

Solar Powered Well Pump Solutions

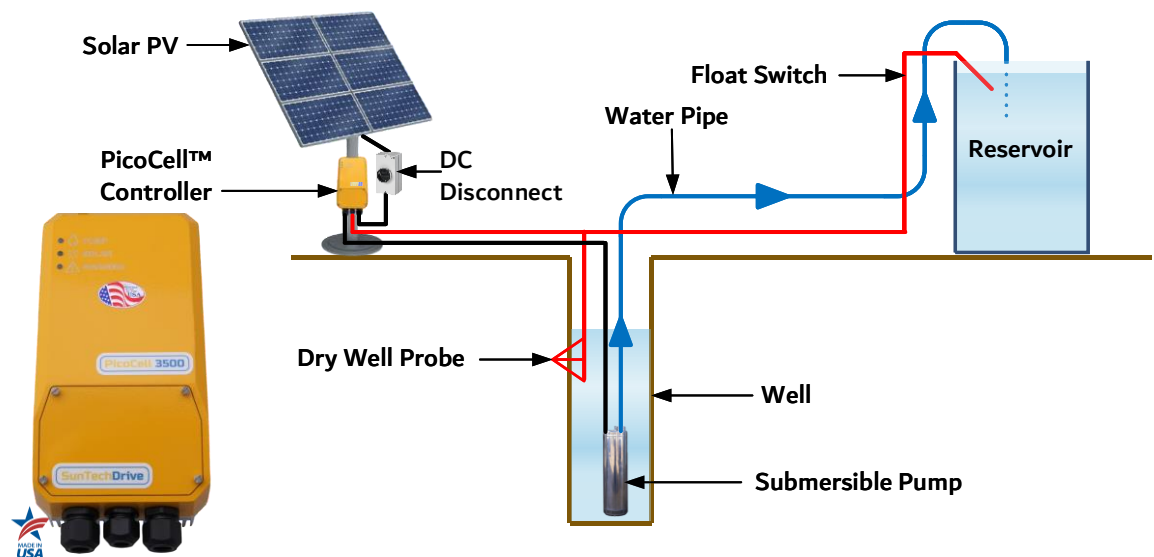
Product Highlights:

- Run installed or new AC pump with free solar power, up to 1 HP single-phase, 1½ HP three-phase
- Affordable solar investment sized for your well
- Small sized controller, simple hook up, weather proof, durable and automatic
- One universal controller powers most AC pumps, 1/3 phase, 115/230V, 50/60Hz
- AC pumps offer improved head and flow vs DC pumps at significantly lower cost
- Changes a 1 or 2 speed motor/pump into a soft start, VFD (variable frequency drive)
- VFD will run motors even at lower solar output extending the useful pumping time
- Save hundreds of dollars using lighter gauge wire with AC pumps
- Solar Projects can qualify for Tax Credits, Grants or other State and Local Rebates
- Also works with battery bank, genset or electricity grid backup
- Service up to 800ft head and high flow pumps of 10,000 - 28,000gpd

Description

SunTech's well pumping kits include everything you need to install a fully solar powered well pump. Kits are available for a variety of flow rates and well depths (head). Custom flow and head combinations are available upon request, including surface pump options. Run any brand of AC pump.

One small PicoCell device now integrates the functions of an inverter, VFD, MPPT controller, and voltage boost with automatic control. Kits include full complement of solar panels, racking, cabling, clips, DC power disconnect, mounting panel and PicoCell™ controller. Solar arrays and racking are sized appropriately for each pump.



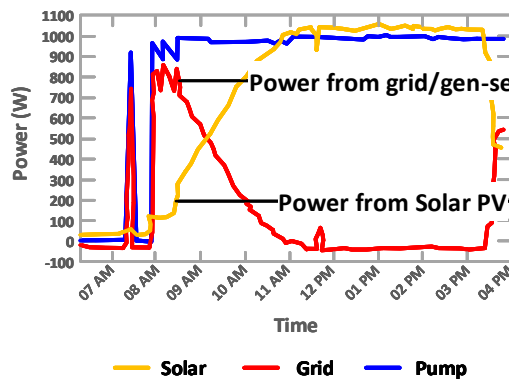
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Intelligent Power Blending with PicoBlender™ 2500

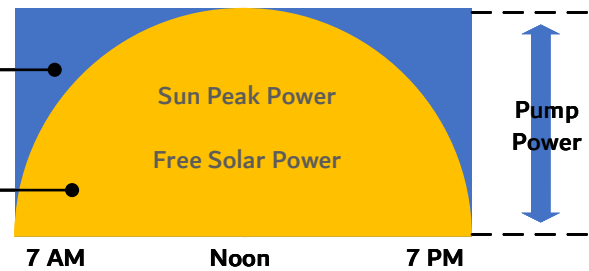
Maintains Full Power 24/7 While Minimizing Power Cost

- Maximize solar energy and electricity use at night or when cloudy
- Seamlessly blends energy between your solar array and the power grid behind the meter
- No circuit panel installation required, plugs in as simple outlet load
- Universal controller – single/three phase, 50/60Hz, 115Vac/230Vac
- Simple installation and intelligent power blending operation

Field validation:



Conceptual:



The PicoBlender 2500 seamlessly blends energy between a solar array and the power grid. It is ideally suited for applications that require 24/7 or some night time operation, particularly in areas with high power costs. The PicoBlender represents a cost effective way to intelligently supplement solar power with controllable night time operation, without the expense of adding batteries.



During full solar irradiance, the PicoBlender will draw maximum power from the PV array. As cloud cover or impending darkness reduce the level of solar irradiance, the system automatically makes up the difference by drawing from the grid. Once it's dark, the system can draw all of its power from the grid. In high energy cost areas this allows for both power firming during the day and full nighttime operation while consuming as little power from the grid as possible.

Typical System Configuration



Well pumping with elevated storage tank



Off grid cabin well pumping



Remote livestock watering



Remote livestock watering

Submersible Pump Solutions

Kits & Systems

- Low flow/high head configurations are ideal for deep wells and high pressure applications
- High flow/low head configurations are ideal for wells that are up to 110 ft deep

Custom flow and head combinations are available upon request.

Solar Pump Kit: Low Flow/High Head

Item #	Goulds Pump	Motor Size	For Wells Up To	Flow Rate Of	Panel Rack	PV Power	North USA	South East USA	South West USA
501-0500	07HS05432	½ HP	200 Feet	7 gpm	Top of Pole	1950W	2500 GPD	3000 GPD	3500 GPD
501-0504	07HS05432	½ HP	200 Feet	7 gpm	Ground Mount	1950W	2500 GPD	3000 GPD	3500 GPD
501-0501	07HS10432	1 HP	350 Feet	8 gpm	Top of Pole	2600W	3500 GPD	4000 GPD	4500 GPD
501-0505	07HS10432	1 HP	350 Feet	8 gpm	Ground Mount	2600W	3500 GPD	4000 GPD	4500 GPD

Solar Pump Kit: High Flow/Low Head

Item #	Goulds Pump	Motor Size	For Wells Up To	Flow Rate Of	Panel Rack	PV Power	North USA	South East USA	South West USA
501-0502	18HS07432	¾ HP	60 Feet	25 gpm	Top of Pole	1950W	8000 GPD	10000 GPD	12500 GPD
501-0506	18HS07432	¾ HP	60 Feet	25 gpm	Ground Mount	1950W	8000 GPD	10000 GPD	3500 GPD
501-0503	18HS10432	1 HP	110 Feet	25 gpm	Top of Pole	2600W	11000 GPD	12500 GPD	4500 GPD
501-0507	18HS10432	1 HP	110 Feet	25 gpm	Ground Mount	2600W	11000 GPD	12500 GPD	4500 GPD

Kits Include: ✓ PicoCell controller & Solar Mounting Rack DC disconnect ✓ PV panels*
 ✓ Submersible pump ✓ Jumper cables ✓ Grounding clips

Not included in kits: Water pipe, power cord to pump, water tank, float switch, PV mounting post, concrete ballast, or shipping.

** Supply of PV panels subject to change. Typical panels are 60-cell/250-280W or 72-cell/290-330W PicoBlender options, and SolProtect GFD/GFCI Disconnect options available upon request.*

PicoCell and pumps also available for sale without solar kit to retrofit existing pumps and motors.