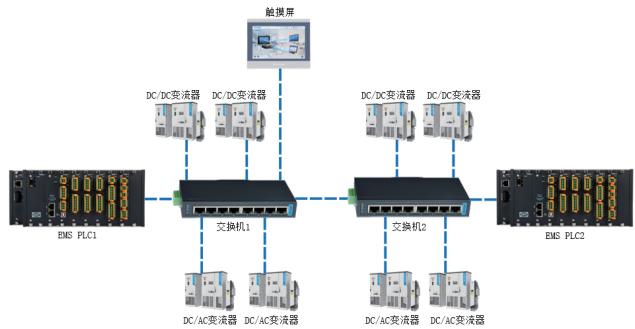


# EMS Energy Management System

## ▶ System introduction

The marine Energy Management System (EMS) is an intelligent control system used to optimize the production, storage, distribution, and consumption of ship energy. By monitoring, analyzing, and optimizing the energy flow of ships in real-time, it improves energy utilization efficiency, reduces operating costs, and meets increasingly stringent environmental protection regulations. The marine EMS is an integrated energy management platform that realizes high energy efficiency of the overall vessel in combination with power management system, energy storage system, propulsion system and thermal management, etc.



## ▶ System functions

- Energy monitoring and analysis;
- Multi-energy collaborative optimization;
- Load management and optimization;
- Power grid protection and fault handling;
- Energy storage management;
- Quick alarm display and alarm history query functions.

## ▶ Application scenarios

The system is primarily applied to hybrid-powered vessels, pure electric/zero-emission ships as well as intelligent ships and unmanned vessels.

## ▶ Advantages and features

The system adopts a redundant controller design and a dual-redundant network architecture, ensuring stability and reliability;

Energy saving and consumption reduction: optimizes energy use to reduce fuel costs;

The system adopts modular design and supports personalized interface customization;

Multi-energy compatibility: supports various energy forms such as traditional fuel, LNG, hydrogen energy, and batteries;

Predictive maintenance: analyzes equipment status to provide early fault warnings, reducing maintenance costs;

Data visualization: provides energy usage dashboards for the bridge and engine room, aiding decision-making.