

AC Power Supply

AC Constant Current Power Supply TCC-series

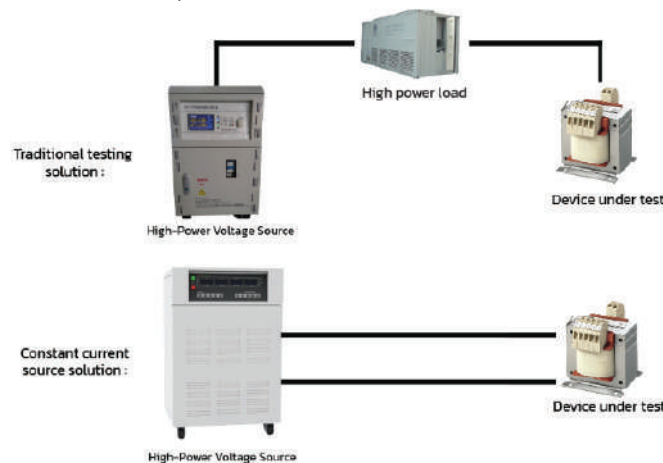
Product description:

AC constant current source is primarily designed for low-voltage electrical appliance manufacturers, inductive component manufacturers, electrical testing organizations, electrical research institutes and university training bases. It is suitable for testing and calibrating the time-delay and transient characteristics of components like circuit breakers and relays. It is also suitable for testing the rated current, operating current, short-circuit current and other thermal effects of inductive components like transformers, instrument transformers and inductor. The product utilizes SPWM high-frequency inverter control technology and IGBT output conversion, resulting in high accuracy, fast response, low distortion and excellent current stability. Active PFC technology is employed at the input, resulting in a high input power factor and minimal grid pollution. This makes it a highly efficient and energy-efficient current measurement device.



Features

- Employing an advanced current closed-loop control strategy, this method achieves stable current output unaffected by load changes. Compared to the traditional testing method of voltage source + load + device under test, it significantly reduces capacity and energy consumption, eliminates the need for a large-capacity load, and reduces costs exponentially.



- Using SPWM high-frequency inverter technology to achieve constant current output, it offers higher precision, faster response, lower distortion and higher efficiency than motor-controlled constant current sources. Temperature drift caused by external temperature changes is negligible, making it a future trend in industry testing.
- With a large output current, up to several thousand amperes, it is suitable for busbar testing of distribution cabinets and circuit breaker aging tests.
- The output current and frequency settings have a wide range, which can meet the needs of different industries.
- With a built-in power measurement circuit, it can measure parameters such as current, voltage, frequency, power, and test time. It has a fast dynamic response speed, with a load change response time of less than 20ms.
- Output current and frequency settings can be adjusted in real time and updated immediately. Major components are sourced from top international brands, ensuring reliable quality, stability, and durability. The machine's key technical specifications employ a multi-margin design concept; voltage stress current stress and heat generation have all undergone rigorous technical verification and type testing, resulting in high reliability and a long lifespan.

Specifications

Model	TCC015-50	TCC015-100	TCC015-200	TCC100-20	TCC100-40
Opened Circuit Voltage	15V	15V	15V	100V	100V
Current	0 ~ 50A	0 ~ 100A	0 ~ 200A	0 ~ 20A	0 ~ 40A
Basic Function					
Output function	Stable AC output				
Isolated function	Built-in isolated transformer				
Wire Connection	Input : Single-phase, 2 wires / Output : Single-phase, 2 wires				
Input Parameter					
Input Phase	Single-phase, 2 lines + PE				
Input Voltage	220V ± 22V (L-N)				
Input Frequency	48 ~ 52Hz				
Output Parameter					
Output Phase	Single-phase, 2 lines + PE				
Output Waveform	Single-phase sine wave output				
Current Setting Accuracy	0.5% of FS., Resolution : 0.1A/1A				
Output Frequency	45.0 ~ 65.0Hz				
Frequency Setting Accuracy	0.1%, Resolution 0.1Hz				
Frequency Stability	≤0.1%				
Current Distortion (ITHD)	≤3% (linear load)				
Load Response Time	≤20ms				
Current Ripper Factor	1.41±0.1				
Source Effect	<1%				
Load Effect	<1%				
Effiency	> 80%				
Function Operation					
Waveform Mode	Sine wave				
Auto Memory Function	Save setting automatiocally, load the setting automatically while power “ON”				
Adjustable on-line Function	Under output status, output current & frequency setting value can be adjustable by INC and DEC button and update the output				
PLC	Built-in PLC function				
Measurement Display					
Disply Mode	LED digital tube				
Current Measurement Accuracy	Accuracy : 0.2% FS+0.3% × reading		Resolution : 0.1A/1A		
Voltage Measurement Accuracy	Accuracy : 0.2% FS+0.3% × reading		Resolution : 0.001V/0.01V		
Frequency Measurement Accuracy	Accuracy : 0.1% FS		Resolution : 0.1Hz		
Power Measurement Accuracy	Accuracy : 0.2% FS+0.3% × reading		Resolution : 1W/0.01kW		
Protection					
Protective Device	Open circuit protection, overload protection, overheat protection				
Remote Interface					
Communication Interface	RS-232 (PLC)				
Operation Temperature	0 ~ 40℃				
Operation Humidity	20 ~ 90%RH (non-condensation)				
Dimension (WxHxD) mm.	483×750×400				
Weight (kg.)	50		55	65	85

Ordering Information

- TCC015-50** : 750VA/15V/50A AC Constant Current Power Supply
- TCC015-100** : 1.5kVA /15V/100A AC Constant Current Power Supply
- TCC015-200** : 3kVA /15V/200A AC Constant Current Power Supply
- TCC100-20** : 2kVA /100V/20A AC Constant Current Power Supply
- TCC100-40** : 4kVA/100V/40A AC Constant Current Power Supply

Standard Accessories :

- User Manual
- Operation Software

Optional Accessories :

- RS-485 interface port
- PLC interface port
- Can be customized as requirement power upto 45kVA

Safety Tester

AC Power Supply

DC Power Supply

Power Analyzer

Electronic Load

Resistance Tester

LCR Meter

Temperature Tester

Environmental Tester

General Tester