

Photovoltaic Container DC Power Supply for Water Plants





Overview

What is floating PV & agrivoltaic system?

In case of floating PV and agrivoltaic system, the generated electricity is pumped to the grid and these systems also prevent water evaporation from water bodies and soil, respectively thereby the cost associated with water supply is eliminated.

What is a floating PV system?

Floating PV system installed over the water bodies supplying drinking water and/or agricultural farm irrigation water provides electric power and also prevents water evaporation. This saved water prevents water scarcity and also eliminates the need for purchasing tanker water thereby significant monetary expenses is prevented.

How does a photovoltaic water pumping system work?

In the proposed photovoltaic water pumping system, the solar panels are directly connected to a DC motor that drives the water pump. For such simplified systems, DC motors and centrifugal pumps are required, because of their ability to be matched to the output of the solar panels.

Which solar panels are used for water pumping system?

For the proposed system, solar panels are used. The specifications of the solar panels are provided below: Rated Current: 7amps Rated Voltage: 24volts Short Circuit (SC) Current: 8.07amp Open Circuit (OC) Voltage: 42volt Cell Temperature: 25°C Six 250Wp solar panels have been used to provide DC power supply for the water pumping system.



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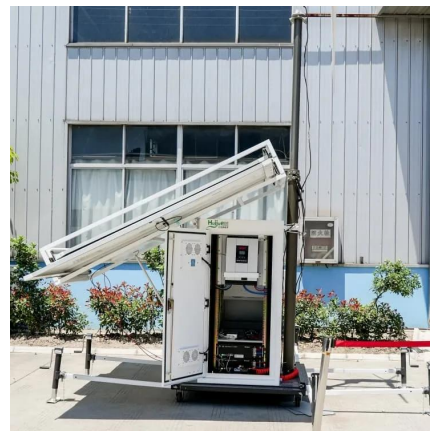
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