

GF312B

Portable Three Phase Energy Meter Calibrator with Printer

GF312B portable three phase energy meter calibrator with printer is used to calibrate three phase, single phase, active and reactive energy meters error. And it also can be used as voltage, current and power meter to measure AC parameters of three phase power line. It can measure wave distortion factor and 2nd to 64th harmonic wave. GF312B meter calibrator is used for grid corporation of measurement and energy test center, metrological service of power supply bureau, national energy measurement of testing authorities. It is an ideal testing tool and has been used in more than 80 countries.

Functions

1. Measure frequency of power line;
2. Testing panel power meter error filed;
3. Testing the error of metering integrated device;
4. Measure I (current) of three phase or single phase;
5. Measure U (voltage) of three phase or single phase;
6. Measure phase angle between voltage and current;
7. Measure power factor of three phase or single phase;
8. Check the wrong wiring of three phase energy meter;
9. Measure active power of three phase or single phase;
10. Measure reactive power of three phase or single phase;
11. Measure apparent power of three phase or single phase;
12. Measure harmonics of voltage and current from 2 to 64th;
13. Calibrate three phase, single phase, active or reactive meter error;
14. Testing three phase active or reactive electricity energy meter error;



Features

1. Smart scanning head;
2. 6.4 inch TFT color LCD;
3. Display vector diagram;
4. Display waveform of U and I;
5. Portable IP65 structure design;
6. Store and query measured data;
7. As three phase reference meter;
8. Calculation of make-up electricity;
9. Measure CT ratio and phase error;
10. Print the data of calibration on site;
11. Operation simply, intelligent design;
12. Software automatic calibration technology;
13. In-built 0.01% wide-range current transformer;
14. Check the wiring error of the electricity meter;
15. Analyze and display content of harmonic of U and I;
16. Display harmonic content and harmonic bar diagram;
17. Voltage and current synchronous sampling technology;
18. Optional 5A, 20A, 100A, 500A, 1000A, 2000A , 3000A current clamp;

Parameters

Accuracy	0.05%, 0.1%, 0.2%
Power supply	220V ± 10% or 110V ± 10%, 50/60Hz ± 2Hz
Test Voltage	
Range	0V-600V
Error	±0.05% (30V-600V) or ±0.02% (30V-600V) ±0.1% (0.1V-30V)
Harmonic	2 nd -64 th
Test Current	
Range (direct connection)	1mA-12A
Error (direct connection)	±0.05% (10mA-12A) ±0.1% (1mA-10mA)
Range (Clamp CT)	1mA-3000A
Clamp on CTs Optional	5A, 20A, 100A, 200A, 500A, 1000A, 2000A, 3000A
Error (Clamp CT)	±0.2% (100mA-3000A) ±0.5% (10mA-100mA)
Harmonic	2 nd -64 th
Power measure error	
Active power (direct connection)	±0.05% (0.01A-12A) ±0.1% (0.001A-0.01A)
Reactive power (direct connection)	±0.1% (0.01A-12A)
Energy measure error	
Active energy (direct connection)	±0.05% (0.01A-12A) ±0.1% (0.001A-0.01A)
Reactive energy (direct connection)	±0.1% (0.01A-12A)
Phase angle	
Range	0° ~ 360°
Resolution	0.01°
Error	±0.02°
Frequency	
Range	40Hz-70Hz
Resolution	0.001Hz
Accuracy	0.001Hz
Power factor	
Range	-1 ~ 0 ~ 1
Resolution	0.0001
Error	0.0005

Electrical parameters - continued	
Pulse output	
Energy constant	180000imp/kWh, 1800imp/kWh, 18imp/kWh
Pulse ratio	1:1
Output level	5V
Pulse input	
Input channel	2
Input level	5-24V
Input frequency	Max. 2MHz
Display	
LCD	6.4" TFT (640×480)
Function	
Vector diagram	Yes
Waveform	Yes
Energy register test	Yes
CT ratio test	Yes
CTPT programmable	Yes
CTPT burden test	Yes
Self-calibration	Yes
Recorder check	Yes
Data storage	Yes
Keyboard	Yes, 24pcs
smart optical sampler	Yes, 1pc
Energy pulse cable	Yes, 1pc
Communication port	RS232, USB
Communication with PC	Yes
Standard	
Isolation protection	IEC 61010-1:2001
Energy measurement	IEC/EN 60736; IR46;
Reference standard	IEC 62052-11 IEC62053-21 IEC62053-22 & IEC62053-23 IEC61010-1:2001
Mechanical parameters	
Dimensions (W×H×D) (mm)	390×200×160
Host Weight (kg)	3
Weight (including Accessories 3pcs 100A clamp CT)	12kg

Environmental conditions

Ambient temperature	-10°C to 50°C
Relative humidity	15%-95%
Environmental protection level	IP65