

Solar Water Pumping Inverter

Bangzhao PV pump system is different from traditional AC pump application system, PV pump system is using solar cells to directly convert solar energy into electrical energy, then PV pump inverter drive the AC motor to drive pump getting water from deep well, river, lake etc., finally transport to the destination to meet our demand for water.

PV pumping system consists of four parts: PV array, PV pump inverter, three-phase AC pump and storage device.

PV array absorb sunshine radiation energy and convert it into electrical energy, supply power for whole system.

PV pump inverter is an important part of PV pump inverter system, which convert the output DC from PV array into AC for driving pump, and according to the changes of sunlight intensity in real time to adjust the output voltage and frequency to achieve max. power point tracking and max the use of solar energy.



- Professional Quality
- Direct Manufacturer
- Exclusive Design
- Energy Conservation

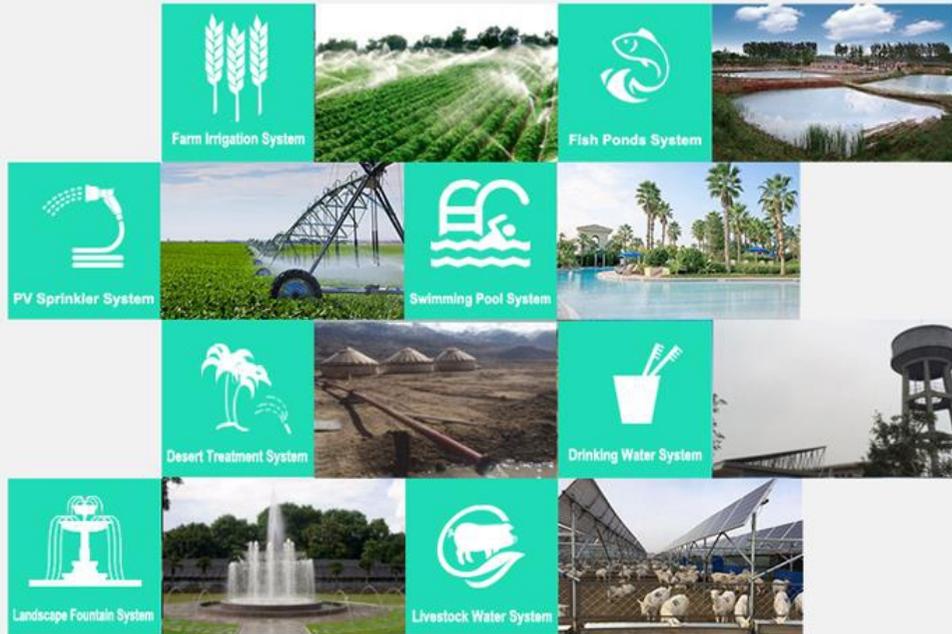
Product Description:

Solar water pumping system is constructed with solar panel array, solar pump inverter and AC water pump, DC current produced from solar panel will be delivered to solar pump inverter, and it will convert it into AC current to drive water pump, and will automatically regulate output frequency according to sun radiance intensity, maximum realize MPPT tracking function.



Application Scope

产品使用范围 PRODUCT USE SCOPE



Product Features

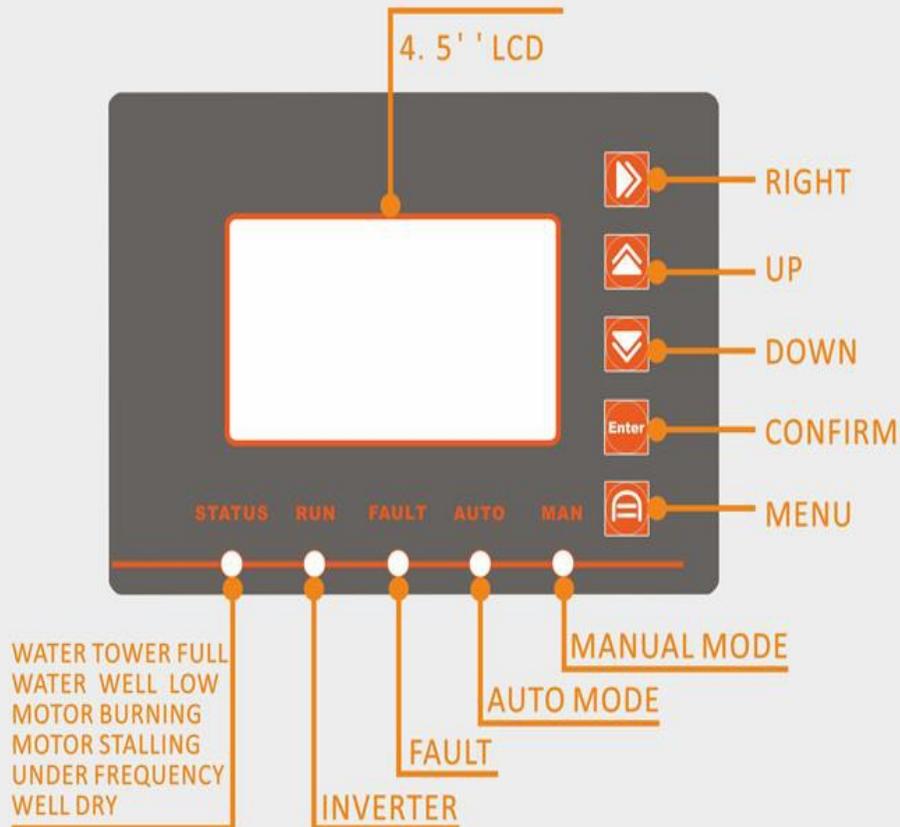
- ◆ VI maximum power point tracking (MPPT) algorithm, fast response speed, running stability, to solve the traditional MPPT method question of poor tracking effect, unstable running and even the problem of water hammer damaged under when under rapidly changes in the intensity of sunlight.
- ◆ Adopting high-efficiency IPM (intelligent power module) from Mitsubishi with powerful protection function and high stable performance.

- ◆ The system to run automatically, without human duty, saving a lot of manpower
- ◆ Adopted new type of variable frequency driver (VFD) technology, ensure the pump also can work in the case of less sunshine, greatly improves efficiency and maximum utilization of solar array.
- ◆ Full digital control, automatic operation, data storage, and perfect protection function, can achieve unattended.
- ◆ LCD display operating panel, can setting various parameters through LCD, easy to operation.
- ◆ Complete protection function for PV input under voltage, PV input over voltage, input connection Reverse Polarity, DC over current, output, over load, short circuit, dry Well, overflow, dry running, and blocking protection.
- ◆ Based on the design concept of developing environmental protection and economical PV products, choose water storage to replace battery storage, no battery device, direct drive pump, the unit with high reliability, and at the same time greatly reduce construction and maintenance costs.
- ◆ System modular design, stable operation, high reliability and safety, installation and maintenance is very convenient
- ◆ LCD display, you can view and set various operating parameters
- ◆ Equipped with RS485 data communication for remote monitoring (Optional).
- ◆ European CE (EMC, LVD) certificate

产品介绍 PRODUCT INTRODUCTION

面板展示 精挑细琢 精益求精 PANEL DISPLAY

精品上市 多道工序 完美呈现 细节决定成败



十重保护, 使用安全放心

TEN PROTECTION, MORE SAFE TO USE



Green Energy, Environmental Health, Bring Convenience To People's Life,
Free you from lack of electricity!

Technical Date:

Model:SPI-	1.5KW	2.2KW	3.7KW	5.5KW	7.5KW	11KW	15KW	18KW	22KW
D.C. Input									
Max.input voltage(VDC)	600V			850V					
Recommended MPPT voltage	300-600V			400-800V					
Max.MPPT Efficiency	99%								
Number of String	1	1	1	1	1	1	1	1	1
AC Bypass Input Function	Optional								
A.C. Output									
Max.Motor Output Power(KW)	1.1-1.5	2.2	3-3.7	4.5-5.5	7.5	9.2-11	13-15	18.5	22
Rated Output Voltage	220V single phase			380V three phase					
Output Frequency Range	0-50/60HZ								
Rated Output Current	9	13	22	11	15	22	30	35	45
Other Parameters									
Protection Level	IP65								
Operating Temperature	-25°C~+60°C; above 60°C need derate operating								
Cooling Way	Natural Cooling								
Display	LCD								
Communication	RS485(Optional)								
Altitude	3000m;above 3000m need derate operating								
Noise Emission	<50dB								
Compliance	EN62109-1:2010;EN62109-2:2011;EN61000-6-3;EN61000-6-1; EN61000-3-12; EN61000-3-11								

Model:SPI-	30KW	37KW	45KW	64KW	75KW	90KW	110KW	132KW	150KW
D.C. Input									
Max.input voltage(VDC)	850V								
Recommended MPPT voltage	400-800V								
Max.MPPT Efficiency	99%								
Number of String	1	1	1	1	1	1	1	1	1
AC Bypass Input Function	Optional								
A.C. Output									
Max.Motor Output Power(KW)	26-30	37	40-45	55-64	75	90	110	132	150
Rated Output Voltage	380V three phase								
Output Frequency Range	0-50/60HZ								
Rated Output Current	60	75	90	130	150	180	220	260	300
Other Parameters									
Protection Level	IP20								
Operating Temperature	-25°C~+60°C; above 60°C need derate operating								
Cooling Way	Natural Cooling								
Display	LCD								
Communication	RS485(Optional)								
Altitude	3000m;above 3000m need derate operating								
Noise Emission	<50dB								
Compliance	EN62109-1:2010; EN62109-2:2011;EN61000-6-3;EN61000-6-1; EN61000-3-12; EN61000-3-11								



Alarm: Please choose the right type of inverter according to PV array and pump motor load.

工程案例 PROJECT CASE

45kw solar pumping system in Urumqi



Project Location	Urumqi China
Application	Desert Irrigation
Altitude	4500 meters
Daily Water Output	350-500m ³ /day
Running Time	7 hours in summer
Head	200m
Module Type	250W Polycrystalline Modules
Solar Panels	11 Strings, each string 20pcs
Solar Pump Inverter	SPI-45KW
Deep Well Pump	45KW



7.5kw solar pumping system in Yunnan China

This system is installed in Yunnan with depth of 165m, one days water output is about 45m³.

This system we use 2 strings 250W polycrystalline modules, each string there are 19PCS solar panels. so total 38PCS, 9500W solar panels, the pump is 3 phase 7.5KW 380VAC, 50Hz. The application of this system is for farm irrigation.

The solar pump system is the best choice for the area without grid electricity. compared with diesel pumping system. it is much more cheaper clean, environmental, in long term.



110kw solar pumping system in Tajikistan



Project Location	Tajikistan
Application	Desert Irrigation
Altitude	5400 meters
Module Type	250W Polycrystalline Modules
Solar Panels	28 Strings, each string 20pcs
Solar Pump Inverter	SPI-110KW
Deep Well Pump	110KW



37kw solar pumping system in Yunnan China



7.5kw solar pumping system in Vietnam



5.5kw solar pumping system in China



75kw solar pumping system in Mongolia



11kw solar pumping system in Africa



63kw solar pumping system in China