



ELGIN SOLAR PUMP

Jointly Launched by

ELGIN SYSTEM INC., CANADA

ELGIN SYSTEM (INDIA) PRIVATE LIMITED

For a Clearer Sky

ELGIN SOLAR PUMP

into

Health & environment protection

Green energy saves earth

Corporates Brief

Elgin System Inc. (ESI), a Canada based technology R & D Corporation in the field of betterment of the pollution control, provides the tailored technical solutions for the emission control of SPM and the Solar Energy.

Elgin System (India) Private (ESIPL), an extended arm of ESI in India, serves the India market in the fields of emission control in Thermal Power sector and develops the Solar Power Projects.

Elgin System (India) Private Limited (ESIPL) has its registered office and full fledged team at Raipur of Chhattisgarh state of India to implement the projects and carry out the service after sales.

Solar Pump in India

The sun is an inexhaustible, reliable, non-polluting source of power. Globally more and more emphasis is being laid towards the use of renewable sources of energy because of climate change, local air pollution and resource scarcity, in this regard photovoltaic (PV) is best suited as an alternative source of energy in India where clear 300 Days of sunshine is available. Solar powered pumps are ideal for water supply in remote locations where electricity is unavailable or erratic. Even in urban areas these find great usage to reduce the dependency on conventional power and contribute towards green living.

The government of India gradually and steadily is encouraging the use of solar power through their various schemes.

We devote ourselves into the betterment of the performance of these solar pumping systems through various system optimizations.

What we do is follow strict quality control procedures to maintain the quality standards of our solar rooftop systems to deliver the maximized and perfect performance.

WHY SOLAR ?

India has 300 clear days of sunshine every year.

Established technology globally.

Power Generated at the point of consumption.

No cabling cost.

No cost of accessories (like transformers, distribution systems & switches Etc).

Negligible Maintenance.

SOLAR PUMPING SYSTEM :

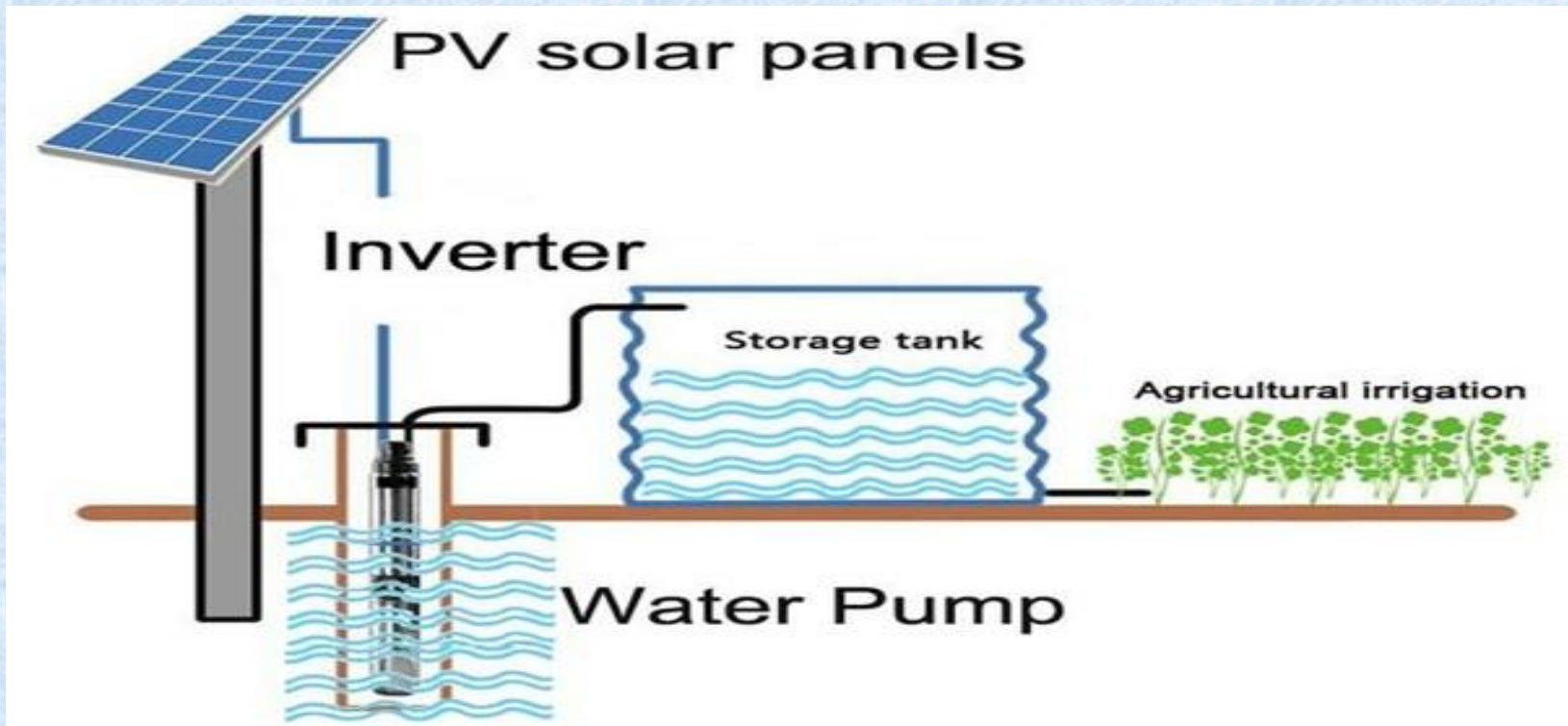
The solar pumps is an innovative pump designed to utilize the power of the sun during the day and act as a normal hand pump when the solar energy is not available, hence assuring uninterrupted water supply for irrigation, drinking, sanitation, personal hygiene etc.



SOLAR PUMPING SYSTEM STRUCTURE

It is composed of three parts :

- solar panels
- photovoltaic inverter
- Pump



WORKING PRINCIPLE

Solar panels absorb solar radiation energy and transform it into DC electrical energy, photovoltaic inverter transforms the DC power into three-phase AC driving pump operation.

According to changes in sunlight intensity in real time adjust output frequency. when sunshine reaches peak, pump runs at rated speed; when sunshine is weak, it runs lower than the rated speed, regulating speed running in MPPT way, ensure the pump work steadily.

OUR PRODUCTS

3HP Solar Pump System



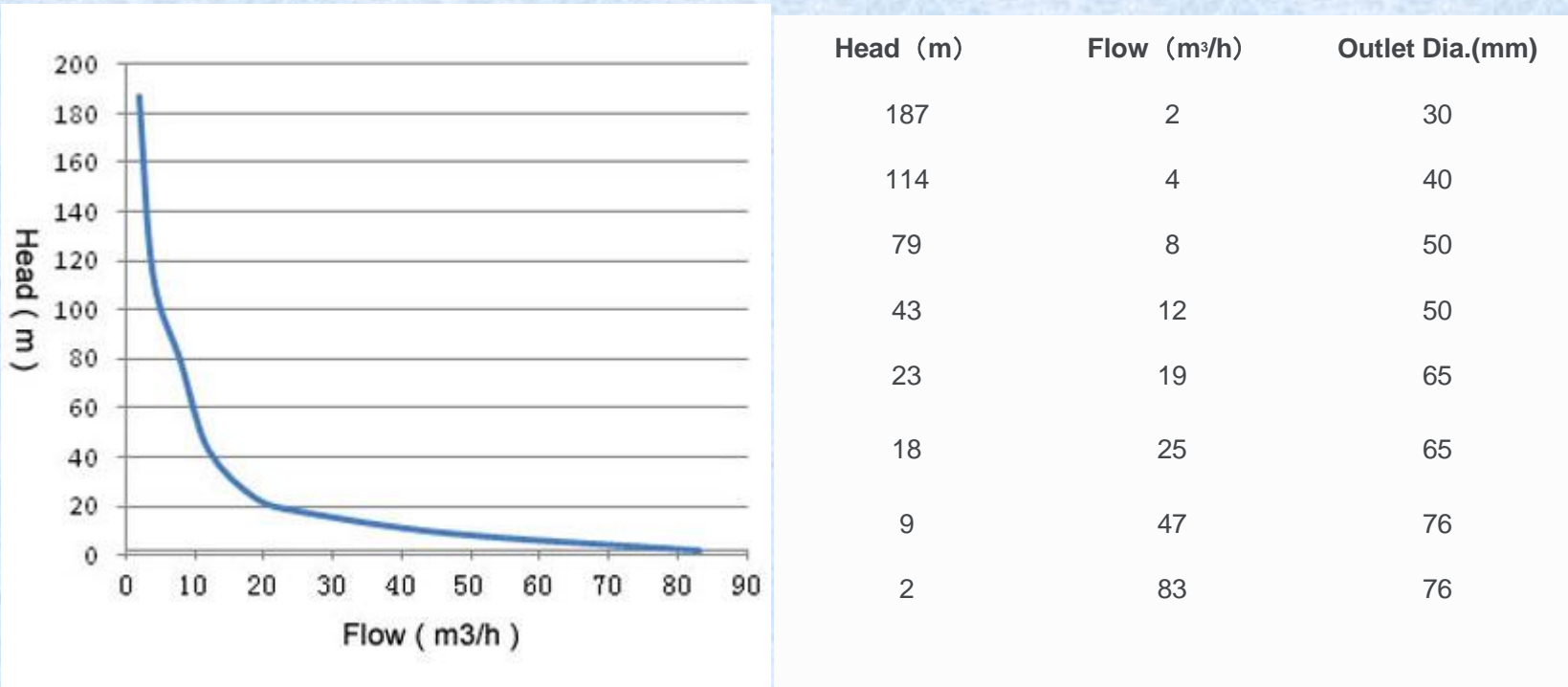
PRODUCT DETAILS :

3HP Solar Pump System

- ✓ System head: 187m (Max.)
- ✓ Daily flow: 500m³(Max.)
- ✓ Input voltage : 450-750V
- ✓ Max. input open circuit voltage:800V
- ✓ Inverter Power: 4000W(Output AC 3P 380V)
- ✓ Output current: 9A
- ✓ Pump power: 3000W(Input AC 3P 380V)
- ✓ PH range of water quality: 6.5-8.0
- ✓ Operating temperature: -20°C ~ +50°C
- ✓ Protection Grade: IP54

3HP Solar pump system

PUMP CURVE:



* Recommended head, flow data for maximum power

** Maximum power standard test conditions (solar radiation): 6 kwh / square meter / day, environment temperature is 25°C

3HP Solar Pump System

SYSTEM COMPONENTS DETAILS :

Inverter controller :

- Setting parameter automatic / manual
- The application of various three-phase asynchronous motor
- High conversion efficiency, MPPT control
- Lightning protection, combiner, under voltage and over current protection
- Optional water level detection accessories (To prevent the motor anhydrous idling and water of tower overflow .

Pump (4" pump) :

- High efficiency three-phase AC Pumps(380V)
- Protect check valve
- Stainless steel material
- Protection grade:IP68

5HP Solar Pump System



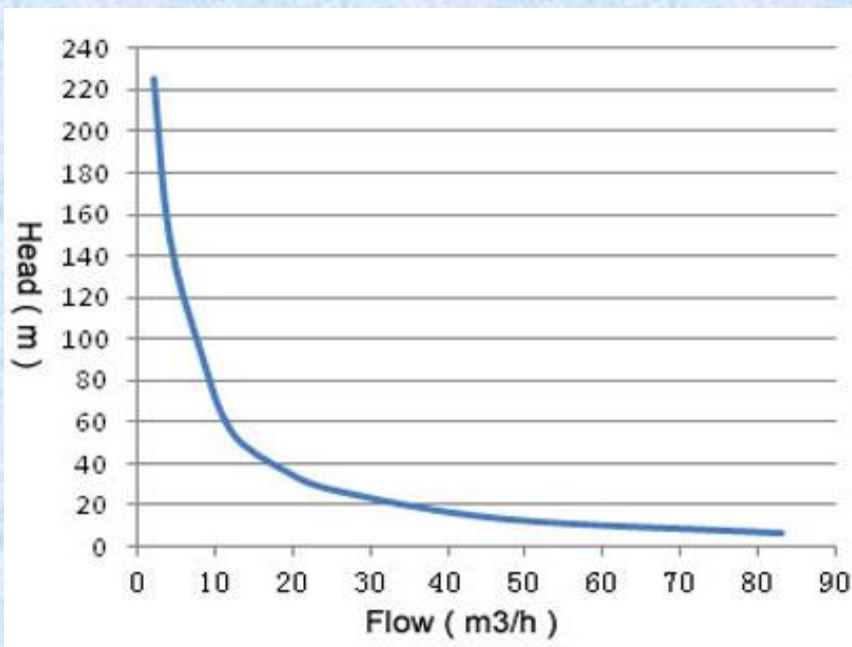
5HP Solar Pump System

Product Details:

- ✓ System head: 225m (Max.)
- ✓ Daily flow: 500m³(Max.)
- ✓ Input voltage : 450-750V
- ✓ Max. input open circuit voltage:800V
- ✓ Inverter Power: 5500W(Output AC 3P 380V)
- ✓ Output current: 13A
- ✓ Pump power: 4000W(Input AC 3P 380V)
- ✓ PH range of water quality: 6.5-8.0
- ✓ Operating temperature: -20°C ~ +50°C
- ✓ Protection Grade: IP54

5HP Solar Pump System

PUMP CURVE :



Head(m)	Flow (m3/h)	Outlet Dia.(mm)
225	2	30
149	4	40
94	8	50
55	12	50
36	19	65
27	25	65
13	47	76
6	83	76

* Recommended head, flow data for maximum power

** Maximum power standard test conditions (solar radiation):6 kwh / square meter / day, environment temperature is 25°C

5HP Solar Pump System

SYSTEM COMPONENTS DETAILS :

Inverter controller :

- setting parameter automatic / manual
- The application of various three-phase asynchronous motor
- High conversion efficiency, MPPT control
- Lightning protection, combiner, under voltage and over current protection
- Optional water level detection accessories (To prevent the motor anhydrous idling and water of tower overflow .

Pump (4" pump) :

- High efficiency three-phase AC Pumps(380V)
- Protect check valve
- Stainless steel material
- Protection grade:IP68

FEATURES :

- Simple installation do not need to set up power grid
- Full automatic operation without manual operation
- Low investment cost, quick return of cycle. Low carbon, energy saving
- Technological innovation, realizing agricultural modernization

WARRANTY OFFERED

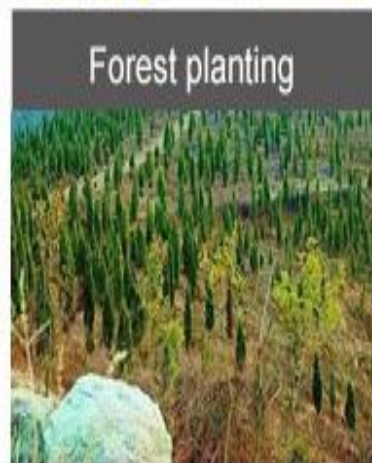
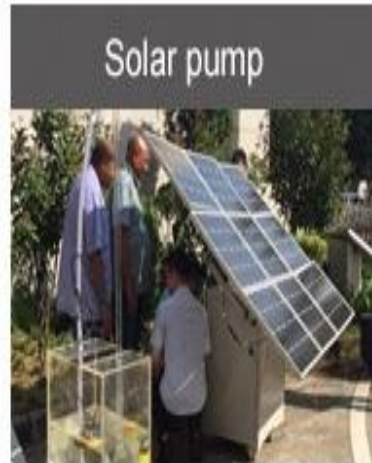
- This product is fully guaranteed against defective materials and manufacturing defaults Inclusive of parts and services .
- The warranty period of 15 years shall apply once to the solar panel.
- The warranty up to 5 years will be applied on complete Solar Pumping System .

ADVANTAGES :

- Self sustainable, independent water supply scheme
- Time savior for women and family
- Better health on account of low manual work
- Improved Irrigation facilities, agriculture harvesting, personal hygiene & sanitation due to continous availability of water

APPLICATIONS :

- Community rural water supply
- Public water supply for semi-urban areas
- School water supply
- Institutional water supply in remote areas
- Emergency water supply for relief camps
- Agricultural irrigation
- village drinking water
- pastoral farming
- forestry irrigation
- landscape fountain








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Quality controlled by

ELGIN SYSTEM INC., CANADA



Elgin System Inc.
14197 , 33 Ave., Surrey, V4p,
3M1, British Columbia,
Canada.

Elgin System (Asia-Pacific) Ltd
17F , High & New Tech Plaza,
398 Xi Er Huan Plaza Road,
Kunming, P R China.

Elgin System (India) Pvt. Ltd.
#305, Wallfort Ozone, Fafadih chowk,
Raipur-492009, Chhattisgarh State
India.
Ph.No.0771-4911277

Email : info@elginsystem.in

website : www.elginsystem.in

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