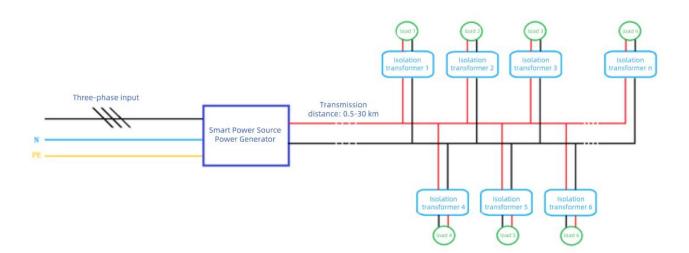


## **Product Overview**

The LW series high-speed highway remote power supply is a new generation of power supply specifically designed and manufactured for high-speed highway power transmission, addressing the characteristics of high reliability requirements for power transmission, long-term continuous operation, dispersed and distant loads, and unattended operation. This series of power supplies utilizes modular and digital programmable control technology. The power supply is centered around a power generator and integrates control, display, protection, and communication functions into a single AC power supply device.

## **Highway Isolation Converter Product Description**

Our company's LW series high-speed highway remote power supply is a dedicated long-distance power transmission equipment for highways, consisting of an intelligent source-end power generator and a terminal power isolation converter. The power supply uses an AC-DC-AC structure internally, generating a pure sinusoidal waveform after DC inversion. This is then stepped up and transmitted to the terminal power isolation converter, which outputs power to the load via an isolation transformer, eliminating grid interference. The power generator input uses a phase-shifting transformer and six-pulse rectification, achieving a power factor of up to 0.99. In case of power supply abnormalities, it can automatically switch to grid power supply mode, ensuring safety and reliability. During maintenance, it can also be manually switched to grid power output, which is convenient and fast. A schematic diagram of the power supply system is shown in the figure.





## **Technical Features:**

- Utilizes PWM precise voltage regulation technology to reduce impact.
- Features over-voltage, over-current, and over-temperature protection functions.
- Includes an embedded management unit to monitor the device's operating status and parameters.
- Automatic power-on function; no need to restart after power failure.
- LCD screen displays voltage, current, operating status, and other parameters, and allows for fault reset.
- Internal circuit boards and wiring are treated with three-proof (moisture-proof, dust-proof, and corrosion-proof) coating.
- Equipped with an intelligent communication interface and standard MODBUS RTU communication protocol for convenient network monitoring, supporting wired networking and cloud platform networking.
- High output accuracy, low waveform distortion, and short response time.
- Special functions such as isolation, filtering, and bidirectional anti-interference effectively filter out positive and negative pulses and surge voltage impacts of various frequencies generated by the line and load.
- The power system has lightning protection, and the output terminal is isolated from the power supply network, ensuring stability and reliability.



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