EVSE ATS

Electric Vehicle Supply Equipment ATS

QR Code

Product Info.

Product Video

Preen's EVSE ATS is designed for verification of AC and DC EV chargers, which comply to regulation of SAE J1772 and CNS 15511, NB/T 33001, NB/T 33002, NB/T 33008.1 and NB/T 33008.2, GB/T 18487.1 and GB/T 27930; and Interoperability test specifications of electric vehicle conductive charging.

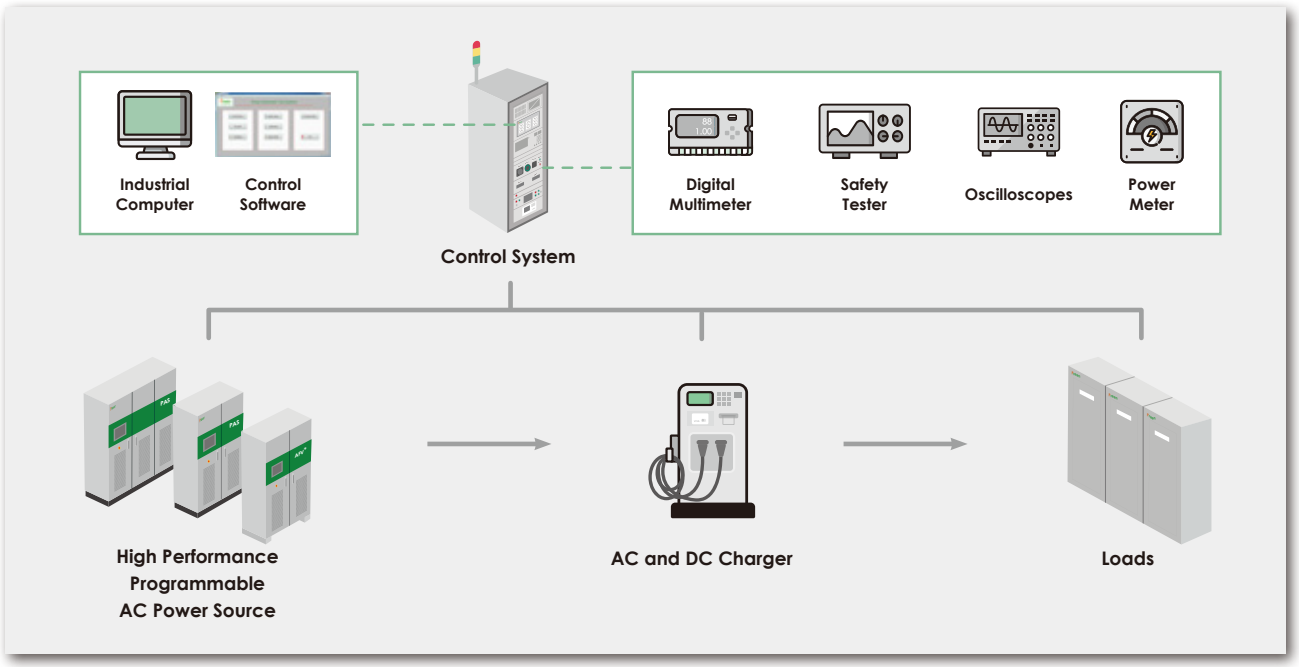
This system mainly provides electric performance test and communication protocol test for AC and DC charger, integrating the testing items of related standards to optimize testing efficiency.

It can simulate the output and communication operation of the charger to test whether the magnetic field generated by the high-capacity transmission will interfere with the communication. And it also can simulate the corresponding protection of the charger when the signal of control pilot changes during the charging process.

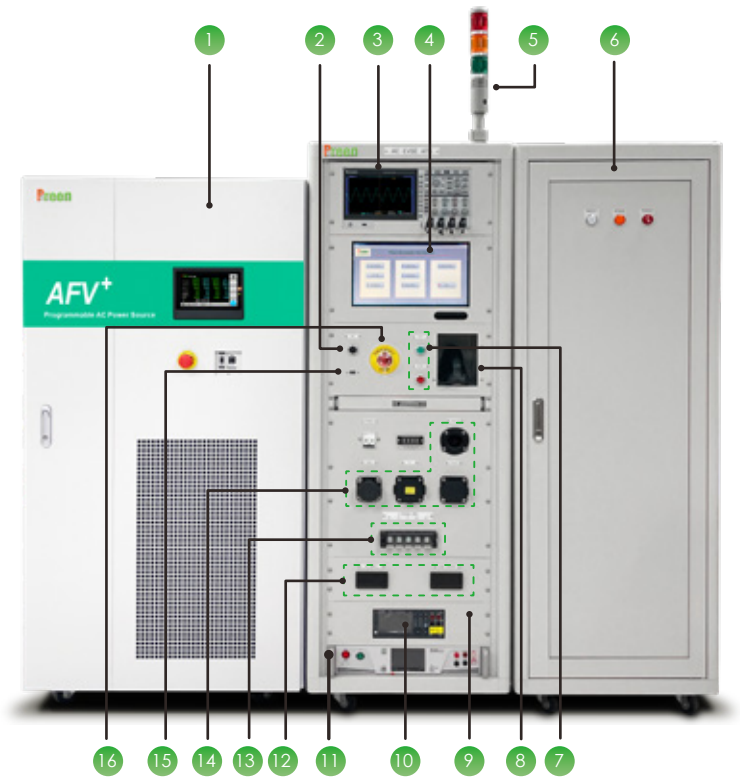
Product Features

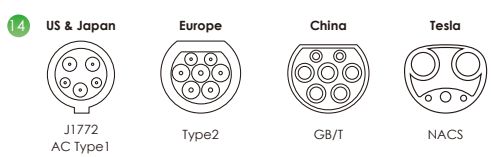
- Complied with relevant national regulations: NB/T 33001, NB/T 33002, NB/T 33008.1, NB/T 33008.2, GB/T 18487.1 and GB/T 27930.
- Ideal for high-power charger testing : equipped with Preen's high power AC sources and loads, featuring various models and power levels.
- Flexible system configuration: can be customized for customer's need.
- Suitable for various EV charger sockets.
- Simulate the corresponding protection of the charger when the signal of control pilot changes according to each working conditions.
- Capable to perform touch current insulation testing.
- Intuitive control software, easy to use.

Structure of EVSE ATS



Instrument and Equipment Overview





1. AC Power Supply
2. Industrial Computer (Inside)
3. Digital Storage Oscilloscopes
4. Display Screen (Control Software)
5. Tri Color Signal Light
6. High Power Load
7. Start/Stop Button
8. Bar Code Scanner
9. Signal Control Box
10. Digital Multimeter
11. Safety Tester
12. Voltage & Current Meter of Input/Output
13. Input Connector of Charger (Single-phase / Three-phase)
14. Charger Sockets for Different Countries
15. USB Port
16. Emergency Stop Button

Key Advantages

Preen's EVSE ATS is designed based on the type and regulations of EV charger in various countries. Not only meeting multiple testing standard of EV charger, EVSE ATS also provides flexibility in system design. It can be configured according to the customer's requirement or existing instruments, and automatically generates test results and reports. EVSE ATS is equipped with Preen's high-power AC sources and loads, featuring various models and power levels, providing a cost-effective and reliable testing solution.

Flexible System Configuration

System structure uses flexible open platform, depending on customer's need, equipment, instruments, meter setting, test result recording and report generation.

Compatible with Various Types of EV Charger

Applicable for EV charger types in various countries.

Self-developed Product

Self-developed system programming complies with related regulations such as power, communication, safety and touch current test.

Competitive Price

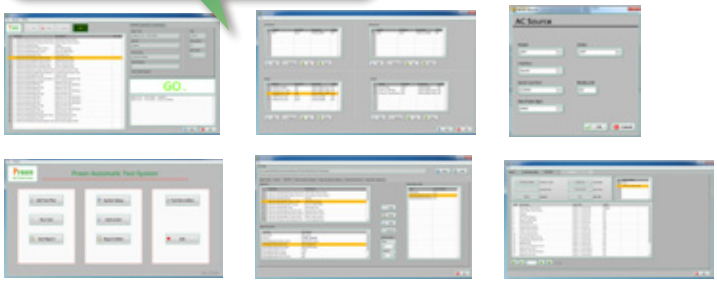
Self-developed control software, high-power AC source and load effectively reduce the system cost.

Intuitive Software Platform

Preen's EVSE ATS testing software platform is designed as an open and flexible structure, the user can set different criteria to each testing item and make adjustments according to different instruments. It can also interpret PASS/FAIL automatically and generate test results in the form of reports. The user can set Security Level, Full System Access, Edit Setups and Recall Setups in system setting page.

Flexible Software Configuration

Configured according to customer's requirement and existing instruments.



- **Friendly Environment :**
  Intuitive operation and various functions for testing condition.
- **Editable Testing Project :**
  Testing project can be organized according to user's need.
- **Security Level Setting :**
  Avoid mis-setting and facilitate internal management for corporation.
- **Report Editing and Automatic Generation :**
  Advanced settings for test item editing with flexibility to adjust test complexity.
- **Automated Generation of Reports and Editing :**
  Easily record test results and increase productivity.

Preen's High-Power Power Supply

Preen's EVSE ATS can combine with AFV+ series High Power Programmable Power Supply (10kVA-2000kVA) or PAS series Regenerative Grid Simulator (30kVA-2000kVA) for powering single-phase/three-phase input of charger. These two products can provide voltage / frequency / current testing for EV charger from various countries, and simulate overvoltage, undervoltage and related protection testing.

AFV+

- **Output Power :** 10kVA-2000kVA
- **Output Voltage :** 0-155V/0-310Vac
- **Output Frequency :** Up to 45-500Hz(opt.)
- **Programmable Voltage and Frequency**

PAS

- **Output Power :** 30kVA-2000kVA
- **Output Voltage :** 0-300Vac/0-350Vac(opt.)
- **Output Frequency :** 45-65Hz/40-70Hz(opt.)
- **Feature with Four-Quadrant Regenerative Function**

Standard Testing Items

EVSE ATS is an automatic testing system aimed for AC and DC charger regulation, which comply to regulation of SAE J1772 and CNS 15511, China National Energy Administration standard NB/T 33001, NB/T 33002, NB/T 33008.1 and NB/T 33008.2, China National standard GB/T 18487.1 and GB/T 27930, and Interoperability test specifications of electric vehicle conductive charging. It helps to shorten the product testing process for product line, quality assurance and R&D.

Test Function-For Type 1 (SAE J1772 1-Phase)

1. Hi-pot Test Function (for UL2594)
2. GND Continuously Test (for UL2594)
3. Control Pilot Signal Test State A
4. Control Pilot Signal Test State B2
5. Control Pilot Signal Test State C
6. Current Capacity Test
7. Disconnect Switch S2 Test
8. Coupler Disconnection Test
9. Over Current Protection Test
10. CCID Test (for UL2231)

Test Function- For Type 2 (IEC 62196-2 3-Phase)

1. Hi-pot Test Function (for UL2594)
2. GND Continuously Test (for UL2594)
3. Control Pilot Signal Test State A
4. Control Pilot Signal Test State B2
5. Control Pilot Signal Test State C
6. Current Capacity Test
7. Disconnect Switch S2 Test
8. Coupler Disconnection Test
9. Over Current Protection Test
10. CCID Test (for UL2231)

Advantages of Preen's EVSE ATS

Comparing to other EV charger testing systems on the market, Preen's testing system not only complies with international regulations, it also provides automation testing for insulation, voltage-withstand and leakage current, greatly improved the efficiency of product line and quality assurance process.

EV Charger Testing Items	Preen	Brand A	Brand B
Insulation Test	V	-	-
Ground Continuity Test	V	-	-
Hipot Test	V	-	-
Touch Current Test	V	-	-
Current Capacity Test	V	V	-
Disconnect Input / Output Switch Test	V	V	V
Coupler Disconnection Test	V	V	V
Input Characteristics Test	V	V	V
Output Characteristics Test	V	V	V
Control Pilot Test (State A to F)	V	V	V
Over Current Protection Test	V	V	V
Charging Circuit Interrupting Device (CCID) Test	V	V	V
Emergency Stop Test	V	V	V
Data Record and Export Data	V	V	V

V Yes - No