GF302

Portable Multifunction Instrument Calibrator

GF302 portable multifunction instrument calibrator is suitable for power plant and power grid companies for the following function: measuring and testing department and instrumentation classes, national levels measuring and testing institutions, railway, petroleum, chemical industry and other large industrial and mining enterprises, scientific research units, etc. The core technology function with digital signal processor (DSP) and 16 high-speed digital converters composed of high precision work frequency communication terminal. The signal source is DSP and 16 high-speed digital-to-analog converters, it can control the sine wave and distortion wave signal source.

Features

1. All kinds of electric measurement transducer can be checked, including AC/DC voltage transducer, AC/DC current transducer, frequency transducer, phase transducer, single/ three-phase AC active power transducer, three-phase reactive power transducers.

2. Check all kinds of electric measurement indicating meter, including AC/DC voltmeter, AC/DC ammeter, frequency meter, phase meter, single three-phase ac active power meter, three-phase ac reactive power meter, synchronous meter, etc.

3. Test single-phase, three-phase electronic, mechanical watt-hour meter or energy meter/ kWh meter error.

4. Calibrate AC sample device, RTU, measurement device error.

5. The built-in electric measurement transducer, electric measurement instrument and meter instructions of verification procedures, can fully automatic or semi-automatic for verification, and save 1000 group check data.

6. It can be used as voltage source, current source and power source with high precision, and it is a high stability standard resource.

7. 6.4-inch big screen color display and English interface.

8. For the software calibration, you don't need to open the case, it's stable and reliable.

9. Voltage output terminal with short circuit, current output terminal open protection and power amplifier overheating protection function.

10. With automatic failure detection function, shows fault part, the convenience users check line.

11. With USB port, it can connect computer for data management or controlled by PC.

Parameters

Electrical parameters	
Accuracy class	0.05%, 0.1%
Power supply	Single phase AC 220V±10% or 110V±10%, 50/60Hz
Communication port	USB, RS232
AC Voltage output	
Range(U1,U2,U3)	50V, 100V, 200V, 400V, 600V
Adjusting range	(0-120)% RG
Adjust fineness	0.005% RG
Accuracy	0.05% RG
Stability	0.01% / 1 min
Load capacity	25VA
Output distortion degree	≤0.3% or (linear load)
AC Current output	
Range(I1,I2,I3)	0.5A, 1A, 2.5A, 5A, 10A, 20A
Adjusting range	(0-120)% RG
Adjust fineness	0.005% RG
Accuracy	0.05% RG
Stability	0.01%/1 min
Load capacity	25VA
Output distortion degree	≤0.3% or (linear load)
AC Power output	
Accuracy	0.05% RG
Stability	0.01%/1min
Frequency	
Frequency range	45.000 - 65.000 Hz
Resolution	0.001 Hz
Accuracy	0.002 Hz
Power factor output	
Adjusting range	-1 ~ 0 ~ 1
Adjust fineness	0.0001
Accuracy	0.0005
Phase angle	
Scope	0°-359.99°
Resolution	0.01°
Accuracy	0.05°
Voltage/Current harmonic output	
Times	2-31st
Content	0-40%

Electrical parameters - continued

Voltage/Current harmonic output - continued

Phase	0-359.999 degree
Configuration error	(10% RD + 0.1%), RD refers to the configuration value of harmonic contents

DC Voltage output

Range	75mV, 75V, 150V, 300V, 500V, 1000V
Adjusting range	(0-120)% RG
Adjust fineness	0.005% RG
Accuracy	0.05% RG
Stability	0.01%/1min
Load capacity	25VA

DC Current output

Range	0.5A, 1A, 2.5A, 5A, 10A, 20A
Adjusting range	(0-120)% RG
Adjust fineness	0.005% RG
Accuracy	0.05% RG
Stability	0.01%/1min
Load capacity	25VA

DC measurements

DC voltage measurement range	0 to ±24V
DC current measurement range	0 to ±24mA
Measurement accuracy	0.01% RG

Watt-hour meter measuring the integrated error

Active energy	0.05%
Reactive energy	0.1%

Mechanical parameters

Dimensions (W×H×D) (mm)	460x430x185
Weight (kg)	20

Environmental conditions

Working temperature	0°C to 40°C
Storage conditions	-30°C to 60°C
Relative humidity	≤85%