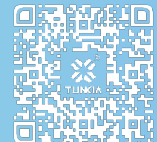


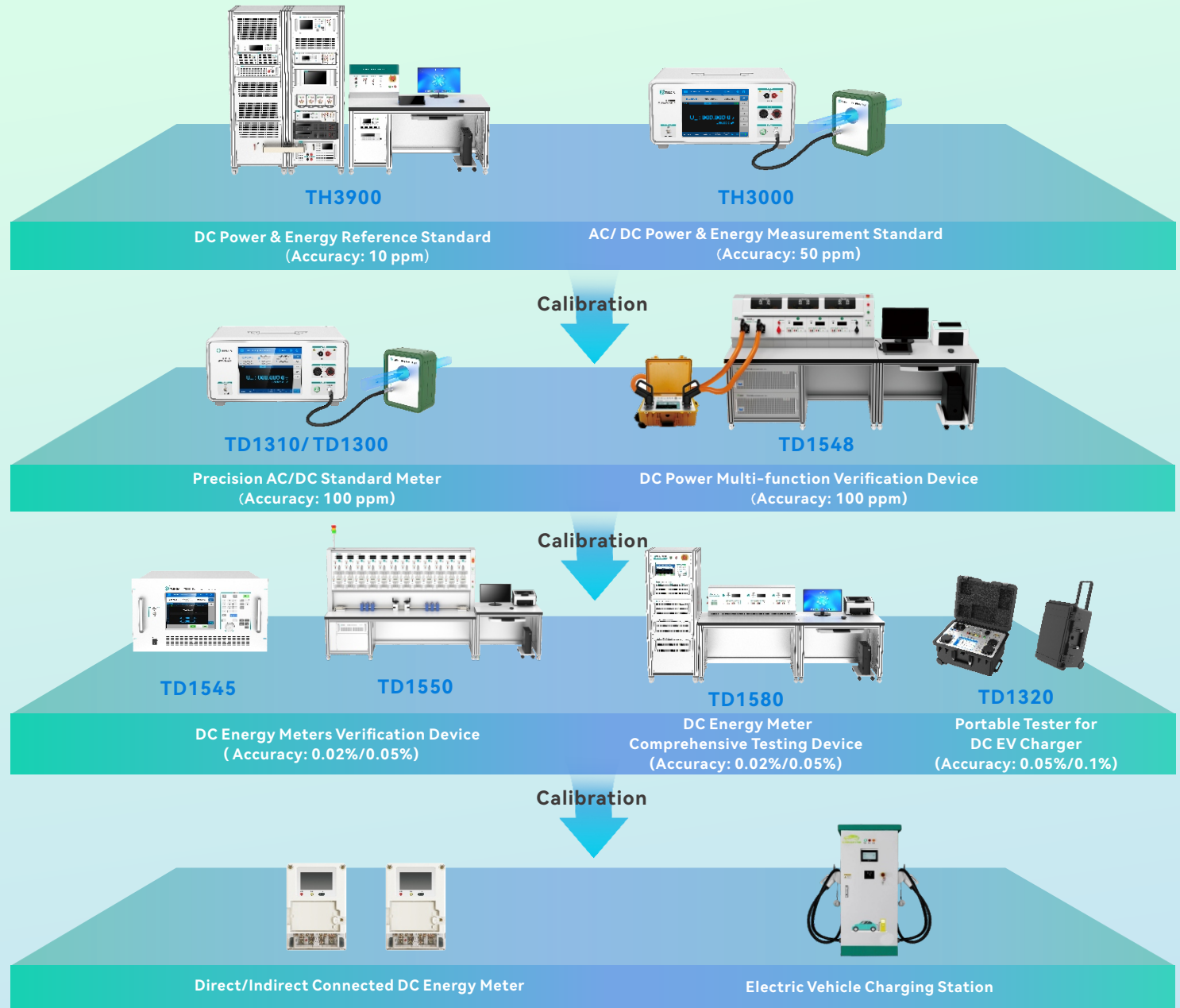
DC POWER & ENERGY COMPREHENSIVE CALIBRATION SOLUTION



DC Power Traceability & Calibration Product System

APPLICATION

- Metrology Institute
- Electrical Laboratory
- Calibration Laboratory
- Energy Meter Manufacturer
- Sensor Manufacturer
- DC Charging Facilities
- Power Industry
- University Research
- Rail Transportation
- EV Charger Testing



TH3900 DC Power & Energy Reference Standard

It has high stability, high accuracy, strong functionality, low temperature drift, and is suitable for the calibration and traceability of high-level DC standard energy meters, DC energy devices, and DC standard power sources/meters.

DCV 2 ~ 4 ppm

DCI 1.5 ~ 4 ppm

P/E 2 ~ 8 ppm

Ultra-Stable Current Standard Source

- DCI output range: 1 mA ~ 10 A
- Short-term stability: 1.5 ppm/2 min
- Maximum load voltage: 10 V



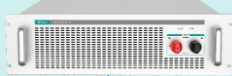
Ultra-Precision DC Constant Voltage Source

- DCV output range: 0.1 V ~ 1500 V
- Short-term stability: 0.3 ~ 2 ppm/2 min
- Maximum load current: 100 mA



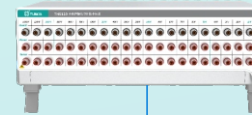
Ultra-Stable Current Standard Source

- DCI output range: 10 A ~ 100 A
- Short-term stability: 1.5 ppm/2 min
- Maximum load voltage: 4 V



Multi-Channel Ultra-Precision Voltage Ratio Standard

- Specifications: 20 V:10 V, 30 V:10 V..... 900 V:10 V, 1000 V:10 V, 1200 V:10 V, 1500 V:10 V
- Measurement uncertainty : 1 ~ 2.5 ppm

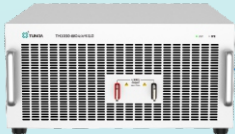


DC Energy Comparator

- Voltage, current signal sampling
- Calculate power, energy errors, etc.
- Energy pulse measurement uncertainty: 0.5 ppm

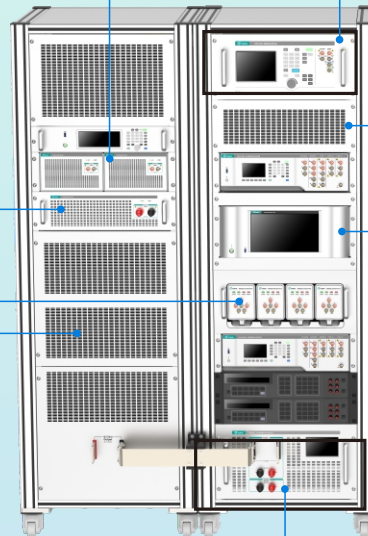
Ultra-Stable Current Standard Source

- DCI output range: 100 A~1000 A
- Short-term stability: 1.5 ppm/2 min
- Maximum load voltage: 4 V



DC Voltage Reference standard

- Voltage output : 0.1 V/1 V/10 V
- Measurement uncertainty: 1 ppm/year



Multi-Channel Ultra-Precision Current Ratio Standard

- Specifications: 10 mA:100 mA, 20 mA:100 mA..... 200 A:100 mA, 500 A:100 mA, 1 kA:100 mA
- Measurement uncertainty : 2 ppm



Nanovoltmeter Calibration Device

- Voltage output : 1 μ V ~ 110 V
- Measurement uncertainty: 6 ppm@10 V

TH3000 AC/ DC Power & Energy Measurement Standard



- ◀ High-precision, multi-functional power standard, which integrates AC/DC standard voltmeter, ammeter, small-signal voltmeter, AC/DC energy measurement, ripple measurement, harmonic measurement and other functions.
- DC Power/Energy Accuracy: **50 ppm**
DCV measurement: **10 mV ~ 1150 V**, accuracy: **20 ppm**
DCI measurement: **10 μ A ~ 120 A**, accuracy: **30 ppm**
Support the transducer to expand the current range to **500 A** or more
Small-signal DCV measurement: **0.1 mV ~ 12 V**
Support DC ripple and AC 2nd~63rd harmonic measurement

TD1310 Precision AC/DC Standard Meter



- ◀ Integrates voltage, current, energy measurement, ripple measurement, harmonic measurement and other functions. It is applicable to calibrate AC/DC current source, AC/DC voltage source, AC/DC power source and AC/DC energy measurement device.
- Power/ Energy Accuracy: **DC 100 ppm, AC 200 ppm**
Voltage/current accuracy: **DC 50 ppm, AC 100 ppm**
DCV measurement: **10 mV ~ 1150 V, 0.1 mV ~ 12 V** (small signal)
DCI measurement: **10 μ A ~ 120 A, 500 A, 1 kA** and more range
Support DC ripple and AC 2nd~63rd harmonic measurement
Standard energy pulse input / output

TD1548 DC Power Multi-function Verification Device



- ◀ It consists of precision DC voltage source, DC current source, DC small signal voltage source, clock calibrator, multi-function calibration bench, calibration software, etc. It can calibrate conventional DC electrical measuring instruments, DC shunts, DC standard energy meters, and electric vehicle DC charger tester.
- Accuracy: **100 ppm** (power/energy), **50 ppm** (current/voltage)
DCV Output: **10 mV~1150 V / 1550 V, 10 μ V~4.4 V** (small signal),
DCI Output: **1 mA~600 A**
Support the verification of three DC energy meters and DC shunts
Support the verification of single EV DC charger tester
Standard energy pulse input/output for working errors testing of energy meters

TD1300 Precision DC Standard Meter



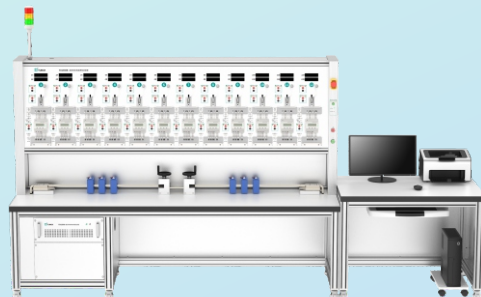
- ◀ Suitable for calibrating DC current sources, voltage sources, power sources, and for DC energy meters testing devices.
- Accuracy : **0.01%/0.02%**
DCV measurement : **10 mV ~ 1150 V, 0.1 mV ~ 12 V** (small signal)
DCI measurement : **10 μ A ~ 120 A , 500 A, 1 kA** and more range
Maximum DC ripple measurement bandwidth: **10 kHz**
Standard energy pulse input / output

TD1545 DC Energy Meters Verification Device



- ◀ Suitable for calibrating DC voltmeters/ammeters/power meters, DC shunt, and DC energy meters.
- Accuracy : **0.02%/0.05%**
DCV output: **10 mV~1150 V / 1550 V, 10 μ V~4.4 V** (small signal)
DCI output: **1 mA~600 A**
Standard energy pulse input / output
Portable for operation and forming a testing system

TD1550 DC Energy Meters Verification Device



- ◀ Suitable for the verification of DC energy meter and DC shunt. It consists of DC voltage/current standard source, DC voltmeter, multi position verification platform, verification software, etc.
- Accuracy: **0.02%/ 0.05%**
DCV output: **10 mV~1150 V / 1550 V, 10 μ V~4.4 V** (small signal)
DCI output: **1 mA~600 A**
Unit testing Position: 3 or 6
Standard energy pulse input/output
Auxiliary power supply for dc energy measuring
Testing the daily timing error of energy meters



TUNKIA Co., Ltd. stands at the forefront of global manufacturing in high-end instruments catering to electrical and magnetic measurement and calibration. Our technological legacy traces back to 1985, with a steadfast commitment to allocate 25% of our annual revenue to cutting-edge research and development. The TUNKIA Research Institute, housing a team of 120 engineers, actively engages with diverse technical challenges. TUNKIA has been invited by esteemed international standards associations, including IEC and IEEE, to contribute to the formulation and revision of three international standards and over 30 national standards and regulations. We have introduced 22 major series and over 300 models of instruments, serving more than 30,000 clients worldwide.

- 3 Internal Standards Revision
- 18 National Standards Formulation and Revision
- 23 Metrological Specifications Formulation and Revision

- IEC/TC66, TC68, TC42, TC51
- IEEE/PES Power and Energy Society
- China Metrology Technical Committee on Electromagnetic
- Chinese Society for Measurement
- Electrical Steel Branch of the Chinese Society for Metals
- China Instrument Manufacturer Association
- ...
- (Join Various Academic Organizations)

R&D Team/Total Employees (400+) **30%**

R&D Investment/Total Revenue **25%**

Annual Sales Growth Rate **50%**

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