

**Faith** 费思

深圳市费思泰克科技有限公司

Shenzhen Faithtech Technology Co., Ltd

## 关于费思 About Faith

深圳市费思泰克科技有限公司，创立于2002年，是世界领先的电力电子测试设备制造商，致力于向电子、电力、科研行业提供：可以替代进口的、精确的、可靠的电力电子测试设备。

**Shenzhen Faith Technology Co., Ltd., founded in 2002, is a world leading manufacturer of power electronic testing device. It is committed to providing electronic, power and scientific research industries with accurate and reliable power electronic test device that can replace imported power electronic test equipment.**

费思，是“国家高新技术企业”、“深圳市高新技术企业”、“深圳市专精特新企业”“深圳市软件企业”。

**Faith is a "national high-tech enterprise", "Shenzhen high-tech enterprise", "Shenzhen specialized special new enterprise", and "Shenzhen software enterprise".**

秉承“创造世界顶级产品，发展民族自主品牌”的宗旨，费思已经拥有了160多项自主知识产权。已形成了集研发、生产和营销为一体的综合运营体系，先后通过了ISO 9001:2000国际质量管理体系认证、CE和ROHS认证。

**Adhering to the purpose of "creating world-class products and developing national independent brands", Faith has more than 160 independent intellectual property rights. Among them, more than 20 invention patents and national standards.**

**Operating space of more than 6,000 square meters, net assets of more than 100 million yuan, We has formed an integrated operation system integrating R&D, production and marketing, and has successively passed the ISO 9001:2000 international quality management system certification, CE and ROHS certification.**





200+

公司总人数  
Total employees in the company

100+

深圳Shenzhen  
employees

60+

长沙分公司Changsha  
Branch

40+

驻外机构  
Representative office personnel

40%

研发人员占比  
R&D Engineer proportion

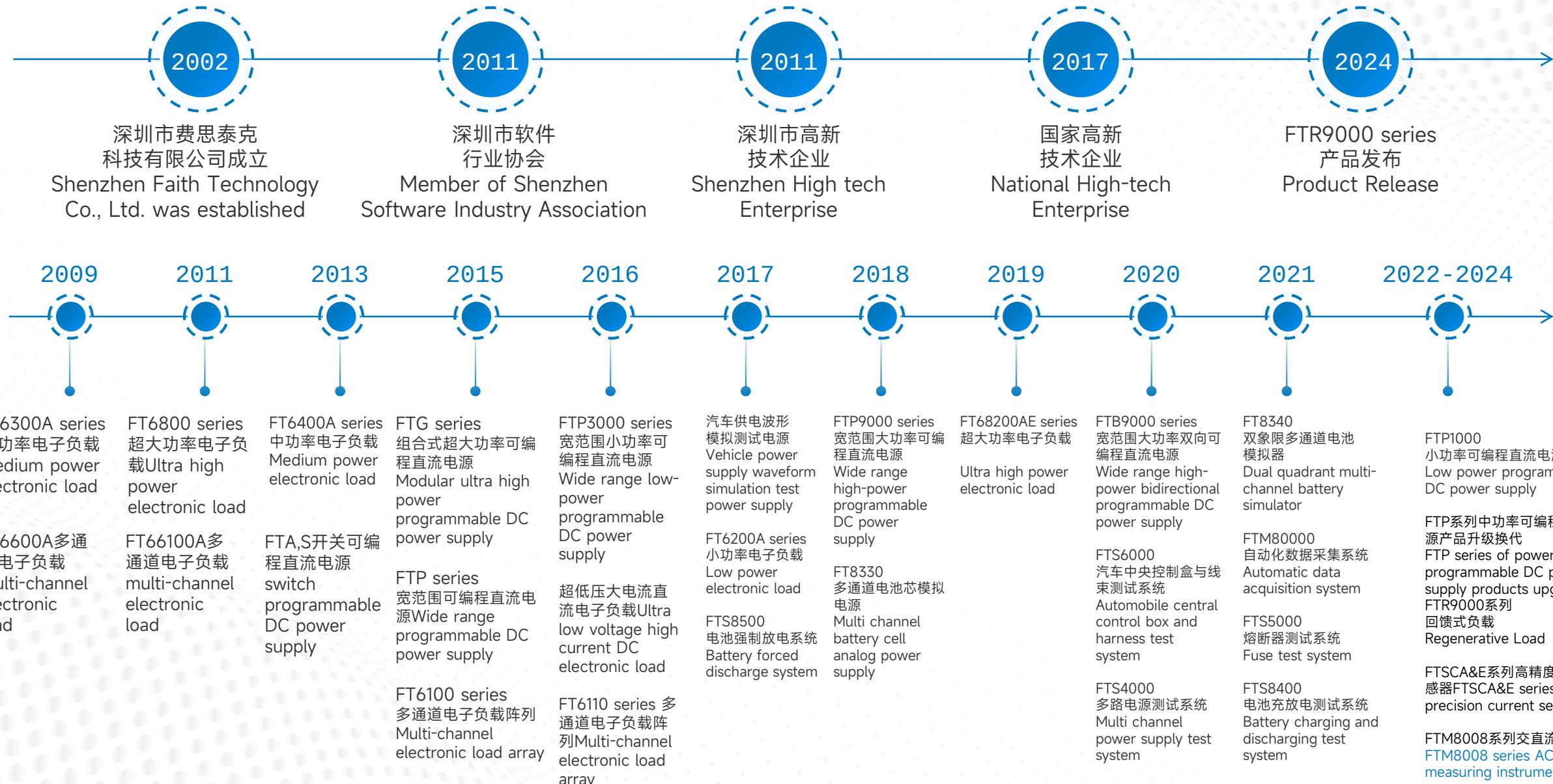
13%

研发投入占营业额  
R&d as a percentage of revenue

# 发展历程

Development History

Faith 费思



# 产品系列及测试方案

Product Series And Testing Plan

Faith 费思

## 直流电源&直流电子负载总览 Overview of DC power supply&DC electronic load



### 电子负载 DC Electronic load



### 测控电源 Programmable DC power supply for test, measurement and control



## 双向直流电源系列

### Bidirectional DC power supply



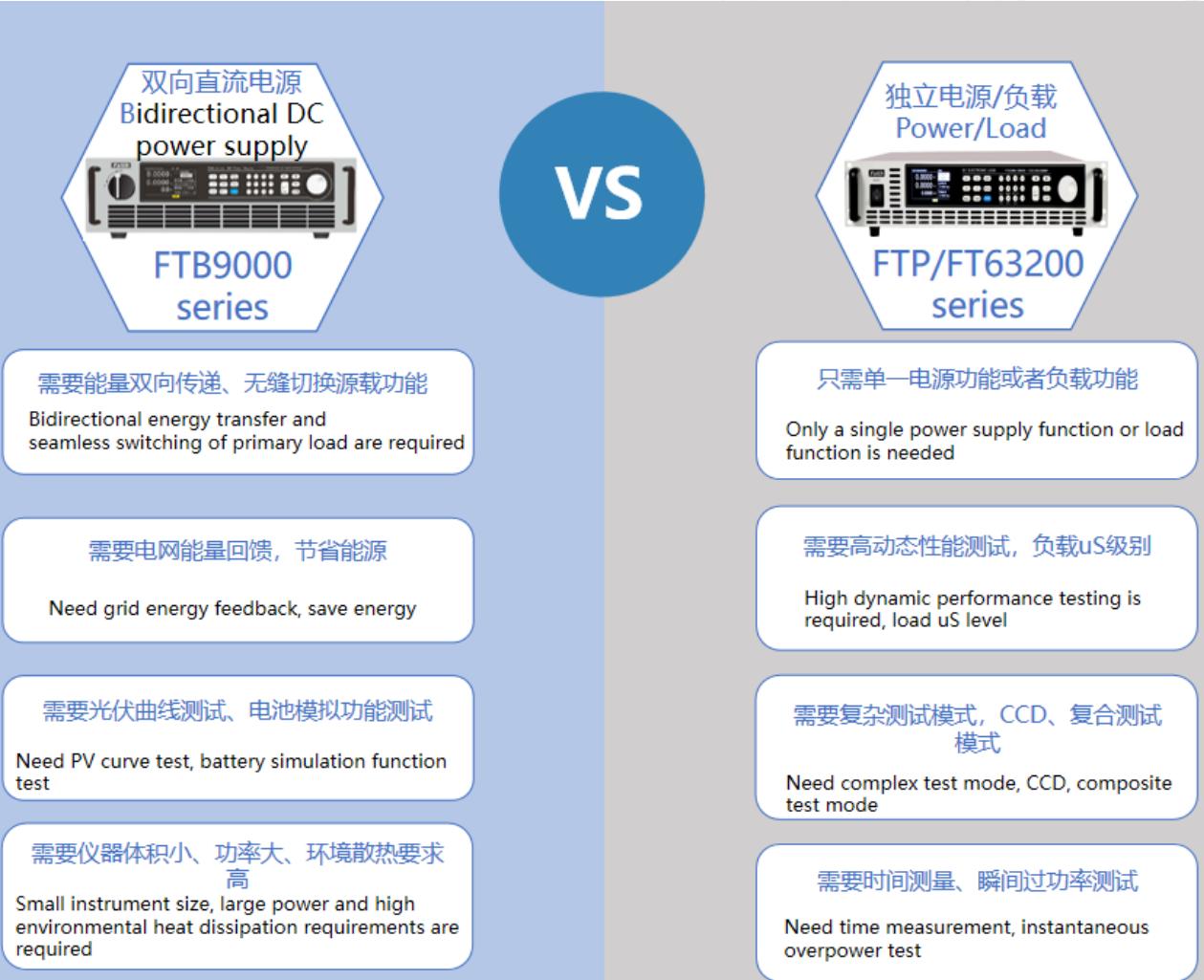
**FTB9000系列宽范围大功率双向直流电源**  
FTB9000 series wide range high power  
bidirectional DC power supply

#### 特点介绍 Product features

- 电压: 0 ~ 2250V 电流: 0 ~ ±4500A 功率: 0 ~ ±180kW; 双向能量传递, 跨象限无缝切换  
Voltage: 0 ~ 2250V Current: 0 ~ ±4500A Power: 0 ~ ±180kW;  
Bidirectional energy transfer, seamless switching across quadrants
- 电压精度: 0.02%+0.02%F.S.; 电流精度: 0.1%+0.1%F.S.  
Voltage accuracy: 0.02%+0.02%F.S.; Current accuracy:  
0.1%+0.1%F.S.
- 具备充、放电功能、序列和波形功能、电池模拟器功能（选配）、光伏电池阵列模拟功能（选配）  
With charging, discharging function, sequence and waveform function, battery simulator function (optional), photovoltaic cell array simulation function (optional)

#### 市场应用 Market application

- 储能、微网设备生产、开发  
Energy storage, micro grid equipment production, development
- 航天、铁路、新能源汽车应用  
Aerospace, railway, new energy vehicle applications
- 服务器电源、UPS、逆变器生产、开发  
Server power supply, UPS, inverter production, development



## 大功率全系列可编程直流电源

High power full range programmable DC power supply

FTG系列组合式超大功率直流电源  
FTG series combined super power DC power

### » 特点介绍 Product Feature

- 电压: 10-1500V; 电流0-20000A; 功率: 4-600KW; AC输入: 380VAC  
Voltage: 10-1500V; Current 0-20000A;  
Power: 4-600KW; AC input: 380VAC
- 电压低至10V, 更小功率提供更大电流方便、实用的序列功能, 可实现各种电压电流波形输出提供具有强大的信号监控能力的复合信号端口 (选)  
Low voltage to 10V, less power to provide more current convenient,  
practical sequence function, can be realized various, Voltage and current  
waveform output Composite signal port with powerful signal monitoring  
capability (optional)



### » 市场应用 Market Application

- 电力电子实验室的多规格灵活应用  
Flexible application of multiple specifications in power electronics laboratory
- 燃料电池、动力电池、铅蓄电池、超级电容测试  
Fuel battery power battery, lead battery, super capacitor test
- 传感器、超导材料、线缆、连接件等产品测试。  
Testing of sensors, superconducting materials, cables, connectors and other products

## 大功率全系列可编程直流电源

High power full range programmable DC power supply

### FTP9000系列宽范围大功率直流电源

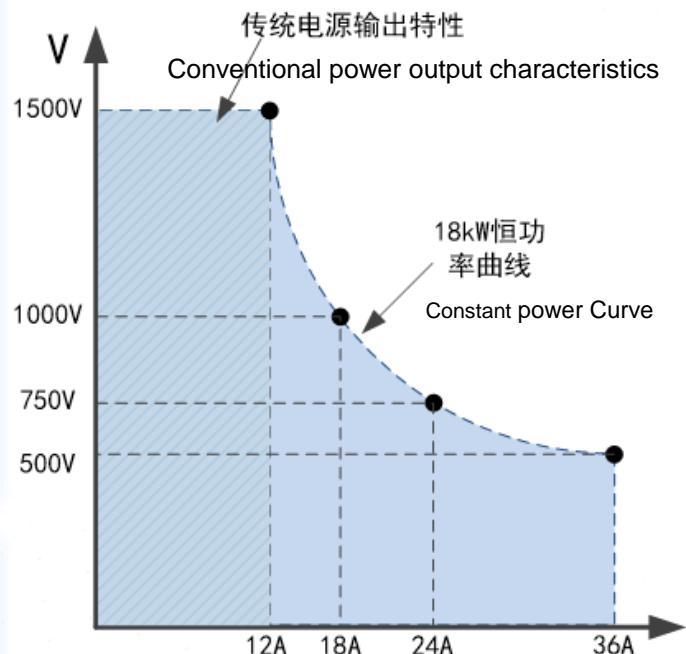
FTP9000 series wide range high power DC power supply

#### 特点介绍 Product Feature

- Voltage: 80-2250V; Current: 0-6120A; Power: 5-180kW; AC input: 380VAC
- 3倍宽范围输出量程, 电压、电流采样率500kHz, 分辨率16Bits. 3 times wide output range, voltage and current sampling rate 500kHz, resolution 16Bits
- 整机效率高于93%, PFC控制功能, 功率因数0.99The efficiency of the whole machine is higher than 93%, PFC control function, power factor 0.99
- 电压输出缓升、缓降功能, 电压、电流优先功能Voltage output slow rise, slow drop function, voltage, current priority function

#### 市场应用 Market Application

- 车载、机载、舰载电子设备的供电环境仿真
  - 太阳能、风能、储能领域设计和测试
  - 无人机、激光、传感器领域供电和设计测试
- Simulation of power supply environment for on-board, airborne and shipboard electronic equipment
- Design and test for solar, wind and energy storage
- Uav, laser, sensor field power supply and design testing



实验室测试  
电压电流传感器校准

车载设备测试  
激光器测试

## 中功率全系列可编程直流电源

Medium power full range programmable DC power supply

### FTP系列宽范围直流电源

FTP series wide range DC power supply

#### 特点介绍 Product Feature

- Voltage: 10-1500V; Current: 0-800A;  
Power: 1.2KW-6.5KW
- 高稳定性: 低线性、负载调整率, 低纹波,  
低噪音  
High stability: low linearity, load adjustment rate,  
low ripple, low noise
- 斜率控制: 可快速精准地控制电压 (或电流)  
上升和下降  
Slope control: can quickly and accurately control  
the voltage (or current) rise and fall
- 序列功能: 强大灵活的序列功能, 可模拟复  
杂波形输出  
Sequence function: Powerful and  
flexible sequence function can simulate complex  
waveform output



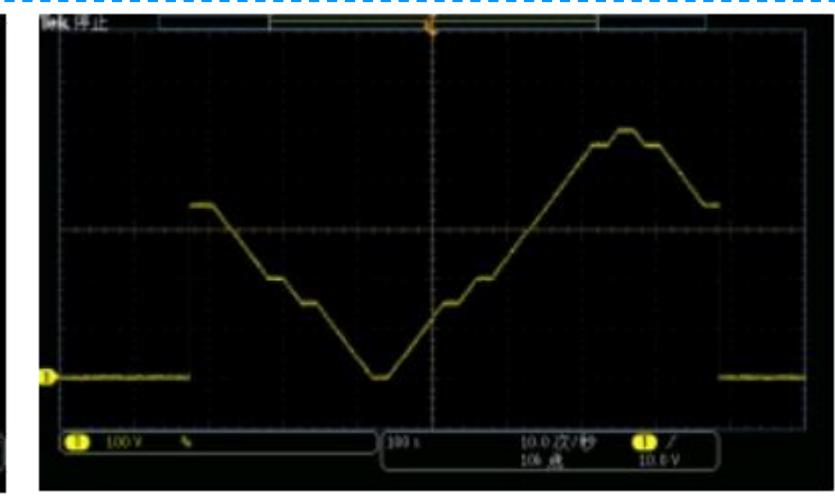
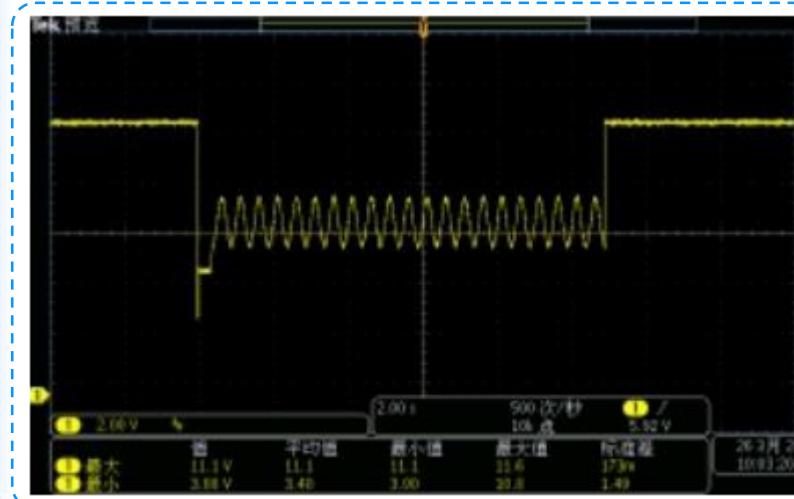
#### 市场应用 Market Application

实验室测试  
Laboratory tests

车载设备测试  
On-board equipment testing

电压电流传感器校准  
Voltage and current  
sensor calibration

激光器测试  
Laser testing



## 小功率可编程直流电源

## Low power programmable DC power supply



FTP1000系列高精度中小功率可编程直流电源

FTP1000 series high precision medium and small power programmable DC power supply

### 特点介绍 Product Feature

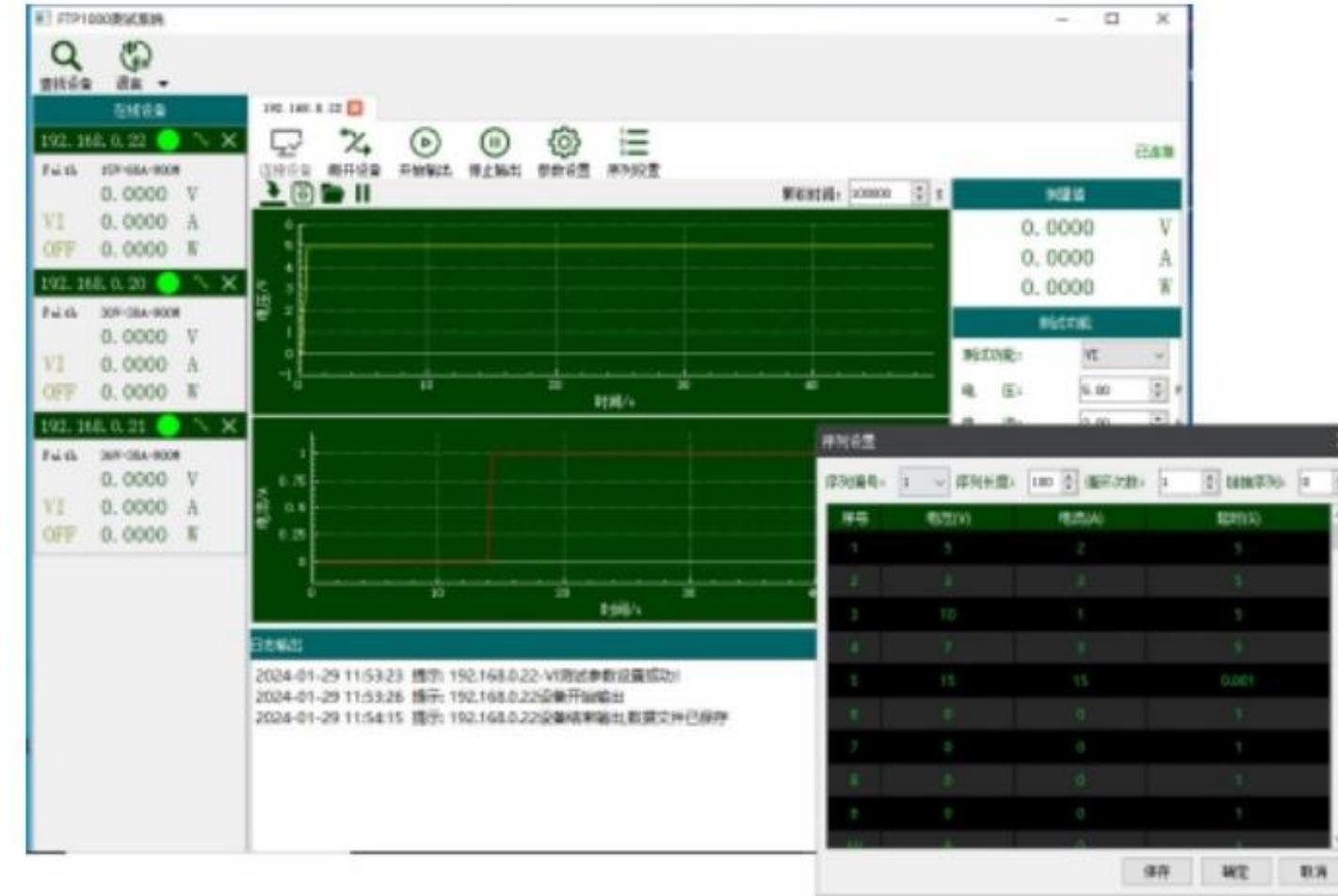
- Voltage: 15 ~ 3000V Current: 0 ~ 120A Power: 600W ~ 1800W  
Small size, 1U/ half 19 inches;
- 输入高功率因数，低谐波  
Input high power factor, low harmonics
- 序列及波形编辑功能；具备电池充电功能  
Sequence and waveform editing function; With battery charging function
- 过压保护、过流保护、过功率保护、过温度保护等全方位保护功能；  
Over voltage protection, over current protection, over power protection, over temperature protection and other comprehensive protection functions
- 支持输出时间设定，可控制和记录输出时间；  
Support output time setting, can control and record the output time
- 支持电压远端补偿；  
Remote voltage compensation is supported
- OLED显示，宽视角，高亮度；  
OLED display, wide viewing Angle, high brightness
- 标配RS232与LAN，选配RS485；Standard RS232 and LAN, optional RS485
- 支持标准SCPI及Modbus-RTU通讯协议。Support standard SCPI and Modbus-RTU communication protocols

### 市场应用 Market Application

实验室测试 Laboratory tests

系统集成 System integration

大规模产线测试 Mass production line testing



	FTB9000	FTP9000	FTG	FTP	FTP1000
Power	5-180KW	5-180KW	4-600KW	1.6-6.5KW	600-1800W
电压范围 Volt Range	80-2500V	80-2500V	10-1500V	10-1500V	15-3000V
主要特点 Main Feature	双向能量传递，跨象限无缝切换Bidirectional energy transfer, seamless switching across quadrants	高功率密度、高效率、宽范围.High power density, high efficiency, wide range	单机电流可达20000A Single machine current up to 20000A	宽范围输出，大电流、电压电流斜率可调、汽车供电波形模拟Wide range output, large current, adjustable voltage current slope, analog automobile power supply waveform	超高压、小体积、高功率密度 Ultra high voltage, small volume, high power density
主要市场应用 Main Market Application	逆变器测试生产 电机测试 太阳能电池阵列、风能发电应用Inverter test production Motor test Solar arrays, wind power applications	直流充电桩 车载机载舰载电子设备的供电环境仿真Dc charging pile Simulation of power supply environment for on-board and airborne shipboard electronic equipment	超导材料 传感器测试 线缆测试 燃料电池、动力电池、 超级电容测试 Superconductive material Sensor testing Cable harness testing Fuel cell, power battery, super capacitor test	太阳能、风能、储能领域测试 汽车供电波形模拟测试 直流充电机测试系统 Solar energy, wind energy, energy storage field test Automobile power supply waveform simulation test Dc charger test system	系统集成 大规模产线测试 实验室测试 BMS系统测试 System integration Mass production line testing Laboratory tests BMS System Test

## 小功率全系列可编程直流电源

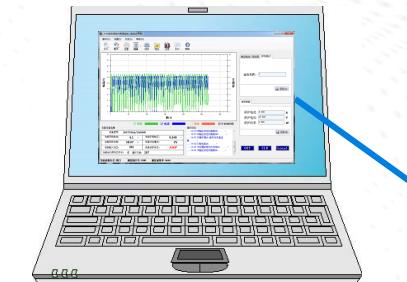
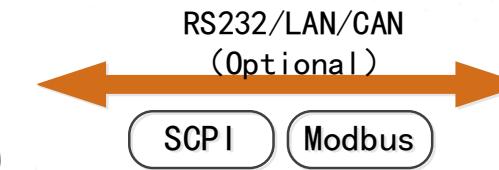
Low power full range programmable DC power supply

### FTP3000系列宽范围直流电源

FTP3000 series wide range DC power supply

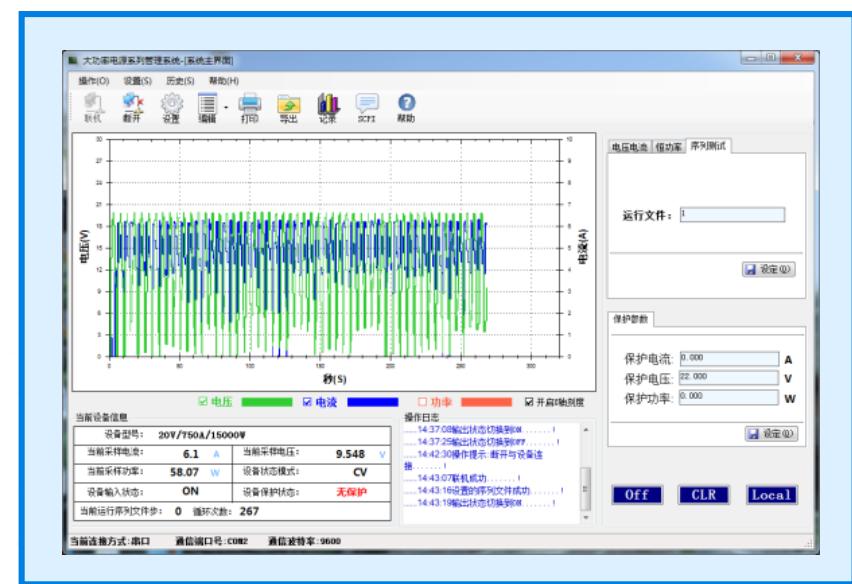
#### 特点介绍

- Voltage: 0-600V; Current: 0-80A;  
功率Power: 900W、1500W
- 24位高分辨率ADC测量;  
24-bit high-resolution ADC measurement
- 功率因数大于0.98  
The power factor is greater than 0.98
- 低纹波噪声，远端线损补偿  
Low ripple noise, remote line loss compensation
- 序列功能：强大灵活的序列功能，可模拟复杂  
波形输出  
Sequence function: Powerful and flexible sequence  
function can simulate complex waveform output



#### 市场应用Market Application

实验室测试 Laboratory tests  
车载设备测试 On-board equipment testing  
电池充电测试 Battery charge test  
DC/DC测试 DC/DC testing



## 小功率全系列可编程直流电源

Low power full range programmable DC power supply

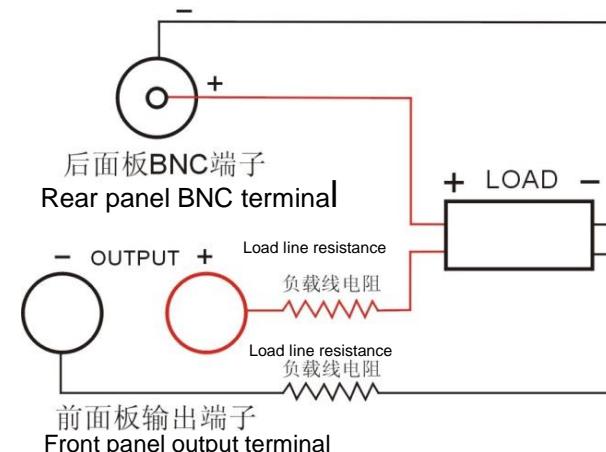
### FTL系列宽范围直流电源

FTL series wide range DC power supply

#### 特点介绍 Product Feature

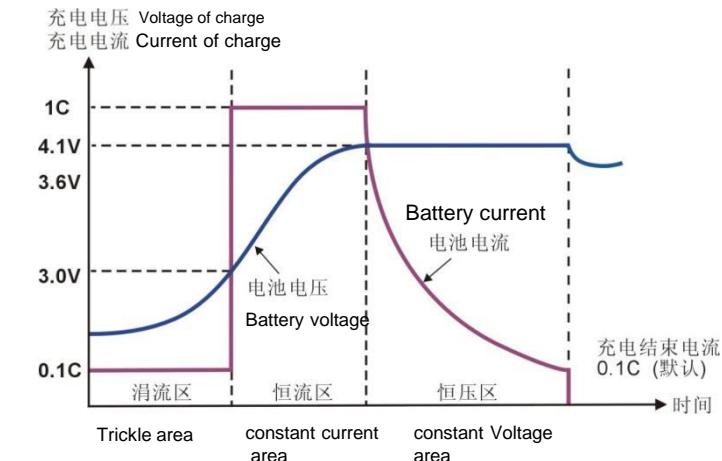
- Voltage: 15-500V; Current: 0-60A;  
Power: 90W-900W
- 高稳定性: 低线性、负载调整率 $1\text{mVrms}$  的纹波和噪声  
High stability: low linearity, load adjustment rate  $1\text{mVrms}$  ripple and noise
- 序列功能: 强大灵活的序列功能, 可模拟复杂波形输出  
Sequence function: Powerful and flexible sequence function can simulate complex waveform output

Sequence function: Powerful and flexible sequence function can simulate complex waveform output



#### 市场应用 Market Application

- 高指标的实验室使用  
High index laboratory use
- 车载设备  
Vehicle mounted equipment
- 高性能的测试系统  
High performance test system



## 多通道小功率系列可编程直流电源

Multi-channel low power series programmable DC power supply

### FTL多路可编程线性直流电源

FTL multi-channel programmable linear DC power supply

#### 特点介绍 Product Feature

- 三路同时显电压、电流，并均可调节  
Three channels at the same time display voltage, current, and can be adjusted

- 高稳定性：低线性、负载调整率  
1mVrms 的纹波和噪声  
High stability: low linearity, load adjustment rate 1mVrms ripple and noise
- 可选择串、并联或同步使用  
电压：31-61V；电流：3-6A；功率90W-180W  
Can choose series, parallel or synchronous use  
Voltage: 31-61V; Current: 3-6A; Power 90W-180W



#### 市场应用 Market Application

- 生产线工作台常规测试  
Production line table routine test
- 自动化设备集成实验室  
Automation equipment integration laboratory
- 研究所  
Institute of research

## 大功率全系列可编程电子负载

High power full range of programmable electronic load



### FT68200A/E/AL系列超大功率电子负载

FT68200A/E/AL series super power electronic load

### 特点介绍 Product Feature

- Voltage: 150V/600V/1200V/1600V; Current: 0-2400A; Single Power: 4kW~60kW
- 电流精度: 0.05%+0.05%F.S.  
时间测量功能、瞬时2倍过载功能（3S内）  
Current accuracy: 0.05%+0.05%F.S.  
Time measurement function,  
instantaneous 2 times overload function  
(within 3S)
- 自动测试功能，正弦波带载功能，序列功能  
Automatic test function, sine wave load function, sequence function

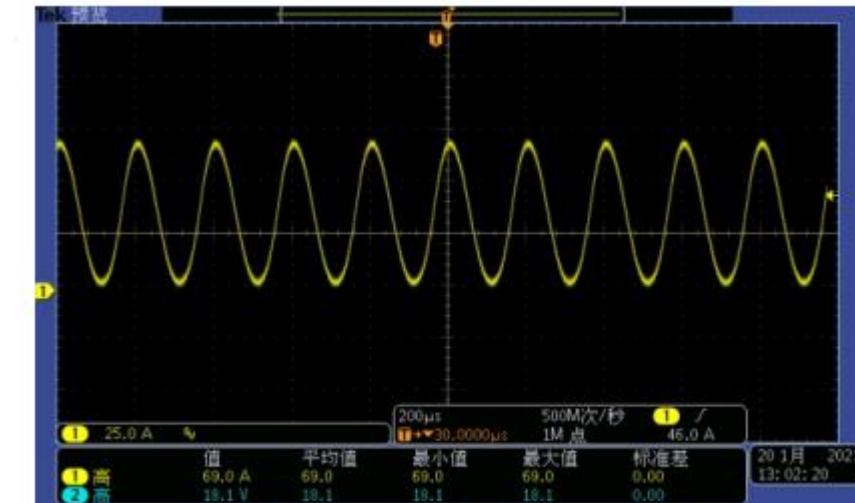
普通电子负载



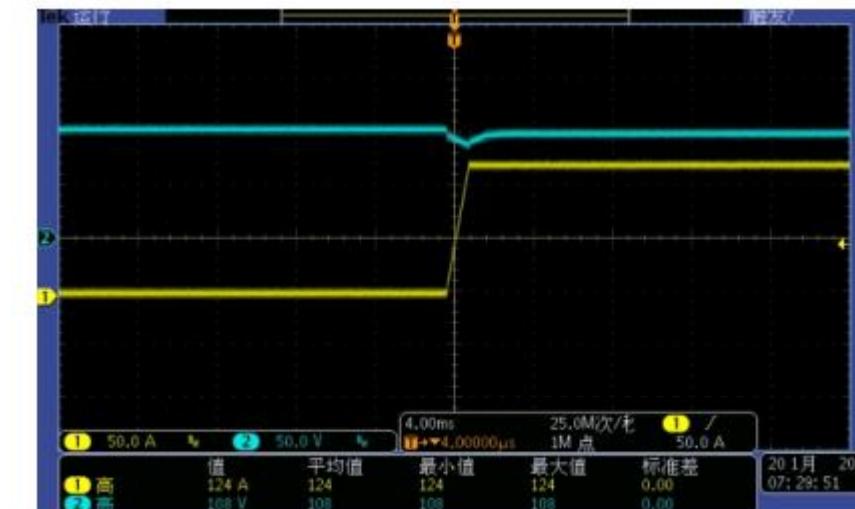
24kW/14U

### » 市场应用 Market Application

- 动力电池测试 Power battery test
- 锂电池测试 Lithium battery test
- BMS 测试 BM Stest
- 直流充电桩测试 Dc charging pile test
- 大功率开关电源测试 High power switching power supply test
- 电流器件（继电器、保险丝、连接器）测试 Testing of current devices (relays, fuses, connectors)



5kHz 正弦波

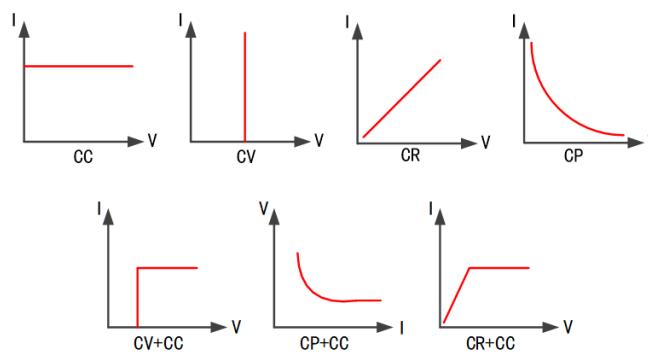


FT68206E-150-600额定6kW，瞬间带载12kW

The FT68206E-150-600 is rated at 6kw and carries 12KW instantly

## 回馈式可编程直流电子负载系列

Feedback programmable DC electronic load series



### 特点介绍 Product Feature

- Voltage: 0 ~ 2250V, Current: 0 ~ 4500A  
Power: 0 ~ 180kW
- 电压精度: 0.05%+0.05%F.S.**  
**电流精度: 0.1%+0.1%F.S.**  
Voltage accuracy: 0.05%+0.05%F.S.  
Current accuracy: 0.1%+0.1%F.S.
- 功率因数0.99，整机效率高于93%**  
Power factor 0.99, the efficiency of the whole machine is higher than 93%

**具备CC,CV,CP,CR,CV+CC,CP+CC,CR+CC多种操作模式功能**  
With CC,CV,CP,CR,CV+CC,CP+CC,CR+CC multiple operation mode functions

- 过压、过流、过功率、过温、欠压、掉电、孤岛保护等全方位保护功能**

Over voltage, over current, over power, over temperature, under voltage, power failure, island protection and other comprehensive protection functions

- 通信接口标配LAN、USB，选配RS485、CAN或GPIB;**  
The communication interface is standard with LAN, USB, RS485, CAN or GPIB
- 通讯协议支持SCPI、MODBUS、CAN-OPEN(选配)协议，提供上位机及SDK开发包进行二次开发**

Communication protocol support SCPI, MODBUS, CAN-OPEN(optional) protocol, provide host computer and SDK development kit for secondary development



### 市场应用 Market Application

- 新能源设备测试 New energy equipment testing**
- 锂离子、燃料等电池放电测试 Lithium ion, fuel and other battery discharge test**
- 航天、铁路、新能源汽车应用 Aerospace, railway, new energy vehicle applications**

## 大功率单体负载产品系列

High power single load product series

	<b>FT6800</b>	<b>FT68200A/E/AL</b>	<b>FTR9000</b>
功率范围 Power Range	2.6–36KW (12K以上4KW递增) 2.6-36 kW (4KW in increments above 12K)	4–600KW (12K以上6KW递增) 4 to 600 kW (In increments of 6KW above 12K )	5–180KW
电压范围 Voltage Range	40/120/500/800/1000/1200V	150/600/1200V/1500V	80/300/500/800/1000/1500/2250V
主要特点 Main Feature	高可靠性、高稳定性 High reliability and stability	高精度、高功率密度、强大的过载能力、丰富的测试功能 High precision, high power density, powerful overload capability, rich test functions	能量回馈电网、3U/18KW、 Energy feedback grid, 3U/18KW,
主要市场应用 Main Market Application	通信电源、OBC (3.3/6.6/11/20KW)、 直流充电模块(15/30KW)、直流桩 (120KW/240KW) 燃料电池、储能电池、动力电池 熔断器、保险丝 Communication power supply, OBC (3.3/6.6/11/20KW), Dc charging module (15/30KW), DC pile (120KW/240KW) Fuel cell, energy storage battery, power battery Fuses, fuses		储能、微网设备生产、开发 新能源汽车、电机驱动器测试 燃料电池、储能电池、动力电池 自动测试系统 Energy storage, microgrid equipment production and development New energy vehicles, motor drive test Fuel cell, energy storage battery, power battery Automatic test system

## 中、小功率全系列可编程电子负载

Full range of low and medium power programmable electronic loads



### FT63200系列中小功率电子负载

FT63200 series small and medium power electronic load

#### 特点介绍 Product Feature

- 电压: 150V/600V/1200V; 电流: 0-300A; 单机功率: 600W~3000W

Voltage: 150V/600V/1200V; Current: 0-300A; Single-unit power: 600W to 3000W

- 电流精度: 0.05%+0.05%F.S.

Current accuracy: 0.05%+0.05%F.S.

- 时间测量功能、瞬时2倍过载功能

Time measurement function, instantaneous 2x overload function

- 自动测试功能, 正弦波带载功能, 序列功能

Automatic test function, sine wave band load function, sequence function

#### 市场应用 Market Application

- 锂电池测试 Lithium battery test

- BMS测试 BMS test

- 中功率开关电源测试 Medium power switching power supply test

- 电流器件(继电器、保险丝、连接器)等测试 Current devices (relays, fuses, connectors) test

- and others



### NZ/N系列超低压大电流电子负载

NZ/N series ultra-low voltage high current electronic load

#### 特点介绍 Product Feature

- 电压: 20V/40V; 电流: 0-5000A; 单机功率: 350W-15KW

Voltage: 20V/40V; Current: 0-5000A; Single power: 350W-15KW

- 低压带载能力最高可达0.2V@5000A; 支持0V输入, 支持反极测试, 0V@1200A (NZ系列)

Low pressure carrying capacity up to 0.2V@5000A; Support 0V input, support

inverse pole test, 0V@1200A (NZ series)

- 20KHz的瞬态测试功能, 可设置上升、下降斜率20KHz transient test function, can set up and down slope

- OCP/OVP/OPP/OTP/RV等全方位智能保护功能 OCP/OVP/OPP/OTP/RV and other comprehensive intelligent protection functions

#### 市场应用 Product Application

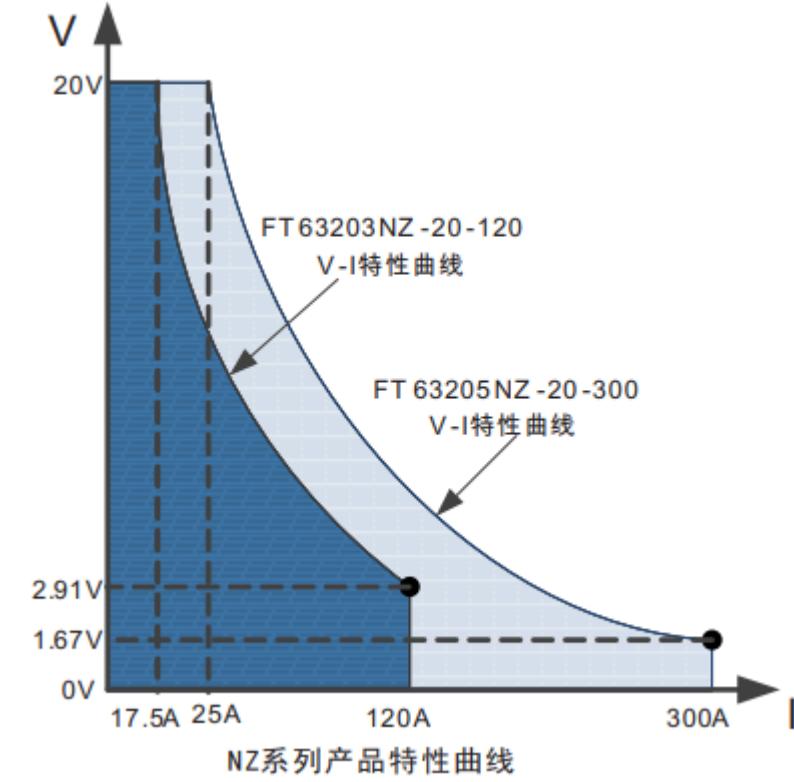
- 燃料电池测试 Fuel cell testing

- CPU及功率器件的供电系统测试

CPU and power device power supply system test

- 强制放电 Forced discharge

- 其他超低压大电流测试场景 Other ultra-low voltage and high current test scenarios



## 中、小功率全系列可编程电子负载

Full range of low and medium power programmable electronic loads

### FT6300A系列中小功率电子负载

FT6300A series low-power electronic load

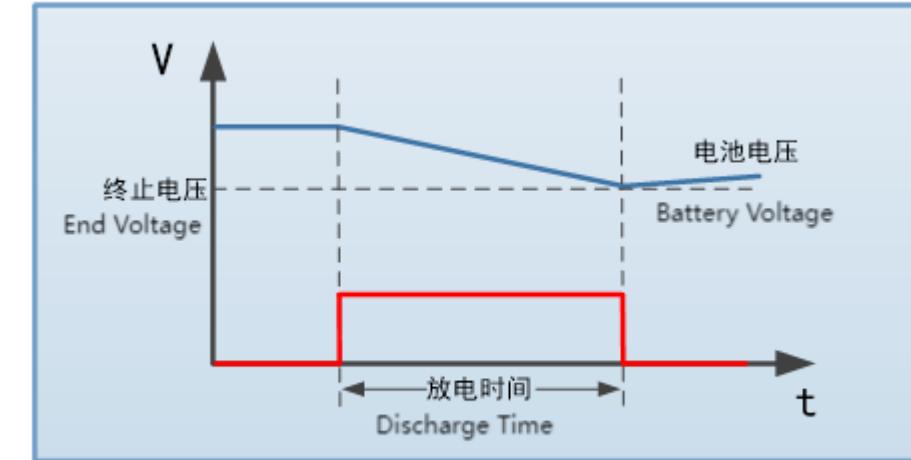
#### 特点介绍 Product Feature

- Voltage: 120V、500V;
- Power: 150W~1800W
- 带载电流范围最大可达240A
- 动态测试频率可达20kHz
- 序列测试，模拟负载复杂的变化
- 电池内阻及电池容量测试
- OCP测试，自动寻找过流保护点
- The maximum load current range can reach up to 240A.
- The dynamic test frequency can reach 20kHz.
- Sequential testing, simulating complex changes in the load.
- Battery internal resistance and battery capacity testing.
- OCP testing, automatically finding the overcurrent protection point.

#### » 市场应用 Market Application

- 充电器测试
- LED驱动
- 通讯电源测试
- 电流器件（继电器、保险丝、连接器）测试
- 开关电源测试
- 动力电池测试

Charger test  
LED driver  
Communication power supply test  
Current devices (relays, fuses, connectors) test  
Switch power supply test  
Power battery test



容量测试时电压与电流曲线

Voltage and current curves during capacity testing



## 小功率全系列可编程电子负载

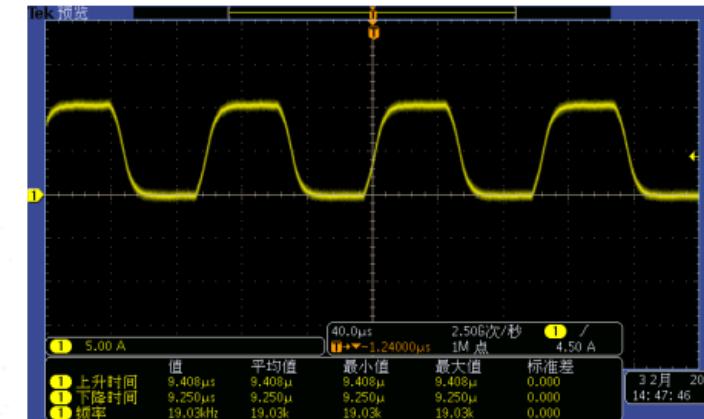
Full range of low power programmable electronic loads

### FT6200A系列小功率电子负载

FT6200A series low power electronic load

#### 特点介绍 Product Feature

- 电压:150V、500V; 功率:150W~400W  
恒电流 (CC) 、恒电压 (CV) 、恒电阻 (CR) 及恒功率 (CP) 带载模式。Voltage :150V, 500V; Power :150W~400W, Constant current (CC), constant voltage (CV), constant resistance (CR) and constant power (CP) on-load modes
- 可设置带载斜率, 带载电压 (Von) 与卸载电压 (Voff) On-load slope, on-load voltage (Von) and off-load voltage (Voff) can be set
- 动态测试可达50kHz.  
Dynamic test up to 50kHz
- 最小电流分辨率可达0.05mA, 最小电压分辨率可0.5mV. The minimum current resolution can reach 0.05mA, and the minimum voltage resolution can reach 0.5mV
- 电流精度为(0.05%+0.05%F.S.), 电压精度为(0.025%+0.025%F.S.) Current accuracy is (0.05%+0.05%F.S.), voltage accuracy is (0.025%+0.025%F.S.)
- 具有OCP、OPP、LED模拟、负载效应、电池内阻、电池放电等测试功能.With OCP, OPP, LED simulation, load effect, battery internal resistance, battery discharge and other test functions



10kHz 动态带载

#### 市场应用 Market Application

充电器测试	Charger test
开关电源测试	Switching power supply test
LED驱动	LED driver
3C用电池测试	3C Test with batteries
级电容测试	Stage capacitance test
电力电子器件	Power electronic device



## 中低功率单体负载产品系列

Low and medium power single load product range

	<b>FT6200</b>	<b>FT6300</b>	<b>FT6400</b>	<b>FT63200</b>
功率范围 Power Range	150W/300W/400W	150W/300W/600W/900W/1350W/1800W	900W/1200W/1350W/1800W/2000W/3000W	600W/750W/1500W/2250W/3000W
电压范围 Voltage Range	150V/500V	120V/500V	150V/600V	150V/600V/1200V
尺寸 (高度) Size(height)	2U	3U	3U	2U
主要市场应用 Main Market	充电器、电源适配器、LED驱动电源、中小功率开关电源、通信电源、继电器、传感器 etc  Charger, power adapter, LED drive power supply, medium and small power switching power supply, communication power supply, relay, sensor etc		电动工具、中大功率开关电源、电池包检测  Electric tools, medium and high power switching power supply, battery pack detection	

## 多通道可编程电子负载系列

Multichannel programmable electronic load series



### FT6100/FT6110系列多通道电子负载阵列

FT6100/FT6110 series multi-channel electronic load array

#### 特点介绍 Product Feature

- 电压: 60V/150V/500V; 电流: 0-60A; 单通道功率: 45W-1080W, Voltage: 60V/150V/500V; Current: 0-60A; Single channel power: 45W-1080W
- 通道模块化设计体积小, 经济、性价比高, 可实现 3U/8CH/12CH/36CH/48CH, 通道间电气隔离, 可以单独控制也可以任意并联 The modular design of the channel is small in size, economical and cost-effective, which can realize 3U/8CH/12CH/36CH/48CH, and the electrical isolation between the channels can be separately controlled or arbitrarily connected in parallel
- 通道支持动态和序列功能, 负载带载的电流和时序可编辑 The channel supports dynamic and sequential functions, and the current and timing of the load are editable
- 标配RS485、LAN, 支持标准MODBUS通信协议, 标配功能完善上位机软件, 完善的动态链接库, 便于二次开发 Standard RS485, LAN, support standard MODBUS communication protocol, Standard PC software with perfect functions, perfect dynamic link library, convenient for secondary development

Standard RS485, LAN, support standard MODBUS communication protocol, Standard PC software with perfect functions, perfect dynamic link library, convenient for secondary development

#### 市场应用 Market Application

- 嵌入式集成应用开发设计 Embedded integrated application development and design
- 小功率电源, 手机充电器 Small power supply, mobile phone charger
- 汽车线束 Automobile wiring harness



### FT66100多通道直流电子负载

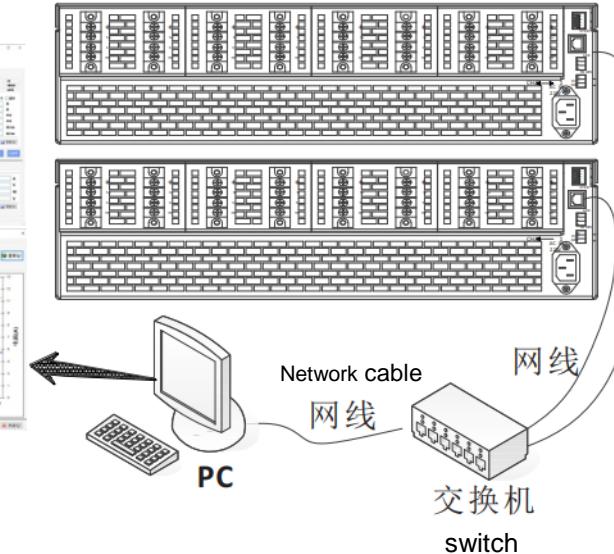
FT66100 multi-channel DC electronic load

#### 特点介绍 Product Feature

- 电压: 80V/500V; 电流: 0-120A; 单机功率: 300W-600W. Voltage: 80V/500V; Current: 0-120A; Single machine power: 300W-600W
- 8寸彩色显示屏, 可同时显示6通道数据及设定参数, 自适应屏幕显示. 8 inch color display, can simultaneously display 6 channels of data and set parameters, adaptive screen display
- 5位数据显示, 0.05%精度, 20kHz动态频率可设置上升与下降斜率 5-bit data display, 0.05% accuracy, 20kHz dynamic frequency can be set up and down slope
- 多个模组间可设置同步模式, 从容应对大电流或多输出通道设备的测试 The synchronous mode can be set between multiple modules to cope with the test of large current or multi-output channel equipment
- 支持自动测试, 负载自动完成测试过程, 并给出测试结果 Support automatic testing, the load automatically completes the testing process, and gives the test results

#### 市场应用 Market Application

- 小功率多路电源 Low power multi-channel power supply
- BMS等小功率电源产品 BMS and other small power supply products
- 汽车线束、连接器等产品测试 Automotive wiring harness, connector and other products testing



## 多通道负载产品系列

Multi-channel load product line

	FT66100系列 series	FT6100系列 series	FT6110 A/R 系列 series
功率范围 Power Range	300W/600W	50W - 1080W	150W/300W
电压范围 Voltage Range	80V/500V	80V/100V/500V	150V/500V
通道数 channel number	300W*6CH 600W*3CH	3U/12CH 3U/48CH	150W*8CH 300W*4CH
主要市场应用 Main Market	充电器、电源适配器、LED 驱动电源、中小功率开关电 源、通信电源Charger, power adapter, LED drive power supply, medium and small power switching power supply, communication power supply	汽车线束测试 手机适配器 电池充放电 Automotive wiring harness testing Mobile phone adapter Battery charge and discharge	手机适配器 电池充放电 (需带纹波测试功能) Mobile phone adapter Battery charge and discharge (Ripple test function required)
竞争优势 Competitive advantage	大屏幕集中显示 业内独创的 6通道机框 Large screen focused display The industry's original 6 channel frame	性价比超高 体积是对手的 1/6 High cost performance It's 1/6 the size of the opponent	性价比超高，高采样，纹波 体积是对手的 1/3 – 1/2 High cost performance, high sampling, ripple, It's 1/3 to 1/2 the size of the opponent

## 多通道电池模拟器

Multichannel battery simulator



### FT8330系列多通道电池模拟器

FT8330 series multi-channel battery simulator



### FT8331系列多通道电池模拟器

FT8331 series multi-channel battery simulator

#### 特点介绍 Product Feature

- 电压 Voltage: 0-6V
- 电流 Current: 1A/2A/3A
- 通道数 Channel: 12/18/24/36CH
- 电压精度: 0.01%+0.01%F.S.  
Voltage accuracy: 0.01%+0.01%F.S.
- 电流精度: 0.05%+0.05%F.S.  
Current accuracy: 0.05%+0.05%F.S.
- 各通道间隔离, 可任意并联和串联 Each channel is isolated and can be connected in parallel or in series
- 温漂系数小于30ppm/°C Temperature drift coefficient is less than 30ppm/°C

#### 特点介绍 Product Feature

- 电压 voltage: 6V/15V/20V
- 电流 Current: 1A/2A/3A/5A
- 通道数 Channel: 4/8/12/16/18/24CH
- 电压精度: 0.01%F.S.  
Voltage accuracy: 0.01%F.S.
- 电流双量程, uA级测量 Current dual range, uA level measurement
- 故障模拟功能, 模拟电池掉线/短路/反接等 Fault simulation function, simulate battery drop/short circuit/reverse connection, etc
- 充电测试, 电池模拟, SOC模拟, 脉冲功能 Charge test, battery simulation, SOC simulation, pulse function
- 温漂系数小于25ppm/°C  
The temperature drift coefficient is less than 25ppm/°C

#### 市场应用 Market Application

- BMS(电池管理系统)测试  
BMS(Battery Management System) test
- CMS(超容管理系统)测试 CMS(Overcapacity Management System) test
- 电池芯测试 Battery cell test

- 超级电容芯测试 Ultracapacitor core test
- 耳机、手机等消费电子测试 Headphones, mobile phones and other consumer electronics testing

## 多通道电池模拟器(双象限)

Multi-channel Battery Simulator (two-quadrant)



### FT8340系列多通道电池模拟器

FT8340 series multi-channel battery simulator



### FT8350系列多通道电池模拟器

FT8350 series multi-channel battery simulator

#### 特点介绍 Product Feature

- 电压 Voltage: ±5V/±6V/±15V/±20V
- 电流 Current: ±1A/±2A/±3A/±5A/±10A
- 通道数 Channel: 4/8/12CH
- 源/载无缝切换, 电池特性模拟 Seamless source/load switching, battery characteristics simulation
- 故障模拟功能, 模拟电池掉线/短路/反接等 Fault simulation function, simulate battery drop/short circuit/reverse connection.
- 电流双量程, uA级测量 Current dual range, uA level measurement
- 温漂系数小于25ppm/°C  
The temperature drift coefficient is less than 25ppm/°C

#### 特点介绍 Product Feature

- 电压 Voltage: ±6V/±15V/±20V
- 电流 Current: ±1A/±2A/±3A/±5A
- 通道数 Channel: 16/18/24C
- 电压精度: 0.01%F.S.  
Voltage accuracy: 0.01%F.S.
- 专业测试软件, 支持数据报表与数据分析 Professional testing software, supporting data reporting and data analysis
- USB接口支持文件导入、导出及截屏功能 The USB port supports file import, export, and screenshot
- 温漂系数小于25ppm/°C  
The temperature drift coefficient is less than 25ppm/°C

#### 市场应用 Market Application

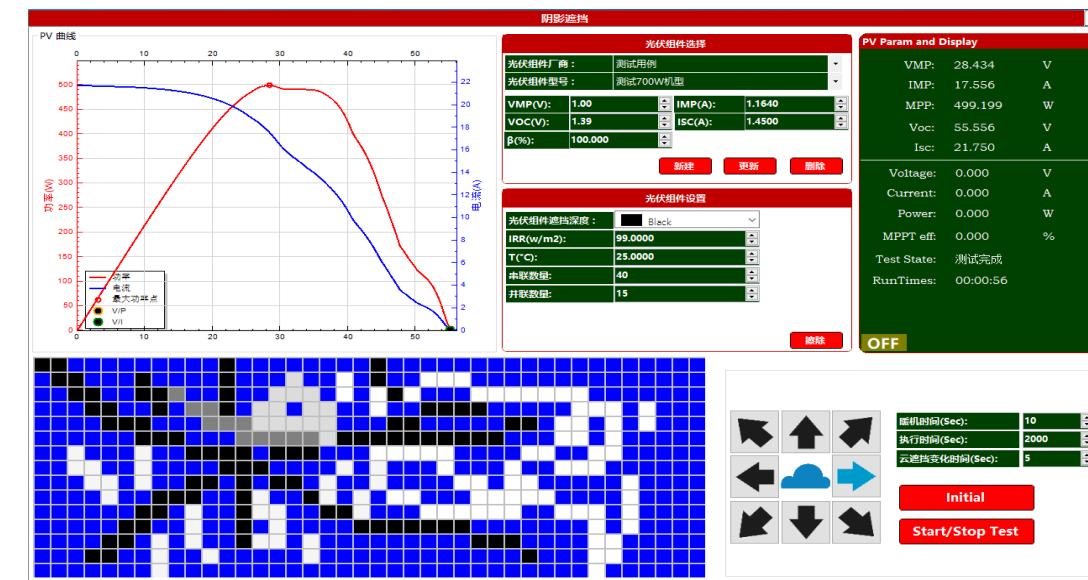
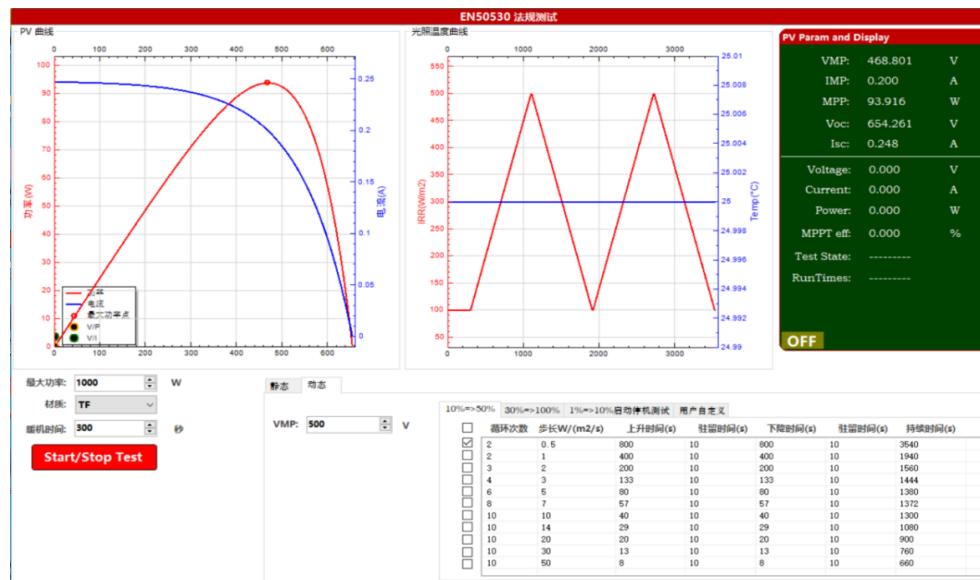
- BMS(电池管理系统)测试  
BMS(Battery Management System) test
- CMS(超容管理系统)测试 CMS(Overcapacity Management System) test
- 电池芯测试 Battery cell test

- 充放电保护板研发测试  
Charge-discharge protection board research and development test
- 电动工具类产品生产测试 Power tools production test

## 太阳能光伏矩阵仿真软件

Solar PV matrix simulation software

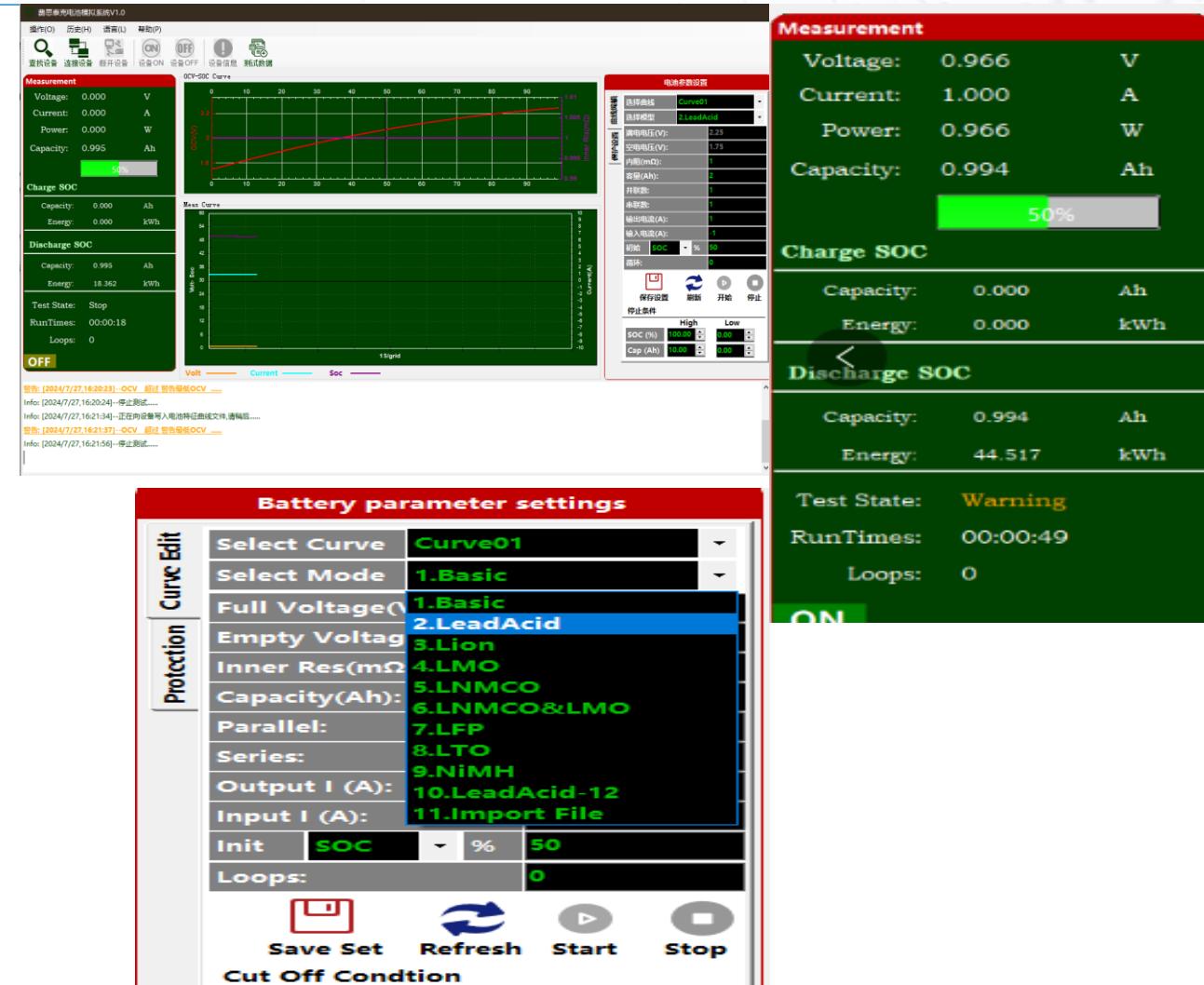
- 可测试Static&Dynamic MPPT效能。  
Test Static&Dynamic MPPT performance
- 内置EN50530、SANDIA、NB/T32004、CGC/GF004、CGC/GF0355种法规测试程序，并生成测试报表；可仿真太阳能面板在屏蔽（云遮）下的I-V曲线；  
Built-in EN50530, SANDIA, NB/T32004, CGC/GF004, CGC/GF0355 regulatory test procedures, and generate test reports; It can simulate the I-V curve of solar panel under the shield (cloud cover)
- 仿真太阳能板不同参数下串并联测试  
Serial and parallel testing under different parameters of simulated solar panels
- 具备多种太阳能电池（单晶硅电池、多晶硅电池、薄膜电池）的输出特性（Fill Factor）仿真  
It has a variety of solar cells (single crystal silicon cells, polycrystalline silicon cells, thin film cells) output characteristics (Fill Factor) simulation
- 支持FTP系列、FTG系列、FTP9000系列、FTB9000系列多款电源  
Support FTP series, FTG series, FTP9000 series, FTB9000 series of power supply



## 电池模拟仿真软件

### Battery simulation software

- 软硬件结合，电池模拟器电压最大可达2250V
- 灵活使用主从并机，功率可扩展之1.8MW
- 双向回馈式负载电池模拟器，回馈效率高达95%
- 无缝充放电池状态灵活切换
- 10种电池类型特性曲线（锂电池/铅酸/镍氢/磷酸铁锂...）
- 用户自定义电池特性曲线（OCV&SOC&R）
- 电池模拟参数的便捷配置，快速仿真电池特性曲线
- 电池模拟器配备保护及报警功能
- 初始容量SOC设定功能
  
- With the combination of software and hardware, the maximum voltage of the battery simulator can reach 2250V
- Flexible use of master and slave parallel machine, power expansion of 1.8MW
- Bidirectional feedback load battery simulator, feedback efficiency up to 95%
- Seamless charging and discharging cell state flexible switching
- 10 kinds of battery type characteristic curve (lithium battery/lead acid/nickel hydrogen/lithium iron phosphate...)
- User-defined battery characteristic Curve (OCV&SOC&R)
- Convenient configuration of battery simulation parameters, fast simulation of battery characteristic curve
- Battery simulator equipped with protection and alarm function
- Initial capacity SOC setting function



## 高精度交直流测量仪

High precision AC-DC measuring instrument



### » 特点介绍 Product Feature

- 具备6½的测量精度;
- 测量电压高达2000V, 电流1500A;
- 可测量单相交、直流电压、电流、频率、有功功率;
- 电压、电流多量程, 可自动切换;
- 便携式设计, 方便携带现场测量;
- 标配 RS232、RS485、LAN、CAN通信接口, 可直接与 PC 机联机通信;
- 支持SCPI、ModBus、CANOpen通讯协议;
- 触摸屏操作, 中英文菜单界面。
- Measuring accuracy of 6½;
- Measuring voltage up to 2000V, current 1500A;
- Can measure single-phase AC, DC voltage, current, frequency, active power;
- Voltage, current multi-range, can be automatically switched;
- portable design, easy to carry on-site measurement;
- Standard RS232, RS485, LAN, CAN communication interface, can directly communicate with PC online;
- Support SCPI, ModBus, CANOpen communication protocols;
- Touch screen operation, Chinese and English menu interface.

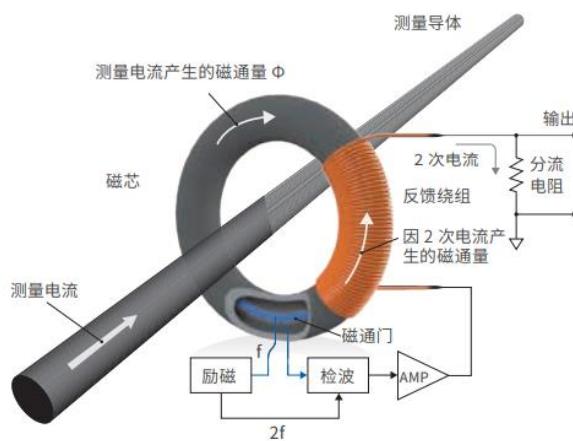
### » 市场应用 Market Application

用于计量研究所;  
电力, 计量, 军工, 制造, 科研等领域的  
交直流测量;  
政府检验机构以及其它计量领域用于单相  
交直流电压表、电流表、功率表。□

- For metrology research;
- Ac-dc measurement in power, metrology, military, manufacturing, scientific research and other fields;
- Government inspection agencies and other metering fields for single-phase AC-DC voltmeter, ammeter, power meter.

## 高精度电流传感器

High precision current sensor



### 特点介绍 Product Feature

- 采用多点零磁通技术，高精度、零点偏移小、线性度高；
  - 电流范围： $\pm 60A \sim \pm 10000A$ ，多个电流规格可选；
  - 高精度，电流精度10ppm；
  - 具备温度补偿技术，温度稳定性0.1ppm/K；
  - 交直流通用，可测量交流、直流、脉冲电流；
  - 原、副边隔离测量；
  - 无开机预热时间；
  - 宽频带测量，测量带宽最大500kHz；
  - 低响应时间，最小动态响应时间1us
- Using multi-point zero flux technology, high precision, small zero offset, high linearity;
- Current range:  $\pm 60A \sim \pm 10000A$ , multiple current specifications are optional;
- High precision, current accuracy 10ppm;
- With temperature compensation technology, temperature stability 0.1ppm/K;
- Ac and DC general, can measure AC, DC, pulse current;
- Isolation measurement of primary and secondary edges;
- No start-up warm-up time;
- Wide band measurement, the maximum measurement bandwidth of 500kHz;
- Low response time, minimum dynamic response time 1us

### 市场应用 Market Application

医疗设备：扫描仪、MRI

电力：变流器、逆变器

新能源：光伏、风能

汽车：电动汽车

舰船：电力驱动舰船

Medical equipment: scanner, MRI

Power: converter, inverter

New energy: photovoltaic, wind energy

Car: Electric car

Ships: Electrically powered ships

计量：检定与校准

工业控制：工业电机驱动、机器人

轨道交通：高速列车、地铁、有轨无轨电车

直流励磁系统测量

Metrology: verification and calibration

Industrial control: industrial motor drive, robot

Rail transit: high-speed train, subway, trolley bus

Dc excitation system measurement

# 荣誉客户

Honorary Customers

**Faith** 费思

## 军工研究院 Military Research Institute

中国科学院  
航天二院/八院/九院  
中国工程物理研究院  
中国电子科技集团36所  
中国航空工业集团公司



中国航天



## 大专院校Colleges and universities

清华大学  
东南大学  
西北工业大学  
吉林大学  
苏州大学  
电子科技大学  
哈工大



復旦大學



## 燃料电池 fuel cell

东莞新能德科技有限公司  
河南豫氢装备有限公司  
北京亿华通  
国电氢能  
浙江爱德曼氢能源  
四川东方电气



奥特迅



## 动力电池 Power battery

欣旺达电子  
亿纬锂能  
BYD  
中航锂电  
东莞新能源  
国轩高科



SUNWODA  
欣旺达



## 汽车电子 Automotive electronics

宝隆汽车  
安波福科技  
银河电子  
博世集团  
英飞凌半导体  
联合电子



# 荣誉客户

Honorary Customers

Faith 费思

## 电力电子 Power electronics

科士达股份  
易事特股份  
古瑞瓦特  
永联电子  
盛弘电气  
浙江正泰  
德力西集团

**Sinexcel**  
盛弘电气

**CHNT**  
正泰

**DELIXI**  
ELECTRIC  
德力西电气

## 通信 communication



**ZTE 中兴**

**vivo**  
智能手机

**Coolpad**

## 检测 detection

**KETOP**

 国机智能  
SINOMACH

**ICAS**

英格尔检测认证集团  
ICAS Testing & Certification Group

  
**CEPREI**

 **华测检测**  
CENTRE TESTING INTERNATIONAL

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