

RJ8000 Charging Pile Automatic Test System



System Introduction

RJ8000 Series charging pile automatic test system is developed for electric vehicle charging pile (off-board charger), and is an automatic test system in line with the AC and DC charging pile test standard.

The system adopts an open hardware and software architecture, and provides program-controlled AC and DC power supply, AC and DC load (box), power analyzer, BMS communication simulation unit, system control switching unit, safety comprehensive tester as well as digital oscilloscope, industrial computer and other measuring and testing equipments researched and developed by Ruijie, providing test solutions for the basic needs of R&D, high-speed production, quality sampling and other individual needs.

System Configuration

- **Programmable AC power supply:** Voltage, frequency, etc. can be edited, simulating the power supply of power grid output overvoltage, undervoltage and voltage stabilization test,
- **High voltage electronic load:** provide charging pile analog load with various modes such as constant voltage, current, power, resistance, etc., with fast dynamic response speed; meanwhile, measure each output parameter, including output voltage, current, power and other parameters;
- **Multi-Channel Power Analyzer:** Measure input and output electrical parameters, including voltage,

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current, power, power factor, frequency, harmonic content, etc;

- **Switching control unit:** provides the interface for communication with the charging pile under test, and provides the control and switching of each input and output unit;
- **Safety Comprehensive Tester:** Provide grounding, insulation, AC and DC Voltage withstand and other safety performance testing;
- **Industrial control computer:** System software operating platform.

Key Features

- **Compatibility Test:** Support AC charging pile, DC charging pile test, AC/DC integrated charging pile and various connection mode test;
- **Project Optimization:** According to the relevant inspection and test standards, design and optimize the standard test item library for special charging pile testing, and select according to the actual test needs for tests;
- **Easy to operate:** the test system software is easy to learn and use, select test items according to needs; Test program one-click start test completed; Special interface tooling customized for charging pile testing, convenient and efficient connection with charging pile interface; Test data and judgment results can be automatically stored locally;
- **Advanced functions:** It has the functions of writing the address information of charging pile, inputting the data of swiping card, comparing and judging the data of pile meter and the measurement data of test system through communication.

Specification

Serial number	Testing functions	Serial number	Testing functions
1	Communication function test	13	Input undervoltage protection test
2	Measurement function test	14	Output overvoltage protection test
3	Ground continuity test	15	Output overcurrent protection test
4	Insulation resistance test	16	scram function test
5	Power frequency voltage withstand test	17	Battery reverse connection test
6	Output voltage error test	18	Battery voltage test
7	Output current error test	19	Charging control state test
8	Voltage regulator accuracy test	20	Charging connection control timing test
9	Steady current accuracy test	21	Control guide voltage limit test
10	Voltage limiting characteristic test	22	Communication interruption test
11	Current limiting characteristic test	23	Protection ground continuity test
12	Input overvoltage protection test	24	Connection detection signal disconnection test

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