



# ELECTRICAL AND CHARGING SAFETY TESTER

## Application

Electrical and charging safety tester can perform comprehensive and multi-dimensional analysis and testing on the powertrain of new energy vehicles, including charging function testing, battery pack capacity and range testing, battery pack aging testing, calendar life testing, battery consistency testing, capacity recovery function, SOC accuracy calibration, residual value evaluation, safety hazard analysis, etc., providing a basis and report for the health status of power batteries.

## Advantages

- 1 Accurate lithium plating and aging detection of battery packs, detection of battery cell leakage, etc.
- 2 Detection of abnormal voltage, current and power during the charging process; rapid capacity/range assessment; SOC calibration, etc.
- 3 Balanced consistency of the entire vehicle's battery cells; capacity/range recovery; improved overall lifespan, etc.

| Function                       | Test item  | Value of test                          |
|--------------------------------|--|--|
| Power battery pack test        | DC internal resistance test of battery system  | Battery safety test                    |
|                                | Battery system range test  | Battery mileage test                   |
|                                | Battery capacity retention test (SOH)  | Battery life decay test                |
|                                | Battery voltage consistency test   | Battery consistency test               |
|                                | Battery system temperature detection   | Battery thermal protection test        |
| Battery cell test              | Extreme value of cell voltage  | Battery consistency test               |
|                                | Pressure differences of individual cells   | Battery consistency test               |
|                                | Extreme value of temperature of individual cells                                     | Battery consistency test               |
|                                | Temperature differences of individual cells  | Battery consistency tes                |
|                                | Lithium plating test of individual cells   | Battery internal short circuit test    |
|                                | Leakage test of individual cells   | Battery internal short circuit test    |
|                                | Test of electronic-electrochemical diffusion internal resistance of individual cells | Battery internal short circuit test    |
| Battery management system test | Battery (SOC) estimation error test  | SOC accuracy test                      |
|                                | Test of voltage and current measurement accuracy                                     | BMS collection of abnormal data        |
| Interface circuit test         | Insulation performance test  | Personal and vehicle safety inspection |
|                                | Adhesion test of vehicle contactors  | Charging fault detection               |
|                                | Test of temperature at vehicle charging port   | Charging safety detection              |
| Safety inspection              | Charging socket insulation resistance  | Charging socket insulation resistance  |
|                                | Potential equalization   | Potential equalization                 |
| Value-added functions          | Individual cell consistency balancing service  | Battery consistency recovery           |
|                                | Battery system capacity recovery service   | Improved range                         |

| Item              | Specifications |
|-------------------|----------------|
| Dimension (W*D*H) | 600*800*2138mm |
| Weight            | ≤900KG         |