GDDO-20E AC/DC Electric Meter Calibration Device

General Information

GDDO-20E AC/DC Electric Meter Calibration Device is used to detect basic error of AC/DC volt-meter/ammeter, single-phase and three-phase active/reactive power meter, phase meter, power factor meter and frequency meter semi-automatically. It can be used as the testing standard of multi-function digital display instrument.

GDDO-20E is a three-phase class 0.02 device integrated with the meter and power source in accordance with the verification regulations JJG124-2005: Verification Regulations for Ammeter, Voltmeter, Power Meter and Ohmmeter, JJG307-2006 and related national standards. It takes digital signal processor (DSP) as the core technology of the meter and power source.

Features

- Closed-loop control is realized for AC voltage and current output, so it can ensure low drift and annual stability. In the measurement of AC voltage, current and active power, the accuracy is class 0.02.
- With high precision & high stability AC DC voltage source, current source and power source. Self-calibration of internal software.
- With harmonic output function. AC voltage and AC current output 2nd~31th harmonic (harmonic content is less than 40%); harmonic phase can be set arbitrarily.
- With RS232 communication port. Data can be uploaded to PC for management. Besides, PC can be used to control the calibration device and calibration process.
- 6.5-inch color TFT LCD screen, clear and bright display.

Specification

AC voltage output

- Voltage range: 50, 100, 200, 400, 800V
- Adjustment range: (0~120)%RG (RG is measurement range)
- Fineness adjustment: 0.005%RG; accuracy: 0.02%RG
- Stability: 0.01%/1min; THD: ≤0.5% (non-capacitive load); output load: 20VA per phase

AC current output

- Current range: 0.5A, 1A, 5A, 10A, 20A
- Adjustment range: (0-120)%RG (RG is measurement range)
- Fineness adjustment: 0.005%RG; accuracy: 0.02%RG
- Stability: 0.01%/1min; THD: ≤0.5% (non-capacitive load); output load: 20VA per phase

Power output

- Accuracy of active power: 0.02%RG
- Accuracy of reactive power: 0.1%RG
- Stability: 0.01%/1min

Phase output

- Adjustment range: 0°～359.99°
- Resolution: 0.01°
- Accuracy: 0.05°

Power factor

- Adjustment range: -1～0～+1
- Resolution: 0.0001
- Accuracy: 0.05%

Frequency

- Adjustment range: 45~65Hz
- Resolution: 0.001Hz
- Accuracy: 0.002Hz

Three phase voltage & current symmetry, phase symmetry

- Voltage and current symmetry: ＜0.03%
- Phase symmetry: 0.05°

Voltage & current harmonic output

- Harmonic order: 2nd～31th
- Harmonic content: 0～39%
- Harmonic phase: 0°～359.99° adjustable

DC voltage output

- Voltage output: 75mV, 50V, 100V, 300V, 500V, 1000V
- Adjustment range: 0~110%RG (RG is measurement range)
- Fineness adjustment: 0.005%RG; accuracy: 0.02% RG
- Stability: 0.01%FS/min

- Max. output power: 20W

DC current output

- Current range: 0.5A, 1A, 3A, 5A, 10A, 20A
- Adjustment range: 0~110%RG (RG is measurement range)
- Fineness adjustment: 0.005%RG; accuracy: 0.02%RG
- Stability: 0.01%FS/min
- Max. output power: 20W

General parameters

- Power supply: 220V±10%, 50Hz±5%
- Use condition: 20℃±10℃, ≤75%RH
- Size: 450*450*170mm
- Weight: about 20kg