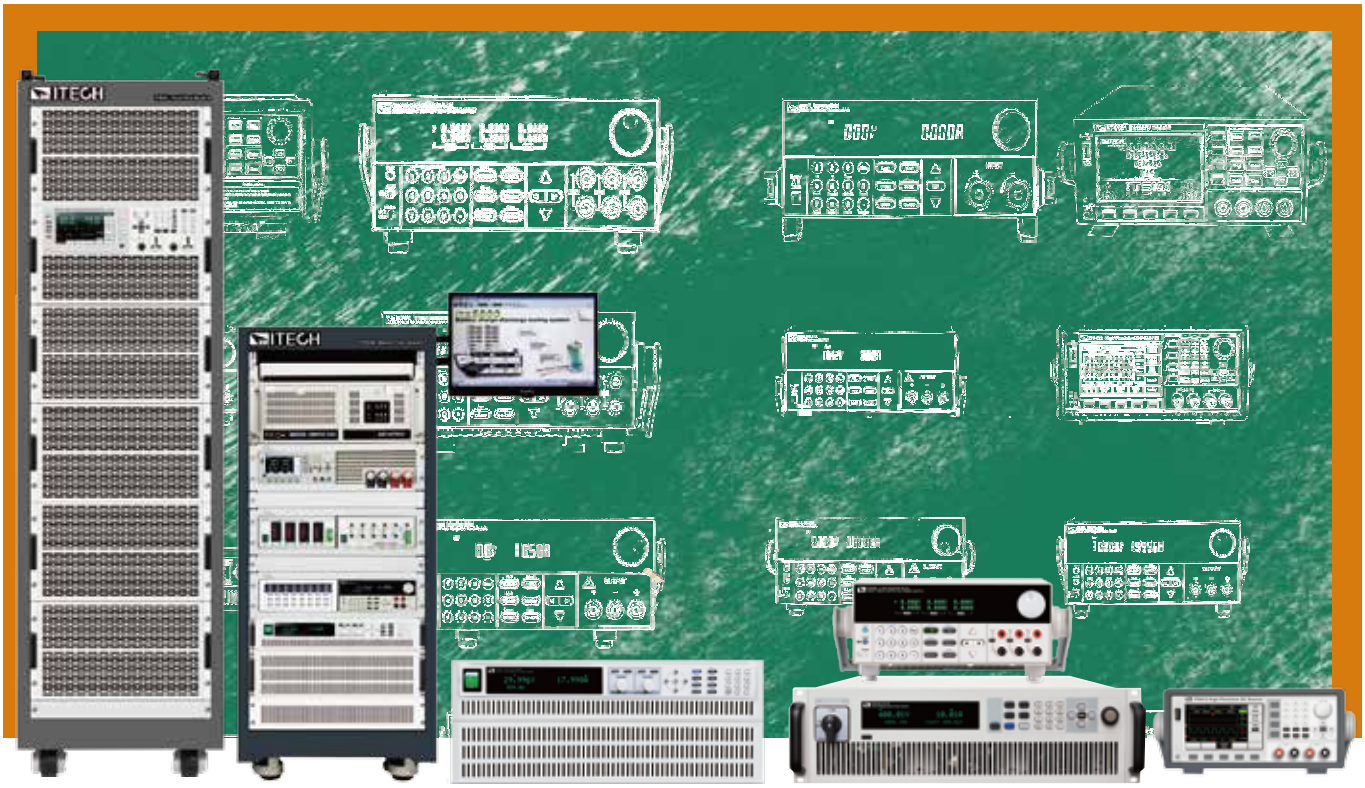
ITECH

Education Application Solution

YOUR POWER TESTING SOLUTION

www.itechate.com

Education Application Solution



High-quality education is an important foundation for social development and technological progress. Higher education institutions need to establish various professional laboratories to provide students with professional learning and practice environment.
Modern universities, while imparting knowledge and cultivating talents, also assume the role of scientific research and innovation techniques. The test equipment and instruments used also require higher performance and parameters. ITECH specializes in the development and production of power electronic products, providing excellent test instruments for hundreds of universities, covering a wide range of research fields including power, new energy, transportation, electronics, automation, communications, materials, physics, medical treatment, and environment.

Basic laboratory and electronic competition

Recommended testing instruments

- IT6300 Series High Performance Triple Channels DC power supply
- IT8500+ Series Programmable DC Electronic Load

IT6300 series

Test advantage

IT6300 series advantage

IT6300 series is high-performance programmable triple channels DC power supply, each output voltage and current can be set from 0 to maximum rated output. This series provides series connection, parallel connection and track connection, which offer multi-purpose solutions for customers test. IT6300 series is with high resolution 1mV / 1mA and remote sense function, which make the test more accurate. With built-in standard USB / RS232 / GPIB communication interface, IT6300 series greatly enhance the communication speed, and customers also can adjust the digital step value by using the cursor to facilitate the operation.
This series is a basic power supply product widely used in universities and research institutes.

IT8500+ series advantage

IT8500+ series programmable DC electronic load is featured with high density, high resolution and high precision. It also has various test functions such as dynamic test, short circuit function and battery test. USB, RS232 and RS485 interfaces are optional. Standard SCPI communication protocol can also be provided to facilitate the establishment of intelligent test platform. Thus, IT8500+ series is cost-effective.

IT8500+ series

Innovation laboratory

Battery

Recommended testing instruments

- ITS5300 Battery Charge & Discharge Test System

Test advantage

ITS5300 can be used for testing various secondary batteries such as lithium batteries, lead acid, nickel-metal hydride, super capacitors, etc. It can also test various types of battery products such as batteries, battery modules and battery packs.

- Mature system hardware, battery test power is up to 1152 kW for power battery industry
- High power density, 18kW in only 3U, source and sink integrated in one, suitable for laboratory
- Seamless switching, meet road driving conditions simulation application
- For high-power battery applications, IT5300 provides energy recovery test solution with anti-island protection, energy recovery efficiency is up to 95%.
- OVP, OPP, OTP, OCP
- High precision and high resolution
- Support BMS communication and .dbc file mode import protocol

ITS5300

Control function

- CC, CV, CP, CC convert into CV, slope, pulse charging mode
- CP, CC, Pulse discharge mode
- Static (self-discharge test)
- Operating condition simulation
- Loop nesting

Battery charge and discharge test

Recommended testing instruments

- IT6000B Series Regenerative Power System

IT6000B series

Test advantage

IT6000B integrates bidirectional power supply and regenerative electronic load into one 3U unit. It is also a very powerful one. It can be used not only as a stand-alone powerful bidirectional power supply, as a source to provide power; but also as an independent regenerative electronic load, to absorb the consumed energy and feedback cleanly to the grid. Built-in waveform generator supports generating arbitrary waveforms, and imports LIST files for waveforms via USB interface. The voltage, current and power cover a wide range, and the battery can be charged and discharged by a single machine, dc impedance test, quick cycle charge and discharge test and other test items. Single unit can achieve various test items, such as battery charge and discharge test, DC impedance test, rapid cycle charge and discharge test.

- Stand-alone power up to 144kW, expandable in parallel up to 1.152MW
- Voltage output ratings: 0-2250V
- Current output ratings: 0-2040A
- High power density design provides 18kW in 3U space
- Bi-directional energy transmission, seamless switching across two quadrants
- Support CC/CV loop speed and priority setting
- Energy recovery efficient is up to 95%
- Built-in waveform generator, support generating arbitrary waveforms
- Adjustable output impedance
- Built-in USB/CAN/LAN/digital IO interface, Optional GPIB/Analog&RS232
- Supports external data access with up to 10μs sampling interval

Fuel cell discharge test

Recommended testing instruments

- IT8300 Series Regenerative DC Electronic Load

IT8300 series

Test advantage

IT8300 series not only can simulate various load characteristics, but also can feed power back to grid without pollution. IT8300 series unique regenerative function can convert the absorbed DC power into AC power and feed it back to local grid. This eliminates the usual heat dissipation to a minimum and saves energy costs, adapts requirements of global energy-saving and emission reduction at the same time. In the research institutes and laboratories, IT8300 can complete various requirements of the fuel cell discharge test. At the same time, the noise generated during the long-time high-power discharge test of the battery is small, as well as the volume, more environmentally friendly.

- Energy-regenerative efficiency Max. 95%
- 3 U size, high power density up to 10.5 kW
- On-grid electricity accumulation function
- Automatic grid-state detection, achieve reliable on-grid function, anti-islanding protection
- 4 testing modes: CC/CV/CR/CP
- Dynamic loading mode
- Battery test function, automatic test function, short circuit test function
- Multiple parameters measurement & display: Vdc、Idc、Pdc、Vac、Pac、Fac、Wac
- With pre-charging function, prevent dc loading current overshoot
- Built-in standard LAN/USB/RS232 / RS485 / CAN communication interface, support SCPI protocol, LabVIEW

New Energy Vehicle

On-board DC/DC controller

Recommended testing instruments

- IT6000B Regenerative Power System
- IT6000C Bidirectional Programmable DC Power Supply
- IT6000D High Power Programmable DC Power Supply
- IT6500 Wide-range High-power DC Power Supply
- IT8900A/E series High Power DC Electronic Load
- IT8800 High Power DC Electronic Load

IT6000B series

IT6000C series

IT6000D series

IT6500 series

Test advantage

DC/DC modules are used in battery, motor and other systems of new energy vehicles. Different DC power sources and DC electronic loads are selected for input, output, protection and reliability tests according to their power requirements. IT6000B series, IT6000C series, IT6000D series, IT6500 series, IT8900A/E series and IT8800 series dc power supply can cover the high-voltage range of new energy vehicles, and can realize power battery simulation and regenerative energy recovery system test.

Micro grid

Recommended testing instruments

- IT6000B Series Regenerative Power System
- IT6000C Series Bidirectional Programmable DC Power Supply
- IT6500 Wide-range High-power DC Power Supply
- IT8900A/E Series High Power DC Electronic Load
- IT7600 High Performance Programmable AC Power Supply
- IT8600 AC/DC Electronic Load
- IT9100 Series Power Meter

IT6000B series

IT6000C series

IT6000D series

IT8600 series

Test advantage

Based on its rich AC/DC power supply, load and test instrument product lines, ITECH has built micro-grid simulation test solution that can simulate household appliances load (such as electric lights, computers, air conditioners, Refrigerators, etc.), simulate renewable energy (solar, wind energy) and test fuel cells, energy storage systems such as lithium batteries, power conversion equipment, and so on. ITECH's various products also have programmable control functions, which can be used as functional units for micro-grid system in college micro-grid laboratories, controlled by energy routers, and complete system simulation experiments.

Medical Treatment

CT Machines

Recommended testing instruments

- IT7600 Series High Performance Programmable AC Power Supply

IT7600 series

Test advantage

CT equipment requires high-frequency, pure AC source, the excellent power supply capability of IT7600 series guarantees the normal operation of CT equipment.

- 7” DSO function, which can display real-time waveforms of voltage and current under the single unit or parallel mode
- Built-in powerful single-phase or three-phase AC power meter
- Output frequency up to 10-5000 Hz, output variable rate of voltage or frequency is adjustable
- Maximum power up to 54 kVA
- Voltage up to 300 V / 600 V
- Realize AC, DC, AC+DC output modes, AC+DC can realize simulating distortion of DC Voltage
- Simulate arbitrary waveform output, support CSV format to import waveform
- Built-in various waveform database
- Strong master-slave paralleling makes multi-module output equalized current synchronously

Tumor treatment equipment

Recommended testing instruments

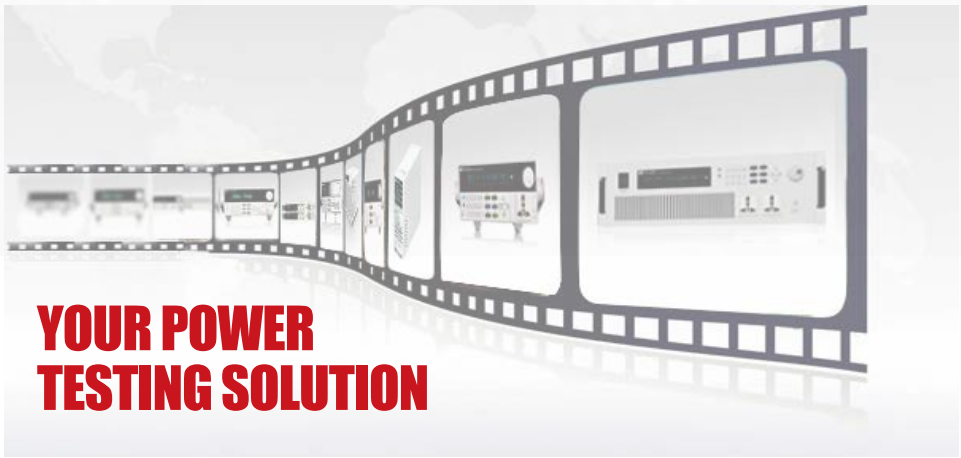
- IT6000D Series High Power Programmable DC Power Supply

IT6000D series

Test advantage

In some medical equipment systems, IT6500D can be used as a DC power supply to generate the pulsed DC power required by the system. The programming system of this kind of medical equipment system needs to be controlled through communication interfaces such as RS232. IT6500D is built in various interfaces, supports SCPI instructions, and with high system integration capability.

- Support Master-Slave paralleling extension capacity is up to 30kW output.
- Support up & down speed independently setting in different operation modes (Power supply: CV/CC/CP modes, Electronic load: CC/CP modes).
- Adjustable rising and falling time
- Two-quadrant current output
- LIST mode programming
- Low ripple and low noise
- High resolution and high accuracy
- Support multiple protections (Power Supply: OVP, OCP, OPP; Electronic Load: OCP, OPP, OTP, Vsense Reverse protection, turn-off protection, input under voltage protection
- Remote sense function
- Analog control interfaces
- Built-in USB/RS232/CAN/GPIB/LAN interfaces



YOUR POWER TESTING SOLUTION

This information is subject to change without notice. For more information, please contact ITECH.

Taipei

Add: No.918, Zhongzheng Rd., Zhonghe Dist., New Taipei City 235, Taiwan
Web: www.itechate.com.tw
TEL: +886-3-6684333
E-mail: taiwan@itechate.com.tw

Xishan Factory

Add: No.108, XiShanqiao Nanlu, Nanjing city, 210039, China
TEL: +86-25-52415098
Web: www.itechate.com

Meishan Factory

Add: No.150, Yaonanlu, Meishan Cun, Nanjing city, 210039, China
TEL: +86-25-52415099
Web: www.itechate.com

ITECH Web

ITECH Facebook