

Intelligent products

Intelligent energy efficiency system

► System introduction

Intelligent energy efficiency for ships refers to the utilization of advanced information technology, sensing technology, artificial intelligence, and automation control methods to achieve comprehensive perception, precise analysis, and dynamic optimization control in the ship's energy use process, so as to enhance energy utilization efficiency, reduce fuel consumption and carbon emissions, and realize intelligent, visualized, and collaborative energy efficiency management.

► System functions

Real-time monitoring and statistics of fuel consumption;
Automatic calculation and trend analysis of energy efficiency indicators;

Suggestions for optimizing route, speed, and trim;

Itemized evaluation and analysis of equipment energy consumption;

Dynamic operating condition identification and energy-saving strategy recommendation;

Remote energy efficiency monitoring and shore-based decision support;

Carbon emission accounting and evaluation report generation.

► Advantages and features

System false alarm rate: $\leq 15\%$;

System missed detection rate: $\leq 15\%$;

System data storage duration: ≥ 1 year;

Fuel consumption sampling frequency: ≥ 1 Hz;

Calculation frequency of energy efficiency indicators: ≤ 5 minutes/time.

► Application scenarios

Intelligent energy efficiency is widely applied in the fields such as merchant ships, ro-ro passenger ships, and special-purpose ships, becoming a core component of the development of green shipping and intelligent ships. It highly integrates functions such as fuel consumption monitoring, route optimization, equipment status perception, energy consumption prediction and analysis, and intelligent control, and supports ship-shore collaborative decision-making optimization, helping shipowners and operators reduce operating costs and environmental impact while ensuring navigation safety and compliance.

