

Component Parameter Test Instruments

C. TH1775 DC Bias Current Source

Features

- MPU control
- 20×2 large character LCD display with backlight
- Frequency bandwidth: 1KHz – 1MHz
- 0 to 20A current output, max power output 150 W
- Directly controllable by TH2816A, TH2817A, TH2818, and TH2819
- Low additional error , wide frequency bandwidth
- Auto or manual current sweep output
- Single, multi and equal interval current output modes
- DC current output with forward or reverse
- 0 to 99s delay time setup
- Long time high current output available
- Optional GPIB and RS232C interface
- User control setting memory
- Strong protective design against damage of LCR meter



TH1775

Brief Introduction

■ TH1775 is a DC Bias Current Source (or DC Magnetization Current Source) used for inductance measurement of inductors and transformer windings with DC bias current. Except for constant current output, low additional error and wide frequency bandwidth are important for bias current inductance measurement. High frequency LCR meter could be used, when the frequency bandwidth is wide enough. MPU controlled auto current balance technology is adopted to realize AC+DC current overlap and constant current output from 0 to ±20A. TH1775 permits high frequency measurement up to 1 MHz and can be directly controlled by TH2816A, TH2817A, TH2818 and TH2819. TH1775 With its low additional error, wide frequency response bandwidth and sweep output function is widely used in DC biased inductance measurement. It also provides a perfect solution for magnetic material analysis.

Specifications

Current Range	-20A – 20A
Current Resolution	200 mA Range: 0.1 mA
	2A Range: 0.001A
	10A/20A Range: 0.01A

Frequency Bandwidth	1KHz–1MHz
Impedance Range	$\omega L < 1k\Omega$, $L < 8/I$ (H)
Current Accuracy	±2% of reading ±3 counts
Output Voltage Range	0–8 V
Additional error	≤ 1%
Current Output Mode	Single, multi and Equal interval current output
Sweep Mode	Manual, Auto(Return sweep available)
Sweep Points	2-15 points
Delay Time	0 to 99s setup
Warm-up Time	20 minutes
Working Time	continuous work up to 24 hours
Memory	20 control settings memory
Optional Interface	RS232C (used for LCR meter control), GPIB

General Specifications

Operating Temperature And Humidity	0°C–40°C, ≤90%RH	
Power Requirements	Voltage	198V–242V
	Frequency	47.5Hz–52.5Hz
Power Consumption	≤ 200 VA	
Dimensions (W×H×D)	395mm×155mm×435mm	
Weight	Approx. 7.4kg	

Ordering Information

TH1775 DC Bias Current Source

Instrument Accessories

- TH26004E-1 DC bias link cable
- TH26013 DC bias test clip leads
- TH2881-001 Foot switch

Options

- TH26033 GPIB interface cable
- TH10101A RS232C Handler interface board
- TH10001 GPIB interface board