



CONERGY

Solar Water Pump Guide



OUR WORLD IS FULL OF ENERGY

PHOTOVOLTAICS | SOLAR THERMAL | SOLAR WATER PUMPS | SMALL WIND POWER | BALANCE OF SYSTEM

Solar water pumping – an efficient, low-maintenance and economical option for livestock, agricultural, recreational, and residential applications.



Our world is full of energy. As the largest company solely dedicated to renewable energy, with operations in more than 25 countries on 5 continents, Conergy is passionate about meeting even the most challenging technical demands and environmental conditions of the world's energy users with clean, efficient solutions. With pioneering technology from Conergy and our premier vendor partners, we offer innovative systems that improve performance and return on investment while reducing operation and maintenance cost. We back our products with exceptional customer service, training and technical support. Working together with our customers, we build the best solution.

Commonly asked questions:

How does a solar pump work?

A solar electric array generates electricity from the sun's light with no moving or wearing parts. A solar pump is designed to utilize the direct current from the array efficiently, even as the energy production varies throughout the day.

What happens when the sun doesn't shine?

Depending on the application, a solar pumping system may use a water storage tank, which acts like a "Water Battery" during cloudy weather.

Is a solar water pump system more expensive than a "conventional" system?

Where utility power isn't readily available solar systems are often the

most economical option. Factoring in ALL costs, such as installation, fuel, maintenance and waste, solar water pumping is often less expensive than generators, windmills, and running electrical lines. With a solar water pump system a customer has an accurate forecast of the cost to run and maintain their pump system because they have paid their energy costs "up front." There may be tax credits and incentives that lower investment costs.

How do solar systems compare to windmills?

Solar water pumping systems have many advantages over traditional windmill water pumps. Both the initial and lifetime costs of solar powered systems are often far less than windmills due to lower shipping, installation, and maintenance costs. Solar pumps operate anywhere the sun shines while windmills work where there is a steady, constant wind supply. Finally windmills are stationary while solar systems can be more easily moved to meet seasonal or variable location needs.

Is a DC solar pump utilized in off-grid home applications?

Yes. A typical off-grid system includes a PV-direct solar pump which draws from a well or surface water source and fills a storage tank. A second battery-based pump then draws from the storage tank and charges a pressure tank for household use. Filling a storage tank with a PV-direct pump is more efficient than using an AC pump. It is also more reliable, since the PV-direct pump is independent of the household power system.



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Conergy is a leader in solar-powered surface pumps. We entered the market in 1983 with the manufacture of our first solar Slow Pump. Continuously growing and innovating in the off-grid market, we are now partnered with Grundfos, a leading name in groundwater pumps, and provide a full spectrum of surface and submersible wind or solar powered water pumping solutions. Conergy also offers a variety of optional complementary equipment including linear current boosters (LCBs), level control switches, valves, filters, strainers and pressure tanks.

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Solar Slow Pump™	450ft TDH at .25-4 gpm
Solar Force™ Piston Pump	230ft TDH (or 100 PSI) at 5-9 gpm
SunCentric™ Centrifugal	90ft TDH at 5-70 gpm
Solaram™ Surface Pump	960ft TDH at 3-9 gpm
Flowlight Booster Pump®	65 PSI at 3-5 gpm (pressurization)

Grundfos

3 SQF-3	650ft TDH at 2 gpm	25 SQF-3	45ft TDH at 30-40 gpm
6 SQF-2	360ft TDH at 4-5 gpm	25 SQF-6	90ft TDH at 30-40 gpm
11 SQF-2	300ft TDH at 6-11 gpm	40 SQF-3	45ft TDH at 53-73 gpm
16 SQF-10	210ft TDH at 13-22 gpm	40 SQF-5	90ft TDH at 33-70 gpm
		60 SQF-3	45ft TDH at 65-85 gpm

Solar Pump Sizing Guide

Step 1: Provide this information to your Conergy Sales Manager for an accurate price quote.

What will the water be used for? Home Irrigation Livestock Other (describe) _____

What is the daily volume of water required? _____ gallons

Will the system be used year round? Yes No

Is there another source of water besides the solar pump? Yes No

Is commercial power available at the site? Yes No

What is the location (City/State/Country)? _____

Are there any significant features which would shade the solar array during the day? Yes No If yes, describe _____

What is the distance between the sunniest location for the solar array and the water source? _____

What is your water source? Well Other _____

If Well, Well depth? _____ feet _____ meters

Recovery rate? _____

Casing diameter (if drilled well)? _____

Depth to water? _____ (at lowest water level)

Additional vertical lift to storage tank location? _____

Length of pipe required (distance from well to storage tank)? _____

Is a working pump already in place? Yes No

If yes, please describe pump and power source: _____

Primarily: Summer Winter

If yes, what percentage of your need must be met by solar? _____%

If Other, Vertical lift from water source to pump? _____ feet

Vertical lift from pump to discharge level (ie. storage tank)? _____ feet

Pressurizing? Yes No

If yes, to what pressure? _____ PSI

Diameter of pipe installed or planned? _____

Step 2: Contact Conergy for a price quote and system details.

Step 3: After the order is placed, Conergy technical support will assist with site design and installation questions.



Contact Information:

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