

ITECH TEST SOLUTION

High-Current





ITECH High-Current Testing Solutions

Single cabinet currents up to **15,000A**, enabling breakthrough testing capabilities.

01 Core Application Scenarios for High-Current Testing

Hydrogen electrolysis system testing



Solid Oxide Fuel Cell (SOFC) testing



Reliability testing for new energy vehicle drive systems and automotive electronics



Superconducting equipment performance verification



Industrial electroplating, metal smelting, specialized process power verification



Rail transit and industrial power system simulation



Temperature rise testing for connectors, fuses, and plugs



02 Advantages of ITECH Testing Solutions

Core Strengths

- High power density: Industry-leading 1U @6kW, 2U @12kW; up to 15kA continuous output in a 37U rack.
- Fully modular architecture supporting flexible configurations from 12A to 15,000A.
- Seven-level safety protections: OVP, OCP, OPP, UCP, UVP, OTP, and sense reverse connection protection.
- Rich communication interfaces and high compatibility for automation, enabling easy integration into testing systems:
 - ✓ Standard: USB/CAN/LAN/Digital IO
 - ✓ Optional: GPIB/Analog & RS232
 - ✓ Supports SCPI protocol with a built-in Web server
 - ✓ Front panel USB port for convenient data logging, list file import/export



Model Matrix

Voltage	1U Single Unit Max Current	2U Single Unit Max Current	15U Cabinet Max Current	27U Cabinet Max Current	37U Cabinet Max Current
10V	510A	1020A	4080A	10200A	15300A
32V	240A	480A	1920A	4800A	7200A

03 Testing Challenges and ITECH Advantages

Industry Pain Points	ITECH Solutions
Limited space and cost for high-current equipment	2U rack achieving 1000A/10kW, saving space and costs
Measurement accuracy affected by voltage drop in wiring	Dedicated SENSE ports for real-time voltage drop compensation
Complex integration of multi-device systems	Modular design and rich interfaces for rapid integration
Safety concerns during prolonged high-current operations	Comprehensive seven-level safety protection system

04 Product Technical Highlights

IT-M3900C Bidirectional Programmable DC Power Supply

- Bidirectional energy transfer with efficient energy feedback
- Sink mode supports CC/CV/CW/CR
- Source mode supports CC/CV/CW, with DC internal resistance simulation

IT-M3900D High-Power Programmable DC Power Supply

- CC/CV priority setting
- Built-in function generator for arbitrary waveform generation
- List function supporting up to 200 steps



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

ITECH ELECTRONIC CO., LTD.

Taipei

Add: No.918, Zhongzheng Rd., Zhonghe Dist., New Taipei City 235, Taiwan

Web: www.itechate.com

TEL: +886-3-6684333

E-mail: info@itechate.com

Factory I

Add: No.108, XiShanqiao Nanlu, Nanjing city, 210039, China

TEL: +86-25-52415098

Web: www.itechate.com

Factory II

Add: No.150, Yaonanlu, Meishan Cun, Nanjing city, 210039, China

TEL: +86-25-52415099

Web: www.itechate.com



Thurlby Thandar Instrument Distribution
Glebe Road, Huntingdon, PE29 7DR, UK
+44 (0)1480 412 451
sales@ttid.co.uk
www.ttid.co.uk



ITECH Web



ITECH Facebook



ITECH LinkedIn

