

Solar water pump for paddy field irrigation





Overview

What is a solar-powered pumping irrigation system?

A solar-powered pumping irrigation system utilizes solar photovoltaic (PV) technology to convert solar energy into electrical power, which drives pumps for water lifting and irrigation. This system does not rely on fossil fuels and avoids environmental pollution.

Which effect should be considered in irrigation pumping system of paddy fields?

Shading effect should be considered. In the irrigation pumping system of paddy fields of photovoltaic rice, the energy used injects pumps is 505 kWh (pump efficiency 33%). Performance Ratio of 0.76 and some power losses can be calculated.

What is solar-powered pumping technology?

Solar-powered pumping technology harnesses solar energy through PV cell panels, converting solar radiation into electrical energy, which is then utilized to power water pumps and supply water for agricultural irrigation or human and livestock consumption.

How does a solar powered irrigation system work?

Every solar powered pump contains long-life brushless DC motors. The system provides predictive maintenance alerts to help surface solar pump users reduce equipment downtime. The system generates data-based impact reports which help NGOs and agri-lenders who invest in sustainable irrigation projects.



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