

Measure the voltage and current of energy storage charging pile

What is energy storage charging pile equipment?

Design of Energy Storage Charging Pile Equipment The main function of the control device of the energy storage charging pile is to facilitate the user to charge the electric vehicle and to charge the energy storage battery as far as possible when the electricity price is at the valley period.

What data is collected by a charging pile?

The data collected by the charging pile mainly include the ambient temperature and humidity, GPS information of the location of the charging pile, charging voltage and current, user information, vehicle battery information, and driving conditions . The network layer is the Internet, the mobile Internet, and the Internet of Things.

How far is a charging pile from a monitoring center?

The farthest charging piles from the monitoring center in the target area were set as the charging piles in abnormal running, and their distances were 100 m, 120 m, 140 m, and 160 m respectively. The design platform was used to monitor the charging pile, and the test results of the platform monitoring range were obtained, as shown in Fig. 8.

Can battery energy storage technology be applied to EV charging piles?

In this paper, the battery energy storage technology is applied to the traditional EV (electric vehicle) charging piles to build a new EV charging pile with integrated charging, discharging, and storage; Multisim software is used to build an EV charging model in order to simulate the charge control guidance module.

How does a charging pile work?

The charging pile determines whether the power supply interface is fully connected with the charging pile by detecting the voltage of the detection point. Multisim software was used to build an EV charging model, and the process of output and detection of control guidance signal were simulated and verified.

What is the function of the control device of energy storage charging pile?

The main function of the control device of the energy storage charging pile is to facilitate the user to charge the electric vehicle and to charge the energy storage battery as far as possible when the electricity price is at the valley period. In this section, the energy storage charging pile device is designed as a whole.

Table 1 Charging-pile energy-storage system equipment parameters

Component name	Device parameters
Photovoltaic module (kW)	707.84
DC charging pile power (kW)	640
AC charging pile power (kW)	144
Lithium battery energy storage (kW·h)	6000
Energy conversion system PCS capacity (kW)	800

The system is connected to the user side through the inverter ...

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It can measure and display electrical parameters such as voltage, current, power, energy, and support RS485 communication and electric energy pulse output. Monitoring electrical ...

the charging pile; (3) during the switching process of charging pile connection state, the voltage state changes smoothly. It can provide a new method and technical path for the design of electric

Design a charging pile electric energy verification device to improve the electric energy measurement accuracy of the charging pile. The device is mainly used for detecting ...

Therefore, it is increasingly important to continuously explore the full-life-cycle management of charging piles in operation through the construction of a charging pile data monitoring ...

Measuring function: detecting the accuracy of DC voltage and DC current of DC charging pile

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Design a charging pile electric energy verification device to improve the electric energy measurement accuracy of the charging pile. The device is mainly used for detecting whether the charging pile can be correctly configured, including a tariff period, a billing unit power, a billing rate, and the like, and detecting the communication ...

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