power system can be widely used in harsh area such as plateau, islands and mountains. It can also supply power for communication equipment, street lamps, base stations and advertising lightings.

Off-grid solar power system uses inexhaustible natural energy, can effectively ease the demand conflict of the power shortage area, solve living and communication problems in remote areas, improve the global environment.

Zhongfu PV complete off-grid solar power system composes of PV modules and solar power box, which integrated controller, inverter and batteries in one smart UPS. It can control the PV modules to charge intelligently the batteries, and transform the DC electricity from the batteries into 220V pure sine wave AC power for user's load.

The controller's batteries protection system automatically monitor the battery voltage to prevent under/over charging. The inverter can also be connected with public grid if possible, when the batteries are over discharged, the inverter will automatically use the grid electricity to power user's AC load

System diagram



Models & specifications

| Model | Wattage (W) | Solar Panels (W) | Batteries | Inverter | Controller | Capacity (kWH/D) |
|----------|-------------|------------------|-------------|-----------|------------|------------------|
| ZF-S300 | 280 | 140*2 | 12V100AH*2 | 24V300W | 10A24V | 0.9 |
| ZF-S500 | 500 | 250*2 | 12V120AH*2 | 24V500W | 20A24V | 1.6 |
| ZF-S1000 | 1000 | 250*4 | 12V200AH*2 | 48V1000W | 20A48V | 3.3 |
| ZF-S1500 | 1500 | 250*6 | 12V150AH*4 | 48V1500W | 30A48V | 4.9 |
| ZF-S2000 | 2000 | 250*8 | 12V200AH*4 | 48V2000W | 40A48V | 6.6 |
| ZF-S3000 | 3000 | 250*12 | 12V150AH*8 | 48V3000W | 60A48V | 9.9 |
| ZF-S4000 | 4000 | 250*16 | 12V100AH*18 | 110V4000W | 40A110V | 13.2 |
| ZF-S5000 | 5000 | 250*20 | 12V120AH*18 | 110V5000W | 50A110V | 16.5 |

* The capacity is calculated based on the daily solar radiation as 5.5 in Middle East.

Guarantee and life span:

| Part | | Guarantee | Life span |
|-------------|------------|-----------|-----------|
| Power box | Inverter | 2 years | 15 years |
| | Controller | 2 years | 15 years |
| Battery | | 2 years | 7 years |
| Solar panel | | 5 years | 25 years |

Thanks to our experienced engineers, we are able to design specific systems according to our client's requirement. Please offer us necessary information in the following table.

Country: _____ City: _____ Continuous cloudy & rainy days: _____

| No. | Load name | Power | Quantity | Working hrs/Day | Working voltage | DC/AC |
|---------|------------|-------|----------|-----------------|-----------------|-------|
| Example | 14-inch TV | 150w | 1 | 6 | 220V | AC |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |