GF111B

SINGLE PHASE REFERENCE ENERGY METER WITH 100A CLAMP ON CT

GF111B single phase reference energy meter with 100a clamp on ct is the latest product launched by our company after extensive visits to users and drawing on the advantages of similar products at domestic and abroad. The measurement part of the product adopts high-speed A/D converter and DSP for digital processing technology, which greatly improves the accuracy and stability of measurement. The central processing part adopts 32-bit ARM embedded technology, which makes the instrument have novel interface, rich functions, clear and simple operation and stable performance. it has not only advantages of light weight, portable structure, high precision, high performance, powerful function, original interface, ease-to-use, but also work stability. It can measure U, I, P, Q, S, E, frequency, power factor, phase angle, harmonics etc. Accuracy class: 0.04.

The GF111B portable single phase reference meter can be widely used in fields of electric energy measuring, electric energy laboratories and other relevant industry, not only in laboratories but also at the industrial field.

Features

1. Vector diagram function;
2. Waveform display function;
3. 7 inch TFT color LCD display;
4. High accuracy class up to 0.04%;
5. Measuring 2nd~51st harmonics;
6. Energy register testing function;
7. 0-576V, 1mA-120A, 40-70.000Hz;
8. Metal structure, strong and reliable ;
9. Suit for testing in the lab and on site;
10. Phase angle precision less than 0.02°;
11. Multi range, automatic range switching;
12. High stability 0.005%/min, high reliability;
13. Current measurement with direct and clamp on ct;
14. Programmable pulse constant output up to 750000;
15. 5A, 10A, 20A, 100A, 200A, 300A, 500A, 1000A, 3000A, 5000A optional;

Application

1. AMI design center;
2. Electrical laboratory;
3. Energy meter R & D;
4. Watt-hour meter factory;
5. Metrological service center;
6. Laboratories of power utilities;
7. Electricity meter manufacturers;
8. National Metrology and testing department;
9. Electricity power bureau & power company;
10. Electrical Department of industrial and mining enterprises;

Parameters

Electrical parameters	
Accuracy class	0.04%, 0.05%, 0.1%
Power supply	45-450V AC, 50/60Hz
Power consumption	10VA
Voltage measurement	
Range	0-576.000V
Error	±0.02% (40V-560V) ±0.05% (5V-40V)
Harmonic	2^{nd}-51^{st}
Current measurement(direct)	
Range (direct connection)	1mA-30.000A
Error (direct connection)	±0.02% (25mA-30A) ±0.04% (1mA-25mA)
Harmonic	2^{nd}-51^{st}
Clamp on ct (indirect)	
Range (Standard)	1mA-120.000A
Error (Standard)	±0.04% (100mA-120A) ±0.1% (1mA-100mA)
Harmonic	2^{nd}-51^{st}
Clamp on ct optional	5A, 10A, 20A, 100A, 200A, 300A, 500A, 1000A, 3000A, 5000
Power measurement error	
Active power	±0.04% (0.01A-30A) ±0.1% (0.001A-0.01A)
Reactive power	±0.1% (0.001A-30A)
Energy measurement error	
Active energy	±0.04% (0.01A-30A) ±0.1% (0.001A-0.01A)
Reactive energy	±0.1% (0.001A-30A)

Electrical parameters - continued	
Phase angle	
Range	0°-360.000°
Resolution	0.005°
Error	±0.02°
Power factor	
Range	-1.00000-0-1.00000
Resolution	0.0005
Error	0.0001
Frequency	
Range	40.0000-70.0000Hz
Resolution	0.0005
Error	±0.001
Pulse output	
Output channel	1
Energy constant	1-9999999
Pulse ratio	1:1
Output level	5V
Output rated frequency	60KHz, max 86.4KHz
Pulse input	
Input channel	1
Input level	5-24V or 3-12V
Input frequency	Max. 2MHz
Function	
LCD Display	7 inch 800x480 pixel touch TFT
Vector diagram	Yes
Waveform	Yes
Key	18PCS
Energy accumulation	Yes
Self-calibration	Yes
Data storage	Yes
PC software	Optional
Communication port	RS232 & USB
Standard	
Standard	IEC 62053-21,22, 23; IEC 60736; ANSI C12.20-2002; JJG 597-2005; JJG596-2012; JJG 1085-2013; JJF 68-2019; DL/T 826-2002; DL/T 1478-2015; DL/T 448-2016; GB/T

Electrical parameters - continued	
Safety	
Isolation protection	IEC 61010-1:2001
Measurement Category	300 V CAT III, 600 V CAT II
Degree of protection	IP65
Declaration of conformity	CE & CNAS certified
Mechanical parameters	
Dimensions (W×H×D) (mm)	365 x 269 x 151
Weight (kg)	3
Environmental conditions	
Ambient temperature	0°C to 40°C
Storage temperature	-20°C to +65°C
Relative humidity	10%-85%
Temperature coefficient	≤0.0005% /℃
Influence of external fields	≤0.05 %/mT