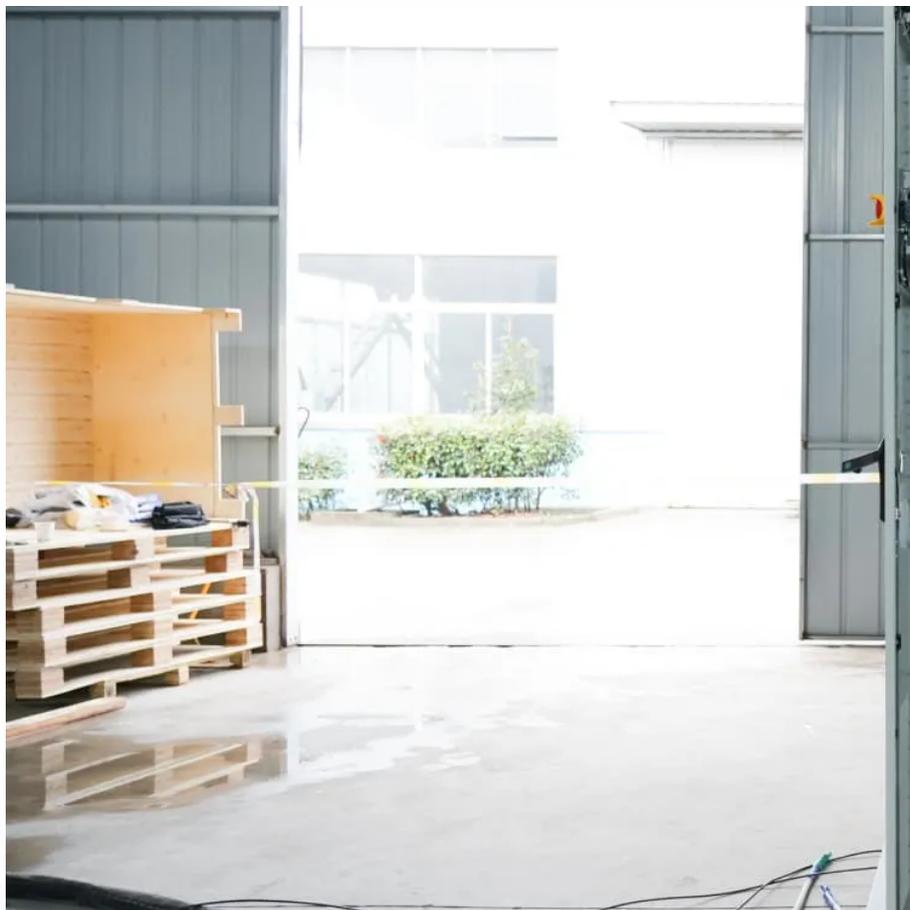


Single-phase photovoltaic container for water plants





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.

What is a dual use of water for solar PV based electric power production?

This dual use of water for both solar PV based electric power production and aquaculture is called aquavoltaic. The electric energy generated by the aquavoltaic system can be used to power aeration units, light emitting diodes, water pumps of the aquaculture tank, and other electric loads like lights, fan, fridges etc., [166].

What are the different types of photovoltaic systems?

The schematic representing this adoption is shown in Fig. 10. Adoptions that fall under this category are floating photovoltaic system, agrivoltaic system, aquavoltaic system, water based photovoltaic/thermal system (PV/T), submerged photovoltaic, hybrid PV-solar distillation system, and solar PV - water disinfection system.



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