WALMER ENERGY

Wind and solar water pump

Overview

What is a Solar Water Pump System?

UNS researchers created the Solar Water Pump System (Solar Water Pump System (Sistem Pompa Air Tenaga Surya / SPATS)) to be used as a solar radiation energy source, instead of using diesel fuel for water pumping.

What is a diaphragm pump water pumping system?

Solar PV powered diaphragm pump water pumping systems (a diaphragm pump is a positive displacement pump), are most often low volume (~800 L/day for a 70 m maximum pumping depth) or are limited in pumping depth (30 m for a ~5000 L/day water volume) (Vick and Clark, 2009).

What is the optimum size for a stand-alone solar-wind power generation system?

Current status of research on optimum sizing of stand-alone hybrid solar-wind power generation systems USDA is an equal opportunity provider and employer. Small WT’s are defined by the American Wind Energy Association (AWEA) as having a blade rotor swept area less than 200 m 2 or approximately 50 to 60 kW power rating.

How much power does a helical pump use?

The PV array rated power for typical diaphragm pump systems range from 75 to 150 W; whereas, the PV rated power for helical pump systems range from 200 to 1000 W. Reliability of solar PV powered helical pump systems is better than that of solar PV powered diaphragm pump systems for pumping depths greater than 30 m (Vick and Clark, 2011).

Wind and solar water pump

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