Marine photovoltaic system

System introduction

As a cutting-edge technology in the field of green shipping, the marine photovoltaic system converts solar energy into usable electricity for ships through "DC-AC grid connection" technology, providing a clean and sustainable energy solution for ships

System composition

Photovoltaic module (DC)
Power optimizer (maximum power point tracking)
Combiner box (current aggregation)
Inverter (DC to AC)
Isolation transformer (voltage matching/electrical isolation)

Advantages and features

High penetration grid-connection stability: dynamic power regulation and voltage sag resistance

Marine environmental adaptability: component corrosion prevention design and resistance to mechanical stress

Intelligent operation and maintenance management: precise fault positioning and remote monitoring platform

Environmental benefits: carbon emission reduction and pollutant control

Application scenarios

Cargo ships and passenger ships: Large cargo ships and passenger ships are the main targets for the application of on-board photovoltaic panels. By installing photovoltaic panels on the ship's roof, deck, and other areas, power support can be provided for the ship, reducing fuel consumption.

Yachts and sailboats: Small yachts and sailboats are also suitable for installing photovoltaic panels. These vessels typically have low power demands, and photovoltaic panels can meet their basic power needs, enabling zero-emission navigation.

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