



## CVT Calibration System



**GDHG-103 system is to calibrate CVT, CT/PT in the substation or power plant.**

### **System includes**

1. AC Resonant Test System, mainly used to inject high voltage to CVT,CT/PT.
2. GDHG-103 CT/PT Calibrator
3. HJ-275/132G3 Standard VT
4. FY95 VT load box
5. Other accessories

GDHG-103 VT Calibrator is mainly used to calibrate voltage transformer. It should be used together with other equipment such as load box, standard VT etc.

### Features

- 320\*240 LCD screen with back light.
- Using advanced circuit and DSP technology, to make resistance-capacitance and phase shift circuit more stable.
- Friendly interface, easy operation.
- Small size, easy to carry and convenient for on-site test.
- With RS232 port, convenient to connect with PC.
- Measure active component and reactive component of impedance or admittance for VT or CT secondary loop.
- Automatically indicate polarity. If the polarity is incorrect, the instrument will be cut off automatically and alarm.

### Specifications

- Power supply: 220V±5V
- Frequency: 50Hz±0.5Hz
- Operation Temperature: 5°C-40°C
- Relative humidity: <80%(at 25°C)
- Altitude: <2500m
- Measuring range

Cophase component(%): 0.0001-200.0, resolution: 0.0001

Quadrature component(min): 0.001-700.0, resolution: 0.001

Impedance( $\Omega$ ): 0.001-20.0, resolution: 0.0001

Admittance(ms): 0.0001-20.0, resolution: 0.0001

- Basic error

Cophase component:  $\Delta X = \pm (X \times 2\% + Y \times 2\%) \pm D_x$

Quadrature component:  $\Delta Y = \pm (X \times 2\% + Y \times 2\% \times 34.48) \pm D_y$

X,Y-- Display value of instrument

Dx, Dy-- Quantization error

Dx=2, Dy=5

- Error of Percent table: 1.5%
- Operation range:
- Current:

(1%—149%)In (In =5A)

(5%—149%)In (In =1A)

- Voltage:

(5%—149%) Un (Un =100V, 150V, 100V/ $\sqrt{3}$ )

(5%—149%)Un (Un =100V/3)

- Working load:

Current: TO/TX <0.12Ω, cosΦ=1

Voltage: a/x <0.25VA (100V)

- Polarity instruction

When the current or voltage is at 5% of rated, error is over 180%, it will indicate polarity status.

Note: If the current is above 10% of rated current/voltage, but there is no polarity instruction, it means there is fault, please do not increase current or voltage.

Otherwise, the instrument will burn out.

- Ratio instruction

When the current or voltage is above 5% of rated, error is over 30% and less than 180%, it will indicate ratio mistake.

- Insulation and withstand voltage instruction:

Terminal TX and Ground terminal () is short circuit

The shell can withstand 1.5kV/1min voltage.

- Power consumption: <25VA
- Harmonic suppression ratio: >40db
- Dimension: 260\*350\*150mm
- Weight: about 6kg.

## Application

- Calibrate angle error and ratio error of CT/VT.
- Impedance test of CT secondary load
- Admittance test of VT secondary load
- Measurement of AC small current and AC small voltage.