



LVSC

The ship - borne device of the low - voltage shore - power system

► Overview

The ship - borne device of the low - voltage shore - power system consists of a low - voltage cable management system, a low - voltage socket box, a low - voltage shore - power box, a shore - power control panel, and power and control cables between various devices. During the ship's berthing and departure, it can achieve rapid connection and disconnection of the shore - power supply, providing safe and reliable green shore - power energy for the ship during its berthing.

► Product features

■ Safe and Reliable

- 1: The cable management system adopts the principle of constant tension control, which can automatically reel in and out the cable according to the ship's water level. An audible and visual alarm will be triggered when there are 2 turns of cable remaining, and an emergency cut-off protection will be triggered when there is 1 turn of cable remaining.
- 2: The equipotential detection system can ensure the equipotential connection between the ship and the shore.
- 3: When the shore power supply fails, the generator can be automatically started and automatically connected to the grid for power supply, ensuring the continuity of power supply.
- 4: A safety loop control line is set up between the ship and the shore, and the shore power supply can be quickly cut off in case of an emergency on the ship side.

■ Easy to operate

- 1: One - click operation to achieve the function of seamless power transfer between ship - to - shore power and shore - to - ship power without power interruption;
- 2: Integrated alarm management system to achieve one - stop management and query of system alarm information;
- 3: Standard plugs to achieve fast and reliable connection with shore - power sockets.

■ Intelligence

Real time transmission of ship shore power usage information through 4G network signal, which can be viewed in real-time by logging into the website through a web browser.

► Product functions

- During the ship's berthing and departure, manually or automatically switch the power supply between the ship and the shore without power interruption.
- The Low-voltage cable management system has an automatic management function. It can automatically reel in and out the cable according to the ship's water level. An alarm will be issued when there are 2 turns of the cable remaining, and a tripping signal will be sent to cut off the shore power supply when there is 1 turn of the cable remaining.
- Protection function: The circuit breaker is equipped with an electronic release to protect the system from faults such as overload and short - circuit.
- Equipotential monitoring function: The system is equipped with equipotential monitoring devices to monitor the grounding continuity of the ship and shore in real time, maximizing the protection of equipment and personnel safety;
- Emergency cut-off function: Equipped with a standard ship-shore safety loop interface, the ship-shore circuit breakers are tripped through the emergency stop buttons of each device.
- Shore power information monitoring: The intelligent ship shore power system is characterized by intelligent interaction, safety, high efficiency, convenience and speed. Ship owners can log in to the website at any time through their accounts to view the power consumption information of the ship during the use of shore power in real time. The system can also be equipped with a touch screen to display the status of various system devices, alarm information, etc., and can communicate with the AMS system.

► Product composition



LV Cable management system



LV socket box



Shore power control panel



► Technical index

- Rated voltage (V) : 440、400
- Frequency: 50, 60
- Current specifications for plugs and sockets (A) : 63、125、250
- Equipment IP: IP56、IP44、IP23



LV shore power box

► Selection description

It can be applied to low-voltage shore power systems for various ships with shore power capacity less than 500kW. For configurations of different capacities and voltage levels, you can contact the product manager.