

SHENZHEN SETEC POWER CO.,LTD

SETEC Power Co.,Ltd,established in **2004**,one of the leading manufacturers in China specializing in designing ,researching, developing, producing and selling.

We're professional manufacturer of inverter with more than **10** years' experience.Our products had adopted ISO9001:2008 Quality System Authorities and CE certificate.

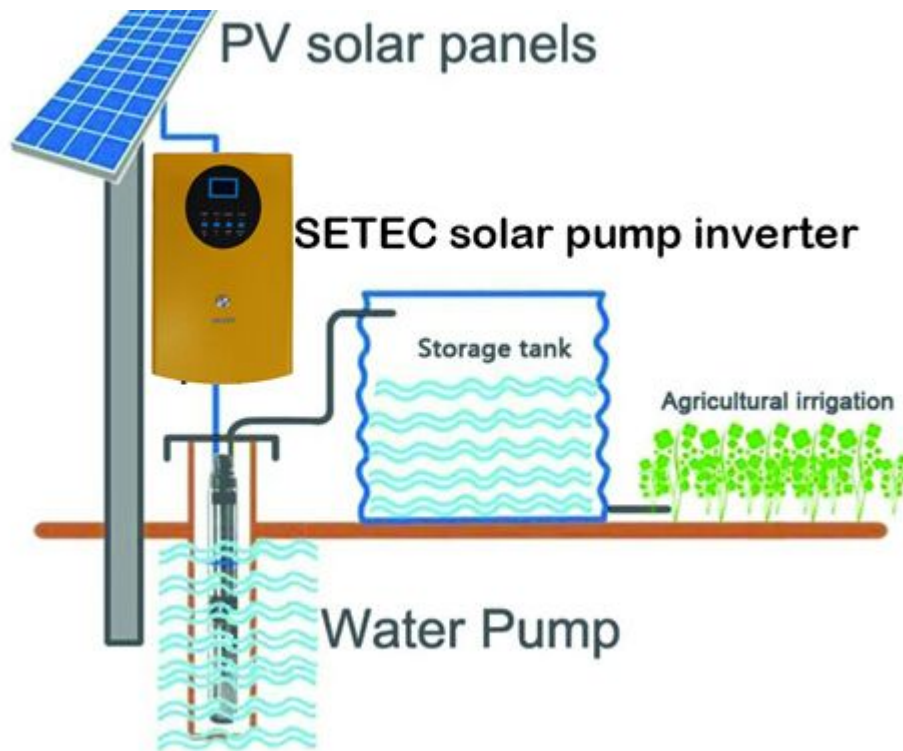
our factory area is about **7000** square meters.



Add: # 199, Setec Industrial Park, Dakan Villiage, Xili Town, Nanshan District, Shenzhen, China
Tel: (86) 755 26527304 Fax: (86) 755 26527104 www.setec-power.com



SETEC MPPT solar pump inverter



Product Introduction

SETEC Power solar pumping system consists of solar pumping inverter, pump and PV array. Consider that storing water is more efficient than storing electricity, the system is designed to directly drive the pump without battery which can reduce the construction and operating cost and routine maintenance effectively.

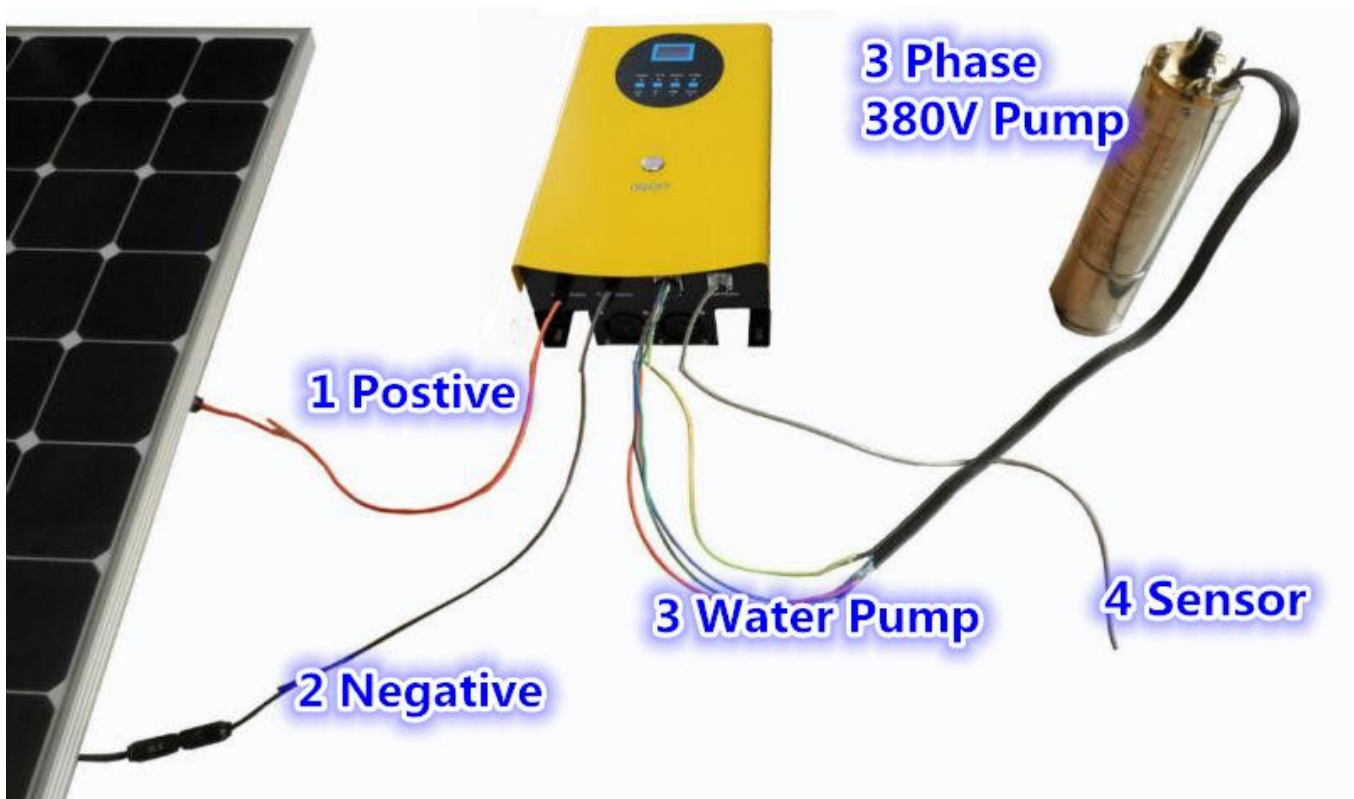
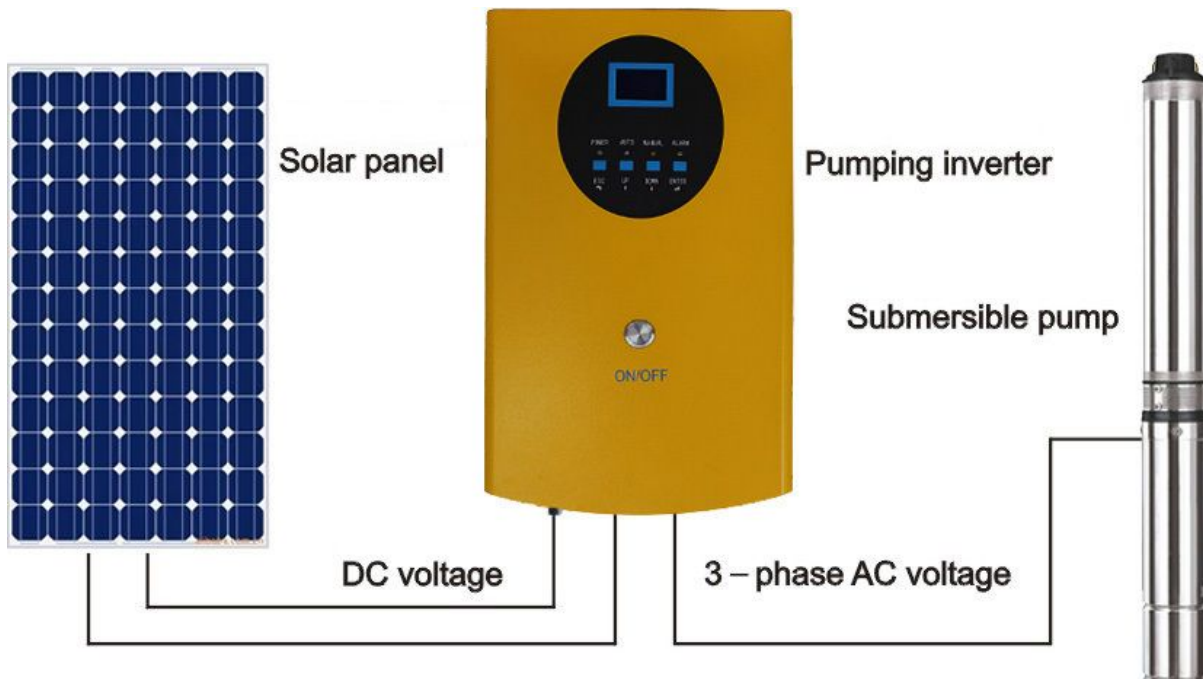
The PV array consists of multiple solar panels connected in series/parallel, which can supply the whole system as power source by converting the absorbed solar radiation energy to the electrical energy.

Solar pumping inverter can implement the control of the whole system operation, which drives the pump by converting DC power produced by the PV array to AC power. This inverter can adjust the output frequency according to the solar irradiation intensity in real time to implement the MPPT (maximum power point tracking).

The pump driven by a 3-phase AC motor draws water from deep-well or river. The pumped water is then fed into reservoir or water tank, or connected to the irrigation system or fountain system directly. All of centrifugal pump, axial-flow pump, mixed-flow pump and deep-well pump can be utilized.



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All inverters will be strictly tested for many times before delivery.



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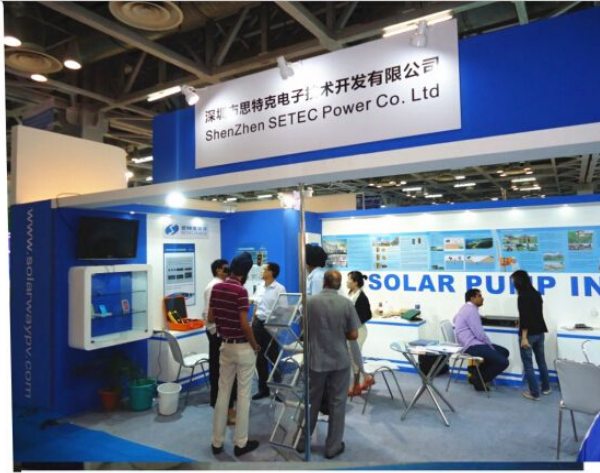
Features

1. Compatible with 3-phase induction motor Water pump is driven by a three-phase AC motor;
2. It adopts dynamic VI maximum power point tracking(MPPT) and optimizes pure sine wave PWM control with fast response speed and good stability;(Its MPPT controlling technology can adjust pump speed according to changes in sunlight intensity. In the peak of sunshine, the pump is running at rated speed,and the output power close to the PV array maximum power. When sunshine is insufficient, it will automatically stop working.);
3. Use [stainless steel](#) as protection material, so it can be installed outside without water-proof box;
4. Full automatic operation: according to the actual conditions, it can freely set the range of pump speed;
5. The main circuit uses intelligent power module(IPM) with high reliability and high conversion efficiency (above 98%);
6. Have complete protective functions (overload, over/under voltage, over heat, reverse polarity, thunder, over flow and dry running, short-circuit);
7. Protection degree [IP65](#), working environment temperature: -10°C ~ 50°C;
8. LCD display(43*29mm), simple operation. setting parameters and fault detection ;
9. Solar pump inverter can connect to city power when there is no sunshine to keep system pumping water; This optional function is only for inverter whose power is less than 3.7kw.
10. Soft start and variable-frequency function.(Go up from 0Hz to 50Hz);
- 11.AC drive function.(When sunshine is not enough, AC city power is switched to work manually).
12. SETEC solar pump inverter has two main series:
 - 1)SETEC solar pump inverter from 0.37kw to 5.5kw for 3-phase AC 220v pumps from 0.37kw(0.5HP) to 4.5kw(6HP);
 - 2)SETEC solar pump inverter from 0.37kw to 75kw for 3-phase AC 380v/415v pumps from 0.37kw(0.5HP) to 65kw(86HP).

Setec Exhibitions:



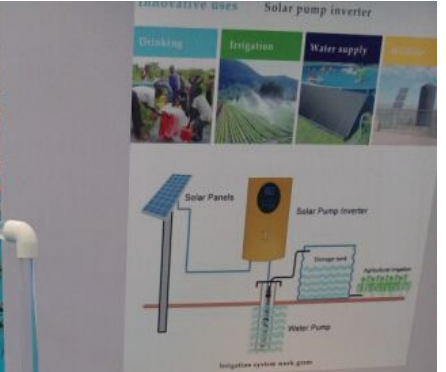
Germany Exhibition



India Exhibition



Shanghai Exhibition





Datasheet

System	Solar Pump Inverter						PV Array	Adapting AC Pump		
	Model	Rated Power	Input DC Voltage	MPPT Voltage	Output AC Voltage	Output Frequency	Power	Motor Power		Rated Voltage
		kW	V	V	V	Hz	kW	HP	kW	V
1	SGY750L	0.75	280-430	300-350	3 phase 220	0-50/60	0.6	0.5	0.37	3 phase 220
2	SGY750L	0.75	280-430	300-350	3 phase 220	0-50/60	0.825	0.75	0.55	3 phase 220
3	SGY1500L	1.5	280-430	300-350	3 phase 220	0-50/60	1.125	1	0.75	3 phase 220
4	SGY1500L	1.5	280-430	300-350	3 phase 220	0-50/60	1.65	1.5	1.1	3 phase 220
5	SGY2200L	2.2	280-430	300-350	3 phase 220	0-50/60	2.25	2	1.5	3 phase 220
6	SGY3700L	3.7	280-350	300-350	3 phase 220	0-50/60	3.3	3	2.2	3 phase 220
7	SGY3700L	3.7	280-350	300-350	3 phase 220	0-50/60	4.5	4	3	3 phase 220
8	SGY750H	0.75	450-750	500-600	3 phase 380	0-50/60	0.6	0.5	0.37	3 phase 380
9	SGY750H	0.75	450-750	500-600	3 phase 380	0-50/60	0.825	0.75	0.55	3 phase 380
10	SGY1500H	1.5	450-750	300-350	3 phase 220	0-50/60	1.125	1	0.75	3 phase 380
11	SGY1500H	1.5	450-750	300-350	3 phase 220	0-50/60	1.65	1.5	1.1	3 phase 380
12	SGY2200H	2.2	450-750	500-600	3 phase 380	0-50/60	2.25	2	1.5	3 phase 380
13	SGY3700H	3.7	450-750	500-600	3 phase 380	0-50/60	4.5	3	2.2	3 phase 380
14	SGY3700H	3.7	450-750	500-600	3 phase 380	0-50/60	4.5	4	3	3 phase 380
15	SGY5500H	5.5	450-750	500-600	3 phase 380	0-50/60	6	5	3.7	3 phase 380
16	SGY5500H	5.5	450-750	500-600	3 phase 380	0-50/60	6	5.5	4	3 phase 380
17	SGY7500H	7.5	450-750	500-600	3 phase 380	0-50/60	8.25	7.5	5.5	3 phase 380
18	SGY11KH	11	450-750	500-600	3 phase 380	0-50/60	11.25	10	7.5	3 phase 380
19	SGY11KH	11	450-750	500-600	3 phase 380	0-50/60	13.8	12.5	9.2	3 phase 380
20	SGY15KH	15	450-750	500-600	3 phase 380	0-50/60	16.5	15	11	3 phase 380
21	SGY15KH	15	450-750	500-600	3 phase 380	0-50/60	19.5	18.5	13	3 phase 380
22	SGY18KH	18	450-750	500-600	3 phase 380	0-50/60	22.5	20	15	3 phase 380
23	SGY22KH	22	450-750	500-600	3 phase 380	0-50/60	27.8	25	18.5	3 phase 380
24	SGY30KH	30	450-750	500-600	3 phase 380	0-50/60	33	30	22	3 phase 380
25	SGY30KH	30	450-750	500-600	3 phase 380	0-50/60	39	35	26	3 phase 380
26	SGY37KH	37	450-750	500-600	3 phase 380	0-50/60	45	40	30	3 phase 380
27	SGY45KH	45	450-750	500-600	3 phase 380	0-50/60	56	50	37	3 phase 380
28	SGY55KH	55	450-750	500-600	3 phase 380	0-50/60	68	60	45	3 phase 380
29	SGY75KH	75	450-750	500-600	3 phase 380	0-50/60	83	73	55	3 phase 380
30	SGY75KH	75	450-750	500-600	3 phase 380	0-50/60	98	86	65	3 phase 380



Solar Pump Inverter

SGY750H, SGY1500H,
SGY2200H, SGY3700H



SGY5500H, SGY7500H,
SGY11KH, SGY15KH, SGY18KH



Solar
Pump
Inverter

SGY22KH, SGY30KH, SGY37KH



SGY45KH, SGY55KH, SGY75KH
SGY100KH, SGY150KH, SGY225KH





Projects

System1:

5.5kw irrigation in Bangladesh

- 5.5kw 3 phase 380V AC pump (38m head, 16m³/h);
- 7.5kw solar pump inverter (SGY7500H);
- 8.33kw solar panel ;
(34pcs 245w poly solar panel with vmp 30v,voc 37v; 17pcs in series, 2strings in parallel).

Vmp: 17pcs*30v=510v (Meet inverter' s MPPT voltage 480V-600V)

Voc: 17pcs*37v=629v (Meet inverter' s input voltage 450V-750V)





System2:

5.5kw irrigation for farm land in Pakistan

- 4kw 3 phase 380V AC pump (75m head, 10m³/h);
 - 5.5kw solar pump inverter (SGY5500H);
 - 6.48kw solar panel ;
- (36pcs 180w poly solar panel with voc 37v, vmp 30v; 18pcs in series, 2 strings in parallel).

Vmp: 18pcs*30v=540v(Meet inverter's MPPT voltage 480V-600V)

Voc: 18pcs*37v=666v (Meet inverter's input voltage 450V-750V)

Installation pictures:





System3:

22kw project in Yemen.

Solar Pumping System configuration

1: AC pump: 18.5kw, 3phase 380v, 50Hz

2: Solar pump inverter: SGY22KH (22KW, DC Input voltage: 450V-750V.,MPPT voltage: 500V-600V)

3: Power of solar panels: 28350w (Each pcs is 315w,total 90pcs; Vmp: 37.2V, Voc : 45.8V)

Nominal Power (Pmax)	315W
Open circuit Voltage (Voc)	45.8V
Voltage at Nominal Power (Vmp)	37.2V





System 4:

5.5kw project in South Africa.

4.5kw pump+5.5kw inverter+8.5kw solar panel

17pcs of 250w solar panels

vmp:29.5v voc:37v

17pcs in series, 2strings.

Total Vmp: $29.5V \times 17\text{pcs} = 501.5V$ Meet inverter' s MPPT voltage 480V-600V

Total Voc: $37V \times 17\text{pcs} = 629V$ Meet inverter' s input voltage 450V-750V

Total power: $250w \times 34\text{pcs} = 8500w$





SHENZHEN SETEC POWER CO.,LTD

CE certificate and ISO9001:2008 certificate:



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