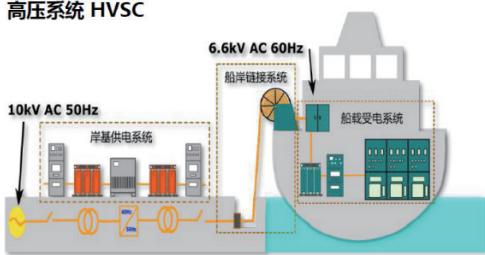


# HVSC

The ship - borne device of the HVSC

## 高压系统 HVSC



### ► Overview

The ship - borne device of the HVSC consists of a high - voltage cable management system, a high - voltage socket box, a shore - power connection distribution panel, a transformer, a shore - power control panel, a UPS, and the power and control cables between various devices. When the ship berths and departs, it can quickly connect or disconnect the shore - power supply, providing safe, reliable green shore - power energy during the ship's berthing period.

### ► 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, sockets to achieve fast and reliable connection with shore - power sockets, plugs.

#### ■ 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 high-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 system is equipped with a protection device to protect against system faults such as grounding, 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



HV Cable management system



High voltage socket box



Shore power connection distribution panel



Shore power transformer



Shore power control panel



UPS

#### ► Technical index

- Input voltage (kV) : 11, 6.6, 6
- Output voltage (V) : 690, 440, 400
- Frequency: 50, 60
- Current specifications for plugs and sockets (A) : 350, 500
- Equipment IP: IP56, IP42, IP23

#### ► Selection description

It can be applied to high-voltage shore power systems for different ship types such as large container ships, carriers, cruise ships, ro-ro ships, oil and chemical tankers, and LNG carriers. According to different ship types, different capacities, and different voltage level configurations, you can contact the product manager.