

Energy-saving system retrofitting

Shaft generator system

► System introduction

The shaft generator system is an equipment system installed on ship power equipment. It utilizes the output shaft power of the main engine to drive the generator to generate electricity. Its core function is to transfer the surplus mechanical energy generated during the operation of the main engine to the generator and convert the surplus mechanical energy into electrical energy to meet the power demand of the ship.

► System specifications

System power: 300kW~3000kW
Frequency level: 50/60Hz
Shaft generator speed range: 55~90rpm
Shaft generator type: permanent magnet motor
Overall efficiency: $\geq 90\%$
Voltage class: 380~690V

► Advantages and features

The system relies on the main engine power to reduce energy waste

Optimizes energy distribution and improves overall efficiency

Operates in conjunction with the main engine and makes dynamic adjustments according to working conditions

Supports multi-mode switching to ensure the continuity of power supply

Adopts modular integration for easy installation and adaptation

Enables real-time monitoring and dynamic adjustment

Provides fault protection and automatic operation

Reduces auxiliary engine wear and tear, and lowers overall maintenance workload

► Application scenarios

The core application scenarios of the shaft generator system are medium and large-sized ships that require long-term and stable navigation, especially for ocean-going container ships, bulk carriers, oil tankers, and large passenger ships.

