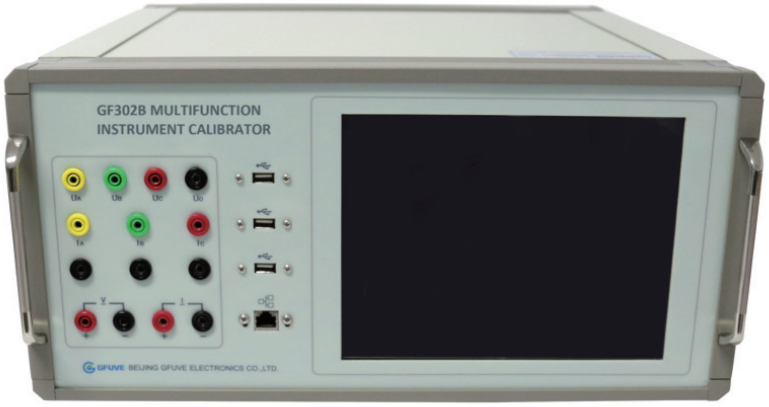
GF302B

Three Phase AC/DC Power & Transducer Calibrator

GF302B portable three phase transducer calibrator is suitable for power plant and power grid companies for the following function: metrology and testing department and instrumentation classes, national levels metrological and testing institutions, railway, petroleum, chemical industry and other large industrial and mining enterprises, scientific research units, etc. The core technology function with 32bit digital signal processor (DSP+MCU) and 24 high-speed digital A/D converters composed of high precision work frequency communication terminal. It can test the basic error of power transducer - (voltage transducer, current transducer, power factor transducer, frequency transducer, active & reactive transducer, DC transducer etc), the change caused by the influence of voltage, current, waveform, power factor, etc., and the ripple content and response time in the output DC voltage (current) of the transducer. It can also as power calibrator, check power meter error, and as standard three phase ac voltage source and current source, or as DC power source. It is one ideal high precision calibrator in electrical laboratory.

Application

1. Universities;
2. Power plant;
3. Research institutes;
4. Electrical testing center;
5. Transducer manufacturers;
6. Panel meter manufacturers;
7. Power meter manufacturers;
8. Digital meter manufacturers;
9. Pointer meter manufacturers;
10. Current meter manufacturers;
11. Voltage meter manufacturers;
12. Railway electrical department;
13. ISO17025 Electrical laboratory;
14. Electricity power bureau & power company;
15. Power engineering commissioning company;
16. Electrical Department of industrial and mining enterprises;



Functions & Features

1. All kinds of electric measurement transducer can be tested, including AC/DC voltage transducer, AC/DC current transducer, frequency transducer, power factor 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 angle meter, single & three-phase ac active power meter, three-phase ac reactive power meter & synchronous meter etc;
3. The built-in electric measurement transducer, electric measurement instrument and meter instructions of verification program, fully automatic or semi-automatic for verification, and save 10000 group test data;
4. As one voltage source, current source and three phase power source with high precision and high stability standard resource;
5. Adopt 32-bit MCU+DSP processor, powerful and flexible;
6. 8.4 inch big screen color display and English interface, with mouse and keyboard;
7. Range three phase 0-600V/0-20A AC and 0-1000V/0-20A DC;
8. High accuracy 0.05%;
9. Meeting ISO17025 electrical laboratory standard;
10. Wide temperature core devices are used to ensure the long-term accuracy of the equipment;
11. For the software calibration, you don't need to open the case, it's stable and reliable;
12. Voltage output terminal with short circuit, current output terminal open protection and power amplifier overheating protection function;
13. With automatic failure detection function, shows fault part, the convenience users check line;
14. With USB & RS232 port, it can connect computer for data management or controlled by PC;

Parameters

Electrical parameters	
Accuracy class	0.05%
Power supply	Single phase AC 220V±10% or 110V±10%, 50/60Hz
AC Voltage output	
Range(U1,U2,U3)	140V, 280V, 600V
Adjusting range	(0-120)% RG
Adjust fineness	0.01% RG, 0.1% RG, 1% RG, 10% RG
Accuracy	0.05% RG
Stability	0.01% / 1 min
Distortion	≤0.2% (non-capacitive load)
Load capacity	25VA
Output distortion degree	≤0.2% or (linear load)
AC Current output	
Range(I1,I2,I3)	0.2A, 1A, 10A, 20A
Adjusting range	(0-120)% RG
Adjust fineness	0.01% RG, 0.1% RG, 1% RG, 10% RG
Accuracy	0.05% RG

Electrical parameters - continued	
AC Current output - continued	
Stability	0.01%/1 min
Distortion	≤0.2% (non-capacitive load)
Load capacity	25VA
Output distortion degree	≤0.2% or (linear load)
AC Power output	
Accuracy	0.05% RG
Stability	0.01%/1min
Frequency	
Frequency range	40.000 - 70.000 Hz
Resolution	0.001 Hz
Accuracy	0.005 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	2nd-31st
Content	0-40%
Phase	0-359.999 degree
Configuration error	(10% RD + 0.1%), RD refers to the configuration value of harmonic contents
DC Voltage output	
Range	5V, 65V, 500V, 1000V
Adjusting range	(0-120)% RG
Adjust fineness	0.01% RG, 0.1% RG, 1% RG, 10% RG
Accuracy	0.05% RG
Stability	0.01%/1min
Load capacity	25VA
Ripple content	≤1%

Electrical parameters - continued	
DC Current output	
Range	0.1A, 0.2A, 1A, 10A, 20A
Adjusting range	(0-120)% RG
Adjust fineness	0.01% RG, 0.1% RG, 1% RG, 10% RG
Accuracy	0.05% RG
Stability	0.01%/1min
Load capacity	25VA
Ripple content	≤1%
DC measurements	
DC voltage measurement range	0 to ±10V
DC current measurement range	0 to ±24mA
Measurement accuracy	0.01% RG
Functions	
LCD display	8.4inch touch TFT color LCD
Data recorder	16G, 10000sets
Programmable	by RS232
Communication port	USB, RS232, 10/100M LAN
Voltage meter test(AC/DC)	Yes
Current meter test(AC/DC)	Yes
Frequency meter test	Yes
Phase angle meter test	Yes
Power meter test	Yes
Power factor meter test	Yes
Synchronous meter test	Yes
All kings of power transducer test	Yes
as power source	Yes
Auto test software	Yes
Standard	
Standard	JJG126-1995, JJG_597-2017, Q/GDW 1899-2013, DL/T1112-2009, DL/T630-1997, JJG124-2005; JJF1587-2016; JJG126-1995; JJG01-1994; IEC61010, IEC 61000, IEC
Safety	
Isolation protection	IEC 61010-1:2001
Measurement Category	300 V CAT III, 600 V CAT II
Degree of protection	IP20
Declaration of conformity	CE, CNAS certified

Mechanical parameters	
Dimensions (W×H×D) (mm)	460x430x185
Weight (kg)	25
Environmental conditions	
Working temperature	0°C to 40°C
Storage conditions	-30°C to 60°C
Relative humidity	≤85%

(1) RG means range, the same as below;

(2) RD means the setted harmonic content, harmonic can be a single output, also multiple output.